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*This Report is dedicated to the memory of Mahboob ul Haq, who fathered the concept of human development, helped to develop the human development index as an appropriate measure of national wellbeing and set the tradition of annual UNDP HDRs*



## Message

*Since 1990, the UNDP has been regularly bringing out annual Human Development Reports containing assessments of the levels of wellbeing of the people of different countries. The same approach has been adopted for preparing the first Human Development Report for our state. Karnataka is the second Indian state to release a Human Development Report following the example set by Madhya Pradesh. The document has been put together by a group of senior officers under the guidance of a committee of experts chaired by the Deputy Chief Minister who is also the Minister for Planning and Finance. I am very happy that a thorough analysis has been made of developments in social and economic sectors up to the district level. I congratulate all those who have worked with commitment and diligence to prepare this landmark report.*

*Human development indices calculated for the districts of Karnataka using the UNDP technique throw light upon developmental disparities in the social sectors at the regional level. Gender-related development indices focus upon the unequal access of men and women to income earning opportunities as well as to health and educational facilities. The report has reviewed both governmental programs as well as leading initiatives by voluntary organisations outside government to improve the levels of welfare of the people of Karnataka. Its findings will be of immense use in evaluating existing policies in social sectors and evolving fresh ones. We welcome comments and suggestions on the findings of the report so that it can become the basis for future policymaking for Karnataka.*

A handwritten signature in black ink, reading 'J. H. Patel'.

**Bangalore,**  
April, 1999

**J. H. Patel**  
Chief Minister of Karnataka

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# Acknowledgements

The normal practice everywhere in the world is for Human Development Reports to be put together by consultants outside official channels. A unique feature of the Human Development Report for Karnataka, however, is that it has been prepared by a working group consisting of persons within government. Led by Sanjay Kaul, the team of Latha Krishna Rao, M. V. Jayanthi, Dr. Gladys Sumithra, Uma Mahadevan, Ahalya S. Bhat and Dr. P. H. Reddy, under the able coordination of V. Shantappa, took on the challenge of assessing the human development status of the state and its districts. The success of the present experiment is due to the commitment and concern shown by the members of the working group for completing their formidable task. Despite heavy departmental work, they have expended time and energy on designing this document, researching and accessing data for different chapters, introspecting and debating on the outcomes of existing developmental endeavours and evolving strategies for future improvements. The HDR for Karnataka owes its existence to their untiring effort and teamwork.

The content and structure of the Report were discussed formally at twelve meetings and informally almost on a weekly basis from October 1997 to March 1999. Final drafts were prepared by working group members, with selected coverage of certain sectors by other contributors. Background papers were contributed by Sanjay Kaul, V. Shantappa, Dr. Gladys Sumithra, Anita Kaul, Dr. Renuka Viswanathan, Uma Mahadevan, T.R. Raghunandan, Sobha Nambisan, M. R. Srinivasamurthy, Latha Krishna Rao, Dr. P.H. Reddy, Ahalya S. Bhat, B.K. Chandrasekhar and Kapil Mohan. Dr. Renuka Viswanathan coordinated the functioning of the working group as well as the preparation of the report.

A large number of individuals and organisations have offered valuable support in preparing the Report.

The document greatly benefited from the constant encouragement provided by the Deputy Chief Minister of Karnataka, Shri Siddaramaiah, who also headed the Expert Committee. Members of the expert committee-B.K. Bhattacharya, Chief Secretary, Government of Karnataka, the late N. A. Muthanna, Additional Chief Secretary, Theresa Bhattacharya, Development Commissioner and Additional Chief Secretary, Dr. Sudarshan of the UNDP, Dr. Devaki Jain, Dr. Vinod Vyasulu, Dr. Jayati Ghosh, Dr. Hanumappa, Dr.P.R. Panchamukhi, Prof. Abdul Azeez and the Principal Secretaries and Secretaries in the departments of Finance, Planning, Education, Health, Women and Child Development, Rural Development and Panchayat Raj, Energy and Urban Development-provided continuous guidance to the working group in preparing the HDR.

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We thank M/s: UBS Publishers' Distributors Ltd., for undertaking to distribute copies of the Report on behalf of the state government.

It would be remiss of Us not to remember Dr. Anup K. Pujari who first mooted the idea of a Human Development Report for Karnataka in early 1997. We owe a great deal to the UNDP Human Development Reports which provided the inspiration for this document. We are also immensely grateful to the Madhya Pradesh government and its officers who blazed the trail for HDRs for Indian states.

# Foreword

Economists have generally acknowledged that development is a much wider and a more complex concept than growth in domestic product. Through the eighties and nineties, they have been groping for a formula to measure human welfare which would take into account access to resources and services as well as deprivation of the basic facilities required for a comfortable existence. Despite widespread recognition of the inadequacy of per capita income as the sole indicator of wellbeing an appropriate substitute has been difficult to devise. All this changed in the nineties with the UNDP stepping into the breach and creating a reasonably satisfactory measure of people's welfare-the Human Development Index. The simplicity and universal applicability of this indicator is largely responsible for its acceptance by economists and other social scientists so much so that at the international level, most nations now routinely submit themselves to the annual UNDP estimation of the level of wellbeing of their people using the HDI methodology.

A major advantage of the composite human development index is its applicability to both developed and developing economies. The measure picks up just three basic issues that are crucial to welfare-income, basic health and education-and puts them together on an equal footing. The simplicity of the indicator has facilitated its application to almost every country. Uniform techniques of estimation have also made possible comparisons across place and time. By ranking countries on the basis of their human development indices, the UNDP has been able to bring deficiencies in health and educational facilities in high income countries into sharp focus apart from drawing attention to success stories in less endowed and developed regions.

## Human development reports- for the country and the state

In India, however, there has as yet been no move towards preparation of a HDR for

the country which would rank and evaluate the welfare levels of constituent states. The Planning Commission is engaged in continuing assessment of the progress made by states in various social sectors and much of its data is integrated with policymaking and program preparation. Fund transfers to states, both statutory and discretionary, often depend upon such statistics. Sufficient information is thus available for researchers and academics to prepare Human Development Indices for the Indian states and many have made attempts in this direction. The absence of a formal Human Development Report for the country may not therefore seriously affect our understanding of the developmental process within the country.

Madhya Pradesh was the first state to prepare a Human Development Report disaggregated at the district level. This pioneering effort has inspired other states too to consider the usefulness of a similar exercise. The idea of a Human Development Report for Karnataka has been in the air for some time. Whether such a report was necessary was debated within government since several other reports on development are in any case being generated either at regular intervals or on a onetime basis. Annual Economic Surveys gather together data on the state's social and economic progress and governmental priorities and programs are by and large listed in annual and quinquennial Plan documents. Occasional sectoral studies aimed at indepth understanding of crucial areas are also undertaken. In the course of several discussions, however, a consensus has emerged on the need for a Human Development Report for the state.

## Rationale behind the Karnataka human development report

Regional imbalance has been a continuing concern in most Indian states. This is as much due to their size as to the historical context in which they came into existence.



After independence, the splintered polity was reconstructed by grouping contiguous areas sharing a common language into states. However, erstwhile differences in development within these states have not totally disappeared despite efforts at equalising welfare levels. This has been the bane of Karnataka too. A major challenge faced by it today is tackling regional imbalances in human development. The UNDP technique is ideally suited to identifying gaps in social sectors and measuring relative levels of wellbeing at the district level. It is thus an appropriate tool for handling the problem of regional developmental disparities.

Another motive that inspired us to prepare this document relates to the special nature of the human development matrix. The HDR framework goes beyond the mere recital of governmental achievements and routine listing of schemes. It enables us to take a fresh holistic look at the state's development outside normal governmental functioning to appreciate the flaws and strengths of existing policies. Such an enquiry can cover innovative and focused initiatives taken by departments of the government as well as programs implemented by nongovernmental institutions and voluntary agencies. Deprivations and inequities in the distribution of income as well as of basic facilities could be thus identified. It was hoped that an analysis of this kind would bring to the fore core problems in social sectors to tackle which appropriate strategies, based on lessons drawn from past experiences, could be devised and implemented.

### **Outcomes of the human development exercise**

"Know thyself" said the Greek philosophers. The first windfall from the preparation of the Human Development Report for Karnataka has been a much better appreciation of the socio-economic condition of the people of the state. The exercise of writing the report has proved to be a veritable voyage of discovery. On the one hand, we have located ourselves on the developmental map of the country; on the other, we have obtained a vivid picture of the trends and levels of growth in various parts of the state.

People-centred development is not about figures alone; it must also correctly

appreciate sectoral linkages and socio-cultural behaviour. Our analysis has thus been extended beyond the mere compilation of statistics to a study of the processes of development. In consequence, the biases that operate to suppress and exploit weak and helpless groups have come sharply into focus. The Gender related Development Indices calculated by us reveal the wide gulf in status and access to public services between men and women in Karnataka. This is a critical area of concern for government and civil society.

A special chapter has been devoted in this document to the examination of the condition of the children of the state, since they represent our hope and our future. Poverty ratios have also been calculated to identify the extent of income inequality at the district level. A first time attempt to estimate welfare indices following the methodology proposed by Amartya Sen is one of the highlights of this document.

Analysis of existing conditions has gone hand in hand with the study of governmental and nongovernmental initiatives in different sectors. The overall roundup of public policies has been accompanied by an assessment of their effectiveness. We hope to use this wealth of experience as the basis for formulating future policies.

### **Structure of the human development report for Karnataka**

The overall structure of the report in its various chapters is indicated below:

#### **Karnataka-Some glimpses**

A brief overview of the physical characteristics of the state is followed by a historical assessment of regional disparities and an evaluation of Karnataka's ranking among the fifteen major Indian states in some crucial indicators of human development.

#### **Progress in human development-Where do we stand?**

After examining the UNDP concepts of indices for human development and genderrelated development and examining the gender empowerment measure, HDIs and GDIs for Karnataka and for its districts have been computed and compared and



budgetary outlays on key social sectors examined.

### **Health, nutrition and family welfare in Karnataka-Towards Health for All**

The chapter measures the progress made by the state and its various districts against crucial demographic, health, nutritional and family welfare indicators, assesses the facilities available in the public and private sectors and the state's performance in immunisation and combating infectious diseases and reviews budgetary outlays on basic and other health facilities.

### **Education and literacy-The challenge ahead**

Evaluation of Karnataka's achievements against key indicators of educational attainment has been rounded off with a detailed examination of the major policy issues in the fields of primary, secondary, pre-university, vocational, technical and higher education and a presentation of the budgetary outlays on this crucial area of human development.

### **Income, employment and poverty-Slow but steady progress**

The chapter studies the overall and sectoral patterns of income growth up to the district level as well as trends in employment generation and closes with an examination of the percentages of population below the poverty line in different districts and the Sen's welfare indices of districts.

### **Human development and the second sex-Eliminating gender disparities**

Genderrelated development indices for Karnataka and for its districts are compared and unequal access of women to health and educational facilities as well as to assets, credit and a fair wage

evaluated; the chapter concludes with an assessment of women's empowerment with reference to income shares, domestic violence and political participation and a review of current governmental initiatives for their welfare.

### **The child in Karnataka**

After gathering together data on the health and educational status of children, available information relating to child labour and exploitation is presented along with the state's programs to improve the condition of its children.

### **Housing, water supply, sanitation and electricity-Towards fulfillment of basic needs**

The chapter briefly reviews the current status in respect of key public services in the state-housing, electricity and water supply and sanitation in urban and rural areas.

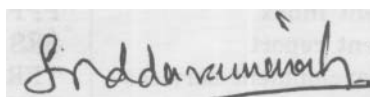
### **Institutional framework-Towards decentralisation**

The role of decentralised and nongovernmental bodies in improving program planning and implementation is assessed.

### **The future beckons-There's no looking back**

While summing up the findings of the report in each area, recommendations are made on the major macro issues that have been thrown up by the present study, at the sectoral as well as the regional levels.

The Human Development Report of the state thus attempts to throw open the developmental condition of its people to public scrutiny. This is Karnataka-warts and all. We hope our candidness will be received in the same spirit so that all citizens join the debate and participate in building a better Karnataka.



**Siddaramaiah**

Deputy Chief Minister' and Minister for  
Planning and Finance, Karnataka

## Abbreviations

|       |                                              |        |                                      |
|-------|----------------------------------------------|--------|--------------------------------------|
| CBR   | Crude birth rate                             | LEB    | Life expectancy at birth             |
| CDR   | Crude death rate                             | LFPR   | Labour force participation rate      |
| GDI   | Gender related development index             | MMR    | Maternal mortality rate              |
| GDP   | Gross domestic product                       | NDP    | Net domestic product                 |
| GEM   | Gender empowerment measure                   | NER    | Net enrolment ratio                  |
| GER   | Gross enrolment ratio                        | NGO    | Non-government organisation          |
| GFR   | General fertility rate                       | ORS    | Oral rehydration salts               |
| GHI   | Gender related health index                  | PEM    | Protein energy malnutrition          |
| HDI   | Human development index                      | PPP\$  | Purchasing power parity in dollars   |
| HDR   | Human development report                     | SRS    | Sample registration system           |
| ICDS  | Integrated child development services        | TFR    | Total fertility rate                 |
| IMR   | Infant mortality rate                        | UNDP   | United Nations Development Programme |
| IPP   | India population project                     | UNICEF | United Nations Children Fund         |
| Kfw   | Kreditanstalt fur Wiederaufbau               |        |                                      |
| KHSDP | Karnataka health systems development project |        |                                      |

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## Chapter 1



# Karnataka

## Some glimpses

The southern state of Karnataka is in many ways the archetypal Indian state. In natural regions, languages, faiths and culture, it exhibits almost as much variety as the subcontinent itself. Its location is close to the nation's heartland and its boundaries extend to the coastal periphery. In developmental attainments too, the state is at the median level in major sectors, reflecting generally where the country as a whole stands. This chapter offers a brief overview of the geography and history of the state and places it within the Indian context in respect of its levels of human development. Special attention has been paid to understanding regional developmental disparities which are a major concern of the state today.

Resource-rich Karnataka lies between latitudes 11.31 and 18.45 degrees north and longitudes 74.12 and 78.40 degrees east on the western part of the Deccan plateau. It has four natural regions extending over 700 kms. from the north to the south and 400 kms from the east to the west. The state is the eighth largest in the country in both area and population. Karnataka's plains, plateaux and coastline covering 191,791 sq. kms. support (as per the 1991 census) 45 million persons, 5.83% of the country's population, 51% of whom are males. While the population density of the state at 235 persons per sq. km. is lower than the national level of 257, the state is more urbanised than India as a whole; 31% of its population is in urban areas against 26% in the entire country.

Karnataka is especially rich in mineral wealth-it has deposits of gold, iron, manganese, chromite, bauxite and copper. It was one of the earliest states to electrify all its villages. And today, the state capital Bangalore is known internationally as the hub of information technology and electronics in India.

## Topography

Each of the four natural regions of the state has its distinctive characteristics. The coastal area covering Dakshina Kannada and Uttara Kannada districts is a narrow strip between the Western Ghats and the Arabian sea. The region is characterised by heavy rainfall - 2500 mms. to 3000 mms. - with the main occupations being fishing and the cultivation of rice, coconut and arecanut. The coast is hemmed in on the east by the Western Ghats; the Ghat or malnad region covers the districts of Chikmagalur, Hassan, Kodagu and Shimoga and the uplands of Uttara Kannada district. 43% of the forests of the state fall within this area. Plantations of coffee, pepper, cardamom and rubber are interspersed with dense forests.

The maidan region falls into two broad sections. The south maidan has rolling hills and is drained by the Kaveri and its tributaries-the Harangi and the Hemavathy-as well as by the Tungabhadra. Rice, ragi, coconut and mulberry are the principal crops. The northern maidan is less developed, receives low rainfall and supports jowar, cotton, oilseeds and pulses. The Krishna and its tributaries the Malaprabha, Ghataprabha, Tungabhadra and Bheema - are the principal rivers of the northern plateau.

## The formation of Karnataka

The Kannada speaking people have known periods of dispersion as well as of unification. The region finds mention in the ancient Hindu epics of Mahabharata and Ramayana. It was even a part of Ashoka's mighty empire as evidenced by the several edicts found in the state. The ninth century Kannada poet Nrupathunga described Karnataka as the land lying

*A state with  
rich regional  
diversity*

*In 1956 nine  
Kannada  
speaking  
territories  
merged with  
ten districts  
of old Mysore  
to form the  
new state of  
Karnataka*

between the valleys of the Kaveri and the Godavari. The region was ruled by some of the most distinguished of the south Indian dynasties - the Satavahanas, Kadambas and Gangas, the Chalukyas of Badami, the Rashtrakutas and Hoysalas, the Chalukyas of Kalyani, the royal family of Vijayanagara, the Wodeyars of Mysore in the south and the Bahmani kingdoms of the Deccan.

A unified Karnataka existed from the time of the Chalukya king Pulakeshi (610-642 A.D.) for almost five centuries. It was described as one of the four great empires of the world by the Arab visitor Sulaiman in 851 A.D. The kingdom also received high praise from the traveller Huiyen Tsang. The Vijayanagar empire promoted painting, sculpture, literature and fine arts. Several religions - Hinduism, Jainism, Buddhism, Veerasaivism, Islam and Christianity - flourished in this area, their doctrines enriched by the teachings of enlightened leaders. Sankaracharya, Ramanujacharya, Basavanna and Madhvacharya moulded the beliefs and culture of the Kannada speaking people in the eighth, twelfth and thirteenth centuries.

The division of united Karnataka into several parcels, many of which were attached to other political entities, took place during British rule for historical and administrative reasons. Only the princely state of Mysore had a population that was predominantly Kannada speaking. But the dream of a unified Karnataka remained. It was finally realised when the states were reorganised within a federal India on first November 1956. On that day, nine Kannada speaking territories of states bordering Mysore - the Bombay and Madras Presidencies, the princely state of Hyderabad and Coorg state - were merged with the ten districts of the old state of Mysore. Kannada became the official language of the new Mysore state which was renamed Karnataka in 1973. An additional district was formed in 1986 when Bangalore urban district was carved out of Bangalore district. In 1997-98, a further division of districts was effected taking the total number from twenty to twenty seven. Since this reorganisation has taken place very recently, data is yet to be generated

for the new units. The analysis done in the present report is therefore based on the earlier configuration of 20 districts. However selected data based on the 1991 census is furnished for 27 districts in chapter 2.

## **Regional disparities in human development**

There were serious regional disparities in the levels of human development of the Kannada speaking people due to their dispersion in different political units, each of which had its own priorities and policies. Developmental imbalances within the new state of Karnataka are a part of its historical legacy. The new areas added to the princely state of Mysore in 1956 were at different levels in most areas of economic and social development. Before independence, old Mysore enjoyed the reputation of being one of the most progressive regions of the country. A modern system of education was established in Mysore as early as in 1833. This was followed by the opening of English schools in Bangalore, Tumkur, Hassan and Shimoga. The first school for girls was started in Bangalore city by the London Mission in 1840, when education for girls was still a novel idea. Following this lead, other institutions for both men and women were set up by leaders from progressive Hindu communities. The government girls' school started in 1881 with support from the Maharajah of Mysore was a landmark in the field of education in Karnataka. The Mysore University was established in 1916. As a result, before independence, when only 16.6% of the country's population was literate, 20.3% of the people of old Mysore came within this category.

In Bombay Karnataka, a modern system of education was established in Belgaum as early as 1826 and Kannada schools set up after 1836. A special feature was the signal contribution of private associations like the Karnataka Lingayat Education Trust (now known as the Karnataka Liberal Education Trust) which was the prime mover in spreading education in the region. By contrast, Hyderabad Karnataka did not have a degree college in a district capital before the merger with old Mysore.

Basic health services were also a priority of the princely state of Mysore. In 1806, it was perhaps the first state in the country to take up vaccination against small pox. A government hospital was set up in Bangalore in 1846 and the first public health unit opened in Mandya in 1929. The state had established public health centres as the principal units for basic health care and undertaken extensive measures to control communicable diseases like malaria well before independence. The first two birth control clinics in the world were set up by the government of Mysore in 1930. In the other two regions, however, progress in social services-health, drinking water and roads-before reorganisation was not encouraging. Connectivity between headquarters towns of districts and taluks was very poor in Hyderabad Karnataka region before the merger.

The foresight and progressive attitudes of the government of old Mysore were a model for other Indian states in political as well as social matters. The Representative Assembly of Mysore dates from 1887, when even the Presidencies did not have such bodies. The first hydroelectric project of the country was completed at Sivasamudram in old Mysore in 1899-1900. Bangalore was the first city in the country to be electrified in 1905. These developments owe much to the enlightened leadership of two great Dewans of Mysore - Sir M. Visveshwaraiah and Sir Mirza Ismail.

Some idea can be obtained about regional disparities in the availability of social infrastructure with in the new state from data on human development indicators as well as per capita availability of basic services in the princely state of Mysore before integration compared with those in the new state immediately after the merger. There was one school for every 7.99 sq. kms. in Mysore state after states' reorganisation where there had been one for 6.48 sq. kms. in the old Mysore state before 1956. There were 585 medical institutions in old Mysore but the newly added areas had only 191. A medical institution in the new Mysore state served on an average an area of 245 sq. kms. and a population of 25000; in the old Mysore

Table 1.1

The range of diversity in 1955-56

|                                     | Bombay<br>Karnataka | Hyderabad<br>Karnataka | Madras<br>Karnataka | Kodagu<br>Karnataka | Mysore<br>Karnataka |
|-------------------------------------|---------------------|------------------------|---------------------|---------------------|---------------------|
| Area (sq. kms.)                     | 52526               | 35647                  | 11173               | 4118                | 85158               |
| Population (lakhs)                  | 56.70               | 30.01                  | 16.23               | 2.53                | 108.73              |
| Literacy                            | 22.3                | 8.5                    | 23.3                | 27.2                | 20.6                |
| Enrolment ratio in primary schools  |                     |                        |                     |                     |                     |
| -6 to 11 years                      | 79.2                | 27.2                   | 74.8                | 83.8                | 48.9                |
| -11 to 14 years                     | 27.8                | 13.0                   | 30.8                | 54.2                | 27.0                |
| Area per primary school (sq. kms.)  | 8.80                | 17.09                  | 8.55                | 18.65               | 6.73                |
| Population per primary school       | 931                 | 1434                   | 1250                | 1146                | 865                 |
| Area per secondary school (sq. kms) | 425                 | 1981                   | 176                 | 375                 | 321                 |
| Population per secondary school     | 44290               | 166629                 | 25123               | 23026               | 40876               |
| Area per college (sq.kms.)          | 6793                | 11882                  | 2794                | 4118                | 3276                |
| Population (lakhs) per college      | 7.1                 | 10.0                   | 4.1                 | 2.5                 | 4.2                 |
| Road length per sq. km. of area     | 55.9                | 22.3                   | 67.3                | 68.1                | 95.0                |

Source : Karnataka Gazetteer Part II (page 624)

state alone there was one institution for every 152 sq. kms. and a population of 17585.

#### Box 1.1

**Only 7% of the women in Hyderabad Karnataka area were literate at the time of the 1961 census, when female literacy was 18% to 19% in the rest of the state.**

Significant divergence in the availability of social infrastructure in different regions was not the only major problem facing the new state of Mysore. The overall levels of literacy and health had also to be substantially raised for the entire population. In 1956-57, the state had an enrolment ratio in primary schools of only 36.5%. Per capita expenditure on education was around Rs. 5 and 13 paise and that on medical services around 76 paise!

Despite the spectacular progress made by the old princely state of Mysore therefore, both industrially and economically, there was much to be done in the sectors of health and education. In addition to the challenge posed by some of the newly

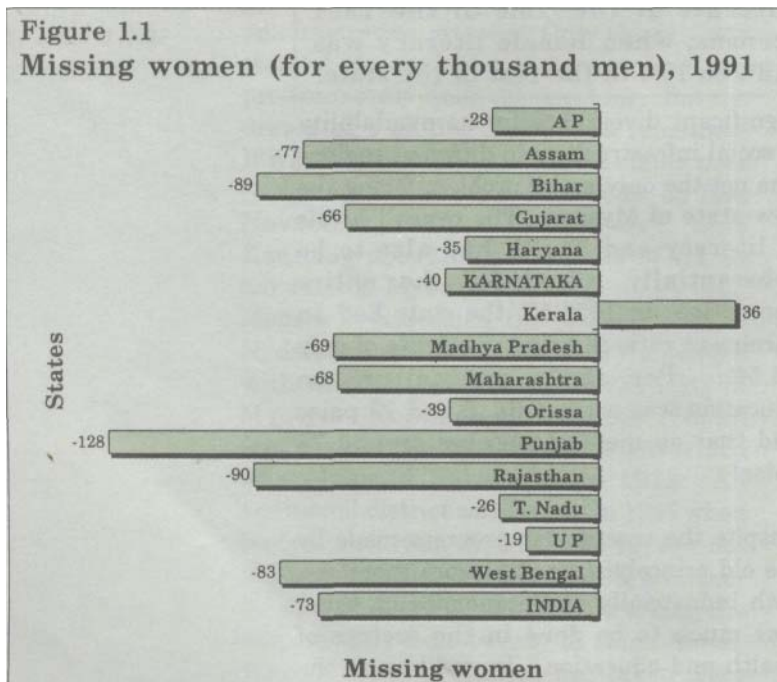


added regions which were behind the rest of the state in key areas of human development, there was the task of improving the quality of life of much of the rural population, since public educational and health facilities were still mainly an urban phenomenon. What has been achieved since then vis a vis the rest of the country will be reviewed briefly in the rest of this chapter.

The condition of women in terms of marriage practices, inheritance rights and social status continue to be a matter of concern in all regions of the state. Low age at marriage for women, high female mortality rates, poor levels of female literacy and high dropout rates among girls still characterise Karnataka. Practices like the devadasi cult imposed on Scheduled Castes are proof that Karnataka must pay more attention to social development particularly with respect to women.

## Karnataka and India

A bird's eyeview of where Karnataka stands today as far as human development is concerned within the country as a whole is given below. The present comparison is confined to the fifteen large states which are generally treated as a group for analysing interstate disparities.



Source: Census of India, 1991

A look at four indicators should give us an idea of how far Karnataka has gone in providing basic health facilities to its people. These are the sex ratio, the infant mortality rate, the maternal mortality rate and life expectancy at birth. As far as the sex ratio is concerned only Kerala has come close to the levels attained in developed countries. In other states, the sex ratio (that is the number of women per thousand men) is still adverse due to prevalent social and cultural factors. In Karnataka, there are only 960 women for every 1000 men according to the 1991 census. This is worse than the position in Kerala, Andhra Pradesh, Orissa and Tamilnadu. It is also disturbing to note that the sex ratio has worsened between 1981 and 1991 in Karnataka and in 11 other states. The sex ratio has improved in the eighties only in Kerala, Assam and Punjab.

Table 1.2

Sex ratios in major states

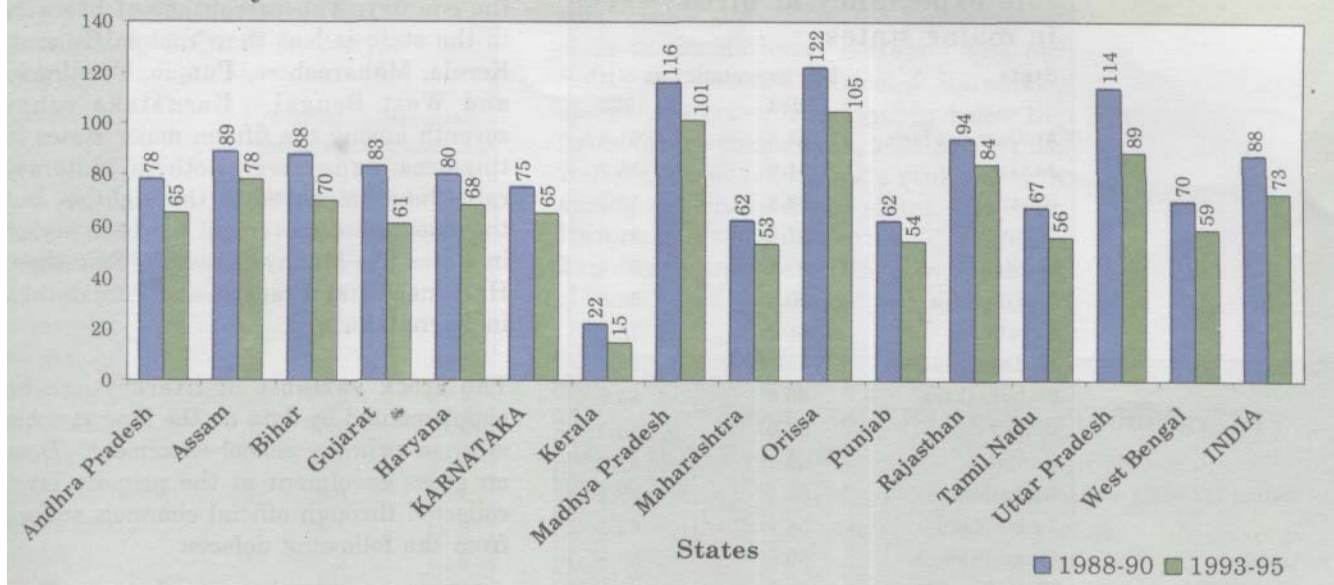
| State            | Sex Ratio  |            |
|------------------|------------|------------|
|                  | 1981       | 1991       |
| Andhra Pradesh   | 975        | 972        |
| Assam            | 910        | 923        |
| Bihar            | 946        | 911        |
| Gujarat          | 942        | 934        |
| Haryana          | 870        | 865        |
| <b>Karnataka</b> | <b>963</b> | <b>960</b> |
| Kerala           | 1032       | 1036       |
| Madhya Pradesh   | 941        | 931        |
| Maharashtra      | 937        | 934        |
| Orissa           | 981        | 971        |
| Punjab           | 879        | 882        |
| Rajasthan        | 919        | 910        |
| Tamil Nadu       | 977        | 974        |
| Uttar Pradesh    | 885        | 879        |
| West Bengal      | 911        | 917        |
| <b>INDIA</b>     | <b>934</b> | <b>927</b> |

Source: Census Reports, General Tables 1981 & 1991.

The infant mortality rate indicates the number of babies out of a thousand born alive who die within the first year. It is a pointer not only to the health status of the population but also to the social and cultural factors that have an effect on health. Throughout the country the IMR has declined in the eighties and nineties. In Karnataka 65 out of 1000 infants born die every year. This is more than the numbers in Kerala, Gujarat, Maharashtra, Punjab, Tamilnadu and West Bengal.



**Figure 1.2**  
**Infant mortality rate - 1988-90 and 1993-95**



Source: Sample registration system reports 1988-90 and 1993-95, RGI.

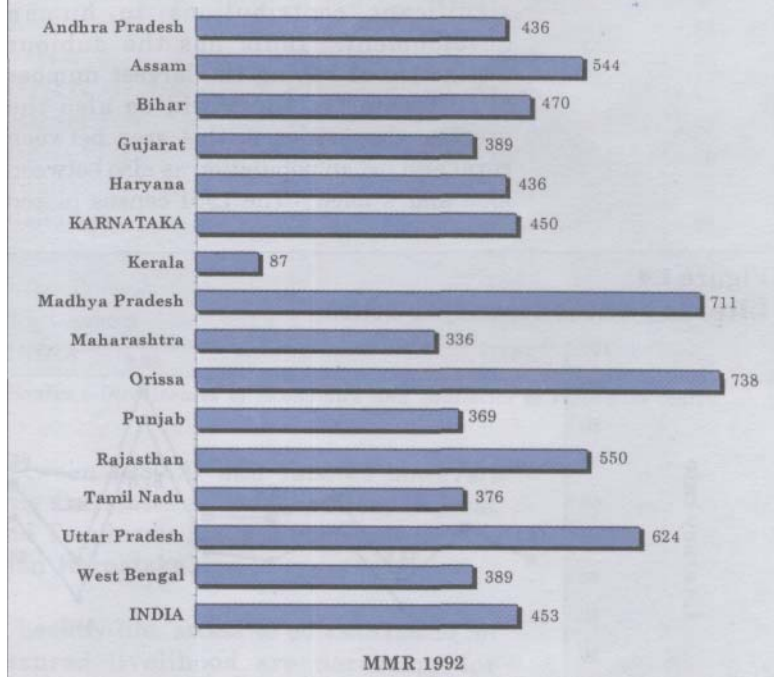
Decline in the infant mortality rate between 1988-90 and 1993-95 was also higher in Andhra Pradesh, West Bengal and Tamilnadu than in Karnataka.

The maternal mortality rate is the statistic of the number of women who die of causes linked to pregnancy and childbirth. It is not readily available for making comparisons among states. The computation of the ratio also suffers from serious deficiencies. Anaemia, haemorrhage, eclampsia, obstructed labour, infection and abortion account for 80 percent of the maternal deaths in India. A 1993 survey of the Registrar General of Births and Deaths indicates that haemorrhage alone may account for 23 percent of these deaths. UNICEF has made a comparison of maternal health statistics throughout the country and pointed out that 450 out of 100000 women die of causes connected to pregnancy and childbirth in Karnataka. This is higher than the average for the fifteen major states; it is also worse than the figures for Andhra Pradesh, Gujarat, Haryana, Maharashtra, Punjab, Tamilnadu and West Bengal.

Finally, we may place Karnataka on the all India scale in respect of the life expectancy at birth of its citizens. The International Conference on Population Development had resolved in 1994 to

**Figure 1.3**

**Maternal mortality rates in major states**



Source: The Progress of Indian States, UNICEF, New Delhi, 1995.

target a life expectancy of 70 by 2005 and of 75 by 2015. Against this, Karnataka has achieved a life expectancy at birth of 62 which is slightly higher than the national level of 60. Kerala, Maharashtra, Haryana, Tamilnadu and Punjab alone among the Indian states are ahead of Karnataka in this area.

| State            | Life expectancy at birth |             |
|------------------|--------------------------|-------------|
|                  | 1983                     | 1993        |
| Andhra Pradesh   | 58.4                     | 61.8        |
| Assam            | 51.9                     | 55.7        |
| Bihar            | 52.8                     | 59.3        |
| Gujarat          | 57.6                     | 61.0        |
| Haryana          | 60.3                     | 63.4        |
| <b>Karnataka</b> | <b>60.6</b>              | <b>62.5</b> |
| Kerala           | 68.4                     | 72.9        |
| Madhya Pradesh   | 51.6                     | 54.7        |
| Maharashtra      | 60.6                     | 64.8        |
| Orissa           | 53.0                     | 56.5        |
| Punjab           | 63.1                     | 67.2        |
| Rajasthan        | 53.5                     | 59.1        |
| Tamil Nadu       | 56.9                     | 63.3        |
| Uttar Pradesh    | 50.0                     | 56.8        |
| West Bengal      | 57.4                     | 62.1        |
| <b>INDIA</b>     | <b>55.4</b>              | <b>60.3</b> |

Source: SRS based Abridged Life Tables  
1981-85 and 1991-95

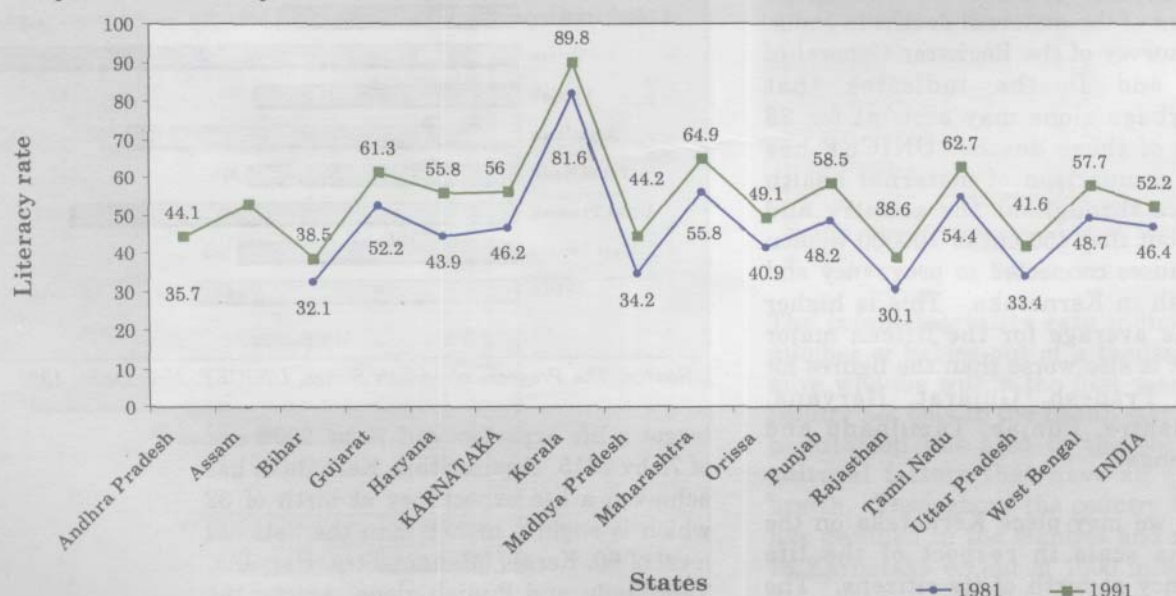
Educational attainment and literacy make significant contributions to human development. India has the dubious distinction of having the largest number of illiterates in the world as also the greatest disparities in this area between rural and urban population as also between men and women. The 1991 census placed

56% of the population of Karnataka within the category of literates against 52% for the country. The percentage of literates in the state is less than that in Gujarat, Kerala, Maharashtra, Punjab, Tamilnadu and West Bengal. Karnataka ranks seventh among the fifteen major states in this area, as in several others. Literacy rates have improved in the eighties, but the extent of improvement has been higher in states like Madhya Pradesh, Rajasthan, Haryana, Uttar Pradesh and Punjab than in Karnataka.

The stock variable of literacy can be supplemented by data on the flow variable of gross primary school enrolment. Data on gross enrolment at the primary level collected through official channels suffers from the following defects:

- as targets are given to field staff to increase the enrolment of children, there is a temptation to exaggerate achievements;
- the age recorded at enrolment does not match the date of birth of the child;
- since the gross enrolment ratio is calculated against the number of children who should be in a class at a particular age, overaged children in the same class distort the figure; as a result, a state like Kerala where the number of overaged

Figure 1.4  
Literacy rates in major states



Source: Census, 1981 and 1991

N. B.: No census was conducted in Assam in 1981

**Table 1.1  
Percentage of children  
attending school in major  
states**

| State            | Children between the<br>ages of 6 and 14<br>attending school<br>(percentage) 1992-93 |             |
|------------------|--------------------------------------------------------------------------------------|-------------|
|                  | Rural                                                                                | Urban       |
| Andhra Pradesh   | 56.8                                                                                 | 80.6        |
| Assam            | 69.5                                                                                 | 76.1        |
| Bihar            | 46.9                                                                                 | 76.7        |
| Gujarat          | 70.5                                                                                 | 85.7        |
| Haryana          | 78.2                                                                                 | 89.8        |
| <b>Karnataka</b> | <b>65.3</b>                                                                          | <b>82.4</b> |
| Kerala           | 94.6                                                                                 | 95.4        |
| Madhya Pradesh   | 55.9                                                                                 | 83.2        |
| Maharashtra      | 76.4                                                                                 | 89.3        |
| Orissa           | 67.0                                                                                 | 83.5        |
| Punjab           | 77.4                                                                                 | 88.9        |
| Rajasthan        | 54.4                                                                                 | 78.6        |
| Tamil Nadu       | 80.1                                                                                 | 86.8        |
| Uttar Pradesh    | 58.1                                                                                 | 73.5        |
| West Bengal      | 64.2                                                                                 | 77.9        |
| <b>INDIA</b>     | <b>62.6</b>                                                                          | <b>82.4</b> |

Source : International Institute of Population Sciences (1995)

children at the primary level is low has a lower gross enrolment ratio than Karnataka which has a large number of overaged children. The all India education surveys conducted quinquennially on six occasions provide more reliable information on primary school enrolment. Even more significant is data regarding out of school children. This is generally difficult to obtain. The 1992-93 survey of the International Institute of Population Sciences has some information on children between the ages of six and fourteen attending school in both rural and urban areas. According to this source, 82% of children in urban areas go to school in India, but only 63% of rural children do so. In Karnataka, 65% of rural children attend primary school, which is higher than the national average of 63% (but far lower than the level of 95% in Kerala). In urban areas, the figure is 82% in Karnataka as in the country, here the figure for Kerala is 95%. Karnataka appears to be also behind Assam, Gujarat, Haryana, Maharashtra, Orissa, Punjab and Tamilnadu as far as the attendance of rural children at primary school is concerned.

An adequate and sustainable source of income is essential for a decent and comfortable life. Here too Karnataka is close to the national average. The per capita Net National Product of Karnataka at constant prices is marginally below the figure for the country (Rs. 2551 against Rs. 2608). Once again, the state ranks seventh among the fifteen major states. Gujarat, Haryana, Maharashtra, Punjab, Tamilnadu and West Bengal were ahead of Karnataka in per capita income in 1995-96.

| Table 1.1<br>Per capita Net State Domestic Product(NSDP)<br>In major states |                                              |             |                                 |
|-----------------------------------------------------------------------------|----------------------------------------------|-------------|---------------------------------|
| State                                                                       | Per capita NSDP at constant (1980-81) prices |             | Average<br>annual<br>change (%) |
|                                                                             | 1980-8                                       | 1995-96     |                                 |
| Andhra Pradesh                                                              | 1380                                         | 2059        | 3.28                            |
| Assam                                                                       | 1284                                         | 1606        | 1.67                            |
| Bihar                                                                       | 917                                          | 986         | 0.50                            |
| Gujarat                                                                     | 1940                                         | 3375        | 4.93                            |
| Haryana                                                                     | 2370                                         | 3668        | 3.65                            |
| <b>Karnataka</b>                                                            | <b>1520</b>                                  | <b>2551</b> | <b>4.52</b>                     |
| Kerala                                                                      | 1508                                         | 2353        | 3.73                            |
| Madhya Pradesh                                                              | 1358                                         | 1791        | 2.12                            |
| Maharashtra                                                                 | 2435                                         | 4598        | 5.92                            |
| Orissa                                                                      | 1314                                         | 1608        | 1.49                            |
| Punjab                                                                      | 2674                                         | 4172        | 3.73                            |
| Rajasthan                                                                   | 1222                                         | 1996        | 4.22                            |
| Tamil Nadu                                                                  | 1498                                         | 2744        | 5.54                            |
| Uttar Pradesh                                                               | 1278                                         | 1668        | 2.03                            |
| West Bengal                                                                 | 1773                                         | 2668        | 3.36                            |
| <b>INDIA</b>                                                                | <b>1630</b>                                  | <b>2608</b> | <b>4.00</b>                     |

Source : Directorates of Economics and Statistics of respective states

Between 1980-81 and 1995-96 however, only the states of Maharashtra, Gujarat and Tamilnadu had a higher growth rate than Karnataka.

A healthy life, access to education and an assured livelihood are necessary for improving the quality of human life. The Human Development Index evolved by the UNDP tries to capture the three facets of this concept. Comparisons among countries and provinces are possible when a common index of this kind is used. The tool will therefore be employed to find out Karnataka's developmental level with reference to the entire country in comparison with other states.





# Progress in human development

## Where do we stand?

### From economic growth to human development

Till the sixties, economic growth was considered the principal objective of a government and per capita income the most appropriate yardstick to measure human wellbeing. The experience of industrial economies in the postwar period indicates however that the benefits of rapid economic growth may not reach all segments of a country's population. Under such circumstances, per capita income may not be a satisfactory indicator of the wellbeing of a country. The persistence of mass poverty even when incomes were rising was proof that the benefits of growth do not reach poor families without active state intervention. As a result there was a distinct change in the approach to development in the seventies and eighties.

Socio-economic development replaced economic growth as the focus of attention and fresh emphasis was placed on the concepts of income distribution and equity. Several new measures of welfare and development were tried out and discarded - the Level of Living index, the State of Welfare index, the Quality of Life index and the Physical Quality of Life index. The human development index of the UNDP, first propounded in 1990, is the culmination of this line of thought; it is now accepted as the best available tool to gauge the welfare of nations.

The success of the UNDP's effort lies in its insistence on people as the real wealth of a country. Time and again, human development reports have stressed that development is not only growth in income, wealth or consumption but the expansion of human capabilities. To use UNDP's wellknown phrase, human development is about "enlarging people's choices"; choices which are varied and changing over time. The three basic human concerns are a long

and healthy life, access to knowledge and skills and control over resources to ensure a decent standard of living. Once these are assured, other opportunities for growth and happiness will follow.

### The evolution of Human Development Reports over time

Since 1990, the concept of human development has been refined and improved to take care of specific concerns. The first Human Development Report (HDR) of 1990 developed the basic idea and considered how it could be measured. It explored the relationship between economic growth and human development. It demonstrated that there was no automatic link between economic growth and human welfare, that fairly respectable levels of human development were possible at modest levels of income and that high GDP growth in several countries had failed to raise the general wellbeing of their population. It emphasised the need for sustainable development and laid stress on popular participation and nongovernmental agencies. It argued that economic policy based on the above ideas could reduce poverty levels and increase human wellbeing.

Successive HDRs developed the idea further and looked at other areas related to welfare-empowerment, gender, deprivation and the like. The 1991 report focussed on the political commitment needed to channel resources for human development. In 1992, the stress was on enhancing opportunities for development through trade so that growth levels once attained are stabilised. The report took the stand that trade should eventually replace aid as the most appropriate technique for developed countries to improve the lot of developing ones. The

*Human development is not only growth in income, wealth or consumption but the expansion of human capabilities*

*Successive human development reports have broadened their focus to include issues such as gender empowerment, deprivation and consumption*

central theme of the 1993 report was people's participation; methods of participation in decisions and processes that shape lives were detailed and concrete suggestions made for a new peoplecentred world order. The 1994 HDR argued in favour of better North-South cooperation and urged the North to invest in the South to promote human development. The report introduced the concept of human security implying the provision of universal primary education, primary health care, safe drinking water and sanitation facilities, optimum nutrition levels and credit for avenues of selfemployment.

The 1995 HDR spoke of the empowerment of women through national and global strategies. It made the vital point that productivity, equity, sustainability and empowerment demand that gender issues be addressed as developmental issues and human rights concerns. The central theme of the report is that development is endangered if it is not engendered. A valuable innovative contribution of this report is the Gender-related Development Index which measures the distance in development between males and females within the overall HDL. The Gender Empowerment Measure which was also evolved in this report enlarged the idea of human development further by estimating the degree to which women have control over and participate in decisions affecting their future wellbeing.

In 1996, the report chose as its theme the intricate causalities between economic growth and human development. The central message is that links between the two must be consciously forged so that they can reinforce each other; then and only then will economic growth effectively and rapidly lead to economic development. The report also attempted to measure the deprivation of those who have no access to the basic requirements of a civilised existence. It developed a Capability Poverty Measure built on the three variables of the percentage of births unattended by trained personnel, the share of underweight children below the age of five and female literacy.

The 1997 report went into the concept and measurement of poverty in greater depth. It offered ideas for eradicating absolute poverty and advocated State intervention to protect the interests of the poor and promote pro-poor markets. It further refined the Capability Poverty Measure and introduced the idea of a Human Poverty Index (HPI). This was intended to focus attention not only on the key concerns of developing countries but also to highlight the requirements of deprived people clustered within apparently prosperous economies who are generally overlooked by policymakers. The HPI puts together the percentage of the population that is unlikely to live beyond forty years, the percentage of illiterate adults and the combined percentages of the population that does not have access to potable water and health and of malnourished children below the age of five.

The 1998 report is built around the theme of consumption inequalities in consumption, environmental damage due to undesirable methods of consumption, the dangers of conspicuous consumption and the effects of globalisation on consumption patterns.

Following the UNDP lead, several economists have assessed and ranked countries and provinces on the basis of their levels of human development, interpreted in different ways. The most significant contributions to the concept have come from the annual reports relating to South Asia released by the Human Development Centre, headed by Mahboob ul Haq, the original father of the idea at the UNDP itself. The two reports on South Asia of 1997 and 1998 not only look at the human development issues of the region, they also interpret further the ideas of capability and human poverty. The 1997 report on South Asia speaks of three kinds of deprivation - health deprivation, measured by access to potable drinking water and the percentage of malnourished children below the age of five, adult literacy based on the share of illiterate adults above the age of fifteen in the population of that age group combined with the percentage of out-of-school children and income deprivation as reflected in income poverty.

**Box 2.1****Measures of Human Development****The Human Development Index (HDI)**

The UNDP made a signal contribution to the understanding of human welfare with its Human Development Index developed in the 1990 Human Development Report. The HDI is useful in assessing the performance and progress of nations at one point of time as well as over a period and can be used to rank countries. Unlike per capita income which focuses on economic growth alone and misses out other important variables of welfare, the HDI measures a nation's achievements in terms of human capabilities. It takes into account not just income but also two other crucial dimensions of development – education and health. The HDI is a composite index covering longevity measure by life expectancy at birth, educational attainment computed as a combination of adult literacy (which is given a weightage of two-thirds) and enrolment ratios at the primary, secondary and tertiary levels combined and the standard of living measured by per capita real GDP adjusted for purchasing power parity in dollars. The HDI also indicates how far as a country has to travel to provide these three essential choices to its people.

**The Gender related Development Index (GDI)**

The Gender related Development Index measures the overall achievements of women and men in the three dimensions of the HDI – life expectancy, educational attainment and adjusted real income – and takes note of inequalities in development of the two sexes. The methodology used imposes a penalty for inequality such that the GDI falls when the achievement levels of both men and women in a country go down or when disparity between their achievements increases. The GDI is therefore the HDI discounted for gender inequality.

**The Gender Empowerment Measure (GEM)**

The Gender Empowerment Measure looks at the level of participation of women in the economic and political life of a country in comparison with men. It is built on four indicators-the percentage of seats held by women in Parliament, the percentage of women administrators and managers, the percentage of women professionals and technical workers and the share of women in national income.

The plethora of indices evolved over time serves a vital purpose. Apart from emphasising the inadequacy of income as a measure of welfare and bringing the quality of life to the centrestage of the developmental debate, these indices have created awareness about the conditions required for releasing human capabilities. This has resulted in more effective policymaking targeted to appropriate areas. A major issue that has emerged in the course of the HDR effort is the choice of the correct indicators for measuring educational attainment, health status, gender inequality, empowerment and poverty. Inadequacies of existing data sources have also been brought to light. A better understanding of the human development status of different regions will be possible only if collection of statistics relating to relevant sectors and their analysis are improved.

**Human Development Reports in India**

No officially sponsored human development report has yet been prepared for the country so far. It could be argued that the detailed documentation built around the Indian five year and annual plans already provides an overview of social development within the country alongside its economic growth. The different levels of attainment in social sectors in the states are also being taken into account by policymakers while formulating schemes and allocating funds to them. At the state level however there is no mechanism as yet for appreciating internal developmental imbalances. Given the size of the Indian states, their specific socio - economic environments and the extent of the regional imbalance within each of them, the human development report could become a useful tool for



| Table 2.1<br>HDI and GDI for major states |                                 |         |                               |         |                             |         |                                 |         |
|-------------------------------------------|---------------------------------|---------|-------------------------------|---------|-----------------------------|---------|---------------------------------|---------|
| State                                     | HDI                             |         |                               |         |                             |         | GDI                             |         |
|                                           | As per A.K. Shivkumar (1991-92) |         | As per 1997 HDR of South Asia |         | As per 1997 UNFPA (1992-93) |         | As per A.K. Shivkumar (1991-92) |         |
|                                           | Value                           | Ranking | Value                         | Ranking | Value                       | Ranking | Value                           | Ranking |
| Andhra-Pradesh                            | 0.400                           | 9       | 0.393                         | 9       | 0.413                       | 9       | 0.371                           | 8       |
| Assam                                     | 0.379                           | 10      | 0.374                         | 10      | 0.395                       | 10      | 0.347                           | 10      |
| Bihar                                     | 0.354                           | 13      | 0.350                         | 12      | 0.340                       | 15      | 0.306                           | 14      |
| Gujarat                                   | 0.467                           | 5       | 0.458                         | 5       | 0.478                       | 6       | 0.437                           | 3       |
| Haryana                                   | 0.489                           | 4       | 0.476                         | 4       | 0.506                       | 5       | 0.370                           | 9       |
| Karnataka                                 | <b>0.448</b>                    | 7       | 0.442                         | 7       | 0.468                       | 7       | 0.417                           | 5       |
| Kerala                                    | 0.603                           | 1       | 0.597                         | 1       | 0.628                       | 1       | 0.565                           | 1       |
| Madhya Pradesh                            | 0.349                           | 14      | 0.341                         | 15      | 0.367                       | 13      | 0.312                           | 12      |
| Maharashtra                               | 0.523                           | 3       | 0.513                         | 3       | 0.555                       | 2       | 0.492                           | 2       |
| Orissa                                    | 0.373                           | 11      | 0.368                         | 11      | 0.372                       | 11      | 0.329                           | 11      |
| Punjab                                    | 0.529                           | 2       | 0.516                         | 2       | 0.549                       | 3       | 0.424                           | 4       |
| Rajasthan                                 | 0.356                           | 12      | 0.354                         | 13      | 0.371                       | 12      | 0.309                           | 13      |
| Tamil Nadu                                | 0.438                           | 8       | 0.432                         | 8       | 0.511                       | 4       | 0.402                           | 6       |
| Uttar-Pradesh                             | 0.348                           | 15      | 0.343                         | 6       | 0.355                       | 14      | 0.293                           | 15      |
| West Bengal                               | 0.459                           | 6       | 0.452                         | -       | 0.454                       | 8       | 0.399                           | 7       |
| INDIA                                     | <b>0.423</b>                    | -       | 0.436                         | -       | 0.428                       | -       | 0.388                           | -       |

sensitising state governments to the needs of different areas, assisting them to prioritise sectors within their overall developmental perspective and orienting policies in the right directions.

Madhya Pradesh was the first state to bring out a Human Development Report in 1995, based on the then UNDP methodology for computing the HDI. The Government of Karnataka took a decision to bring out a similar document in 1997 and set up an internal group to prepare it. The drafting of the report was overseen by an expert committee headed by the Deputy Chief Minister (who is also the Cabinet Minister for Finance and Planning) consisting of both officials and nonofficials from within and outside the state. The preparation of the report has coincided with a growing demand from the northern districts for a larger share in the developmental pie. In recent months, complaints of neglect have been voiced by academics and politicians from the Bombay Karnataka and Hyderabad Karnataka regions. The government has promised to identify the sectors in which these regions are backward and assess the extent of their backwardness so that immediate

correctives can be put in place. To fulfil this assurance, a study of inter - district and inter - regional disparities has been instituted and the data and findings of that report have enriched the present one. The preparation of the human development report for Karnataka is therefore expected to achieve two objectives - on the one hand, it will determine the ranking of the state on the national developmental map; on the other hand, it will identify the levels of human development of various regions within the state's boundaries.

There have been some independent studies of where the different Indian states stand on the human development scale. Indices have been worked out using available comparable data on the UNDP model. The UNDP index combines three variables - it measures health, by the indicator of life expectancy at birth, educational attainment by adult literacy and the enrolment ratio and income by per capita GDP. The HDI gives equal weight to the three components and moves within a range of 0 and 1.

Up to 1995, adult literacy was the only indicator used to measure educational attainment. Employing this methodology, A.K. Shivkumar has worked out the HDI for different states using data for 1991-92. The same technique was used by Mahboob ul Haq for developing HDIs for major Indian states in his publication "Human Development in South Asia 1997". Shivkumar's ranking was based on income data for 1992, while Haq's used data for 1993. UNFPA has recently computed HDIs for major states in its publication "Towards Population and Development Goals 1997" using the middle school enrolment ratio for 1993 and the per capita SDP for 1993. The UNDP uses the combined enrolment ratio for primary, secondary and tertiary educational institutions, while the UNFPA has used the enrolment ratio for upper primary schools alone by giving one third weightage to enrolment. The three sets of indices are presented below for a comparison of the level of human development in Karnataka vis-a-vis those in the major Indian states. Shivkumar has also calculated Gender-related Development Indices for the states in the same manner.

The different HDI calculations do not present very different pictures as far as the ranks of states are concerned. The four lowest ranked states of Bihar, Rajasthan, Uttar Pradesh and Madhya Pradesh shift positions inter se, the ranks of Punjab and Maharashtra are interposed between the UNFPA study and the other two, West Bengal and Gujarat change positions between the UNFPA analysis and the other two and Tamilnadu shows a perceptible improvement when enrolment at the middle school level is taken into account (overtaking even Karnataka). As expected, Karnataka is at the median position of 7 in all the studies. In GDI, Karnataka moves up by two ranks, but there is a sharp fall in the rank of Haryana and a distinct upward movement in the ranking of Gujarat.

The range within which the HDI moves according to Shivkumar's study is from 0.603 for Kerala to 0.348 for Uttar Pradesh; Karnataka's index is 0.448. In the south Asian study, the best position is 0.597 for Kerala and the worst 0.341 for Madhya Pradesh with Karnataka at 0.442. The UNFPA indices range between 0.623 for Kerala and 0.340 for Bihar with Karnataka at the median level of 0.468. The GDI levels are lower all along the scale from 0.565 for Kerala to just 0.293 for Uttar Pradesh; Karnataka's index at 0.417 is again not far from the median.

Karnataka has far to go to reach the human development level attained in Kerala which is clearly ahead of the rest of India as far as the wellbeing of its population is concerned. Nonetheless, disparities in human development between men and women appear to be less in Karnataka than in some major states like Tamilnadu, West Bengal or Andhra Pradesh.

The indices developed for Karnataka are slightly above those applicable to the country as a whole. The level of human development of India is 0.439 and its international ranking as low as 134 among 174 countries. The level of human development in Karnataka is a shade better than that of the nation-with a HDI of 0.470 it would rank 131 in the comity of nations. When inequalities in socio-

economic development are also computed, the Gender-related Development Index of the state works out to 0.450. This is higher than the GDI level of the country at 0.401. As a result, the state by itself would rank around 93 at the international level, whereas the ranking of India is around 99. Nonetheless, within the state, different districts offer vastly different levels of human development to their people.

### Ranking the -districts of Karnataka in human development

Using the latest UNDP methodology, human development and gender development indices have been computed for the districts of Karnataka for 1991. The trio of indicators used to capture development - adjusted real per capita income, educational attainment measured by a combination of school enrolment ratios and adult literacy and longevity reflected in life expectancy at birth - have been put together (with equal weightage for each variable) within the maximum and minimum levels adopted by the UNDP for its international comparisons. The combined indices for human development have also been adjusted for gender inequality to obtain gender development indices for different districts. The results of the two sets of calculations can be effectively used to assess the extent of regional imbalance within the state.

**While Kodagu and Dakshina Kannada rank as par with China, Raichur ranks among the worst in the world**

#### Box 2.2 HDI ranking of top 5 and Bottom 5 districts of Karnataka at the global level

| District         | HDI ranking    |              |
|------------------|----------------|--------------|
|                  | Within State   | Global Level |
| Kodagu           | 1 (0.630)      | 104          |
| Bangalore Urban  | 2 (0.601)      | 110          |
| Dakshina Kannada | 3 (0.592)      | 111          |
| Uttra Kannada    | 4 (0.533)      | 123          |
| Chikmaglur       | 5 (0.524)      | 124          |
| Mysore           | 16 (0.440)     | 133          |
| Bellary          | 17 (0.429)     | 135          |
| Bidar            | 18 (0.419)     | 138          |
| Gulbarga         | 19 (0.412)     | 139          |
| Raichur          | 20 (0.399)     | 142          |
| STATE            | (0.470)        | 131          |
| <b>INDIA</b>     | <b>(0.439)</b> | <b>134</b>   |

*N.B.: Figures in parentheses relate to HDI values*

The range of variation in human development levels is fairly alarming. Within Karnataka itself, we move from an index of 0.630 in Kodagu district to 0.399 in Raichur. The positions of the different districts on the developmental scale are also revealing. Dakshina Kannada, Kodagu and Bangalore Urban districts are the trio that head the ranking although their inter se positions appear to have shifted in the eighties. Uttara Kannada, Chikmagalur and Shimoga districts occupy the fourth, fifth and sixth places at both points of time. As expected, therefore, the coastal and malnad districts appear to offer their citizens a better quality of life than the maidan (plateau) districts not only because of reasonably good income levels but also (and more significantly) because of historically better health and educational attainments and the socio-cultural traits of their population. Again, not too surprisingly, the four districts of Hyderabad Karnataka cluster at the bottom of the scale. Bombay Karnataka however (except for the district of Bijapur) appears to be slightly better than Mysore, Mandya and Kolar

**Table 2.2**

**Ranking of districts by Health – Education Index, Income Index and HDI, 1991**

| District         | Average of health index and education index | Income index | HDI | Ranking                    |              |     |
|------------------|---------------------------------------------|--------------|-----|----------------------------|--------------|-----|
|                  |                                             |              |     | Health and Education Index | Income Index | HDI |
| Bangalore Urban  | 0.726                                       | 0.352        | 3   | 3                          | 2            | 2   |
| Bangalore Rural  | 0.622                                       | 0.173        | 9   | 9                          | 10           | 8   |
| Belgaum          | 0.624                                       | 0.185        | 8   | 8                          | 6            | 9   |
| Bellary          | 0.552                                       | 0.181        | 18  | 18                         | 7            | 17  |
| Bidar            | 0.567                                       | 0.124        | 17  | 17                         | 20           | 18  |
| Bijapur          | 0.590                                       | 0.149        | 14  | 14                         | 15           | 14  |
| Chikmagalur      | 0.648                                       | 0.276        | 5   | 5                          | 3            | 5   |
| Chitradurga      | 0.617                                       | 0.163        | 10  | 10                         | 12           | 10  |
| Dakshina Kannada | 0.769                                       | 0.237        | 1   | 1                          | 4            | 3   |
| Dharwad          | 0.615                                       | 0.148        | 11  | 11                         | 16           | 11  |
| Gulbarga         | 0.535                                       | 0.165        | 19  | 19                         | 11           | 19  |
| Hassan           | 0.633                                       | 0.153        | 6   | 6                          | 14           | 7   |
| Kodagu           | 0.727                                       | 0.433        | 2   | 2                          | 1            | 1   |
| Kolar            | 0.599                                       | 0.133        | 12  | 12                         | 19           | 15  |
| Mandya           | 0.590                                       | 0.154        | 14  | 14                         | 13           | 13  |
| Mysore           | 0.574                                       | 0.174        | 16  | 16                         | 9            | 16  |
| Raichur          | 0.529                                       | 0.138        | 20  | 20                         | 18           | 20  |
| Shimoga          | 0.633                                       | 0.181        | 6   | 6                          | 8            | 6   |
| Tumkur           | 0.598                                       | 0.145        | 13  | 13                         | 17           | 12  |
| Uttara Kannada   | 0.699                                       | 0.201        | 4   | 4                          | 5            | 4   |

**Box 2.3**

**Districts of Karnataka having female and male literacy rates below those of sub-Saharan African countries**

|                                      | Literacy Rate |      |
|--------------------------------------|---------------|------|
|                                      | Female        | Male |
| <b>Sub-Saharan African Countries</b> | 40            | 63   |
| <b>Districts</b>                     |               |      |
| Raichur                              | 22            | 50   |
| Gulbarga                             | 24            | 52   |
| Bidar                                | 31            | 59   |
| Bellary                              | 32            | 59   |
| Mandya                               | 37            | 59   |
| Mysore                               | 38            | 56   |
| Kolar                                | 38            | 63   |
| Bangalore (Rural)                    | 38            | 62   |

The levels of socio-economic attainment in the best districts are far higher than those in most districts of the country. Kodagu by itself would rank 104 at the international level, just below Indonesia and Dakshina Kannada would be placed at 111 (behind China) when the rank of Karnataka is only 131 and the country is placed at 134. The level of human development of a district like Mysore is only as good as that of the country, but Raichur district would be at an even lower level, with a quality of life that is among the worst in the world (a rank of 142 among 174 countries).

A closer look at how the HDI is composed will reveal the extent of the divergence between GDP growth and social development at the district level. Kodagu may have the highest HDI of all districts of 0.630 but it is below Dakshina Kannada in its combined health and education index of 0.727 against Dakshina Kannada's index of 0.769. Clearly, health and educational facilities are better in Dakshina Kannada than in Kodagu. Dakshina Kannada district in fact ranks only 4 on the income scale and its HDI ranking is 3. Districts like Belgaum, Bijapur, Bangalore Rural and Urban, Chikmagalur, Chitradurga, Mandya, Raichur, Shimoga and Uttara Kannada do not have very disparate rankings in income and social indicators

although no district has the same ranking on both the income and the health-education scales. But there are noticeable disparities in the case of the following districts:

- much higher rankings in income than in education and health in Bellary, Mysore and Gulbarga districts
- much higher rankings in education and health than in income in Dharwar, Hassan, Kolar and Tumkur districts.

These are clear pointers to the focus that should be given in each district to improve its human development level.

## Developmental disparities based on gender

GDI's for the Karnataka districts have also been computed for 1991. The indices move between 0.615 in Kodagu and a low of 0.376 in Raichur. It is interesting to note that rankings in GDI almost follow the HDI rankings - a phenomenon that is not very common at the international level. The same trio of Kodagu, Bangalore Urban and Dakshina Kannada cluster at the top, Uttara Kannada, Chikmagalur and Shimoga follow them, the four districts of Hyderabad Karnataka lie at the bottom of the list and Mysore, Kolar and Mandya districts trail behind most of the districts of Bombay Karnataka.

### Box 2.4

#### GDI ranking of top 5 and bottom 5 districts of Karnataka at the global level

| District         | GDI ranking within state | Global level |
|------------------|--------------------------|--------------|
| Kodagu           | 1 (0.615)                | 65           |
| Dakshina Kannada | 2 (0.588)                | 69           |
| Bangalore Urban  | 3 (0.546)                | 73           |
| Uttara Kannada   | 4 (0.511)                | 82           |
| Chikmagalur      | 5 (0.505)                | 84           |
| Mysore           | 16 (0.414)               | 95           |
| Bellary          | 17 (0.409)               | 96           |
| Bidar            | 18 (0.403)               | 97           |
| Gulbarga         | 19 (0.388)               | 99           |
| Raichur          | 20 (0.376)               | 101          |
| STATE            | 0.451                    | 93           |
| <b>INDIA</b>     | <b>0.401</b>             | <b>99</b>    |

*N.B.: Figures in parentheses relate to GDI values*

The extent of gender disparity in development among different districts is

alarming. The GDI of Kodagu would place it at the 65th rank among the countries of the world, which is far ahead of the 93rd ranking that the state itself would attain and the 99th position accorded to the country. But Raichur district would only achieve a position of 101, given the degree of disparity in human development between the sexes.

The challenge posed by such wide ranging developmental gaps is great. The policies adopted by Karnataka will have to improve the overall quality of life everywhere but they must also be geared to tackling the regional inequalities that are a legacy of the state's history.

## The limitations of the HDI approach

The human development and gender-related development indices should however be used with caution. The proxies used to capture human wellbeing do not cover all aspects of human development. The GDI too is not comprehensive. The UNDP itself conceded that "other dimensions of gender inequality such as community life and

**Table 2.3**  
**Comparative Ranking of HDI and GDI for districts of Karnataka 1991.**

| District         | HDI 1991     | GDI 1991     | HDI Rank | GDI Rank | HDI rank minus GDI rank |
|------------------|--------------|--------------|----------|----------|-------------------------|
| Kodagu           | 0.630        | 0.615        | 1        | _____    | 0                       |
| Bangalore Urban  | 0.601        | 0.546        | 2        | _____    | -1                      |
| Dakshina Kannada | 0.592        | 0.588        | 3        | _____    | +1                      |
| Uttara Kannada   | 0.533        | 0.511        | 4        | _____    | 0                       |
| Chikmagalur      | 0.524        | 0.505        | 5        | _____    | 0                       |
| Shimoga          | 0.483        | 0.468        | 6        | _____    | 0                       |
| Hassan           | 0.473        | 0.460        | 7        | _____    | 0                       |
| Bangalore Rural  | 0.472        | 0.454        | 8        | _____    | 0                       |
| Belgaum          | 0.471        | 0.447        | 9        | _____    | -1                      |
| Chitradurga      | 0.466        | 0.448        | 10       | _____    | +1                      |
| Dharwad          | 0.459        | 0.442        | 11       | _____    | 0                       |
| Tumkur           | 0.447        | 0.435        | 12       | _____    | 0                       |
| Mandya           | 0.444        | 0.423        | 13       | _____    | -1                      |
| Bijapur          | 0.443        | 0.420        | 14       | _____    | -1                      |
| Kolar            | 0.443        | 0.426        | 15       | _____    | +2                      |
| Mysore           | 0.440        | 0.414        | 16       | _____    | 0                       |
| Bellary          | 0.429        | 0.409        | 17       | _____    | 0                       |
| Bidar            | 0.419        | 0.403        | 18       | _____    | 0                       |
| Gulbarga         | 0.412        | 0.388        | 19       | _____    | 0                       |
| Raichur          | 0.399        | 0.376        | 20       | _____    | 0                       |
| <b>STATE</b>     | <b>0.470</b> | <b>0.451</b> |          |          |                         |



*HDI and GDI  
do not cover  
all aspects of  
human  
development  
and mask a  
host of  
complexities*

decision making, consumption of resources within the family, dignity and personal security are important but not represented by the GDI" (HDR 1995).

The chosen variables may not again be the most appropriate for all situations and countries. Adult literacy which is a component of the education index is defined for the purposes of the Indian census as mere ability to write or sign one's name. To consider this as a proxy for educational attainment would lead to overestimating of human wellbeing. When this is coupled with gross enrolment ratios, which are widely believed to be inflated, we may arrive at a higher figure than warranted. The use of life expectancy at birth to capture health status could also be an oversimplification of the issues affecting the quality of life. Indicators selected to assess the degree of empowerment of women at the international level have been widely criticised in India as inadequate and inapplicable to our developmental context. There is a structural problem too about constructing the GDI on the indicator of life expectancy at birth when biologically women are expected to live longer than men. As for per capita income, the debate about unpaid work within the family or on a voluntary basis continues. As long as there is no general consensus internationally about the methodology of accounting for such activities in national income analysis, gaps in understanding human development will continue.

A valid item of criticism of the HDI relates to interlinkages among the three variables. A simple aggregative index ignores the complex relationships between income, educational attainment and health. It also sidesteps the thorny issue of the weights to be given to each item. This does not however totally negate the usefulness of highlighting divergences between economic growth and human development. Indices also have a certain value only in relation to one another. Differentials in attainment need to be significant to make an impact on the value of the index. Where the levels of most states fluctuate within a narrow range, comparisons and rankings have little value. To a certain extent, the choice of the maximum and minimum levels is also

subjective and this can colour conclusions drawn from the indices.

We must remember constantly that the index itself could easily mask a host of complexities. Two states which have the same index level may have arrived there for quite different reasons. As the index gives equal weight to health, education and income, we may find a state with good income levels but poorer quality health and educational attainment ranked side by side with another with low income levels and better health and educational facilities. Eventually, the facts behind the index must be explored when specific policies are framed to improve the wellbeing of people. Despite these limitations, the HDI and GDI approaches are of immense value in identifying specific areas of development to be tackled by policymakers. They help to compare the attainments of different regions and provide a better understanding of the factors that contribute to human development. In the ultimate analysis, they voice the aspirations of the weak which might otherwise remain unheard.

**HDI using Sen's welfare index**

It has been argued with justification, that per capita income used as a measure without adjustment for inequality cannot properly reflect the wellbeing of a country. Therefore an attempt has been made to compute HDIs districtwise for 1991 using Sen's welfare index in lieu of the income index. Sen's welfare index uses per capita income adjusted for income inequality calculated by the formula  $W \cdot \mu (1 - p)$  where  $W$  is Sen's welfare index,  $\mu$  is per capita income and  $p$  is the Gini co-efficient which measures income inequality. The HDI has been computed districtwise using the same three variables - life expectancy at birth, adult literacy combined with the enrolment ratio and per capita GDP. However, per capita GDP has also been substituted by Sen's welfare index in a separate calculation. Sen's welfare index, and the Gini co-efficient have been worked out using district estimates of per capita GDP for 1990-91 and pooled NSS data from state and Central samples (50th Round 1993-94) relating to consumer expenditure. Gini co-efficients worked out for expenditure data have been used as



proxies to measure income inequality due to nonavailability of data regarding income distribution. NSS data on consumption for 1993-94 have also been used along with data on per capita income 1990-91 since data on consumption is not available for 1990-91. It is assumed that there is no variation in inequalities in expenditure between 1993-94 and 1990-91.

HDI's computed for the districts of Karnataka for 1990-91 in this manner show that the ten districts of Bangalore urban and Bangalore rural, Belgaum, Chikmagalur, Chitradurga, Dakshina Kannada, Hassan, Kodagu, Shimoga and Uttara Kannada have HDI's above the state level. Nine districts (the same districts as above except Chitradurga) have HDI's above the state HDI calculated on GDP. In the GDP based index, Chitradurga crosses the state average marginally. On comparing ranks of districts under the two approaches we find no differences in the ranks of fifteen districts. Only three districts - Belgaum, Bijapur and Kolar - show an improved ranking of one point and two districts - Chitradurga and Mandya - a fall in rank by one point

### Expenditure on social sectors-an interstate comparison

The priority accorded by a government to social development can be gauged to some extent from the proportion of public expenditure set aside for such sectors. A series of public expenditure ratios have been generated by the UNDP for this purpose.

First of all, there is the ratio of public expenditure to a state's domestic product. This is a broad indicator of the extent of state intervention in economic life and is a function of the prevalent philosophy of the role of the state. We have slightly modified this ratio originally used by the UNDP in its 1991 report and considered the ratio of revenue expenditure of a state to its domestic product. Among the Indian provinces, public intervention in the economy as measured by this yardstick is high in the states of Assam, Bihar, Kerala, Orissa, Rajasthan and Tamilnadu. Karnataka is closer to the other end of the spectrum, higher than Andhra Pradesh, Haryana, Punjab, Gujarat, Maharashtra

**Table 2.4**  
**Comparison of HDIs based on Sen's Welfare Index and GDP 1990 - 91**

| District        | HDI based on        |      |              |      |
|-----------------|---------------------|------|--------------|------|
|                 | Sen's Welfare Index |      | GDP          |      |
|                 | Value               | Rank | Value        | Rank |
| Bangalore       | 0.565               | 2    | 0.601        | 2    |
| Bangalore Rural | 0.457               | 8    | 0.472        | 8    |
| Belgaum         | 0.454               | 9    | 0.471        | 10   |
| Bellary         | 0.410               | 17   | 0.429        | 17   |
| Bidar           | 0.402               | 18   | 0.414        | 18   |
| Bijapur         | 0.430               | 13   | 0.443        | 14   |
| Chikmagalur     | 0.503               | 5    | 0.524        | 5    |
| Chitradurga     | 0.447               | 10   | 0.471        | 9    |
| Dakshin Kannada | 0.565               | 3    | 0.592        | 3    |
| Dharwad         | 0.444               | 11   | 0.459        | 11   |
| Gulbarga        | 0.387               | 19   | 0.401        | 19   |
| Hassan          | 0.460               | 7    | 0.473        | 7    |
| Kodagu          | 0.584               | 1    | 0.630        | 1    |
| Kolar           | 0.430               | 14   | 0.443        | 15   |
| Mandya          | 0.428               | 15   | 0.444        | 13   |
| Mysore          | 0.426               | 16   | 0.440        | 16   |
| Raichur         | 0.372               | 20   | 0.383        | 20   |
| Shimoga         | 0.467               | 6    | 0.486        | 6    |
| Tumkur          | 0.440               | 12   | 0.456        | 12   |
| Uttara Kannada  | 0.513               | 4    | 0.533        | 4    |
| <b>STATE</b>    | <b>0.449</b>        |      | <b>0.470</b> |      |

**Table 2.5**  
**Statewise human development expenditure ratios**

| State            | PER          |              | SAR          |              | SPR          |              |
|------------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                  | 1988-91      | 1991-94      | 1988-91      | 1991-94      | 1988-91      | 1991-94      |
| Andhra-Pradesh   | 18.39        | 17.34        | 39.31        | 37.10        | 47.26        | 46.29        |
| Assam            | 21.65        | 21.90        | 41.23        | 42.03        | 44.81        | 45.85        |
| Bihar            | 19.86        | 22.80        | 40.35        | 34.70        | 48.14        | 45.95        |
| Gujarat          | 17.13        | 18.68        | 38.77        | 33.93        | 44.56        | 38.64        |
| Haryana          | 16.37        | 16.68        | 35.76        | 29.78        | 39.38        | 32.07        |
| <b>Karnataka</b> | <b>19.34</b> | <b>18.74</b> | <b>39.43</b> | <b>37.92</b> | <b>44.55</b> | <b>44.08</b> |
| Kerala           | 22.43        | 21.85        | 46.28        | 40.92        | 50.15        | 44.56        |
| Madhya-Pradesh   | 18.22        | 19.59        | 39.99        | 37.21        | 46.36        | 44.56        |
| Maharashtra      | 15.83        | 14.52        | 35.81        | 35.59        | 41.55        | 44.37        |
| Orissa           | 20.15        | 22.18        | 39.72        | 38.84        | 47.50        | 46.94        |
| Punjab           | 14.45        | 16.46        | 41.10        | 26.86        | 42.58        | 27.59        |
| Rajasthan        | 19.44        | 22.17        | 40.81        | 37.93        | 47.87        | 43.29        |
| Tamil Nadu       | 19.49        | 22.34        | 43.22        | 37.06        | 48.16        | 41.23        |
| Uttar-Pradesh    | 18.35        | 19.23        | 36.24        | 31.74        | 44.72        | 39.76        |
| West Bengal      | 14.93        | 14.68        | 43.57        | 40.31        | 50.57        | 46.96        |

*N. B: PER: Public Expenditure Ratio - revenue expenditure as % of SDP  
SAR: Social Allocation Ratio - revenue expenditure on social services as % of total revenue expenditure*

*SPR: Social Priority Ratio - the UNDP definition in the 1991 HDR has been slightly modified to add sectors- like rural development.*

*Source: Computations made by Seeta Prabhu based on data from RBI Bulletins and state budget documents in Poverty and Human Development in India (India Country Report) UNDP (1998).*

and even West Bengal but lower than Madhya Pradesh and Uttar Pradesh. On the whole, the poorer and more backward states show a greater level of public expenditure as a proportion of the domestic product than the economically advanced ones, (due more perhaps to a lower level of state domestic product than a higher level of public expenditure). Kerala and Tamilnadu alone are exceptions to the general trend.

Within the overall context of public expenditures, it is necessary to calculate the social allocation ratio which captures the proportion of the state's revenue budget that is allocated to social sectors. For the country, social sectors have been taken as covering the areas of education, health, labour, social security and welfare and housing. Public provision of education, health and nutrition has been considered vital for socioeconomic development in all the Indian five year plans. A special thrust was given to these areas in the eighth plan period. During this period, expenditure on social sectors by the central and state governments was around 6.4% of the GDP. Education accounted for 3.3%, health for 1.45% and other areas for 1.65%. Social allocation ratios differ among the major states depending upon the priority given to these areas. In 1991-94, Assam, West Bengal and Kerala had social allocation ratios higher than 40% which is the desirable level determined in the 1991 report of the UNDP and Karnataka was not far behind at almost 38%. It is significant that the lowest social allocation ratios were in the richer states of Punjab and Haryana.

We may further refine our analysis by looking at the proportions of social sector expenditures that are devoted to priority concerns. The social priority ratio measures the share of primary education, basic health care (including family

welfare), water supply, sanitation, nutrition, special rural development programs and rural employment schemes in the social sector budget. This variable assesses whether expenditure in social sectors is actually, targeted to the really needy or whether it is cornered by the better off sections of society. Several states had social priority ratios above 40% in 1991-94-Andhra, Assam, Bihar, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamilnadu and West Bengal. The ratio is however only around 28% in Punjab and 32% in Haryana - the two states with the highest per capita income levels in the country.

Karnataka's revenue expenditure as a percentage of its domestic product is below 20% and almost 38% of this amount has been earmarked for important social sectors. If expenditure on rural development is also taken into account the state is spending around 44% of its revenue expenditure on priority areas. What is disturbing, however are the wide ranging disparities in the HDI and the GDI among the different districts and regions. While a district like Kodagu or Dakshina Kannada ranks between 100 and 110 in HDI and between 65 and 70 in GDI at the international level, a district like Raichur is as low as 142 in HDI and 101 in GDI. These rankings have serious implications for policymakers in the state while formulating strategies and allocating resources.

In this context, divergences between HDI rankings and rankings in per capita SDP are extremely significant. Districts with better income levels are clearly unable to translate improvements in domestic product into greater welfare for their people. Reasons for this state of affairs must be identified and tackled and appropriate interventions made at the sectoral level in each area.

**Selected data for 27 districts of Karnataka****Area & Population**

| District         | Area<br>(sq.<br>Kms) | Population      |                 |                 | Density    | S.C.s          | S.T.s          | % of<br>S.C.s | S.T.s      | Sex<br>ratio |
|------------------|----------------------|-----------------|-----------------|-----------------|------------|----------------|----------------|---------------|------------|--------------|
|                  |                      | Total           | Male            | Female          |            |                |                |               |            |              |
| Bagalkot         | 6594                 | 1394542         | 703762          | 690780          | 211        | 218349         | 22175          | 15.7          | 1.6        | 982          |
| Bangalore        | 2190                 | 4839162         | 2542950         | 2296212         | 2210       | 711775         | 53631          | 14.7          | 1.1        | 903          |
| Bangalore (R)    | 5815                 | 1673194         | 860231          | 812963          | 288        | 326599         | 49305          | 19.5          | 2.9        | 945          |
| Belgaum          | 13415                | 3583606         | 1834005         | 1749601         | 267        | 406955         | 83076          | 11.4          | 2.3        | 954          |
| Bellary          | 5719                 | 1656000         | 842300          | 813700          | 197        | 311252         | 147869         | 18.8          | 8.9        | 966          |
| Bidar            | 5448                 | 1255798         | 643191          | 612607          | 231        | 260033         | 104215         | 20.7          | 8.3        | 952          |
| Bijapur          | 10475                | 1533448         | 787257          | 746191          | 146        | 291513         | 17360          | 19.0          | 1.1        | 948          |
| Chikmaglur       | 7201                 | 1017283         | 514526          | 502757          | 141        | 195852         | 26534          | 19.3          | 2.6        | 977          |
| Chitradurga      | 8388                 | 1312717         | 672849          | 639868          | 156        | 285621         | 222763         | 21.8          | 17         | 951          |
| Chamrajnagar     | 5685                 | 883365          | 452333          | 431032          | 156        | 206141         | 38703          | 23.3          | 4.4        | 953          |
| Davangere        | 6018                 | 1559222         | 803083          | 756139          | 259        | 302344         | 155600         | 19.4          | 10         | 942          |
| Dharwad          | 4230                 | 1374895         | 710671          | 664224          | 325        | 124645         | 23396          | 9.1           | 1.7        | 935          |
| D. Kannada       | 4843                 | 1633392         | 808820          | 824572          | 337        | 114272         | 64493          | 7.0           | 3.9        | 1019         |
| Gadag            | 4657                 | 859042          | 436321          | 422721          | 184        | 118850         | 20534          | 13.8          | 2.4        | 969          |
| Gulbarga         | 16224                | 2582169         | 1316088         | 1266081         | 159        | 610641         | 106935         | 23.6          | 4.1        | 962          |
| Hasan            | 6814                 | 1569684         | 785144          | 784540          | 230        | 273379         | 16581          | 17.4          | 1.1        | 999          |
| Haveri           | 4851                 | 1269213         | 655426          | 613787          | 262        | 167004         | 61169          | 13.2          | 4.8        | 936          |
| Kodagu           | 4102                 | 488455          | 246869          | 241586          | 119        | 59009          | 40312          | 12.1          | 8.3        | 979          |
| Kolar            | 8223                 | 2216889         | 1128316         | 1088573         | 270        | 570400         | 153019         | 25.7          | 6.9        | 965          |
| Koppal           | 8458                 | 958078          | 483701          | 474377          | 113        | 148775         | 59828          | 15.5          | 6.2        | 981          |
| Mandya           | 4961                 | 1644374         | 837597          | 806777          | 331        | 226626         | 11936          | 13.8          | 0.7        | 963          |
| Mysore           | 6269                 | 2281653         | 1168291         | 1113362         | 364        | 391780         | 63399          | 17.2          | 2.8        | 953          |
| Raichur          | 5559                 | 1351809         | 683258          | 668551          | 243        | 249148         | 120444         | 18.4          | 8.9        | 978          |
| Shimoga          | 8465                 | 1452259         | 739561          | 712698          | 172        | 236526         | 32948          | 16.3          | 2.3        | 964          |
| Tumkur           | 10598                | 2305819         | 1177233         | 1128586         | 218        | 408524         | 167632         | 17.7          | 7.3        | 959          |
| Udupi            | 3598                 | 1060872         | 497436          | 563436          | 295        | 61276          | 41666          | 5.8           | 3.9        | 1133         |
| U. Kannada       | 10291                | 1220260         | 620697          | 599563          | 119        | 91990          | 10168          | 7.5           | 0.8        | 966          |
| <b>KARNATAKA</b> | <b>191791</b>        | <b>44977200</b> | <b>22951916</b> | <b>22025284</b> | <b>235</b> | <b>7369279</b> | <b>1915691</b> | <b>16.4</b>   | <b>4.3</b> | <b>960</b>   |

*Source: Census 1991**Note: D.Kannada - Dakshina Kannada, U.Kannada - Uttara Kannada*

## Selected data for 27 districts of Karnataka

### Literacy

| District         | Literates       |                 |                | Literacy rate |             |             |
|------------------|-----------------|-----------------|----------------|---------------|-------------|-------------|
|                  | Total           | Male            | Female         | Total         | Male        | Female      |
| Bagalkot         | 60489           | 392888          | 215601         | 53.7          | 68.9        | 38.3        |
| Bangalore        | 3161701         | 1814197         | 1347504        | 76.3          | 82.9        | 68.8        |
| Bangalore (R)    | 708577          | 447103          | 261474         | 50.2          | 61.5        | 38.2        |
| Belgaum          | 1571044         | 1011113         | 559931         | 53.0          | 66.6        | 38.7        |
| Bellary          | 612887          | 401043          | 211844         | 45.9          | 59.1        | 32.2        |
| Bidar            | 451060          | 302345          | 148715         | 45.1          | 59.0        | 30.5        |
| Bijapur          | 699185          | 447980          | 251205         | 56.5          | 70.4        | 41.7        |
| Chikmaglur       | 531164          | 310520          | 220644         | 61.0          | 70.6        | 51.3        |
| Chitradurga      | 572907          | 369925          | 209982         | 52.3          | 64.5        | 39.4        |
| Chamrajnagar     | 286946          | 182157          | 104789         | 38.2          | 47.3        | 28.6        |
| Davangere        | 722973          | 445130          | 277843         | 56.0          | 66.8        | 44.4        |
| Dharwad          | 720529          | 441181          | 279348         | 62.7          | 74.2        | 50.4        |
| D. Kannada       | 1074130         | 585586          | 488544         | 76.7          | 84.8        | 68.7        |
| Gadag            | 394758          | 256610          | 138148         | 55.9          | 71.6        | 39.7        |
| Gulbarga         | 791628          | 544949          | 246679         | 38.5          | 52.1        | 24.5        |
| Hasan            | 756948          | 457334          | 299614         | 56.9          | 68.9        | 44.9        |
| Haveri           | 583744          | 366405          | 217339         | 56.1          | 68.0        | 43.3        |
| Kodagu           | 285280          | 158656          | 126624         | 68.3          | 75.4        | 61.2        |
| Kolar            | 938777          | 594076          | 344701         | 50.5          | 62.7        | 37.8        |
| Koppal           | 290796          | 204763          | 86033          | 38.2          | 53.5        | 22.8        |
| Mandya           | 675502          | 422781          | 252721         | 48.1          | 59.2        | 36.7        |
| Mysore           | 980202          | 589759          | 390443         | 50.9          | 59.7        | 41.6        |
| Raichur          | 369657          | 253958          | 115699         | 34.3          | 46.7        | 21.7        |
| Shimoga          | 787147          | 458722          | 328425         | 63.9          | 73.1        | 54.3        |
| Tumkur           | 1065934         | 664855          | 401079         | 54.5          | 66.5        | 41.9        |
| Udupi            | 681989          | 353939          | 328050         | 74.6          | 83.7        | 66.8        |
| U. Kannada       | 689278          | 400962          | 288586         | 66.7          | 76.4        | 56.8        |
| <b>KARNATAKA</b> | <b>21013232</b> | <b>12871667</b> | <b>8141565</b> | <b>56.0</b>   | <b>67.3</b> | <b>44.3</b> |

Note: D.Kannada - Dakshina Kannada, U.Kannada - Uttara Kannada

| Selected data for 27 districts of Karnataka |              |          |         |                  |        |         |                                          |      |        |                                              |      |        |
|---------------------------------------------|--------------|----------|---------|------------------|--------|---------|------------------------------------------|------|--------|----------------------------------------------|------|--------|
| Employment                                  |              |          |         |                  |        |         |                                          |      |        |                                              |      |        |
|                                             | Main workers |          |         | Marginal workers |        |         | Proportion of main workers to population |      |        | Proportion of marginal workers to population |      |        |
| District                                    | total        | male     | female  | total            | male   | female  | total                                    | male | female | total                                        | male | female |
| Bagalkote                                   | 533411       | 362800   | 170611  | 54258            | 2933   | 51325   | 38.2                                     | 51.6 | 24.7   | 3.9                                          | 0.4  | 7.4    |
| Bangalore                                   | 1635987      | 1349655  | 286332  | 22311            | 5386   | 16925   | 33.8                                     | 53.1 | 12.5   | 0.5                                          | 0.2  | 0.7    |
| Bangalore(R)                                | 623043       | 477616   | 145427  | 96513            | 4599   | 91914   | 37.2                                     | 55.5 | 17.9   | 5.8                                          | 0.5  | 11.3   |
| Belgaum                                     | 1340802      | 987792   | 353010  | 176924           | 10114  | 166810  | 37.4                                     | 53.9 | 20.2   | 4.9                                          | 0.6  | 9.5    |
| Bellary                                     | 708299       | 447681   | 260618  | 32442            | 4198   | 28244   | 42.8                                     | 53.1 | 32.0   | 2.0                                          | 0.5  | 3.5    |
| Bidar                                       | 466610       | 312809   | 153801  | 34033            | 1217   | 32816   | 37.2                                     | 48.6 | 25.1   | 2.7                                          | 0.2  | 5.4    |
| Bijapur                                     | 576877       | 389875   | 187002  | 54609            | 3112   | 51497   | 37.6                                     | 49.5 | 25.1   | 3.6                                          | 0.4  | 6.9    |
| Chikmagalur                                 | 412276       | 291962   | 120314  | 45182            | 4081   | 41101   | 40.5                                     | 56.7 | 23.9   | 4.4                                          | 0.8  | 8.2    |
| Chitradurga                                 | 518820       | 361218   | 157602  | 68442            | 4884   | 63558   | 39.5                                     | 53.7 | 24.6   | 5.2                                          | 0.7  | 9.9    |
| Chamarajanagar                              | 360819       | 268334   | 92485   | 26672            | 1486   | 25186   | 40.8                                     | 59.3 | 21.5   | 3.0                                          | 0.3  | 5.8    |
| Davanagere                                  | 605296       | 428641   | 176655  | 57310            | 5267   | 52043   | 38.8                                     | 53.4 | 23.4   | 3.7                                          | 0.7  | 6.9    |
| Dharwad                                     | 499583       | 366941   | 132642  | 36904            | 3768   | 33136   | 36.3                                     | 51.6 | 20.0   | 2.7                                          | 0.5  | 5.0    |
| D.Kannada                                   | 708097       | 422910   | 285187  | 32385            | 6740   | 25645   | 43.4                                     | 52.3 | 34.6   | 2.0                                          | 0.8  | 3.1    |
| Gadag                                       | 349477       | 228914   | 120563  | 35415            | 2687   | 32728   | 40.7                                     | 52.5 | 28.5   | 4.1                                          | 0.6  | 7.7    |
| Gulbarga                                    | 1039922      | 670426   | 369496  | 72269            | 3677   | 68592   | 40.3                                     | 50.9 | 29.2   | 2.8                                          | 0.3  | 5.4    |
| Hassan                                      | 589529       | 434318   | 155211  | 105108           | 6375   | 98733   | 37.6                                     | 55.3 | 19.8   | 6.7                                          | 0.8  | 12.6   |
| Kaveri                                      | 500882       | 356069   | 144813  | 53802            | 4364   | 49438   | 39.5                                     | 54.3 | 23.6   | 4.2                                          | 0.7  | 8.1    |
| Kodagu                                      | 220248       | 143463   | 76785   | 9888             | 1475   | 8413    | 45.1                                     | 58.1 | 31.8   | 2.0                                          | 0.6  | 3.5    |
| Kolar                                       | 881514       | 613841   | 267673  | 81070            | 7279   | 73791   | 39.8                                     | 54.4 | 24.6   | 3.7                                          | 0.6  | 6.8    |
| Koppal                                      | 415466       | 260472   | 154994  | 28614            | 1131   | 27483   | 43.4                                     | 53.8 | 32.7   | 3.0                                          | 0.2  | 5.8    |
| Mandya                                      | 635593       | 475785   | 159808  | 96170            | 5644   | 90526   | 38.7                                     | 56.8 | 19.8   | 5.8                                          | 0.7  | 11.2   |
| Mysore                                      | 822406       | 648275   | 174131  | 62382            | 4932   | 57450   | 36.0                                     | 55.5 | 15.6   | 2.7                                          | 0.4  | 5.2    |
| Raichur                                     | 555529       | 362664   | 192865  | 26675            | 1479   | 25196   | 41.1                                     | 53.1 | 28.8   | 2.0                                          | 0.2  | 3.8    |
| Shimoga                                     | 542419       | 404062   | 138357  | 39335            | 3788   | 35547   | 37.4                                     | 54.6 | 19.4   | 2.7                                          | 0.5  | 5.0    |
| Tumkur                                      | 916196       | 650667   | 265529  | 183394           | 19354  | 164040  | 39.7                                     | 55.3 | 23.5   | 8.0                                          | 1.6  | 14.5   |
| Udupi                                       | 404352       | 242799   | 161553  | 18080            | 2903   | 15177   | 38.1                                     | 48.8 | 28.7   | 1.7                                          | 0.6  | 2.7    |
| U.Kannada                                   | 428663       | 325350   | 103313  | 44494            | 5769   | 38725   | 35.1                                     | 52.4 | 17.2   | 3.6                                          | 0.9  | 6.5    |
| KARNATAKA                                   | 17292116     | 12285339 | 5006777 | 1594681          | 128642 | 1466039 | 38.4                                     | 53.5 | 22.7   | 3.5                                          | 0.6  | 6.7    |

Source: Census 1991

Note: D.Kannada - Dakshina Kannada, U.Kannada - Uttara Kannada



**Selected data for 27 districts of Karnataka**

**Economic activities**

**Proportion of people engaged in economic activity to total workers**

| District      | cultivat<br>ors | agri.<br>labour<br>ers | livestoc<br>k &<br>allied | mining<br>&<br>quarry<br>ing | manu.<br>in.<br>house<br>holds | manu. in<br>other<br>than<br>h.holds | const.<br>work<br>ers | trade &<br>comme<br>rce | Trans<br>port &<br>commun | other<br>serv-<br>ices |
|---------------|-----------------|------------------------|---------------------------|------------------------------|--------------------------------|--------------------------------------|-----------------------|-------------------------|---------------------------|------------------------|
| Bagalkote     | 31.4            | 39.0                   | 1.7                       | 0.4                          | 4.6                            | 7.3                                  | 1.5                   | 6.2                     | 1.5                       | 6.3                    |
| Bangalore     | 5.9             | 4.6                    | 1.0                       | 0.8                          | 1.3                            | 30.1                                 | 8.1                   | 19.6                    | 7.6                       | 21.0                   |
| Bangalore(R)  | 49.7            | 21.3                   | 3.1                       | 0.6                          | 2.9                            | 8.0                                  | 1.2                   | 5.5                     | 1.5                       | 6.2                    |
| Belgaum       | 40.7            | 29.5                   | 1.6                       | 0.1                          | 3.1                            | 6.6                                  | 2.2                   | 6.4                     | 2.1                       | 7.7                    |
| Bellary       | 32.1            | 40.9                   | 1.2                       | 2.2                          | 1.4                            | 4.3                                  | 1.8                   | 6.8                     | 2.6                       | 6.6                    |
| Bidar         | 29.5            | 45.6                   | 1.1                       | 0.5                          | 1.4                            | 3.0                                  | 1.5                   | 6.2                     | 2.7                       | 8.6                    |
| Bijapur       | 31.6            | 47.0                   | 1.7                       | 0.2                          | 1.9                            | 2.2                                  | 1.7                   | 5.4                     | 1.8                       | 6.6                    |
| Chikmagalur   | 35.9            | 24.7                   | 17.5                      | 0.8                          | 1.0                            | 2.9                                  | 1.7                   | 6.0                     | 1.5                       | 8.0                    |
| Chitradurg    | 42.2            | 32.5                   | 3.1                       | 0.6                          | 2.5                            | 3.1                                  | 1.6                   | 6.1                     | 1.4                       | 6.9                    |
| Chamarajanaga | 34.7            | 40.3                   | 4.6                       | 1.0                          | 2.2                            | 4.9                                  | 1.0                   | 5.4                     | 1.0                       | 4.9                    |
| Āavanagere    | 35.0            | 37.0                   | 1.2                       | 0.3                          | 1.6                            | 6.6                                  | 2.0                   | 7.9                     | 1.7                       | 6.7                    |
| Dharwad       | 27.5            | 30.4                   | 1.1                       | 0.2                          | 1.9                            | 10.0                                 | 3.1                   | 11.0                    | 4.9                       | 9.9                    |
| D.Kannada     | 14.1            | 12.6                   | 8.0                       | 0.4                          | 0.8                            | 34.9                                 | 3.4                   | 10.3                    | 4.6                       | 10.9                   |
| Gadag         | 29.8            | 42.3                   | 1.6                       | 0.2                          | 3.1                            | 5.7                                  | 1.5                   | 7.1                     | 2.1                       | 6.5                    |
| Gulbarga      | 30.4            | 44.3                   | 2.3                       | 1.4                          | 1.6                            | 3.2                                  | 1.7                   | 5.6                     | 1.8                       | 7.5                    |
| Hassan        | 57.0            | 14.4                   | 7.4                       | 0.5                          | 0.9                            | 3.0                                  | 1.6                   | 5.8                     | 2.1                       | 7.3                    |
| Kaveri        | 32.7            | 45.5                   | 1.4                       | 0.2                          | 2.2                            | 3.8                                  | 1.2                   | 6.5                     | 1.4                       | 5.2                    |
| Kodagu        | 19.9            | 15.1                   | 38.9                      | 0.4                          | 0.6                            | 3.4                                  | 2.1                   | 6.6                     | 2.1                       | 11.0                   |
| Kolar         | 46.7            | 26.0                   | 3.4                       | 1.6                          | 1.3                            | 5.5                                  | 1.4                   | 6.0                     | 1.8                       | 6.3                    |
| Koppal        | 34.3            | 46.4                   | 1.2                       | 0.4                          | 2.6                            | 2.4                                  | 0.7                   | 5.0                     | 1.1                       | 6.0                    |
| Mandya        | 53.2            | 25.0                   | 2.6                       | 0.5                          | 1.1                            | 3.4                                  | 1.6                   | 5.3                     | 1.2                       | 6.1                    |
| Mysore        | 39.2            | 22.9                   | 2.5                       | 0.3                          | 1.4                            | 8.6                                  | 3.2                   | 9.1                     | 3.1                       | 9.7                    |
| Raichur       | 31.6            | 47.6                   | 1.2                       | 1.0                          | 1.1                            | 1.4                                  | 0.9                   | 4.8                     | 1.2                       | 9.3                    |
| Shimoga       | 35.1            | 33.2                   | 2.3                       | 0.5                          | 1.7                            | 6.5                                  | 2.2                   | 8.1                     | 2.3                       | 8.2                    |
| Tumkur        | 54.6            | 21.2                   | 2.2                       | 0.4                          | 2.6                            | 4.2                                  | 1.4                   | 5.3                     | 1.5                       | 6.5                    |
| Udupi         | 29.5            | 22.2                   | 4.5                       | 0.5                          | 1.6                            | 16.3                                 | 2.7                   | 10.7                    | 2.6                       | 9.4                    |
| U.Kannada     | 33.0            | 19.2                   | 13.3                      | 1.2                          | 1.9                            | 5.8                                  | 3.2                   | 8.9                     | 2.9                       | 10.6                   |
| KARNATAKA     | 34.2            | 28.9                   | 3.6                       | 0.7                          | 1.9                            | 8.8                                  | 2.5                   | 8.0                     | 2.6                       | 8.8                    |

Source: Census 1991

Note: D.Kannada - Dakshina Kannada, U.Kannada - Uttara Kannada



# Health, nutrition and family welfare in Karnataka

## Towards health for all

### A brief overview

Adequate health infrastructure is both a cause and consequence of development. The health status of the people of Karnataka has improved considerably over the last several decades.

- Life expectancy at birth (LEB) has increased from 60.6 years in 1983 to 62.5 years in 1993, though there are variations across districts; the life expectancy at birth for males is 60.6 years and that for females 63.9 years.
- The crude death rate has declined from 19 per 1000 in 1951-61 to 7.6 per 1000 in 1997, although Bidar, Bijapur, Dharwar and Gulbarga still have crude death rates greater than 10 per 1000.
- The infant mortality rate, widely recognised as a sensitive indicator of both socio-economic development and access to health services, has declined from 81 per 1000 in 1981 to 53 per 1000 in 1997.
- Sample Registration Scheme figures for Karnataka indicate a crude birth rate of 22.7 and a crude death rate of 7.6 in 1997.
- The maternal mortality rate of 450 per 100,000 live births in 1992 was still high, when the national average was 453; significantly, neighbouring Tamil Nadu had a maternal mortality rate of 376 at the same time\*
- Under-five mortality rate was 87 for Karnataka+
- The National Family Health Survey (1992-93) showed that mothers received antenatal care in the case of 84% of the births in the four years preceding the survey, though mothers in rural areas were less likely to visit an allopathic doctor

• UNICEF-Progress of States 1995

• NFHS 1992-93

for antenatal care; but only 45% of the children born to non-literate mothers received antenatal care from allopathic doctor compared to 88% in the case of those who had completed middle school.

- While only 38% of live births were delivered in health institutions, one half of the deliveries were attended by doctors or nurses and midwives; 22% of births were delivered with the assistance of traditional birth attendants.
- Nearly a quarter of all mothers did not receive a single dose of tetanus toxoid; three-fourths of births were to mothers who had received iron and folic acid tablets.
- While knowledge about contraception is nearly universal, this remains mostly limited to female sterilization, with 41% of currently married women being sterilized.
- The survey also showed that while vaccination of children is fairly good for BCG, DPT and polio, measles coverage continues to be low. With immunization coverage at 52%, a tremendous effort is required, with provision of the measles vaccine, to increase the overall coverage.
- Childhood diarrhoea is another area of concern; nearly 60% of children with diarrhoea are not given ORS, nor the recommended home solution, nor even increased fluids.
- Further, the survey showed that the nutritional status of children is not happy. 54% of the children under four are underweight and 48% stunted and wasting is prevalent among 17%.

While the prevalence of leprosy has declined considerably in the last few years from 4.08 in 1985-86 to 0.36 in 1996-97, HIV is emerging as a public health problem, with several dimensions which

*Health indicators have improved considerably with IMR down to 51 per 1000 and the crude birth rate dropping to less than 23*

are not yet fully understood. Official surveillance centres have detected 3265 HIV positive cases and 120 AIDS cases. There have been 65 deaths due to AIDS. Apart from the fact that existing data does not really capture the full dimensions of the AIDS and HIV issue, other aspects of surveillance, counselling, etc. also need attention.

•Present GOI norms for rural areas envisage a Community Health Centre per 100,000 population, a Primary Health Centre per 30,000 population (20,000 in tribal and hilly areas) and a sub-centre per 5000 population (3000 in tribal and hilly areas). There are no comparable norms for urban areas. The number of government medical institutions per lakh population in the state was 5.29 in 1960-61; this fell to 4.92 in 1970-71 and 5.13 in 1996-97. The number of PHCs per lakh population has grown from 0.81 in 1960-61 to 4.64 in 1996-97 and the number of subcentres per lakh population from 13 in 1980-81 to 24 in 1996-97. The number of beds per lakh population has increased from 58 in 1960-61 to 86 in 1996-97.

Nevertheless, there is considerable variation in the distribution of beds across

the primary, secondary and tertiary levels and variations across districts, with Raichur at the lowest position of 43 and Kodagu at the top with 253 (the figure for Bangalore Urban is 144). The ratio of beds between the government and private sectors is 52 :48 against the Planning Commission norm of 67:33. Variation in beds per thousand population is much higher at the taluka level than at the district headquarters.

### Selected indicators of health: where does Karnataka stand?

The principal measures of health status include life expectancy at birth, the infant mortality rate (IMR), the crude death rate (CDR) and the crude birth rate (CBR). Life expectancy at birth is the measure which is most often used and the most easily understood. Between 1951 and 1960, life expectancy at birth in Karnataka was 41 years for men and 39 years for women—two years greater for men than for women. Between 1971 and 1980, however, life expectancy for women surpassed that for men; it was 56 years for women and 55.5 years for men. It is expected that between 1996 and 2001, life expectancy will rise to about 67 years for women and 66 years for men; still below the ICPD goal of a life expectancy at birth greater than 70 years by 2005.

At the national level, life expectancy at birth was 41 years for men and 40 years for women between 1951 and 1960 and 51 years for men and 50 years for women between 1971 and 1980; it is expected to become 63 years for men and 64 years for women between 1996 and 2001. Comparing life expectancies for men and women in Karnataka with those for the country, it is clear that between 1951 and 1960, the LEB for men in Karnataka was aligned to the national rate; for women however it was greater by one year at the national level than in Karnataka. Between 1971 and 1980, life expectancy was greater by 4.5 years and 6 years for men and women respectively in Karnataka than for the country. Between 1996 and 2001, it is expected to be greater by 3 years for both men and women in Karnataka than at the national level.

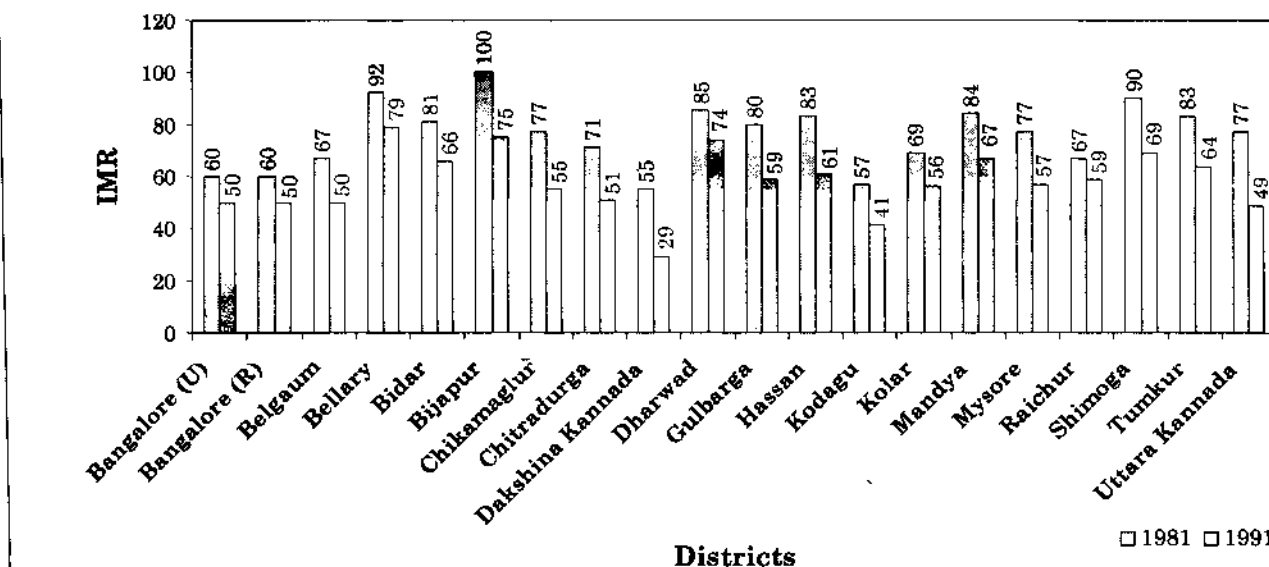
**Table 3.1**

#### Life expectancy at birth in Karnataka by district, 1991

| District         | Males | Females | Total |
|------------------|-------|---------|-------|
| Bangalore Urban  | 65.48 | 66.10   | 65.78 |
| Bangalore Rural  | 64.40 | 69.09   | 66.69 |
| Belgaum          | 64.06 | 66.15   | 65.08 |
| Bellary          | 57.12 | 63.15   | 60.32 |
| Bidar            | 61.23 | 66.38   | 63.74 |
| Bijapur          | 59.33 | 66.38   | 62.76 |
| Chikmagalur      | 62.47 | 66.87   | 64.62 |
| Chitradurga      | 59.49 | 64.47   | 61.92 |
| Dakshina Kannada | 65.34 | 72.49   | 68.82 |
| Dharwad          | 60.13 | 65.56   | 62.78 |
| Gulbarga         | 61.23 | 66.87   | 63.98 |
| Hassan           | 61.02 | 70.00   | 65.40 |
| Kodagu           | 64.41 | 71.87   | 68.04 |
| Kolar            | 58.54 | 67.42   | 62.87 |
| Mandya           | 60.12 | 68.03   | 63.97 |
| Mysore           | 59.02 | 67.71   | 63.25 |
| Raichur          | 61.76 | 69.53   | 65.55 |
| Shimoga          | 59.33 | 65.00   | 62.09 |
| Tumkur           | 58.39 | 63.00   | 60.64 |
| Uttara Kannada   | 64.06 | 70.00   | 66.96 |

Source : Estimated by K.R. Narayana, Deputy Director, Census Operations, Bangalore

**Figure 3.1**  
**Infant mortality rate by district, 1981 & 1991**



Source : Office of the Registrar General of India.

Comparing different districts in terms of life expectancy at birth, in 1981, it is seen that while life expectancy at birth in Karnataka was 57.71 years, the highest life expectancy of 65.53 years was in Dakshina Kannada district and the lowest of 57.09 years in Chitradurga, Dharwad and Gulbarga districts. Mandya and Shimoga districts had LEBs equivalent to the state average of 57.71 years. In 1981, life expectancy was higher than the average in 9 districts, lower in 8 districts and average in 2 districts.

In 1991, life expectancy at birth in Karnataka was 62.07 years; it was 60.6 years for men and 63.61 years for women. Thus, in 1991, not only was life expectancy higher for women than for men; the gap was also wider than before. Dakshina Kannada district registered the highest life expectancy of 68.82 years and Bellary the lowest of 60.32 years - a difference of 8.5 years. The highest life expectancy for men, 65.34 years, was in Dakshina Kannada district and the lowest, 57.12 years, in Bellary district. Life expectancy for men was lower than the state average in 9 out of 20 districts.

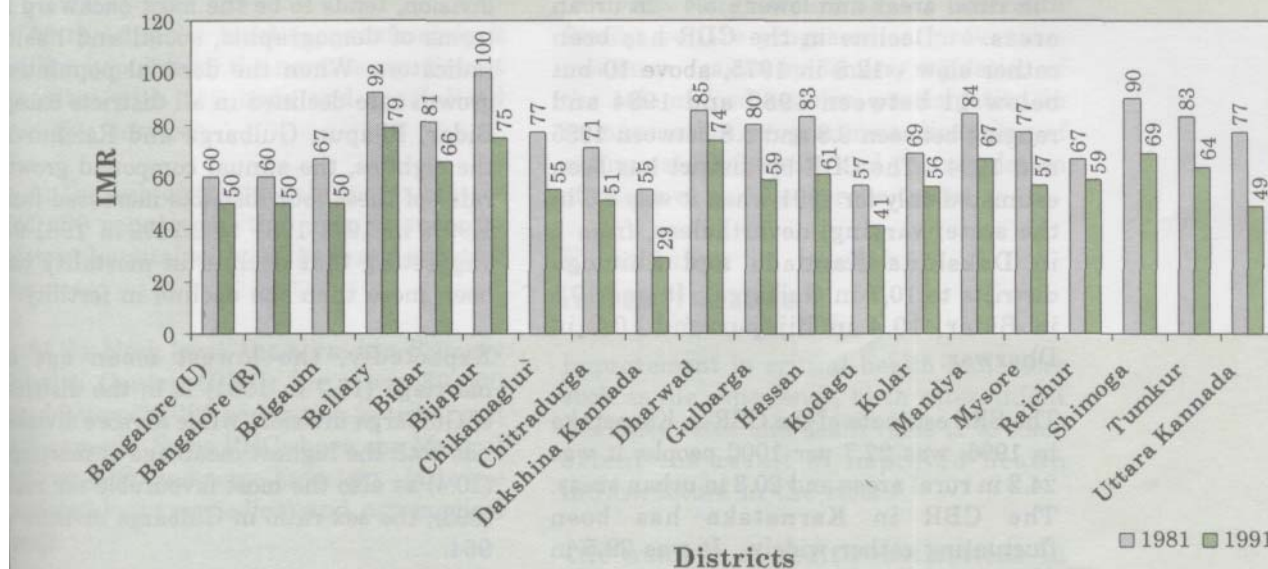
The highest life expectancy for women, 72.49 years, was in Dakshina Kannada district and the lowest, 63 years, in Tumkur district. The next highest is

Kodagu district with a life expectancy of 71.87 years. Close to the lowest life expectancy in Tumkur district was Bellary with a life expectancy of 63.15 years. In all districts, without exception, life expectancies at birth were higher for women than for men but differences between life expectancies for men and women varied from one district to another. The difference in life expectancies for men and women was about 9 years in Kolar and Hassan districts and only 0.62 years in Bangalore (Urban) district.

The Sample Registration Scheme has estimated the Infant Mortality Rate (IMR) in Karnataka as 53 per 1000 live births in 1997; but the estimates of 63 for rural areas and 24 for urban areas reveal the still large rural-urban difference which is typical of the country as a whole. The urban IMR in Karnataka (24) in 1997 was lower than that in all states except Kerala where it was 15. The country level IMR was 71; it was 77 in rural areas and 45 in urban areas.

In 1981, the IMR for the state was 81 but it varied widely from one district to another, ranging from 55 in Dakshina Kannada to 100 in Bijapur. In 1991, the IMR for the state was 74, down by 7 points from the 1981 level. At the district level, it ranged from 29 in Dakshina Kannada to 79 in Bellary.

**Figure 3.1**  
**Infant mortality rate by district, 1981 & 1991**



Source : Office of the Registrar General of India.

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The SRS estimate of the Crude Death Rate (CDR) in Karnataka for 1996 was 7.6 per 1000 population; again, it was higher - 8.6 - in rural areas and lower - 5.4 - in urban areas. Decline in the CDR has been rather slow - 12.5 in 1975, above 10 but below 11 between 1980 and 1984 and ranging between 9.8 and 8.8 between 1985 and 1994. The CDR by district has been estimated only for 1991 when it was 8.5 in the state; varying, nevertheless, from 7 in Dakshina Kannada and Shimoga districts to 10.7 in Gulbarga. It was 10.5 in Bidar, 10.4 in Bijapur and 10.3 in Dharwar.

The SRS estimate of the CBR in Karnataka in 1996, was 22.7 per 1000 people; it was 24.2 in rural areas and 20.3 in urban areas. The CBR in Karnataka has been fluctuating rather widely. It was 29.5 in 1975, 30.9 in 1984 and 1985, 30.1 in 1988 and 26 in 1994. According to the 1991 estimate, the CBR in Karnataka was 26.4; it ranged from 25.2 in Chikmagalur and Dakshina Kannada to 30 and above in Bijapur, Gulbarga, Bellary, Hassan and Raichur districts.

| <b>Table : 3.2</b>                                                          |             |            |
|-----------------------------------------------------------------------------|-------------|------------|
| <b>Estimates of crude birth rate and crude death rate by district, 1991</b> |             |            |
|                                                                             | CBR         | CDR        |
| Bangalore                                                                   | 26.2        | 7.6        |
| Belgaum                                                                     | 27.3        | 8.0        |
| Bellary                                                                     | 30.0        | 9.7        |
| Bidar                                                                       | 29.9        | 10.5       |
| Bijapur                                                                     | 30.1        | 10.4       |
| Chikmagalur                                                                 | 25.2        | 8.4        |
| Chitradurga                                                                 | 27.4        | 8.6        |
| Dakshina Kannada                                                            | 25.2        | 7.0        |
| Dharwad                                                                     | 29.3        | 10.3       |
| Gulbarga                                                                    | 30.1        | 10.7       |
| Hassan                                                                      | 30.0        | 8.2        |
| Kodagu                                                                      | 25.8        | 7.9        |
| Kolar                                                                       | 28.0        | 8.6        |
| Mandya                                                                      | 27.9        | 9.1        |
| Mysore                                                                      | 26.6        | 8.8        |
| Raichur                                                                     | 30.0        | 9.5        |
| Shimoga                                                                     | 25.9        | 7.0        |
| Tumkur                                                                      | 27.4        | 8.2        |
| Uttara Kannada                                                              | 26.4        | 8.5        |
| <b>KARNATAKA</b>                                                            | <b>26.4</b> | <b>8.5</b> |

*Source: Estimates of Vital Rates for Districts of Karnataka 1951-91 by Dr. P.J.Bhattacharjee, Director, Population Centre, Government of Karnataka*

Gulbarga division, comprising the districts of Raichur, Gulbarga, Bidar and Bellary, along with Bijapur district of Belgaum division, tends to be the most backward in terms of demographic, social and health indicators. When the decadal population growth rate declined in all districts except Bidar, Bijapur, Gulbarga and Raichur in the eighties, the annual compound growth rates of these four districts increased from 1.99% in 1971-1981 to 2.25% in 1981-91, suggesting that decline in mortality has been more than the decline in fertility.

Expectedly, the lowest mean age at marriage (17.7 in 1981) is in the districts of Gulbarga division, while Mysore division has both the highest mean age at marriage (20.4) as also the most favourable sex ratio (993); the sex ratio in Gulbarga division is 964.

### Organisation and structure of health care infrastructure

At the state level, the Department of Health and Family Welfare supervises the Directorates of Health and Family Welfare Services, Medical Education, Indian Systems of Medicine and Homeopathy, the Controller of Drugs and the Population Centre. The Directorate of Health and Family Welfare Services is mainly responsible for the provision of health services to people. The medical colleges run by the state and government hospitals attached to teaching institutions, including private medical colleges, nursing colleges and nursing schools come under the jurisdiction of the Director of Medical Education.

At the district level, the District Health and Family Welfare Officer (DH & FWO) is responsible for organising health services (promotive, preventive and curative) in rural areas and the District Surgeon heading the district hospital is responsible for the provision of medical (only curative) services in urban areas. The DH & FWO is assisted by programme officers like the District Malaria Officer, the District Leprosy Officer and the District TB Officer.

The health care delivery system in Karnataka, structured mainly on the basis

of national norms, aims at integrating the promotive, preventive and curative aspects of health care.

- At the district level (approximately 2 million population) the norm is one district hospital with 250 beds and specialised curative services.

- At the sub-district level (approximately 500,000 population) the norm is one sub-district hospital with 100 beds and curative services.

- At the block level, the norm is a Primary Health Centre (PHC) for every 30,000 population (20,000 population in tribal and hilly areas). Some PHCs have one Medical Officer (MO) and some have two. MOs are assisted by para-medical and non-medical staff.

- A Primary Health Unit (PHU) is the norm for every 15,000 population headed by a Medical Officer assisted by paramedical and non-medical staff: this is a feature peculiar to Karnataka.

- A sub-centre (SC) is the norm for every 5,000 population (3,000 in tribal and hilly areas). Each is staffed by one female and one male multipurpose health worker.

- At the village level, there is a trained dai. Earlier there was a village health guide (known as the village health worker or volunteer) for every 1000 population, but the village health guide scheme is now moribund.

## Role of the Panchayat

According to the Karnataka Panchayat Raj Act of 1993, Zilla Panchayats are to look after the management of hospitals and dispensaries excluding district hospitals and hospitals under direct government management (those with more than 50 beds) and the implementation of maternity and child health, family welfare and immunisation and vaccination programmes. Apart from operating the district sector budget, Zilla Panchayats also implement state sector schemes entrusted to them by the government. Taluka Panchayats look after health and family welfare programmes and promote

immunisation and vaccination programmes; they also supervise health and sanitation facilities at village fairs and festivals. Grama Panchayats deal with family welfare programmes, preventive measures against epidemics, regulation of the sale of food articles, participation in immunisation programmes, licensing of eating establishments and the regulation of offensive and dangerous trades.

## Expansion in health infrastructure

Improvement in critical health indicators such as life expectancy, birth rates, infant mortality rates and death rates is to some extent the result of improved health infrastructure in the state.

The number of health institutions in Karnataka increased from 1248 in 1960-61 to 2,624 in 1996-97. In 1960-61, the number ranged from 17 in Bidar to 122 in Bangalore district; varying again from 23 in Bidar to 168 in Bangalore district in 1970-71. In 8 of the 19 districts there was reduction in the number of health

**Table 3.3**  
**Growth of medical institutions from 1960-61 to 1996-97**

| District          | 1960-61     | 1970-71     | 1980-81     | 1990-91     | 1996-97     |
|-------------------|-------------|-------------|-------------|-------------|-------------|
| Bangalore (Urban) | 122         | 168         | 237         | 182         | 189         |
| Bangalore (Rural) |             |             |             | 91          | 113         |
| Belgaum           | 53          | 74          | 115         | 140         | 166         |
| Bellary           | 40          | 51          | 77          | 97          | 111         |
| Bidar             | 17          | 23          | 43          | 50          | 60          |
| Bijapur           | 44          | 61          | 90          | 94          | 125         |
| Chikmagalur       | 88          | 59          | 75          | 88          | 98          |
| Chitradurga       | 77          | 76          | 103         | 125         | 148         |
| Dakshina Kannada  | 72          | 126         | 130         | 145         | 163         |
| Dharwad           | 52          | 93          | 120         | 143         | 167         |
| Gulbarga          | 31          | 66          | 91          | 122         | 147         |
| Hassan            | 94          | 73          | 94          | 117         | 139         |
| Kodagu            | 48          | 44          | 45          | 43          | 47          |
| Kolar             | 96          | 86          | 109         | 118         | 133         |
| Mandya            | 68          | 61          | 82          | 99          | 116         |
| Mysore            | 120         | 117         | 149         | 194         | 220         |
| Raichur           | 26          | 52          | 79          | 82          | 104         |
| Shimoga           | 88          | 86          | 109         | 126         | 144         |
| Tumkur            | 70          | 73          | 98          | 116         | 137         |
| Uttara Kannada    | 42          | 52          | 63          | 87          | 97          |
| <b>KARNATAKA</b>  | <b>1248</b> | <b>1441</b> | <b>1909</b> | <b>2259</b> | <b>2624</b> |

Source: Directorate of Health and Family Welfare.

*The number of medical institutions has more than doubled, while the number of beds in government hospitals has increased threefold since 1960*

institutions between 1960-61 and 1970-71. The number of institutions ranged from 43 in Bidar to 237 in Bangalore district in 1980-81. Increase in the number of health institutions in the districts of Bangalore division in 1980-81 was due to the creation of new institutions under the World Bank and Swedish International Development Authority-assisted India Population Project I & III which was implemented in this division from 1973 to 1980. The number ranged from 43 in Kodagu to 182 in Bangalore (Urban) district in 1990-91 and 47 in Kodagu to 189 in Bangalore (Urban) in 1996-97.

In Karnataka, the annual growth rate of health and medical institutions between 1960-61 and 1996-97 works out to a little over 3 per cent. The rate varied from - 0.06 per cent in Kodagu district to 8.33 per cent in Raichur district.

Of the 17,000 practising doctors in the state, about 11,000 are estimated to be in the private sector. As many as 5828 doctors or 35% of the total are in the government sector. Slightly more than 80 per cent of these are general duty doctors and 18 per cent are specialists, of whom the largest number are specialists in general medicine, obstetrics & gynaecology, general surgery and anaesthesia, in that order. There are less than 100 specialists in the state (government sector) in each of the following specialisations: orthopaedics, ophthalmology, ENT, psychiatry, pathology, tuberculosis, forensic medicine and radiology as well as in super-specialities.

The number of beds in government hospitals in Karnataka increased from 13,786 in 1960-61 to 43,867 in 1996-97. As many as 3200 beds are reserved for specific, diseases like tuberculosis and other infectious diseases. Increase in the number of beds in different districts between 1960-61 and 1996-97 ranged from much less than two times in Kodagu district to nearly 10 times in Chitradurga district.

In 1996-97, the population per government medical institution in Karnataka was 19496. This ratio varied from 10756 in Kodagu district to 32107 in

Bangalore (Urban). The population per bed in government medical institutions in Karnataka in 1996-97 was 1166, but the ratio varied from 395 in Kodagu to 2330 in Raichur district. While the number of beds per thousand population compares favourably with the Planning Commission norm of one bed per thousand population, government sector beds account for only 40.53% against the Planning Commission norm of 66.7%. Of the 1709 private hospitals in the state, 43 are speciality institutions, 451 maternity homes and 1215 general hospitals (STEM 1995). As against the Planning Commission norm of 15% primary, 70% secondary and 15% tertiary level beds, the actual situation in the distribution of beds in the state (government sector) is 20.9% at the primary level, 55.7% at the secondary level and 23.4% at the tertiary level. This clearly indicates that there is need to strengthen secondary-level health care in the state, which the massive Karnataka Health Systems Development Project (KHSDP) is now attempting to do.

The common perception has been that the higher the share of expenditure on" hospitals, the lower the equity in the overall health system. This is based on the assumption that if more resources are devoted to primary health care programmes and facilities, it would be possible to provide relatively lowcost preventive and curative services to a larger segment of the population who are more vulnerable. Nevertheless, hospitals and PHCs have multiple and overlapping functions, with PHCs associated with community-level delivery programmes and hospital services being delivered through larger facilities socially detached from the community. There is a need for more integration and inter-linkages between hospitals and PHCs, from lower level preventive and curative outreach facilities to higher level facilities. There is also need for integration of the health and the family welfare structures. The question of the appropriate balance of services within the integrated system needs to be looked at in some detail. Several synergies could be visualised, with lower level hospitals increasing the effectiveness of outreach and community-based programmes and higher level hospitals

providing technical support and a focus for training skilled personnel.

Hospital management is another issue. While the medical officer is required to manage the hospital, decisions on administrative and financial matters are taken at higher levels at the directorate. Delegation of powers is especially poor in specific areas such as the maintenance of infrastructure both at the district and state levels. While budgets for maintenance of equipment and buildings need to be sharply stepped up, diagnostic facilities, ambulances and training also require strengthening. Existing staffing norms need careful revision, given the heavy pressures on the hospital system resulting in overburdened personnel and the poor quality of health services. Norms for equipment and supplies also require thorough rationalisation. Along with expansion in infrastructure, there is also need for training senior personnel in hospital management and administration.

Hospital services being mainly patient-related curative services, there is scope for cost sharing, provided the ability to pay is factored into the calculation of costs charged. Cost sharing, accompanied by improvement in quality, is known to have increased utilisation. While the additional revenues generated need not be expected to cover fully the expenditure for quality improvement, cost sharing can be used as a step in restoring equity, with the poor benefiting proportionately more than the non-poor. With a dispensation for ploughing back resources, cost sharing can improve the morale and motivation of hospital personnel. By augmenting resources for the sector as a whole, cost sharing would lead to qualitative as well as quantitative improvements; sustainability can also be promoted by financing some portion of the operational costs.

Shortages of medical, paramedical and nursing staff are aggravated by slow and cumbersome recruitment procedures. Unauthorised absences and indiscipline in the workforce are symptomatic of a deeper malaise of dissatisfaction with postings and current areas of work. Human resource development, especially training in clinical

skills and equipment maintenance, have been neglected.

Issues of access and equity remain critical, with access to public health facilities being uneven across the state. Even where physical facilities exist, the quality and range of services can be poor. Typically, poor health status is found in the areas of the state where gaps in health infrastructure are large. Bed capacity especially, needs to be increased in the poorly served regions. In one-third of the 175 talukas of the state, the number of persons per bed is equal to or less than the norm of 1679. In 29 per cent of the taluks the number of persons per bed ranges between 1700 and 3000; in 32% the range is between 3000 and 5000. In 6 per cent of the taluks, the number exceeds a shocking 50,000 persons per bed. Health infrastructure is especially underdeveloped in the northern districts.

A major urban-rural divide is also a matter of concern, with most of the well-equipped hospitals located in a few urban agglomerations of the state and the rural poor having limited access to critical health referral services. Even within urban areas there are imbalances; the first referral network is glaringly inadequate in major cities and towns, including Bangalore. Infrastructure availability has not been able to match the needs of a large and growing urban population (30 per cent) or the pressure from rural areas.

Among different social groups, it remains a matter of concern that there has been no concerted effort at reducing morbidity and mortality rates among the marginalised such as the Scheduled Caste and tribal populations. Utilisation of services by women is poor, an issue closely linked to the low status of women, the lack of public health education and the glaring physical inadequacy of hospital services required by this group of users.

## Health care expenditure

While the social sector expenditure of the state has been hovering around 38 per cent of total revenue expenditure, the average annual expenditure on health-related items of expenditure accounts for 25.7 per

*Public health facilities are unevenly spread across the state, with both health infrastructure as well as health status being poor in the northern districts*



**Table 3.4**  
**Structure of health revenue expenditure - Plan & non-Plan**

|                                      | (figs in millions) |         |         |         |         |         |
|--------------------------------------|--------------------|---------|---------|---------|---------|---------|
|                                      | 1990-91            | 1991-92 | 1992-93 | 1993-94 | 1994-95 | 1995-96 |
|                                      | Acct.              | Acct.   | Acct.   | Acct.   | Rev.Est | Budget  |
| Administrati<br>on                   | 62.54              | 84.96   | 80.41   | 84.63   | 99.99   | 118.05  |
| Medical<br>education<br>and training | 222.19             | 289.02  | 378.06  | 340.59  | 493.03  | 526.50  |
| Secondary<br>tertiary<br>health care | 831.51             | 1027.73 | 1173.38 | 1403.83 | 1608.80 | 1767.93 |
| Primary<br>health<br>care            | 931.21             | 1013.34 | 1382.97 | 1452.94 | 1834.88 | 2158.13 |
| Family<br>welfare<br>programmes      | 382.71             | 538.66  | 590.61  | 639.42  | 835.00  | 1117.89 |
| Total health<br>expenditure          | 2430.16            | 2953.71 | 3605.43 | 3912.42 | 4871.70 | 5688.49 |

Source: *Expenditure Pattern of the Health Sector in Karnataka*, Subramanya and P.H. Reddy, *Southern Economist*, 1997

cent of the total expenditure on social services; the level is second only to the share of the education sector of 53 per cent. Data on expenditure on health and family welfare in Karnataka for six years shows that expenditure increased from about Rs. 243 crores in 1990-91 to a little over Rs. 569 crores in 1995-96-by about 134 per cent-though in real terms the increase is much less. The annual increase in real terms has been about 6 per cent, slightly less than the annual increase in real terms in social services spending as a whole of 6.4 per cent.

Primary health care accounts for the major share of health expenditure of 38 per cent; secondary and tertiary hospitals come next with 33 per cent, with family welfare accounting for 17 per cent and education and training 10 per cent. Expenditure on family welfare has been increasing at 23 per cent annually while that on medical education and primary health has increased at 18 per cent; expenditure on secondary and tertiary health care has been growing at 16 per cent annually.

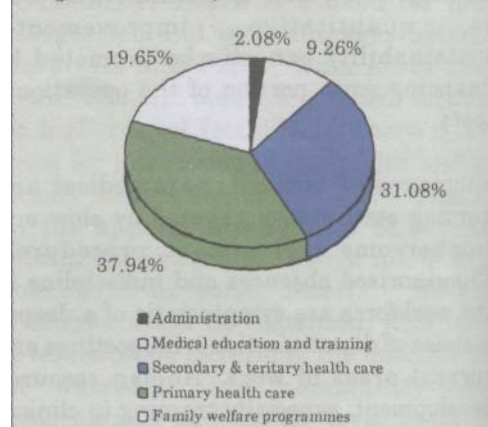
Non Plan expenditure, which is met from resources raised internally by the state, accounted for 63-69 per cent of the total

expenditure on health and family welfare between 1990-91 and 1994-95; this came down to 57 per cent in 1995-96. Reduction in the proportion of non-Plan expenditure in 1995-96 is because of increase in Plan allocations and capital outlays. One reason for this increase could be the availability of funds from externally assisted population and health projects and Central government aided projects such as the AIDS control programme.

With expenditure on health and family welfare accounting for only 1.21 per cent of the net State Domestic Product-down to 1.14 per cent in 1991-92, but up to 1.24 per cent in 1992-93, decreasing again to 1.22 per cent in 1993-94 before increasing to 1.37 per cent in 1994-95-it is clear that fluctuations of this nature are undesirable for the growth of the health sector as also that expenditure on health and family welfare is, by any reckoning, inadequate. A study group on Health for All, set up jointly by the Indian Council of Social Science Research and the Indian Council of Medical Research, recommended 'a substantial increase in public expenditure on health at about 8 or 9 per cent per year (at constant prices) over the next 20 years.'

Real increase or decrease in the per capita expenditure on health and family welfare depends not only on inflation but also on population growth. The net annual addition to Karnataka's population is about 9 lakhs. The population of the state was 4.498 crores according to the 1991 census and per capita expenditure on health and

**Figure 3.2**  
**Structure of health revenue expenditure, 1995-96**





family welfare Rs. 55.49 in 1990-91. This increased by about Rs. 10 to Rs.65.33 in 1991-92 and by about Rs 13 to Rs.78.52 in 1992-93. It is surprising that it increased by less than Rs. 6 to Rs. 84.42 in 1993-94 but jumped to Rs. 102.80 in 1994-95. More or less the same rate of increase was maintained in 1995-96, when per capita expenditure on health and family welfare was Rs. 121.34.

Social services, including health and medical services may have received inadequate funding in the five-year Plans. A comparison of the expenditure on health and family welfare with that on education is instructive. Non-Plan expenditure on health and family welfare has been about one-quarter that on education. Even Plan expenditure on health and family welfare lagged behind that on education. The consolation is that the gap between Plan expenditure on health and family welfare on the one hand and that on education on the other was narrower than that between non-Plan expenditures on the two sectors. Clearly, there is need to allocate more financial resources to the health sector and ensure a more balanced distribution across the primary, secondary and tertiary sectors. An analysis of the distribution of expenditure on health by level of care reveals that between 1993 and 1996 about 65 per cent was spent at the primary level, 20 per cent at the secondary level and about 15 per cent at the tertiary level. There has been some underfunding of hospitals at the secondary level leading to deterioration in the quality of buildings and equipment, inadequate supply of drugs and gaps in staffing especially in medical and skilled paramedical personnel. Much work needs to be done to repair and modernise old buildings by focussing on essentials like clean and continuous water supply, uninterrupted power, clean and adequate toilet and sanitation facilities and arrangements for the management of solid wastes. Much of the equipment is obsolete and needs urgent replacement and the overall quality of medical care requires improvement. Enhanced allocations to the health sector must be supported by reallocation of resources based on an assessment of the need and cost-effectiveness of the different components of the health system.

## Referral system

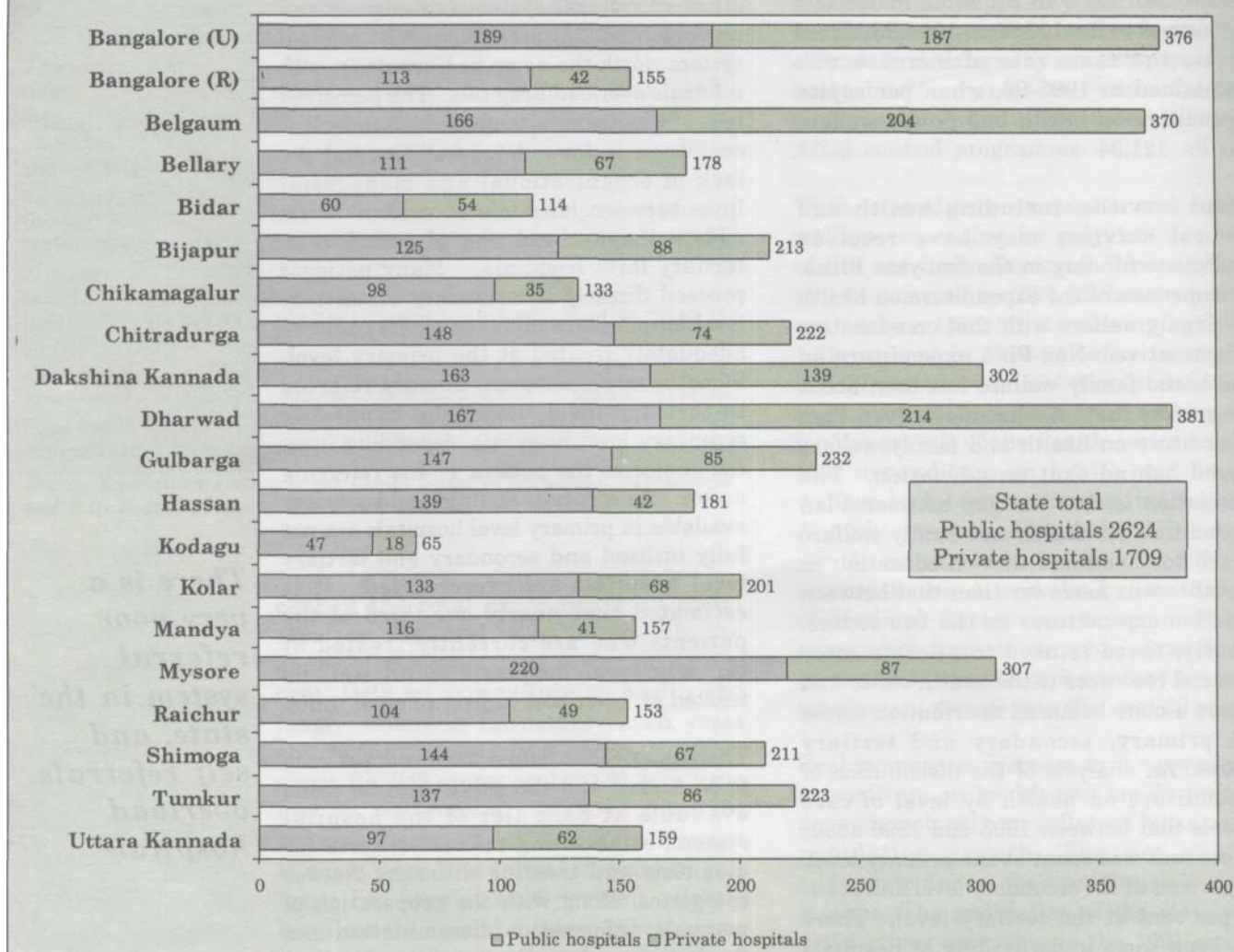
The quality of health and medical services can be maintained only when a proper and effective referral system is designed and implemented. At present, with no referral system worth the name in Karnataka, self-referrals overload hospitals. The perceived lack of quality care tends to lead to lack of confidence in lower level facilities and the lack of organisational and managerial links between hospitals at various levels adds to the overburdening of secondary or tertiary level hospitals. Many patients proceed directly to secondary or tertiary level hospitals for ailments which could be adequately treated at the primary level. Sometimes patients are directly referred to tertiary level hospitals, bypassing secondary level hospitals, depending upon the choice of the patient or his referring doctor. As a result, facilities and services available in primary level hospitals are not fully utilised and secondary and tertiary level hospitals are overcrowded. It is estimated that nearly one-third of the patients who are currently treated at tertiary level hospitals could well be treated at lower cost in first referral units.

There is a need to define the mix of patients to be served and the services to be made available at each tier of the hospital system, establishing referral criteria for diagnosis and treating different disease categories, along with the preparation of manuals, information dissemination and the training of medical and paramedical as well as laboratory staff. A referral system is therefore being developed under the Karnataka Health Systems Development Project (KHSDP), which is expected to provide the correct line of treatment at every level of hospital in line with the services they are meant to provide. The effectiveness of the referral system will depend on several factors-the quality of services at all levels, public awareness of the type of services available at each level of the health system and enforcement of procedures to ensure that patients do not bypass one level without the consent of its health personnel. Community involvement is therefore essential in designing a referral system that can transform the public perception of primary health centres and lower level health institutions.

*There is a very poor referral system in the state, and self referrals overload hospitals*

Figure 3.3

## Public and private medical institutions in Karnataka by district



Source : Health Care Facilities in the Non-Government Sector in Karnataka, STEM, 1996

### Private sector

The size of the private health sector in India, as in Karnataka, is much larger than generally believed. According to a survey conducted in 1995-96 by the Centre for Symbiosis of Technology, Environment and Management (STEM), Bangalore, the private health sector in Karnataka comprises 1709 medical institutions (clinics, nursing homes, hospitals, etc.) As on March 31, 1996 the public (government) health sector in Karnataka covers 2624 medical institutions (hospitals, community health centres, primary health centres and primary health units). The number of public health sector units is only slightly

higher than that of private health institutions. In terms of the number of patients being served also, the role of the private is significant and increasing, with 42% of out-patients and 35% of in-patients being treated in the private sector (NSS 42nd round: 1986-87). The NCAER survey of 1993 shows that 46% of out-patients and 40% of in-patients were treated by the private sector.

The number of beds in the private sector in Karnataka is 40,900 compared to 43,868 beds in public sector hospitals. A vast majority of the private sector hospitals provide curative health care, while public sector hospitals provide promotive,

preventive and curative services in rural areas and only curative services in urban areas.

The existing set of regulations relating to health care can be broadly divided into three categories - drug related (e.g. the Pharmacy Act, the Drugs and Cosmetics Act and the Dangerous Drugs Act), practice related (e.g. the Consumer Protection Act of 1986, the Indian Medical Council Act and the Human Organ Transplant Act) and facility related (e.g. the Nursing Homes Act and the Nurses, Midwives and Health Visitors Act)

The private health sector has been brought under the Consumer Protection Act but more awareness is needed of the various regulations so that quality of service and better provider-patient relationships are maintained.

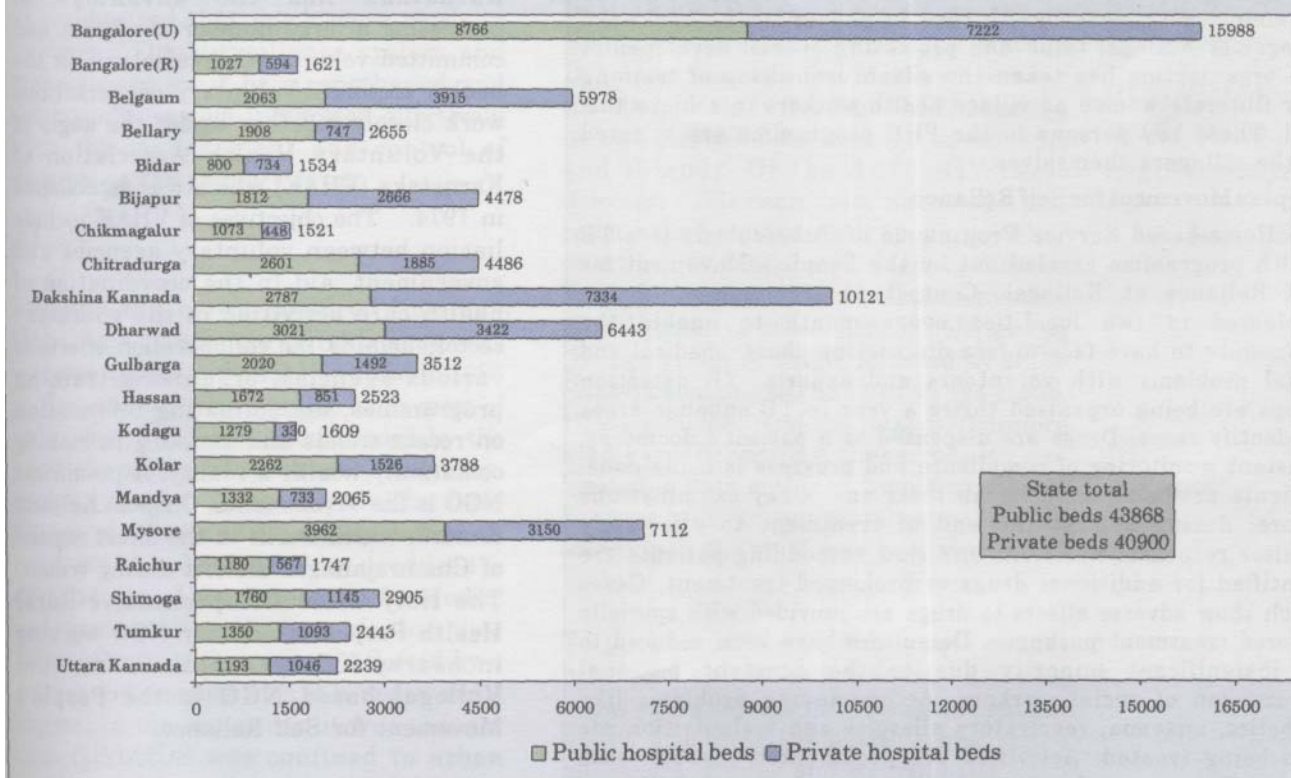
In Bangalore (Urban) district, as also in Belgaum and Dharwad, the number of

private medical institutions is higher than the number of public medical institutions. The number of private hospital beds is less than the number of public hospital beds except in Bijapur, Dharwad and Dakshina Kannada district. The number of private hospital beds is quite high when compared to the number of public hospital beds in Dakshina Kannada (7,334 against 2,787).

There is thus a strong and urgent need for monitoring mechanisms and regulations to ensure that quality health care is provided and that unlicensed and unqualified practitioners do not cheat the public or expose patients to unwarranted risks. It is also important to involve the private sector in the management of communicable diseases, respiratory infections and high risk births. In remote and inaccessible areas it is important to involve the voluntary sector effectively. Contracting health care support services to private agencies could lead to significant improvements in efficiency in hospitals.

Figure 3.4

### Public and private hospital beds in Karnataka by district



Source : Health Care Facilities in the Non - Government Sector in Karnataka, STEM, 1996



### **Box 3.1**

#### **NGOs in health: some glimpses**

Vivekananda Girijana Kalyana Kendra : This voluntary organization is committed to the cause of tribal development in the forest regions of the taluks of Yelandur, Chamarajanagar and Kollegal of Chamarajanagar district and Nanjangud of Mysore district where about 20,000 Soliga tribals live. It was founded by Dr. H.Sudarshan, a medical doctor. There is a 16-bed hospital with additional facilities for mobile medical work in 100 villages and arrangements for out-patients, X-ray, ECG, laboratory, operations and surgery. Preventive medical care and community health are stressed. Apart from health care, introduction of the joyful learning process for children living in the forest has given good results. Teachers trained in tribal culture, giving prominence to examples drawn from the forest environment, remove children's learning inhibitions. In 1998, the school produced 100% result in the VII std and 50% in the SSLC and PUC exams. As many as 16 crafts - tailoring, weaving, notebook making - are being taught to tribal youth. In community organisation, village, cluster and taluk sanghas have taken the lead in addressing problems and participating in developmental work. The tribal community has also made headway in Panchayat Raj by winning places in the village and taluk panchayats.

#### **The Holy Cross Comprehensive Rural Health Project**

The Holy Cross Comprehensive Rural Health Project of Hanur in Kollegal taluk is a primary health care project based on the Alma Ata (1978) approach to health for all. The project adopts a radical approach to health that goes beyond curative medicine. It is geared to improving the livelihood of people and their quality of life using the principle of community participation. The project was started in January 1997 with the main objective of rendering primary health care in phases to the backward villages of Kollegal taluk and promoting overall development. The organisation has taken the adventurous step of training poor illiterate women as village health workers to achieve this goal. These key persons in the PHC programme are selected by the villagers themselves.

#### **People's Movement for Self Reliance**

The Home-based Service Programme of Tuberculosis is a TB health programme carried out by the People's Movement for Self Reliance at Kollegal. Contact programmes are being conducted in two localities every month to enable the community to have face-to-face discussions about medical and social problems with volunteers and experts. TB detection camps are being organised thrice a year in TB endemic areas to identify cases. Drugs are dispensed at a patient's doorstep. Constant monitoring of compliance and progress is being done. Patients are subjected to lab tests and X-ray examinations before, during and at the end of treatment to effectively monitor response. Resistant and slow responding patients are identified for additional drugs or prolonged treatment. Cases which show adverse effects to drugs are provided with specially tailored treatment packages. Defaulters have been reduced to an insignificant minority due to the constant personal supervision of social workers. Accompanying problems like diabetics, anaemia, respiratory allergies and malnutrition are also being treated. Activities are documented through case cards, X-ray records, case registers, treatment follow-up registers, drug stock registers and handbooks.

### **Bed occupancy**

NSS estimates indicate that bed occupancy is high in government hospitals (77.3%). Bed occupancy in private hospitals is close to 68% but it is very low (11.9%) in PHCs. The low bed occupancy in PHCs has been and continues to be a matter of great concern. Although conceptualised as primary health centres, the infrastructure provided was designed principally to cater to female sterilisations; each PHC has therefore been provided with four beds for females and two for males. PHCs have been seen more as institutions providing family planning services. Full time nursing care being absent in most PHCs, it is uncommon for them to even attend to normal deliveries. Many PHCs are still not properly equipped with running water and lack facilities even for minor surgical procedures. From being ill equipped family welfare clinics to actually providing primary health care, there is still a long way to go.

### **The NGO sector**

Quite distinct from the private sector which works basically on commercial lines, Karnataka has the advantage of possessing a large number of vibrant and committed voluntary organisations in the health sector. Voluntary organisations work closely together under the aegis of the Voluntary Health Association of Karnataka (VHAK) which was established in 1974. The objectives of VHAK include liaison between voluntary agencies and government, aid in the coordination of health care activities in the voluntary sector, helping the collaboration efforts of various agencies, organising training programmes, disseminating information on recent trends and assisting in making community health a reality. A prominent NGO is the Vivekananda Girijana Kalyana Kendra, which works in the forest regions of Chamarajanagar district among tribals. The Holy Cross Comprehensive Rural Health Project is another NGO working in nearby Kollegal taluka. Another Kollegal based NGO is the People's Movement for Self Reliance.

## Communicable diseases

The plague outbreak in Karnataka not so long ago and the recurrence of malaria in the state prove that there is need to control and eradicate communicable diseases, especially high incidence maladies like tuberculosis, malaria, filaria and blindness.

Under the National Malaria Eradication Programme, although the number of blood smears collected and examined increased, the number of positive cases increased sixfold between 1991 and 1998. The number of patients who were given radical treatment as well as the slide positive rate also increased.

Under the National Filaria Control Programme, the number of blood smears examined increased between 1991 and 1995 and the number of microfilaria cases also went up. The number of disease cases however decreased from 5653 in 1991 to 4310 in 1994.

The number of tuberculosis and leprosy cases declined sharply and coverage of the BCG vaccination improved.

Without belittling the ground covered in controlling communicable diseases, it may be emphasised that much more needs to be done. The surveillance system and management must be strengthened and the hospital system integrated effectively with the management and control of diseases at the primary level.

### AIDS

The first full blown Acquired Immuno-Deficiency Syndrome (AIDS) case was detected in 1986 in Tamil Nadu and in 1988 in Karnataka. In Karnataka, as in most of India, the situation is compounded by the crippling effects of ignorance, illiteracy, prejudice and discrimination. The fatal nature of AIDS and its association with condemned behaviour, has produced a devastating and cruel scenario of prejudice and discrimination. We have also lost time before admitting that we are affected by a disease that carries with it a major social stigma. In the beginning, it was thought that HIV/AIDS was confined to urban centres where groups of risk like

commercial sex workers and intercity truck drivers live. According to latest information, however, the HIV virus is slowly but unmistakably spreading to rural areas also. Risky sexual behaviour is universal. Where this is denied, as happens for example with homosexuality, the campaign runs into the barrier of secrecy.

AIDS is a gender issue. A host of factors, cultural, social and economic, limit the control women have over their own lives, their sexual relationships and their ability to protect themselves from infection. Women are often blamed for the spread of sexually transmitted diseases, while the role of the customer is ignored. Given the stigma, women who know or suspect that they are infected, hide their status and delay seeking professional help. This in turn raises the level of HIV infection.

It is clear from data from surveillance centres that the disease is spreading fast. In 1988, the year in which the first AIDS case was detected in Karnataka, the seropositive rate was 2.65 per thousand. From 1989 to 1992, it was between 1 and 2. From 1993, however, it increased by leaps and bounds. From 1.64 in 1992 it rose to 12.2 in 1996. The maximum number of HIV and AIDS cases was detected in Bangalore (Urban) district followed by Dakshina Kannada and Mandya. None of the 20 districts is free from HIV, although no case has yet been detected in Belgaum and Bijapur. Of the 3,626 HIV cases detected, 3,381 come from Karnataka, 232 from other states and 13 from other countries. Of these cases, 2746 were males and 880 females. The maximum number of HIV positive cases (1,828) belonged to the age group of 21-30, followed by those (1,124) belonging to the 31 to 40 age group. HIV's socio-economic context is therefore also significant. As these results are limited to data gathered from surveillance centres, the actual number with HIV infection in the state may be upwards of 1 lakh.

To prevent HIV and AIDS, safe sexual behaviour should be promoted. Bringing about changes in sexual behaviour cannot be the domain of the health sector alone; all sectors, groups and communities have to be involved: change in sexual behaviour

*AIDS is spreading fast, the situation being compounded by ignorance, illiteracy, prejudice and discrimination*



must begin with men, since society is still male-dominated. People must be empowered for safe sex, AIDS education must be imparted to young people, prejudices against sex education removed and programmes aimed at controlling sexually transmitted diseases and HIV integrated. While developing information, education and communication (IEC) material, it is essential to lay emphasis on the content of messages, the quality of material and consistent and accurate information.

## Nutrition

Although nutritional status influences health status profoundly, information on this indicator, especially by district, is hard to come by. According to the National Family Health Survey (NFHS) conducted in Karnataka in 1992-93, about 22 per cent of the children in the state were low birth weight and weighed less than 2500 gms at the time of birth. This clearly indicates the poor nutritional status of mothers. To improve the nutritional status of mothers, iron and folic acid tablets are being distributed to pregnant women for prophylaxis against nutritional anaemia. It is recommended that a woman should take 100 iron and folic acid tablets during pregnancy. It appears that three-fourths of the births in Karnataka are to mothers who receive iron and folic acid tablets. However, it is not always certain that the tablets are consumed regularly by pregnant women.

It is estimated that the six vaccine-preventable diseases, tuberculosis, diphtheria, pertussis, tetanus, polio and measles, account for about 15 per cent of the deaths of infants in Karnataka. One of the two objectives of the universal immunisation programme was to cover at least 85 per cent of all infants by 1990 against the six vaccine-preventable diseases. But the finding of the NFHS for Karnataka is that only 52 per cent of children between 12 and 23 months are fully vaccinated and 15 per cent have not received any vaccination.

The NFHS has also examined the nutritional status of children under 4 years of age using the following indices:

- weight-for-age
- height-for-age and
- weight-for height.

54 per cent of children below 4 years of age were under-weight and 48 per cent stunted in Karnataka against percentages of 53 and 52 respectively for the country. The percentage of under-weight children was 49 in Andhra Pradesh, 29 in Kerala and 48 in Tamil Nadu. The percentage of children who were severely undernourished was 23 in Karnataka as against 9 in Kerala and 29 in India, when we look at height for age. The proportion of children who were severely undernourished in the case of weight for age was 19 per cent in Karnataka as against 16 per cent in Andhra Pradesh, 6 per cent in Kerala, 13 per cent in Tamil Nadu and 21 per cent in India. Wasting which is the most serious nutritional problem measured, affected 17 per cent of children in Karnataka against 12 per cent in Kerala and 18 per cent for the country as a whole.

In 1992-93, the percentages of target achieved for administering vitamin A were 83 in respect of the first dose and 27 in respect of the second dose. The percentages achieved varied from one district to another, from 66 per cent in Bellary to 115 per cent in Shimoga in respect of the first dose and 11.3 per cent in Gulbarga to 103.8 per cent in Bidar in respect of the second dose.

In 1995-96, the percentage of target achieved under the programme of prophylaxis against nutritional anaemia in Karnataka was 135 in respect of mother beneficiaries and 125 in respect of child beneficiaries. The percentage of target achieved varied from about 82 per cent in Gulbarga to 262 per cent in Bangalore (Rural) in respect of mother beneficiaries and from 30 per cent in Gulbarga to 236 per cent in Kodagu in respect of child beneficiaries.

## Family welfare

Karnataka has a place in the history of the family welfare movement, from the time of the then Maharaja of Mysore who started in 1930 two birth control clinics in

*54 percent of children below 4 years of age are under-weight in the state*

## Important externally assisted health projects

|                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Karnataka Health Systems Development Project (KHSDP)</b> | The Karnataka Health Systems Development Project is proposed to be implemented over five years (1996-2001) with assistance from the World Bank. Its main objectives are improvement in the performance and quality of health care services at the subdistrict and district levels, narrowing current coverage gaps and improving efficiency. Major components include improvement of the institutional policy framework, strengthening implementation capacity, development of a surveillance system, extension and renovation of all secondary level hospitals, improvement of their clinical effectiveness and establishment of a properly functioning referral system. The project outlay is Rs 546 crores.                       |
| <b>Kreditanstalt fur Wiederaufbau (KfW)</b>                 | The KfW of Germany is financially assisting a project in the four districts of Gulbarga division with objectives similar to those of the KHSDP. The project outlay is Rs 59 crores of which 90% is being provided by KfW as a grant. The project was launched in 1998.                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>India Population project (IPP) VIII</b>                  | IPP VIII is being implemented in the slums of Bangalore since 1993-94 with World Bank assistance. Major objectives are improvement in maternal and child health and reduction of fertility among the urban poor. Strategies adopted include involving the community, improving the quality of services provided by the City Corporation, strengthening existing delivery services, establishing new facilities and providing services at the doorsteps of the urban poor. The project cost is Rs 39 crores.                                                                                                                                                                                                                          |
| <b>India Population project (IPP) IX</b>                    | This is the fourth in the series of India Population projects following IPP I and IPP III. The project is under implementation since 1994 in 13 districts. The main objectives are reduction in the crude birth and death rates as well as the infant and maternal mortality rates and increase in the couple protection rate. Strategies adopted include the promotion, strengthening and delivery of services through the involvement of the community and improvement in the quality of services by providing training and strengthening the monitoring and evaluation systems. The project outlay is Rs. 122 crores.                                                                                                             |
| <b>Reproductive and Child Health Services (RCH) Project</b> | The Reproductive and Child Health Services Project marks a change in the existing culture of achieving targets by shifting to a policy of provision of quality services. The project helps clients meet their own health and family planning needs through the full range of family planning services. It is a natural expansion of the earlier child survival and safe motherhood programme which was under implementation till 1996. It also includes the treatment of reproductive tract infective, sexually transmitted infections and the prevention of AIDS. All the districts of the state are proposed to be covered under the project.<br>The budget for RCH project for five years (1997-98 to 2002-03) is Rs. 190 crores. |

the Victoria and Vani Vilas hospitals at Bangalore and the Krishnarajendra hospital at Mysore. These were the first official family welfare clinics in the world.

In 1971, the proportion of couples with wives of childbearing age effectively protected by different family planning methods in Karnataka was about 12 per cent. This increased to a little over 48 per cent by 1993. In comparison, the proportions of couples effectively protected in the country were about 14 per cent in 1971 and 44 per cent in 1993.

In 1995-96, the couple protection rate in Karnataka was about 57 per cent. The proportion varied from 41 per cent in Raichur to 73 per cent in Mandya.

Two issues need to be raised and discussed: one, the proportion of couples protected by spacing methods and the other, male participation or involvement in family welfare.

In 1993, about 40 per cent of couples were protected by terminal methods and about 9 per cent by spacing methods. To achieve

significant reduction in the birth rate, especially in a short period, the proportion of couples protected by spacing methods should be increased to about 20 per cent.

Over the years, the participation of men in family welfare has reduced. Within the first 4 years of the introduction of sterilisation into the family planning programme in 1956, the proportion of vasectomies (male sterilisations) in the total sterilisations done in Karnataka ranged from 43 per cent in 1958-59 to 59 per cent in 1959-60. The proportion increased to 94 per cent in 1966-67 and 95 per cent in 1967-68. The proportions of vasectomies in total sterilisations during the two emergency years of 1975-76 and 1976-77 were 17 per cent and 52 per cent respectively. The percentage fell to single digits in 1977-78. In 1993-94, 1994-95 and 1995-96, the proportion of vasectomies was one-tenth of one per cent (0.1). Between 1956 and 1995-96, the proportion of vasectomies was only 13 per cent.

Even in the adoption of spacing methods, men in Karnataka lag behind women. In 1992-93, 6.9 per cent of married women in the reproductive age were effectively protected by spacing methods (5.8 per cent by IUD and 1.1 per cent by oral pills) and only 1.7 per cent of men with wives in the childbearing age were using condoms.

The India Population Projects, financially assisted by international agencies, have been contributing to the implementation of the family welfare programme.

Family welfare also improves health status; it has been amply demonstrated that spacing and limiting the number of children help women in avoiding high risk pregnancies, reduce infant, child and maternal mortality and improve maternal and child health. Better child spacing alone can reduce infant mortality by up to one-third in areas where the infant mortality rate is high.

### Health index

The health index, one of the three components in the computation of the Human Development Index, is based on the indicator of life expectancy at birth

**Table 3.5**

**Health Index by district, 1981 and 1991**

| District         | Health Index |              | Rank |      |
|------------------|--------------|--------------|------|------|
|                  | 1981         | 1991         | 1981 | 1991 |
| Bangalore Urban  | 0.611        | 0.680        | 2    | 5    |
| Bangalore Rural  |              | 0.695        |      | 4    |
| Belgaum          | 0.556        | 0.668        | 7    | 8    |
| Bellary          | 0.470        | 0.589        | 19   | 20   |
| Bidar            | 0.540        | 0.646        | 14   | 12   |
| Bijapur          | 0.546        | 0.629        | 9    | 16   |
| Chikmagalur      | 0.543        | 0.660        | 13   | 9    |
| Chitradurga      | 0.535        | 0.615        | 16   | 18   |
| Dakshina Kannada | 0.677        | 0.730        | 1    | 1    |
| Dharwad          | 0.535        | 0.630        | 16   | 15   |
| Gulbarga         | 0.535        | 0.650        | 16   | 10   |
| Hassan           | 0.556        | 0.673        | 7    | 7    |
| Kodagu           | 0.600        | 0.717        | 3    | 2    |
| Kolar            | 0.561        | 0.631        | 5    | 14   |
| Mandya           | 0.545        | 0.650        | 10   | 10   |
| Mysore           | 0.559        | 0.638        | 6    | 13   |
| Raichur          | 0.543        | 0.676        | 12   | 6    |
| Shimoga          | 0.545        | 0.618        | 10   | 17   |
| Tumkur           | 0.538        | 0.594        | 15   | 19   |
| Uttara Kannada   | 0.577        | 0.699        | 4    | 3    |
| <b>STATE</b>     | <b>0.545</b> | <b>0.618</b> |      |      |

(LEB) which measures health status and longevity. The index ranges between 0 and 1. Districtwise health indices for 1991 show great variation. They range from 0.589 in Bellary to 0.73 in Dakshina Kannada district. Districts which were equal to or below the state average (0.618) are Shimoga, Bellary, Chitradurga and Tumkur. Health indices for all districts have considerably improved between 1981 and 1991. Districts whose ranks have gone down by 1991 are Bangalore (Urban), Belgaum, Bellary, Bijapur, Chitradurga, Kolar, Mandya, Mysore, Shimoga and Tumkur.

### Gender - related Health Index

The United Nations Population Fund has introduced the concept of a gender-related health index (GHI) on the lines of the GDI. The GHI measures gender inequalities in selected health and education related parameters. Life expectancy at birth (LEB) and the infant mortality rate have been chosen as indicators in the area of health and the educational attainment indicator (as used in the Human Development Reports of the UNDP) in the sphere of social wellbeing. The educational attainment index in the GDI computed by the UNDP indicates development effort, whereas in the GHI, it is viewed as a proxy for positive health. The GHI takes values between 0 and 1. A low GHI value indicates gross discrimination against a specific sex. The method of computation of the GHI is similar to that for the GDI computed by the UNDP.

The GHI has been computed for 1991 for the districts of Karnataka. As expected, Dakshina Kannada takes the lead in terms of gender equity in health with a score of 0.807 which is comparable to that of Kerala state. Bellary district with a GHI of 0.484 stood at the bottom. Districts with GHI values below the state average (0.546) are Bellary (0.484), Bidar (0.523), Bijapur (0.523), Gulbarga (0.530), Raichur (0.536) and Mandya (0.545). Dharwad district (0.546) has a value equivalent to the state GHI. The low values in these districts indicate that females are more discriminated against in the above districts in the sphere of social wellbeing.

**Table 3.6**  
**Gender-related 1991 Health Index, 1991**

| District         | GHI<br>(1991) |
|------------------|---------------|
| Bangalore (U)    | 0.696         |
| Bangalore (R)    | 0.619         |
| Belgaum          | 0.610         |
| Bellary          | 0.484         |
| Bidar            | 0.523         |
| Bijapur          | 0.523         |
| Chikmagalur      | 0.626         |
| Chitradurga      | 0.613         |
| Dakshina Kannada | 0.807         |
| Dharwad          | 0.546         |
| Gulbarga         | 0.530         |
| Hassan           | 0.596         |
| Kodagu           | 0.718         |
| Kolar            | 0.588         |
| Mandya           | 0.545         |
| Mysore           | 0.569         |
| Raichur          | 0.536         |
| Shimoga          | 0.553         |
| Tumkur           | 0.567         |
| Uttara Kannada   | 0.677         |
| <b>STATE</b>     | <b>0.546</b>  |

### Health sector issues

The adequacy of the overall size of the health budget to meet the goals of public health is itself the first issue concerning the health sector since public health expenditure is only about 5% of the state budget and 1.48% of the GDP. This is highly inadequate for the provision of essential primary health care together with a basic package of clinical and curative services. Because of the fundamental link between basic public health provisions and poverty alleviation, the share of health sector allocations in the overall budget should be progressively and sharply stepped up.

Within the health sector, there are imbalances in public expenditure at different levels; with increasing expenditure on tertiary health care, there has been a relative decline in investment in primary and secondary level facilities, for which allocations need to be stepped up.

Uneven development in health infrastructure and the delivery of services in the northern districts of Gulbarga,

*There is need to upgrade the clinical effectiveness and quality of health services at all levels, with positive discrimination in favour of backward districts*



## Health sector development policy matrix

| Issue                                                                             | Effect and recommended action                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Adequacy of the overall size of the health budget to meet public health goals  | Public health expenditure is about 5% of the state budget and 1.5% of GDP. Health expenditures are inadequate to provide essential primary health care together with a basic package of clinical and curative services. Allocations will have to be stepped up progressively to meet health goals.                                                                                                                                             |
| 2. Imbalances in public expenditure between different levels of the health sector | With increasing expenditure on tertiary level health care, there has been a relative decline in investment in primary and secondary level facilities. This imbalance needs correction. A major portion of the increased allocation will require to be set apart for these sectors.                                                                                                                                                             |
| 3. Redressing regional imbalances                                                 | The six districts of Gulbarga, Bidar, Bijapur, Raichur, Dharwad and Bellary show poor health indicators on account of uneven development in health infrastructure and the delivery of services. Through both project and non-project interventions positive discrimination will have to be made in favour of these districts to reduce existing imbalances.                                                                                    |
| 4. Quality of and access to hospital services                                     | The quality of medical services is inadequate; access to health care services is also limited especially for populations in the least developed areas of the state, particularly women, Scheduled Castes and Tribes. Effective implementation of projects such as the KHS DP focusing on secondary level hospitals will have to be done.                                                                                                       |
| 5. Strategic planning                                                             | Inadequate strategic planning capacity in the health sector has resulted in sub-optimal use of resources. The strategic planning cell recently set up will require to be strengthened and made more professional in approach.                                                                                                                                                                                                                  |
| 6. Work force                                                                     | Improvement of services at hospitals is significantly restricted by work force problems, in terms of both quality and quantity. The number of staff sanctioned at hospitals does not fit current needs; there are many vacancies due to poor and cumbersome recruitment procedures and unimaginative personnel policies. Transparent and quicker recruitment procedures and cutting down on interviews will hasten the process of recruitment. |
| 7. The role of the private sector and voluntary organisations                     | The health services development strategy of the government has not taken sufficient account of the scope and coverage of non-governmental providers and the role of this sector in delivering quality health care. Effective legislation needs to be introduced to regulate medical institutions.                                                                                                                                              |
| 8. Cost sharing and service improvement                                           | Cost sharing has not been properly implemented resulting in low levels of funding for supplies, operations and maintenance. User charges need to be introduced with protection for the poorest sections of society. A mechanism to give back a major portion of the revenues raised needs to be introduced.                                                                                                                                    |
| 9. Prevention and control of major communicable diseases.                         | The existing surveillance system is very weak especially at the secondary level and in urban areas. A comprehensive surveillance system needs to be established.                                                                                                                                                                                                                                                                               |
| 10. Contracting services                                                          | Contracting services are underutilised. Contracting out health support services such as laundry, cleaning, etc., needs to be done.                                                                                                                                                                                                                                                                                                             |
| 11. Consolidation versus expansion of institutions                                | The state has been rapidly expanding the number sub-centres, PHCs, CHCs, taluka level and sub-district hospitals without focusing on improving physical facilities in existing institutions. Further expansion of beds and hospital institutions should be strictly needbased undertaken only after ensuring that existing facilities are properly utilised.                                                                                   |
| 12. Poverty alleviation                                                           | About 30% of households are below the poverty line in Karnataka. In this group, health indicators such as mortality and morbidity rates are especially adverse. Interventions must focus on disadvantaged sections, SCs and STs and women.                                                                                                                                                                                                     |



### Box 3.3

#### **Study on the introduction of user service charges in government hospitals in Karnataka (1997) : Centre for Environmental and Social Concerns Main findings:**

- ❖ 51% of in-patients and 25% of the out-patients in government referral hospitals come from a distance of more than 10 kms. 68% of the inpatients and 50% of the outpatients in government referral hospitals come from rural areas.
- ❖ SCs and STs account for 17% and 6% respectively of the inpatients treated in government referral hospitals and 20% and 4% of the outpatients respectively.
- ❖ In the case of household members who had fallen sick in the last 3 months, 21% were treated by government doctors, 47% by private doctors, 18% in government hospitals and 14% in private hospitals. 89% of the inpatients in government hospitals availed of free service in the general ward followed by 8% in special rooms and 3% in special wards.
- ❖ Inpatients getting laboratory tests done through payment either in government hospitals or outside were in the range of 1% to 15% of the patients selected. 38% and 39% of the inpatients availed of free tablets and injections, respectively, whereas 65% and 75% of the outpatients availed of free tablets and injections respectively in government hospitals. About 96% of the inpatients of government hospitals availed of bed facilities free of cost, while 57% availed of free diet.
- ❖ In government hospitals, about 22% of the inpatients, 27% of the outpatients and 65% of the households were not satisfied with the cleanliness of wards and premises. About 51% of the inpatients and 82% of the households were unhappy with the water and sanitation facilities and about 48% of the inpatients were not happy with the drugs supply.
- ❖ About 46% of the inpatients, 39% of the outpatients and 84% of the households expressed willingness to pay for various services and facilities in government hospitals. 65 percent of the doctors felt that the supply of drugs and injections in government hospitals was inadequate. They also felt that necessary equipment was not available in government hospitals.
- ❖ About 55 percent of the doctors said that public representatives interfered in the day to day administration of government hospitals. About 92 percent of the doctors were categorical that adequate financial powers should be given to hospitals.
- ❖ The recommendation of the study team was to make user service charges compulsory in government hospitals for all patients except those coming from families below the poverty line. It was also recommended to authorise administrative medical officers to make use of funds collected by way of user charges for improving the quality of services in government hospitals.

*Source : Study on Determinants of Willingness of People to Pay for Health Care Services in Government Hospitals by Mr.V.Shanthappa & Dr.Raghavesh of CESCEN.*

Raichur, Bellary, Bijapur, Bidar and Dharwar have led to poor health indicators for these districts. This requires a policy of positive discrimination in favour of backward districts as well as the backward pockets of better off districts, especially in tribal pockets and urban slums. Critical gaps in primary health care need to be identified and redressed as early as possible.

The quality of hospital services is inadequate and access limited, especially for populations in the backward regions of the state, women and Scheduled Castes and Tribes. This calls not only for

expansion in the physical capacity of health care infrastructure but also upgradation of the clinical effectiveness and quality of services at community, taluk and district level hospitals and improvement in staffing and technical patterns in line with established norms. Periodic health check-up camps should be held to reach health care to the most vulnerable and remote sections of the population.

Access to hospital services must also be made more equitable by assisting below poverty line patients to obtain high-cost oncological, cardiac, ophthalmological and

other treatment through medical aid schemes.

The need for strategic planning in the health sector cannot be overemphasised. There has been sub-optimal use of available resources mainly due to the lack of planning capacity since decisions on public health spending priorities have not taken into full consideration the size and scope of services provided by the private, commercial and voluntary sectors, the health and paramedical personnel supply situation, the predicted future epidemiological profile of the state, the burden of disease, training needs for health and paramedical staff and the suitability and effectiveness of health regulations. The scope and prospects of enlisting the support of the private sector for the promotion of health care at the primary and secondary levels, especially in urban areas, need to be further explored.

Work force problems of the huge health sector in the state affect and restrict efforts at improvement of services in hospitals both in terms of quantity and quality, with

sanctioned staff strengths at hospitals at various levels not being commensurate with current or changing needs. Complicated recruitment procedures and bureaucratic, unimaginative personnel policies have led to widespread and long pending vacancies. Distribution of medical specialists is also not matched to specific local needs; for example, when a general surgeon is posted in place of an obstetrician or gynaecologist. Problems of mismatch in medical staff are further exacerbated by the practice of deputing staff to non-essential assignments or for long periods to autonomous institutions funded by the government. The rural posting period is often neglected to accommodate demands for preferred postings. The large number of vacancies of lady doctors, especially outside urban areas, is also a matter of concern. It is not known how far this can be set right by encouragement of participation by private lady doctors in government facilities.

As the health sector development strategy of the government has not taken sufficient note of the scope, coverage and practices I

### **Box 3.4**

#### **Government superspeciality hospitals**

##### **Kidwai Memorial Institute of Oncology, Bangalore**

The Kidwai Memorial Institute of Oncology (KMIO), established on 26th June 1973, became autonomous in January 1980 and was accorded the status of a Regional Cancer Centre in November 1980. It is one of the 10 Regional Cancer Centres in the country, offering sophisticated diagnostic and treatment services to the cancer afflicted, not only from Karnataka but also from neighbouring south Indian states. Starting with only 50 beds, the institution now has 369 beds. The Bangalore City Corporation's Sri Venkateswara Dharmashala provides accommodation to about 250 ambulatory cancer patients along with attendants. The institute is a referral comprehensive cancer centre, with 70 percent of its patients being referred by other institutions and medical practitioners. Annually 10,500 new cases have been registered and about 1.8 lakh follow-up patients' visits recorded. The institute offers all modalities of cancer treatment-surgery, radiotherapy, chemotherapy, hormone therapy and pain relief through a multi-disciplinary team approach.

##### **Sri Jayadeva Institute of Cardiology, Bangalore**

The Sri Jayadeva Institute of Cardiology (JIC), a part of the Victoria hospital till 4 July 1980, started functioning

of non-governmental health care providers in delivering quality health care, it is time now to evolve comprehensive and effective legislation to regulate medical institutions, monitor the role of the private sector and assess service quality in the health care provided by private practitioners and institutions. Referrals between private primary care and public sector secondary levels in diagnosis, treatment and care could also be encouraged.

Since cost sharing has not yet been properly implemented, levels of funding for supplies, operations and maintenance continue to be low. While continuing to protect the poorest sections of society, cost sharing to partially cover at least non-salary recurrent costs must be encouraged so that institutions get in return a major portion of the revenues raised by them.

Since the existing surveillance system is weak, especially at the secondary level and in urban areas, efforts are required to establish an effective system to reduce morbidity and mortality rates attributable to major communicable diseases.

It is also necessary to find imaginative ways of using contracting services for health care support like laundry, cleaning services, the manufacture of I. V. fluids etc.

Operational deficiencies and poor functioning of secondary health care hospitals due to inadequate non-salary recurrent funds for maintenance, drugs and medical supplies call for greater allocations for operations and maintenance. Rapid physical expansion in the number of sub-centres, PHCs, CHCs, taluklevel and sub-district hospitals has been at the cost of consolidation and improvement of physical facilities in existing institutions. While it is important to ensure that existing facilities are properly maintained, staffed and utilised, further expansion of beds and hospital institutions should be strictly needbased. There should not be expansion in the number of beds or hospitals solely for the purpose of meeting the requirements of proposed private medical training institutions to meet the norms of the Medical Council of India or the Dental Council of India.

as a separate autonomous institute in September 1984 to render modern medical care for heart diseases. Open heart surgical procedures are being carried out routinely including single and double valve replacements, TOF, ASDs and VSDs and coronary artery bypass grafting, catheterisation, coronary angiogram, permanent pacemaker implementations, angioplastics and balloon valvuloplastics procedures. The bed strength of this Institute is 183, which include special wards and intensive care wards. 80 percent of the patients treated at the JIC are poor patients from rural areas. Mobile Coronary Care Ambulance Units have been introduced to render treatment to patients on the spot. Since the present space is inadequate to meet the growing demand for accommodating in-patients, the construction of a new Institute of Cardiology Complex has been taken up at Bannerghatta Road to accommodate 477 beds.

### **Sanjay Gandhi Accident Hospital and Research Institute, Bangalore**

The Sanjay Gandhi Accident Hospital and Research Institute was established in April 1984 as an autonomous institute. The objective of this institute is to provide immediate medical aid at the accident spot and treatment and rehabilitation facilities to accident victims and prevent deaths by providing timely medical aid to accident victims. These objectives are sought to be achieved by providing ambulances, fitted with wireless sets stationed at vantage points around Bangalore to rush to the accident spot with medical aid and para-medical staff. If necessary, accident victims are rushed to the Institute. Victims brought for treatment are given all medical assistance, peri-operative care, rehabilitation and artificial limbs. The hospital is equipped with modern operation theaters, an X ray plant, laboratory, casualty and emergency services, an intensive care unit and a blood bank.



# Education and literacy

## The challenge ahead

### The importance of education

*"The most valuable of all capital is that invested in human beings"*

**Alfred Marshall**, The Principles of Economics (1890)

*"Every man has the right to the full development of his abilities and society wrongs individuals twice over when it makes ignorance a necessary consequence of poverty"*

**Frederick Engels**, Speeches in Elberfeld (1845)

*"The elimination of ignorance, of illiteracy...and of needless inequalities in opportunities.. (are) objectives that are valued for their own sake. They expand the freedom to lead the lives we have reason to value and those elementary capabilities are of importance on their own",*

**Amartya Sen and Jean Dreze**,

Economic Development and Social Opportunity (1995),

*"Education is the passport to accelerated economic growth. ..(it) is the key to building human capital and human capital is the vital ingredient in building a nation."*

**Mahboob ul Haq and Khadija Haq**,

Human Development in South Asia 1998.

### Literacy levels

Attainments in literacy in Karnataka are still average, notwithstanding significant improvement in the last few decades. In absolute terms, the position in rural areas gives cause for concern.

Census data indicate that the literacy rate has moved from 30% in 1961 to 56% in 1991. The Department of Education has estimated that by 1996 the literacy rate was well over 63%. 1991 census figures show that although the male female differential is narrowing, it is still high - literacy among males is around 67% while it is only 44% among females. At its highest, female literacy is 68% in Dakshina Kannada and Bangalore Urban districts, which is still far behind the highest levels in states like Kerala, Tamil Nadu and Maharashtra. The differential in literacy rates is highest in rural areas. Rural female literacy for the state is as low as 35%, with the districts of Gulbarga and Raichur having rural female literacy rates

lingering at around 16%! Female literacy in the two remaining districts of Bellary and Bidar in Gulbarga division is also only marginally above 30%. It is a matter for concern that the districts of Belgaum, Bangalore Rural, Kolar, Mandya and Mysore too have female literacy rates below the country average of 39%. In contrast, apart from Dakshina Kannada and Bangalore Urban, Kodagu and Uttara Kannada boast of relatively high female literacy rates.

In the state as a whole between 1961 and 1996 literacy rates improved by 113%. Dharwad (63%) recorded the slowest growth, while Bidar has the distinction of recording a growth of over 200%. Literacy among males went up by 74%, while the rate of growth of female literacy has been much faster at 215%. Bidar again tops the list, its female literacy rate increasing by over 650% from less than 6% in 1961 to over 41% in 1996. Gulbarga and Mandya districts also exhibit increases in literacy of over 400% in this period.

*Literacy attainments in Karnataka are still average; rural female literacy continues to be a matter of concern*

## Literacy efforts

The first efforts to spread literacy and adult education in the state began with Sir M. Vishweshwarayya starting a scientific magazine called Vigyan and operationalising a network of 3000 rural libraries in old Mysore. In the 1940s the Mysore State Adult Education Council, which functioned as the chief agency for adult education, gave special attention to the development of reading material. It obtained the cooperation of well-known Kannada writers for writing books for neo-literates and published a weekly magazine called Belaku.

After independence the main thrust was not on literacy but on social education, which was a cornerstone of the community development strategy adopted almost with the start of the country's planned development. Simultaneously, various programmes of workers' education, women's continuing education and residential adult education were started through agencies like Vidyapeethas, Krishi Vigyan Kendras (KVKs) and the Central Board of Workers' Education (CBWE).

**Table 4.1**  
**Districtwise literacy rates**

| District         | 1991        |             |             | 1996        |             |             |
|------------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                  | M           | F           | T           | M           | F           | T           |
| Bangalore        | 82.9        | 68.8        | 76.3        | 89.1        | 77.5        | 83.6        |
| Bangalore(R)     | 61.5        | 38.1        | 50.2        | 66.7        | 43.4        | 55.4        |
| Belgaum          | 66.6        | 38.7        | 53.0        | 73.1        | 46.1        | 59.9        |
| Bellary          | 58.7        | 32.0        | 45.6        | 64.3        | 38.1        | 51.4        |
| Bidar            | 59.0        | 30.5        | 45.1        | 67.5        | 41.6        | 54.9        |
| Bijapur          | 69.7        | 40.1        | 55.1        | 78.0        | 53.5        | 66.0        |
| Chikmagalur      | 70.6        | 51.3        | 61.0        | 77.2        | 59.5        | 68.4        |
| Chitradurga      | 66.9        | 43.4        | 55.5        | 73.5        | 51.4        | 62.8        |
| D.Kannada        | 84.4        | 68.0        | 75.9        | 91.9        | 78.5        | 85.0        |
| Dharwad          | 71.4        | 45.2        | 58.7        | 76.3        | 52.6        | 64.5        |
| Gulbarga         | 52.1        | 24.5        | 38.5        | 57.4        | 30.9        | 44.5        |
| Hassan           | 68.6        | 44.9        | 56.8        | 77.2        | 55.1        | 66.1        |
| Kodagu           | 75.3        | 61.2        | 68.3        | 81.9        | 68.4        | 75.1        |
| Kolar            | 62.7        | 37.7        | 50.4        | 70.2        | 46.0        | 58.3        |
| Mandya           | 59.2        | 36.7        | 48.1        | 67.4        | 46.9        | 57.3        |
| Mysore           | 56.2        | 37.9        | 47.3        | 63.4        | 46.0        | 54.9        |
| Raichur          | 49.5        | 22.1        | 36.0        | 53.6        | 26.5        | 40.2        |
| Shimoga          | 71.2        | 51.4        | 61.5        | 77.3        | 59.0        | 68.3        |
| Tumkur           | 66.5        | 41.9        | 54.5        | 73.3        | 51.1        | 62.5        |
| U.Kannada        | 76.4        | 56.8        | 66.7        | 82.0        | 64.0        | 73.1        |
| <b>KARNATAKA</b> | <b>67.3</b> | <b>44.3</b> | <b>56.0</b> | <b>73.7</b> | <b>52.6</b> | <b>63.4</b> |

Source: Census 1991 and Department of Public Instruction

### Box 4.1

#### Akshara Kranti in Gulbarga city

A strange apparition in a formal suit, tie and hat in the blistering heat of summer may confront a visitor to Gulbarga. The slight figure is surrounded incongruously by a sea of black burkha clad women shouting literacy slogans. Meet Dr. Jahmoor and his intrepid band of women Saksharata volunteers. His team ably led by Jahida and Hamida, work in one of the most educationally backward pockets of Gulbarga city. Their movement now complements the Akshara Kranti total literacy programme of the district. The group is responsible for managing 400 learning centres and has made over 4000 women literate. As a spin off of the literacy movement, 120 mahila mandals have been formed where assistance is provided to neoliterates for improving their access to government income generating schemes

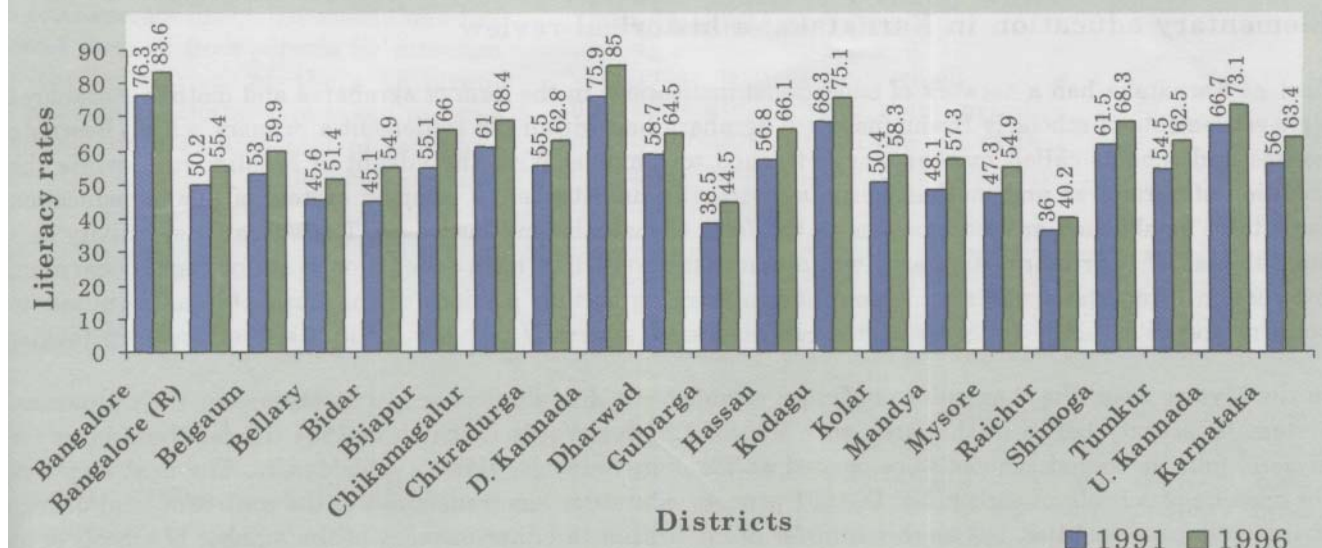
In the 1960s, the Farmers' Functional Literacy Project (FFLP) was launched, where learners learnt new agricultural practices along with literacy skills. The programme succeeded in disseminating knowledge about improved agricultural practices, but it was by and large restricted to well off farmers, especially those who wished to take advantage of new agricultural practices. It left the exploited marginal farmer, agricultural labourers and women outside its scope.

In 1978, the National Adult Education Programme (NAEP) was introduced. Conceptualised as a programme that would draw in voluntary agencies, youth organisations, universities and colleges and providing for acquisition of literacy skills, social awareness and functional development by participants, NAEP retained its original thrust and vigour only for a short period. Its excessive emphasis on enrolment and target setting resulted in achievement being seen as a numbers game with scant attention being paid to learning achievement or outcomes. The NAEP Review Committee was set up in 1980, even before the programme had a chance to produce an impact.



Figure 4.1

## Districtwise literacy rates



The setting up of the National Literacy Mission a decade later gave a new impetus to the literacy programme and made it possible for the state to adopt a systematically planned campaign approach to literacy. The campaign approach is characterised by the large-scale mobilisation of people from different walks of life through a multi-dimensional communication strategy, which exposes the vital links between literacy and the problems of life, such as access to credit and resources, health and empowerment. Integrated with systematic plans for learner and volunteer identification, training, materials development and periodic monitoring and evaluation, the approach represents a timebound and areabased attempt to achieve pre-determined levels of literacy.

In Karnataka total literacy campaigns commenced in Bijapur and Dakshina Kannada districts in 1989-90 and were extended to all districts in a phased manner. Against 80 lakh people proposed to be covered in the 9-35 age group, 35 lakh persons had become literate by 1997-98, as estimated by independent evaluations. Campaigns are going on at present in the districts of Bangalore Urban and Rural. In other districts, where all identified persons could not achieve basic literacy levels, a fresh initiative was organised in 1997-98 through the Kannada Nadu Sakshara Nadu campaign. The recent

campaigns have tried to involve panchayati raj institutions to a much greater extent.

Post-literacy and continuing education efforts need to be taken up and sustained, both to ensure that neo-literates who have benefited from campaigns do not relapse into illiteracy, as well as to cover persons who have been missed in earlier campaigns. The recent initiative taken by the government has clearly revealed the difficulties and challenges facing the total literacy effort. To mobilise people for literacy is at once exciting and formidable, but to do this a second time is even more difficult.

#### Box 4.2

##### Organising neo-literates for empowerment and action

Dakshina Kannada has the distinction of being declared the first fully literate district in Karnataka as far back as 1990. It is also a district where an innovative approach has been adopted for providing lifelong education to neo-literates through the Neoliterate Development Samithi (NLDS) formed in 1991. NLDS plays an important role in bringing together people belonging to diverse castes, religions and linguistic backgrounds on the basis of a common identity. All NLDS members sit and eat together, man and woman, Hindu and Muslim. NLDS activities have continued long after the withdrawal of financial assistance from the government. The NLDS platform has enabled hundreds of neoliterates to come into direct contact with people's representatives and the district administration. It has encouraged people to mobilise local resources for education, development and mutual benefit.

### Box 4.3

#### Elementary education in Karnataka: a historical review

Ancient Karnataka had a network of educational institutions in the form of agraharas and mathas. Agrahara were settlements of scholarly Brahmins. Each agrahara had within the settlement a primary school. Boarding houses and schools called mathas were attached to temples. With the advent of Muslim rule, while the tradition of agraharas and mathas continued virtually undisturbed, a common system of Islamic education came to be established around mosques in the form of maktabas and madrasas. The educational activity in a maktab was of a primary standard, while madrasas were like high schools or seats of higher learning. Instruction in maktabas was mainly confined to learning certain portions of the Koran to enable pupils to perform prescribed daily religious duties. In madrasas, generally theology, politics and ethics were taught.

In the Mysore area, the then ruler of Mysore established a free English school at Mysore in 1833. However, systematic activity began in this area with the Sir Charles Woods Dispatch of 1854. Under the scheme for Mysore, four divisional schools were opened at Tumkur, Shimoga, Hassan and Mysore. The next step was the opening of schools in each hobli. In 1931 primary education was transferred to the control of local district boards and municipalities, but as this transfer did not result in either increase in the number of schools or in efficiency, the government resumed control over primary education in 1941.

Modern education in the Belgaum area was started with the establishment of two Marathi vernacular schools in 1826. Kannada schools came into existence after 1836. A Board of Education was formed in 1840 and functioned till 1855, during which period 34 vernacular schools were started along with one English school. In addition to the government's efforts, Christian missionaries, such as the Basel Mission started several schools. By 1881-82 there were 763 government vernacular and aided schools along with 574 unregistered schools in the four districts of the Belgaum area. The Bombay Primary Education Act of 1923 handed over primary education to local authorities and a scheme was introduced of establishing voluntary aided schools in villages with a population of 700 and below and of Board Schools in villages with a population of more than

700. The Bombay Primary Education Act of 1947 returned the powers of managing primary education to the government and an element of compulsion was introduced in a phased manner.

In the Madras-Karnataka area missionary societies entered the field of education and established schools in Mangalore, Udupi and Bellary by 1838. Grant-in-aid codes introduced in 1855 and 1858 brought many schools

started by the local community under the modern system of education. The Madras Elementary Education Act of 1863 placed primary education on a firm footing by providing funds for it. The 1st World War affected the progress of education, though there continued to be marked expansion, especially between 1921 and 1947.

In the Gulbarga area the beginning of modern education can be traced to 1853 and the starting of the Darul-Uloom by Sir Salarjung in Hyderabad. Till 1887-88 the medium of instruction was Marathi after which Kannada became the medium of instruction in primary schools. In 1911 a royal ordinance was issued making primary education free and during the period 1911-21 primary education was expanded with the object of providing a school to each village with a population above 1000.

In Kodagu two Anglo vernacular schools and a Kannada primary school were started by the government in 1834. A regular system of education came into existence in 1857. There has been rapid expansion of education in this area since 1921. At the time of reorganisation of states in 1956 there were different patterns of school education. In Mysore area 4+4 years constituted the pattern of lower and higher primary education. In Madras and Kodagu there existed a 5+3 year pattern, while in Belgaum and Gulbarga areas the pattern followed was 4+3 years. The Education Integration Advisory Committee constituted in 1957, recommended that primary education should be an integrated course of 7 years and this recommendation was fully implemented in the state in 1963.

## Universalising primary education

In total literacy campaign areas there has been a demand from parents for attention to the education of their children. Simultaneous efforts were taken to focus on the universalisation of primary education. The goal of universal primary

education envisages providing for:

- universal access, which presupposes that a primary school is available within walking distance of all children;
- universal participation, which implies that all children who start primary education continue until the end of that stage and that their participation is active and regular, and

### Box 4.4

#### District Primary Education Programme (DPEP)

Launched in 1994-95 in four districts, DPEP now covers eleven districts of the state. The districts were identified for their low female literacy rates. These districts also have higher infant mortality rates, more adverse sex ratios and poorer per capita incomes. The four districts selected in Phase I were Belgaum, Kolar, Mandya and Raichur. The additional seven districts covered in Phase II are Bangalore (R), Bellary, Bidar, Bijapur, Dharwad, Gulbarga and Mysore. Thus, DPEP covers the entire northern and eastern part of the state, which has been traditionally more backward than the rest of the state.

DPEP aims at augmenting the state government's efforts at achieving universal primary education in these districts through providing access to all children by formal or non-formal education systems. It also aims at ensuring universal participation by children in the education system and improving the quality of teaching - learning transactions at the lower primary stage. The DPEP focus is on improving access, participation and achievement by children from marginalised groups, particularly girls and SCs and STs.

In the first four years, there has been progress in many areas, including techniques and activities for people's mobilisation and their participation in the education process through a variety of programmes, like Kala Jathas, chinnara melas, VEC melas and microplanning. These programmes aim at involving the community in taking responsibility for universalizing primary education in their area. Progress has also been made in improving the quality of teaching - learning transaction by providing all children in classes I-IV with competency based, activity cum workbooks and teachers with relevant guides. A comparison between the results of baseline and midterm achievement tests for the Phase I districts indicates visible improvement in the learning levels achieved. The quality of teaching learning transaction is also sought to be improved through development of a variety of supplementary material, such as a monthly wall-newspaper for children entitled Kali Nali, material promoting the rural language (as opposed to the very formal, standardised and prescriptive language generally used in the classroom, which tends to inhibit language development) - Ratna Pakshi, Baro Gijuga, Huiyyo Huiyyo Maleraya, Kathe Kathe Karunda. Supplementary material has also been developed for VEC members. These include Namma uru shale, namma uru jana and Namma urina shale heege irali. This material is used in training programmes for the large number of actors involved in the education process, including teachers, VEC members, educational administrators and training staff themselves. Training manuals created by DPEP include Chiguru, Manthana and Aadona Baa for teachers, Gram Shikshana Samiti Kaipidi for VEC members, Suksmayojane for microplanning teams and Mukya shikshakara tarbeti kaipidi for headmasters. Training is conducted in a participatory mode with the help of full time faculty at Block Resource Centres and Cluster Resource Centres.

However, progress in implementation is uneven across districts. Non-formal education systems to provide access to children who are out of school because of domestic and wage earning responsibilities have yet to take root. More work needs to be done in the area of multigrade teaching. There is also need for continuous academic resource support and for institutionalising a rigorous system of academic monitoring to ensure that material created and the new teaching - learning pedagogy reach the classroom. A new vision of the classroom and the school must grow, in which children are not expected to be silent or mute recipients of information and knowledge which is 'poured' into their heads, but are active and dynamic partners in the entire learning process. This vision must be shared by all those involved in education - policy planners, administrators, trainers, teachers and the community.

» universal achievement, which means that all children attending school achieve certain predetermined levels of learning when they complete their primary education.

The state has made steady progress in achieving universalisation of elementary education, though the progress has been uneven in different districts. The major steps initiated are:

- \* Community involvement for enrolment of 6-9 year olds in schools
- \* Opening schools in school-less habitations with a population of 200 persons,
- \* Upgrading lower primary to upper primary schools
- \* Recruitment of teachers through systems that are transparent and open to public scrutiny,
- \* Construction of classrooms
- \* Designing curriculum and teaching learning material to make learning relevant
- \* Conducting training programmes for teacher support and motivation and group activities for enlivening the school atmosphere,
- \* Holding regular teacher-community meetings for community solutions to problems faced by teachers with regard to pupil participation, school facilities and progress of learning.

## Rapid increase in primary schools and enrolment

The number of primary schools in Karnataka went up from about 25,800 in 1960 to over 46,900 in 1997-98. The 1993 Sixth All India Education Survey indicated that 91% of the population was served by primary schools within the habitation itself and over 96% had schools within one kilometer. Over 60% of the population was served by upper primary schools within the habitation and 85% had upper primary schools within three kilometers. Since 1993 there has been substantial expansion in the network of lower and upper primary schools. Revised state government norms provide a primary school for every habitation with a population of 200 against the prevalent Government of India population norm of 300.

At the time of the Sixth All India Education Survey 80% of the schools were government lower primary schools. Aided and unaided private schools accounted for 10% each. The percentage of enrollment in government primary schools was over 90% in rural areas but less than 50% in urban areas. The pattern was the same in upper primary schools with almost 90% of rural children going to government schools (55% of urban students were found to be studying in private schools).

Enrolment in primary schools has kept pace with expansion of the primary school

### Box 4.5

#### Silent revolution in Deodurga

Deodurg in Raichur district is one of the most educationally backward talukas in the state. Deodurg has a rural female literacy percentage of only 9% as per the 1991 census. Till recently, several habitations in the taluka did not have a single educated or school going girl. All this is now changing fast. There is a new awakening among people due to the District Primary Education Programme (DPEP) and the Mahila Samakhya programme. Enrolment in schools has increased significantly, attendance has improved and new schools have been opened in far-flung and remote habitations. Government interventions are now being supported by people's movements at the grassroot level.

Nemanayakanda tanda in Kothadoddi Panchayat is one such habitation. The nearest school was 3 kms. away. Somla Naik who had studied up to class VII wanted his and other children from the tanda educated. In 1995 he donated land for the purpose and a school was started under the DPEP. Now all children of the tanda go to school. Yellammana doddi in Galag Panchayat is another habitation at the centre of several such 'doddhis' (hamlets), each with a cluster of 10-20 houses. In 1998, due to the efforts of Kariyappa the adhyaksha of the Panchayat and other Panchayat members, a school was opened. Children from 7 surrounding doddhis also attend school. Deodurg now appears to be moving out of the shadow cast on it for centuries but efforts made by Somla Naik and others like him have to be supported and sustained.



network. From 23 lakhs in 1959-60, enrolment at the primary level now exceeds 82 lakhs. What is noteworthy is that average annual growth rates in enrolments have been much above the state average in all the districts of Gulbarga division with Bidar recording a phenomenal ten-fold increase since 1959-60. Bangalore division, especially the districts of Shimoga and Tumkur, has recorded growth rates above the state average. However average annual growth rates in Belgaum division have been somewhat disappointing. The districts of Dakshina Kannada and Kogadu exhibit moderate growth rates in enrolments, primarily because birth rates are declining.

### Significant variation in teacher-pupil ratios across districts

Recruitment of teachers has more or less kept pace with growth in enrolment. Teacher - pupil ratios in primary schools went up in the eighties and the early nineties, but since then, there is a healthy declining trend, due to the massive program of recruitment of teachers taken up from 1993-94. A record number of 29,300 teachers were recruited in 1997-98 alone and the teacher-pupil ratio in primary schools has come down to 43. Notwithstanding this overall satisfactory position, there are significant inter-district variations. All districts of Gulbarga division have adverse teacher - pupil ratios as new posts of teachers tend to be sanctioned on a more or less prorata basis depending on the population, while enrolments in these four districts have grown much faster. Hassan (1:32) and Chikmagalur (1:28), which also have declining birth rates, have teacher - pupil ratios much below 1:40. In contrast, Raichur has a teacher - pupil ratio of 1:49 and Bijapur of 1:52. There is also significant variation in teacher - pupil ratios between urban and rural areas. The 1993 survey indicates that the teacher - pupil ratio was as high as 1:60 in rural areas, while in urban areas it was 1:47. More rational deployment of teachers is required to ensure that imbalances are corrected.

In keeping with growth in enrolments, the dropout rate has fallen very sharply since

#### Box 4.6

##### Enrolment and dropout rates defined

**Gross enrolment ratio** is the number of students enrolled in a level of education, whether or not they belong to the relevant age group for that level, as a percentage of the population in the relevant age group at that level.

**Net enrolment ratio** is the number of students enrolled in a level of education who belong to the relevant age group as a percentage of the population in that age group.

**Dropout rate** is the percentage of children to total enrolment dropping out of school in a particular year at a particular level.

1980 both for boys and girls, especially in lower primary sections (classes I-IV). The dropout percentage in classes declined from 69% in 1950-51 to 44% in 1980-81 and to 17% in 1993-94. It fell further to 16.5% in 1997-98. The dropout rate for girls has also shown a dramatic decline from 73% in 1950-51 to 18% in 1993-94 and 16% in 1997-98.

Gross enrolment ratios (GER) for classes I-VIII have also shown significant improvement since 1980-81. Overall it has moved up from 66 in 1980-81 to 92 in 1996-97. In 1980-81 Raichur had a very low GER of 43, with Gulbarga following at 54. The GERs in these two districts have now moved up to 71 and 90 respectively. As for girls, the GER for the state for classes I-VIII has gone up from 56 in 1980-81 to 88 in 1996-97. Raichur stands out as the district where enrolment of girls continues to be a matter of great concern, despite improvement in the GER from 35 in 1980-81 to 59.5 in 1996-97. Mysore, Mandya, Gulbarga, Bijapur and Bellary had GERs for girls much below the state average in 1980-81. Though the position has improved considerably, these districts still have GERs below the state average.

### Increase in the participation of girls

Another indicator of the enrolment of girls in lower and upper primary classes is the ratio of girls enrolled to total enrolment. In classes I-IV this ratio moved up from 44.5 in 1980-81 to 48 in 1997-98. All districts show increase in these rates in classes I-IV, except Raichur and Bijapur, where the ratio has in fact fallen marginally. In upper primary sections



(classes V-VII) the ratio of enrolled girls to total enrolment moved up from 39 in 1980-81 to 45 in 1997-98. Raichur is again at the bottom of the list though there has been a slight increase in the ratio from 27 to 32. Gulbarga has stagnated at the same ratio of 32. Bellary too has a very poor girl participation rate with the ratio of girls enrolled to the total increasing only marginally from 33 to 38 between 1980-81 and 1997-98. Bidar shows remarkable increase in the ratio from 28 in 1980-81 to 43 in 1997-98. Mandya, Kolar and Mysore districts have girl participation rates much below the state average.

Increase in the number of primary schools, rapid growth in enrolment and a relatively healthy looking GER do not tell the entire story. Though large numbers of girls and boys between six and fourteen are attending schools, an alarmingly high number of boys and girls are out of school. In 1980-81, out of a child population of 81 lakhs in the 6-14 age group, 53 lakhs were in school. As many as 38 lakh children,

**Table 4.2**  
**Estimated out-of-school children, 1996**

| District        | Estimated out-of-school children |                | Percentage of children out of school |             |             |
|-----------------|----------------------------------|----------------|--------------------------------------|-------------|-------------|
|                 | Boys                             | Girls          | Boys                                 | Girls       | Total       |
| Bangalore Urban | 50214                            | 65292          | 11.1                                 | 14.4        | 12.7        |
| Bangalore Rural | 49380                            | 69749          | 27.8                                 | 38.7        | 33.3        |
| Belgaum         | 105918                           | 127654         | 28.1                                 | 34.3        | 31.2        |
| Bellary         | 47289                            | 83975          | 21.4                                 | 38.8        | 30.0        |
| Bidar           | 20557                            | 33768          | 14.2                                 | 23.9        | 19.0        |
| Bijapur         | 61597                            | 110307         | 18.4                                 | 34.1        | 31.2        |
| Chikmagalur     | 22510                            | 29809          | 23.4                                 | 31.0        | 27.2        |
| Chitradurga     | 47421                            | 72535          | 20.4                                 | 32.0        | 26.1        |
| D.Kannada       | 40102                            | 54939          | 15.3                                 | 20.7        | 18.1        |
| Dharwad         | 104567                           | 138213         | 26.7                                 | 36.3        | 31.4        |
| Gulbarga        | 67668                            | 100945         | 22.6                                 | 35.0        | 28.7        |
| Hassan          | 42376                            | 52845          | 27.2                                 | 33.4        | 30.3        |
| Kodagu          | 9002                             | 12219          | 20.5                                 | 28.7        | 24.6        |
| Kolar           | 52759                            | 76843          | 22.2                                 | 32.2        | 27.2        |
| Mandya          | 39201                            | 59123          | 24.4                                 | 35.8        | 30.2        |
| Mysore          | 98223                            | 130951         | 30.5                                 | 40.5        | 35.5        |
| Raichur         | 89241                            | 144480         | 33.2                                 | 54.4        | 43.8        |
| Shimoga         | 51318                            | 58553          | 26.8                                 | 30.9        | 28.8        |
| Tumkur          | 46949                            | 72847          | 20.2                                 | 31.3        | 25.7        |
| U.Kannada       | 27532                            | 36386          | 22.7                                 | 31.1        | 26.8        |
| <b>STATE</b>    | <b>1073824</b>                   | <b>1531433</b> | <b>22.7</b>                          | <b>32.8</b> | <b>27.7</b> |

Source: Department of Public Instruction

#### Box 4.7

##### Interview with Renavva, a 10 year old girl from Raichur.

Didn't your father ever send you to school?

No. My younger sister and brother go.

Are you the eldest?

Yes

Is that why they stopped you?

Did they say 'don't go', or did you not want to go?

They didn't send me. I didn't go.

When you see them going, do you feel like going too?

How can I go to school now?

Are you shy?

Yes

Why?

They'll taunt me.

Who will taunt you?

My people.

What will they say?

'You're as old as a donkey. Why do you want to go to school now'.

that is 48% of the children of that age group, were out of school. The percentage of girls out of school was as high as 55 with Raichur having the dubious distinction of keeping 65% of its girls out of school. The position has improved significantly. In 1996-97, out of a total estimated child population of 94 lakhs in the 6-14 age group, 86 lakhs are in school. However, though the percentage of children out of school has dropped to less than 28% in 1996-97, in absolute numbers the total number of these children continues to be as high as 26 lakhs. The percentage of girls out of school has dropped from 55% to 33%; the percentage of boys out of school has also dropped from 40% to 23%. The highest percentage of children out of school continues to be in Raichur, which has 54% of its girls and 33% of its boys out of school.

### Low learning achievement

A major area of concern in primary education is the poor quality of teaching which has resulted in low achievement levels. Several studies have shown that a

**Box 4.8****Schemes of the Department of Education for universalising elementary education**

|                                     | ACCESS                                                                                                                                                                              |                                                            | RETENTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                  | QUALITY IMPROVEMENT                                                                                                                                                         |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| New schools                         | Providing a lower primary school in habitations with a population of 200<br>Providing an upper primary school within a distance of 3 kms of the habitation.                         | Vidya Vikasa School bags note books Midday meals           | Vidya Vikas scheme provides free uniforms and textbooks to all children in classes I-IV, in government schools. SC/ST children in classes V-VII are also given free uniforms and textbooks.<br>SC and ST girls studying in classes V-VII are provided a school bag as an incentive to continue their education beyond the lower primary level.<br>The GOI scheme of nutritional support provides food grains at 3 kgs per child per month. All children studying in classes I-V in government and aided schools with 80% attendance are beneficiaries of this scheme. | Teacher training                 | Pre-service training of teachers is provided through 135 teacher training institutes in the state<br>Inservice training is provided through DIETs and BRCs (DPEP districts) |
| Constructing school buildings/rooms | Providing one classroom for each teacher, the government provides Rs.60,000 for construction.<br><br>Over 25,000 classrooms constructed since 1995-96.                              | Health check ups                                           | Health cards have been provided to all schools. Each child in classes I and IV is given a health checkup.                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Equipment, furniture TL material | Equipment, furniture and teaching and learning materials are provided to schools by funding from both the state government and the Operation Black Board scheme of GOI.     |
| Appointing teachers                 | To improve the teacher-pupil ratio government has taken up a massive programme of teacher recruitment.<br><br>Over 86,000 teachers have been recruited between 1994-95 and 1997-98. | Under taking school repairs<br><br>Construction of toilets | Repairs to improve the physical condition of schools are being given special attention by the government.<br><br>Toilets are being constructed at a cost of Rs. 50,000 per school.                                                                                                                                                                                                                                                                                                                                                                                    |                                  |                                                                                                                                                                             |

majority of children do not attain the minimum achievement levels prescribed for their age. This is mainly due to multi-grade teaching in primary schools which continues despite massive recruitment of teachers at the elementary level. As part of the DPEP programme in the state a new child-centred pedagogy has been developed which is appropriate to multi-grade situations. This is now being implemented in all districts in a phased manner. Successful models, such as the one tried

out with UNICEF assistance in HD Kote block of Mysore, are being replicated elsewhere. Studies have shown that positive interventions in making curriculum transactions child-centred have produced remarkable results in a very short time. In the four DPEP districts of Belgaum, Kolar, Mandya and Raichur a baseline assessment test was administered in 1994; the same test was readministered in 1997 after DPEP interventions. The average performance

| District         | Language      |               |       | Mathematics   |               |       |
|------------------|---------------|---------------|-------|---------------|---------------|-------|
|                  | 1997<br>Mean% | 1994<br>Mean% | Diff. | 1997<br>Mean% | 1994<br>Mean% | Diff. |
| <b>Class I</b>   |               |               |       |               |               |       |
| Belgaum          | 87.95         | 61.76         | 26.19 | 94.00         | 62.40         | 31.60 |
| Kolar            | 81.74         | 46.39         | 35.35 | 83.47         | 40.52         | 42.95 |
| Mandya           | 89.10         | 56.01         | 33.09 | 83.78         | 46.23         | 37.55 |
| Raichur          | 88.74         | 57.96         | 30.78 | 82.39         | 50.40         | 31.99 |
| <b>Class III</b> |               |               |       |               |               |       |
| Belgaum          | 66.30         | 40.09         | 26.21 | 71.94         | 46.25         | 25.69 |
| Kolar            | 59.46         | 31.70         | 27.76 | 48.34         | 32.75         | 15.59 |
| Mandya           | 57.00         | 34.66         | 22.34 | 40.41         | 39.50         | 0.91  |
| Raichur          | 58.34         | 36.23         | 22.11 | 59.40         | 38.00         | 21.40 |

Source: DPEP state project office, Bangalore.

of students in classes I to III indicates that remarkable progress has been made in both language and mathematics. In class I the achievement graph has risen by 26% in language in Belgaum and by 35% in Kolar. In mathematics it has increased by almost 32% and 43% in Belgaum and Kolar respectively. As for class III students, it has increased by 22% in Raichur and by nearly 28% in Kolar in language. In mathematics the increase has been over 25% in Belgaum. Table 4.3 gives the details of the tests conducted.

## Box 4.9

### The HD Kote project

#### Joyful learning in a multi-grade context

Teachers have to be equipped to deal with multi-grade teaching, as even in the foreseeable future the multi-grade situation will continue to be the norm rather than the exception. Training programmes to deal with multi-grade situations have hitherto concentrated on how the teacher should divide her time among children of different grades, without sufficient thought being given to how optimum use can be made of the time available to the child for learning activities. This is not the real spirit of multi-grade teaching, which brings children of different grades and abilities together in one class room. The HD Kote project reflects what is possible in a multi-grade situation. The project which drew inspiration from the experiment conducted by the Rishi Valley Education Trust, Madanapalli, Andhra Pradesh has been in operation with UNICEF support since 1995 in 270 schools of HD Kote block in Mysore district. Two major strategies developed are:

- improved classroom inter action, through a graded curriculum which sets learning tasks along a continuum, replacing textbooks with activity based material to make learning individualised, child centred and interactive and bridging attainment gaps so that all children achieve predetermined levels of learning.
- improved teacher committment and involvement through development of all teaching and learning material through teacher participation, enhancing the creativity and competence of teachers by giving them a say in material production and development of monitoring and evaluation tools to ensure accountability.

The major strengths of the programme are the following:

- There is a sense of ownership of the programme by teachers as they have been participants at all stages.
- All actors, especially inspectors, AEOs and BEOs understand and identify with the methodology.
- Cluster resource persons are very carefully selected and provided constant support and guidance.
- The methodology is based on sound principles of learning and is appropriate to multi-grade situations.

The programme has resulted in significant improvements in enrolment, increase in retention rates and appreciable increases in learning achievement. The experiment is being upscaled to cover six additional blocks of Mysore district with DPEP assistance in 1998.

#### **Box 4.10**

#### **Free and compulsory education: Constitutional provisions, legislation and judicial interpretation**

Article 45 of the Constitution of India: 'The state shall endeavour to provide, within a period of ten years from the commencement of this constitution, for free and compulsory education for all children until they complete the age of fourteen years'.

In the landmark judgement of the Supreme Court in *JP Unnikrishnan and others vs. the State of Andhr a Pradesh* pronounced in January 1994 the Court went into the question of whether the Constitution of India guarantees a fundamental right to education to its citizens. Specifically in respect of elementary education the Supreme Court raised the question: 'Does not the passage of 44 years.... convert the obligation created by the Article into an enforceable right<sup>1</sup> and went on to categorically pronounce that '.... we must say that at least now the State should honour the command of Article 45. It must be made a reality - at least now. Indeed the National Policy on Education- 1986 says that the promise of Article 45 will be redeemed before the end of this century. Be that as it may, we hold that a child has a fundamental right to free education up to the age of 14 years'.

This judgement goes on to state that this obligation can be performed not only through state schools, but also by aiding voluntary NGOs who are prepared to impart free education to children. The Supreme Court has further observed that unaided private schools also have a role to play. 'They meet the demand of that segment of the population who may not wish to have their children educated in state run schools. They have necessarily to charge fees from the students'

More, recently, in April 1998, in the *Satya Pal Anand Case* the Supreme Court expressed satisfaction about the action taken by various state governments, but left open 'to any public spirited person to move the concerned High Court if there be any need on the part of the state towards implementation of the dictate of Unnikrishnan's case'.

Following the Constitutional Directive of Article 45, Karnataka introduced the Karnataka Compulsory Primary Education Act of 1961, which provided for the enforcement of compulsion at the lower primary stage. This Act has since been replaced by the Karnataka Education Act 1983, which received the assent of the President in October 1993. This Act provides that the state government may direct primary education to be compulsory in any area after ensuring adequate number of schools and teachers. It casts a duty on the parent to cause a child to attend school, but does allow for 'compelling' circumstances preventing the child from attending school.

The recent judgement of the Division Bench of the High Court of Karnataka in WA nos. 1833-1836/95 pronounced in May 1998 has brought into sharp focus the duty of the state to provide free and compulsory elementary education to children up to the age of 14. The High Court has held that: ' the state shall reimburse the educational expenditure of children up to the age of 14 studying in private schools to fulfill the constitutional obligation under Article 45 of the Constitution either to the parent. directly if claimed by them or to the schools directly, in which event the concerned schools shall reimburse the amount to the parents'. The Supreme Court has stayed this judgement - the final verdict is awaited.

Legislation has remained in the statute books for some years. Though the Karnataka Act casts a duty on parents to send children to school, judicial pronouncements have made it clear that the element of 'compulsion' must first rest squarely on the state to provide the necessary facilities for imparting free and compulsory elementary education.

## The new child-centred pedagogy

The new child-centred pedagogy introduced under DPEP and in HD Kote rests on the following basic principles.

- Every child has an infinite capacity to acquire knowledge. Children come to school with substantial knowledge that constitutes the basis of all learning.
- Meaningful learning will take place only through dynamic interaction between the teacher and children. It is a mistake to treat children as empty receptacles in which knowledge is to be deposited.
- A child's identity and freedom to experiment must be respected.
- Children can successfully organise activities leading to significant outcomes. Learning centred education does not spell anarchy in the classroom; on the other hand, it suggests active association between teachers and learners.
- Teachers, given the opportunity, can be surprisingly innovative and creative. A teacher's role is essentially that of a facilitator.
- It is dangerous to expect an instant equation between input and output. The rates at which children learn vary considerably. Errors should be seen as necessary steps in the process of learning rather than deviations from the norm.
- Learning takes place in the socio-cultural milieu of the learner.

There is a certain cognitive sequence in learning.

- There is no one sacred method of teaching anything. Children learn what makes sense to them. Therefore all learning must be contextualised.
- Information based teaching material encourages learning by rote and hampers rather than facilitates the learning process. It is necessary to use naturally available material; material should be inexpensive, accessible and reusable.

## Strengthening community participation

There is no single reason as to why people do not send children to school. The more important factors include child labour, poor quality teaching and infrastructure, a perception of no benefits from education, socio-economic factors and the limitations of village education committees in fostering a sense of ownership of the school among the local community. The educational frame stands distanced and alienated from the local community, making the entire system work much below potential. It was felt that introduction of the Panchayati Raj system would bring the system closer to the people, but it is increasingly being recognised that structures need to be established at the village level to enhance community participation in effective school management.

The establishment of Village Education Committees (VECs) is an effort in this direction. VECs have been established in

### Box 4.11

#### Joint GOI-UN System Community based Primary Education Programme, Karnataka

While 11 of the 20 districts have DPEP interventions, there is need to have more effective school management and greater community participation in primary education in the entire state. Related to this is the need to improve the performance of teachers in the use of inter-active, child centred, activity based teaching methods appropriate to multi-grade situations. There is also need to integrate all social sector programmes. A unique project covering selected blocks in the non-DPEP districts has been finalised to meet these objectives. The project is a collaborative effort of five lead UN agencies-UNICEF, UNDP, ILO, UNESCO and UNPFA-with Government of India and the State government. To be taken up initially in ten blocks with an outlay of Rs. 10 crores, the project will be upscaled to cover 20 blocks by 1999. It affords an excellent opportunity to demonstrate the feasibility of successfully organising local communities in strengthening primary education, and may provide replicable models for other parts of the state.



## Box 4.12

### Before we begin the lesson...

Existing data on achievement levels in primary schools calls for urgent re-examination of problems and issues relating to enrollment, access and participation in learning. Such a re-examination cannot be meaningful without entering into a dialogue with the three principal actors in primary education, children, teachers and the community. This process, initiated by DPEP in Karnataka in 1996, resulted in the development of a series of films entitled 'Before we begin the lesson...'. The seven films included in this series are:

Whose school is it anyway?

Play and learn

Syllabus, syllabus!

Sha, sha, sha is correct.

Add, subtract

May I know your caste?

This is our school.

The films were made in a participatory mode through workshops, spread over a year with children, teachers and VEC members. In the workshops, participants critiqued and debated the existing system with unusual frankness and analysed and re-defined their roles within the educational system. Teachers, for example, examined the extent of their participation and autonomy in curriculum formulation, designing teaching - learning material, creation of teaching methodology and evaluation techniques. Similarly members of the community discussed the values inherent in the school system and how these have alienated children from the rural environment.

The films raise and illustrate issues through a mixture of documentary footage and dramatised scenes performed by experienced theatre activists. Special attention is given to presenting examples which reflect the real experience of the intended audience - teachers, educational administrators and VEC members. At no time do the films lapse into 'expert' lectures.

Simultaneously, DSERT initiated the production of two films documenting the experience of the new childcentred pedagogy in HD Kote block of Mysore district with UNICEF assistance. The HD Kote experiment is based on the Rishi Valley school-in-a-bag approach.

## Box 4.13

### The country picture - steady progress, but a long way to go...

India spends 3.8% of its GNP on education and 48% of its population is illiterate. China spends only 2.6% of its GNP on education but only 18% of its population is illiterate. One third of the world's illiterates are in India.

Literacy rates have grown from 16.7% in 1951 to 52.2% in 1991. Female literacy grew from 7.9% to 39.3% in the same period. There has also been considerable progress in the spread of educational institutions since 1951. The number of primary schools has increased 2.82 times and that of upper primary and higher secondary schools by as much as 13 times. The number of colleges of general education has increased 18 times and that of universities gone up eight-fold.

Enrolment during the period increased 5.75 times; for girls the increase is nine times. At the upper primary stage of education, the increase is more than 13 times, while for girls it is more than 32 times. At the secondary and higher secondary stages the increase is 18 times; for girls it is 49 times. The participation of girls has been increasing steadily at all stages of education. The percentage of girls enrolled to total enrolment has increased between 1951 and 1996 from 28 to 43 at the primary stage (classes I to V), from 16 to 39.8 at the upper primary stage, from 13 to 36 at the secondary and higher secondary stages and from 10 to 38 at the higher education level.

Gross enrolment ratios have increased from 32.1 to 80.7 at the elementary stage (classes I to VIII) between 1950-51 and 1996-97. In respect of girls the ratio has moved up from 17.7 to 71.8. The dropout rate has correspondingly fallen from 78.3 in 1960-61 to 52.7 in 1994-95 at the elementary stage. The number of teachers increased from 7.5 lakhs in 1950-51 to 45 lakhs in 1996-97 - a sixfold increase, while the number of female teachers increased from 1 lakh to 15.5 lakhs in the same period (more than 13 times).

*Source: Selected Educational Statistics, Department of Education, Ministry of Human Resource Development, 1997.*

*There has been a spectacular growth in the secondary school network but this expansion has not been matched by adequate infrastructure*

most parts of the state, but a conscious process of activation and empowerment has been taken up in the 11 DPEP districts. VECs are entrusted with the supervision of primary education in the village; they are also responsible for creating awareness about the importance of education in the community. They are being involved through micro-planning activities and training in motivating parents to send children to school, evolve strategies to reduce the drop out rate, mobilise local resources to support schools and critically prepare and implement plans for the development of education, including adult education in the village.

### **Expansion of secondary education**

Expansion of the secondary school network has been even more impressive as compared to the expansion in primary education. There has been a more than fourfold increase in the number of high schools since 1968-69. The number has gone up from 1830 to 8168 in three decades. The average annual growth rate of high schools has been as high as 11%. Chitradurga recorded the highest growth rate of nearly 20%; Bangalore (18%), Gulbarga (14%) and Chikmagalur (15.78%) have also recorded very impressive growth rates. Uttara Kannada, Dakshina Kannada, Kodagu, Bidar and Bellary recorded low growth rates.

The sixth All India Education Survey shows that 81% of the population had secondary school facilities within 5 kilometres and 90% within 8 kilometres. Only 7% of the population has to go beyond 8 kilometres to reach a high school. Most of them are in habitations with populations below 500 in which independent high schools are not viable. For such locations, distance education programmes need to be explored to cater to children who cannot travel long distances.

### **Rapid increase in high school enrolment**

Enrolment in classes VIII to X has also kept pace with growth in the number of institutions. It has shot up from 1.6 lakhs in 1960-61 to 15.6 lakhs in 1997-98. The enrolment of girls has moved much faster

than that of boys. Only 37000 girls were enrolled in high schools in 1960-61. This has now gone up to 6.7 lakhs. Although the gap has considerably narrowed, the enrolment level of girls is still much below that of boys (8.8 lakhs).

Growth in the number of teachers in high schools has kept pace with increase in enrolment. From 10634 sanctioned posts of high school teachers in 1960-61, the number of posts has risen almost sevenfold to reach 67065 in 1997-98. The pupil-teacher ratio has remained between 18:1 to 25:1 throughout the period except in 1990-91. It is now 23:1 (1997-98). However, within districts there is need for some rationalisation as there are some very overcrowded schools, while others have very poor strength. This is true even of aided schools. Some districts like Mysore and Kolar had very adverse pupil-teacher ratios in 1980-81 (over 40:1), but this has been brought on par with the state average by 1997-98.

Notwithstanding the spectacular expansion of high schools in physical numbers, infrastructural facilities in most schools are much below minimum requirements. Only 49% of the high schools have toilets and only 37% have a laboratory. 15% of the high schools alone has a library. It is not surprising then that the success rate in SSLC examinations is only 44%. The percentage of students appearing from government schools passing the examination is dismal. As many as 622 government schools and 738 private schools had a pass percentage of less than 20%. In as many as 35 government institutions and 45 private institutions not a single student passed the SSLC examination of April 1998. It is interesting to note that pass percentages in both the SSLC and the PUC exams have been consistently higher among girls than boys.

### **Pre-university education - sharp rural-urban and boy-girl divide**

Consequent on the abolition of the two-year intermediate course, a one-year pre-university course was introduced in 1956. Selected high schools were converted into higher secondary schools by adding class

XI. However, from academic year 1971-72, the state introduced the two-year pre-university course on the 10+2+3 pattern, recommended by the Government of India.

The plus 2 stage of education after the tenth standard is extremely important as it shapes the future careers of students. This stage is imparted in composite pre-university colleges, which also have secondary sections, composite degree colleges with higher secondary sections and independent pre-university colleges. There are in all 1276 colleges imparting pre-university education in the state. 60% of the population are served by higher secondary school facilities within a distance of 8 kilometres. 76% of habitations with population over 5000 are served by higher secondary facilities within 8 kilometres; most bigger habitations have reasonably good facilities for higher education.

44% of the 1276 higher secondary institutions are managed by government, 43% are aided institutions and the rest (13%) are private unaided institutions. 54.5% of institutions are in rural areas.

Enrolment at this stage of education was 2.51 lakhs at the time of the Sixth All India

#### **Box 4.14**

##### **Education of girls: the early days**

In Mysore area the London Mission started formal education for girls in 1840 and set up the Kannada school for girls in Bangalore. By 1918 there were an estimated 24,000 girls in school; this was only 4.8% of the female population of school going age. The position was only marginally better in 1948-49 when there were 1.9 lakh girls in schools (5.4% of the school going female population).

In Belgaum area, some girls' schools were started by the London Missionary Society. By 1881 there were 47 girls' schools in Belgaum division. This figure went up to 29 by 1921 and by 1947 there were as many as 402 girls' primary schools.

In Madras area also it was the London Mission which started the first school for girls in 1833. In Dakshina Kannada district female education quickly became very popular and by 1881 there were seven schools for girls in the district. By 1931-32, the district had 134 primary and seven high schools for girls. In Gulbarga area education for girls was mainly the result of missionary activity and efforts in this direction were very limited. An exclusive girls' school was started in Raichur only in 1957.

In Kodagu though there were no separate schools for girls, attendance of girls in mixed schools was quite good. In 1910 2.4% of the female population of Kodagu was in school against the All India average of 0.6%.

At the time of reorganisation in 1956 the state as a whole had 1441 primary schools, 90 high schools and four colleges for girls.

#### **Box 4.14**

##### **Secondary education : the beginnings**

The first government high school in Mysore area was started in Bangalore in 1858. By 1871 there were 11 high schools and by 1911 the number had gone up to 16. English remained the medium of instruction until 1930-31 when Kannada was introduced as the medium. The entry of District Boards into this area in 1948-49 resulted in rapid increase both in the number of high schools as well as in enrolment.

In Belgaum area, government introduced a policy of establishing one high school in the headquarters of each district. By 1890, the headquarters of each of the four districts had a high school each. Secondary education was left mainly to private voluntary organisations. Christian missions also developed institutions to high school levels. By the end of 1921-22 there were 19 high schools. Private organisations such as the KLE Society also set up high schools. By the end of March 1956, there were 128 high schools, of which only nine were run by the government.

In Madras area, the first missionary school was set up in Dakshina Kannada in 1860. District Secondary Education Boards set up in 1923 resulted in the establishment of several high schools; by 1931 there were 17 high schools. This number rose to 29 in 1946-47 and 64 in 1951.

The first high school in Gulbarga area was started in Gulbarga in 1885-86. Another school was opened at Bidar in 1891. By 1956 there were 19 high schools of which only four were for girls.

In Kodagu a high school was set up in 1879. In 1909 the French Catholic Mission opened a girls' high school. By 1956 there were five government high schools and six private aided high schools.

In Gulbarga area high school education was of three years duration and here alone the duration of school education was only 10 years against 11 years in other regions.

*There is poor participation of girls in vocational and technical education*

Education Survey of which enrolment in rural areas was 34%. Half the students were in private aided schools and 40% in government schools. Enrolment of girls was 36%; in rural areas it was 34.5%. The figures show a very sharp urban-rural divide as also a big boy-girl divide. It is also interesting to see that the majority of students are enrolled in arts courses (64.8%) and only 16.5% of the students opt for science courses.

Only 389 institutions offer science combinations; of these 14% do not have a laboratory and 25% had only a combined laboratory for physics, chemistry and biology. The lack of infrastructure partly accounts for the high degree of wastage at this stage of education, with only about 35% of the students passing examinations every year. This is a matter of great concern, especially because the stage is considered critical in determining the future careers of students. There is need to improve the enrolment of girls and of rural students at this stage of education. There is also need to promote an improved learning environment, especially in rural institutions.

Thus there is urgent need to improve infrastructure in existing colleges before opening more institutions. In 1997-98, there were 105 pre-university government colleges and 198 private ones with a student strength of less than 25. Bangalore (55), Tumkur (40) and Chitradurga (24) accounted for a large number of such unviable institutions. Dakshina Kannada is the only district with no institution at the pre-university level with a student strength less than 25.

### **Vocational and technical education**

It was envisaged in the 1986 National Policy on Education that at least 25% of the students completing secondary education (class X) should be enrolled in vocational courses at the +2 stage. Under a Centrally sponsored scheme formulated in 1988 to give effect to this objective courses were designed in the five broad areas of agriculture, engineering, health, banking & accountancy and humanities. Since then, 1427 vocational courses have been started in pre-university colleges in

seven phases covering 46 trades. In 1997-98, 34,788 students were enrolled in these courses. While this figure appears impressive (covering 14% of the enrolment at the +2 stage), the number of students employed in trades has been low. There is no effective monitoring mechanism for these courses. Assessments by the Department of Vocational Education indicate that many courses have not been designed with market needs in view and tend to be very theoretical as not much attention is given to on-the-job training.

The state also boasts of a very large infrastructure in technical education. Karnataka has 53 engineering colleges, 177 polytechnics, 6 junior technical schools and 3 aided colleges of fine arts. 6 of the 53 engineering colleges are government colleges, 36 are private and unaided and 11 are aided colleges. 57391 students are enrolled in engineering colleges and 44378 in polytechnics. The percentage of girls in engineering colleges and polytechnics is 16.5% and 16% respectively. Following the Supreme Court order in the Unnikrishnan case in 1994, all the seats in government engineering colleges and 95% of the seats in private colleges are being filled up on the basis of merit through a centralised admission test.

### **Tertiary education - deterioration in quality**

The number of colleges of higher education has also increased substantially. In 1960 there were only 15 government first grade colleges and 29 private aided colleges. The number of colleges rose to 821 by 1997. These include 148 government first grade colleges, 289 private aided colleges, 375 private unaided colleges and 60 law colleges. Only one of the law colleges is run by government, 8 are unaided and 51 receive aid from the government budget. However, physical infrastructure has not kept pace with the growth of institutions. Only 60 government first grade colleges have their own buildings and 53 buildings are under construction.

1.96 lakh boys and 1.22 lakh girls were enrolled in the 821 colleges of general education in 1996-97. Despite this impressive figure, it is disturbing to note that the quality of education in a majority



of the colleges is quite mediocre. Meritorious students, by and large, opt for engineering and medical courses. Except in a few prestigious institutions, the number of good students opting for courses in the physical and social sciences has been declining.

Ideally, changes in the subject-wise pattern of enrolment should reflect a self-correcting process aimed at narrowing the gap between the rigidities of the educational system and the real market demand for university products. Subject-wise enrolment in the arts continues to account for the dominant share of total enrolment. Decline in the share of the sciences in total enrolment from 33.82% in 1965 to only 13% in 1996-97 is a highly disturbing trend when we consider the role of science in the development process. The commerce stream has the second position in terms of enrolment; it has pushed the sciences down from this position in 1965 and 1975. Enrolment in the engineering and technical streams shows a mixed trend. There was deceleration in enrolment in the 1970s due to the backlog of unemployed engineers but it has picked up again and is currently back to around 15%.

Analysis of data in the live registers of employment exchanges indicates that about 50% of the educated unemployed are products of the arts faculty. In other words there is a restricted market for white-collar

jobs and it is in this segment that mismatch between education and employment poses the most serious challenge to policymakers.

The share of women in enrolment in higher education was 17% in 1965 and 29% in 1991-92. At the postgraduate level, the

#### Box 4.16

##### I.T. initiatives for education

With Bangalore emerging as the largest exporter of software in India with 250 companies in the sector, there is a growing demand for creating human resources to suit the requirements of the I.T. industry. In response, the following steps have been taken.

Introduction of a new I.T. curriculum in 71 engineering colleges. The Vishweshwaraiah Technological University and the Department of Information Technology have held four workshops in which both academics and representatives of industry have participated. A broad plan has been evolved to create a new I.T. curriculum for engineering graduates in Karnataka colleges.

As a corollary, a major programme has been initiated to network all institutions through an intranet platform to promote both video conferencing as well as digital communication among engineering institutions in Karnataka.

The Prime Minister's National Task Force on I.T. has initiated a programme of providing 100% computer literacy in two districts of Karnataka-Udupi and South Kanara. This is likely to become a national model. On similar lines, plans are being evolved for promoting computer literacy in all schools and colleges in the state.

A computarium is proposed to be set up at Bangalore to provide educational tours to school children on all the latest products and services in I.T. Summer camps and projects will be promoted in the computarium.

#### Box 4.17

##### Higher education : prior to reorganisation

In the early days Karnataka could not get the advantage of higher education as it was far away from the university centres of Madras and Bombay. The first college-Saint Aloysius College-was started in Mangalore in 1879 while Bangalore High School was upgraded as the Central College in 1875. Maharaja's College was founded at Mysore in 1864 but became a first grade college only in 1894. Christian organisations entered the field of higher education in the 1880s. In Bangalore St Joseph's College was started by a Catholic organisation. However, even at the end of the 19th century, there was no institution of higher education of any kind in Belgaum and Gulbarga areas.

Higher education got a boost in the state in the 20th century. Mysore university, which was established in 1916, was only the sixth university to be established in the entire country. In Mangalore the Carmelite sisters started the St Ann's College for Women. However, Bellary, which was a part of the Madras Presidency, remained educationally backward. In the Belgaum area, the first college was started only in 1917. The KLE society opened colleges in the 1930s. By 1947 there were five arts colleges and two professional colleges of law and education in Belgaum area. There was no provision of any kind in the Gulbarga area for higher education and it was only in 1930 that intermediate classes were started at Gulbarga. Kodagu also did not have a college till 1949.

At the time of reorganisation there were 70 colleges in the entire state of which only five were in the Gulbarga area.



share increased from 15% to 31% during the period. Apart from the inadequacy of women's enrolment, it is also highly skewed. As many as 44.6% of the women are enrolled at the undergraduate level in the arts faculty. Enrolment of women continues to be low in professional courses being only 10.5% in engineering courses and 7.7% in medical and allied courses.

Colleges are affiliated to the state's six universities of higher education-Bangalore University, Mysore University, Karnataka University at Dharwar, Mangalore University Gulbarga University and Kuvempu University at Shimoga. The state also has 3 specialised universities-the Rajiv Gandhi University of Medical Sciences, the Kannada University at Hampi and the recently started Vishweshwaraya Technical University at Belgaum.

Inadequate attention to academic issues in higher education coupled with rapid increase in the number of colleges and enrolment has led to deterioration in the quality of higher education. The share of salaries in total expenditure has increased from around 60% in 1987-88 to around 67% in 1991-92 leading to reduction of expenditure on equipment, library and other support services. Expenditure on equipment, apparatus, chemicals etc., has declined from an already low level of 1.3% in 1982-83 to 0.9% in 1991-92. Expenditure on libraries has been of the order of 1.4%. In contrast, expenditure on the conduct of examinations accounts on an average for 15% of the total university budget, a heavy burden on the institution's finances. There has also been steady decline in the contribution of fees to the finances of all universities with no correlation between fees charged and the cost of education.

**Table 4.4**

**Enrolment of students in colleges by subject**

| Subject                 | Percentage enrolment of students<br>in colleges |            |            |            |            |
|-------------------------|-------------------------------------------------|------------|------------|------------|------------|
|                         | 1965                                            | 1975       | 1985       | 1991-92    | 1996-97    |
| Arts                    | 29.36                                           | 50.77      | 32.27      | 41.87      | 41.56      |
| Science                 | 33.92                                           | 11.64      | 15.47      | 12.84      | 13.13      |
| Com/Bus. Man            | 5.88                                            | 10.84      | 19.44      | 15.17      | 16.90      |
| Engineering/Technical   | 15.32                                           | 9.95       | 18.63      | 15.15      | 12.90      |
| Medical/ Den./Nur/Pharm | 9.45                                            | 6.72       | 4.21       | 6.42       | 7.69       |
| Law                     | 2.45                                            | 6.25       | 5.58       | 4.87       | 5.27       |
| Education               | 2.12                                            | 2.96       | 3.78       | 2.77       | 1.61       |
| Fine Arts               | 0.14                                            | 0.25       | 0.11       | 0.18       | 0.21       |
| Others                  | 1.37                                            | 0.63       | 0.51       | 0.72       | 0.73       |
| <b>TOTAL</b>            | <b>100</b>                                      | <b>100</b> | <b>100</b> | <b>100</b> | <b>100</b> |

*Source: Report of Karnataka Universities Review Commission, 1993 and for the year 1996-97 from the concerned departments of Gout, of Karnataka.*

### **Serious imbalances in the education index**

The district-wise education index reflects the serious imbalances in educational attainments across districts. The districts of Bangalore (urban), Chikmagalur, Dakshina Kannada, Kodagu, Shimoga and Uttara Kannada have indices much above the state average. At the lower end of the spectrum are Raichur, Gulbarga, Bidar, Bellary, Mysore and Mandya. It is also revealing that the three districts of Raichur, Gulbarga and Bidar have indices which are below even the state's average attainment in 1981. Clearly, these districts

are almost two decades behind the advanced districts. There is also no visible indication that the gap is narrowing, which is again a matter of concern.

## Expenditure on education

Against 3.8% of the GNP spent on education in the country, Karnataka spends 3.2 % of its SDP on education. The government spends around 16% of its total budget on education. Expenditure on primary education per child at current prices is Rs. 1350. Unfortunately close to 90% of this expenditure is on salaries of government and aided school teachers, with little left over for quality improvement and capacity building in existing academic institutions. Expenditure per child also shows considerable variation across districts, with backward districts not getting the required attention. There is a strong case for positive discrimination in favour of the educationally backward districts through additional budgetary support to ensure that the gap between advanced and low performing areas is bridged rapidly.

As for priorities within the sector, elementary education gets the major share (54.5%) of the education budget of Rs.2200 crores, followed by secondary education (32.7%). University and higher education receive only 12% of the budget. There is thus little scope for shifting outlays from higher education to elementary and

Figure 4.3

### Sectorwise outlay for general education 1999-2000

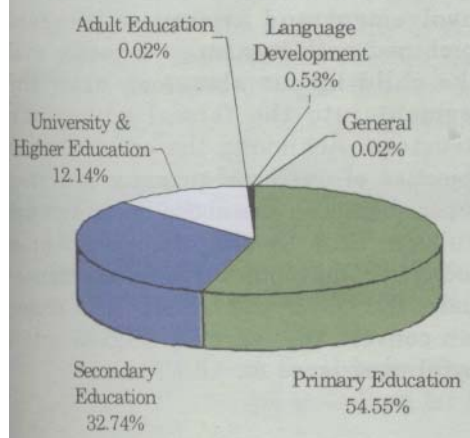


**Table 4.5**  
Education index by district, 1981 and 1991

| District rate ratio (classes I to X) | Adult literacy enrolment |       | Combined Index |       | Education |       |
|--------------------------------------|--------------------------|-------|----------------|-------|-----------|-------|
|                                      | 1981                     | 1991  | 1981           | 1991  | 1981      | 1991  |
| Bangalore                            | 57.82                    | 73.49 | 70.8           | 84.8  | 0.621     | 0.773 |
| Bangalore (R)                        |                          | 42.38 |                | 79.8  |           | 0.549 |
| Belgaum                              | 40.47                    | 47.17 | 58.1           | 73.6  | 0.463     | 0.560 |
| Bellary                              | 35.12                    | 41.04 | 52.9           | 72.7  | 0.410     | 0.516 |
| Bidar                                | 27.93                    | 38.18 | 59.3           | 70.3  | 0.384     | 0.489 |
| Bijapur                              | 35.92                    | 48.61 | 51.3           | 68.4  | 0.410     | 0.552 |
| Chikmagalur                          | 48.64                    | 55.66 | 66.1           | 79.4  | 0.545     | 0.636 |
| Chitradurga                          | 42.31                    | 50.08 | 57.4           | 85.6  | 0.473     | 0.619 |
| D. Kannada                           | 58.26                    | 71.22 | 57.0           | 100.0 | 0.578     | 0.808 |
| Dharwad                              | 49.09                    | 53.75 | 56.2           | 72.8  | 0.515     | 0.601 |
| Gulbarga                             | 27.61                    | 33.83 | 47.8           | 58.6  | 0.343     | 0.421 |
| Hassan                               | 41.68                    | 50.58 | 60.5           | 76.9  | 0.480     | 0.594 |
| Kodagu                               | 56.98                    | 64.56 | 59.6           | 92.4  | 0.579     | 0.738 |
| Kolar                                | 35.98                    | 43.58 | 73.2           | 82.1  | 0.484     | 0.564 |
| Mandya                               | 31.81                    | 40.14 | 55.8           | 78.7  | 0.398     | 0.530 |
| Mysore                               | 35.05                    | 41.93 | 55.0           | 69.0  | 0.417     | 0.510 |
| Raichur                              | 27.67                    | 32.64 | 38.4           | 49.7  | 0.312     | 0.383 |
| Shimoga                              | 50.08                    | 56.52 | 59.0           | 81.5  | 0.531     | 0.648 |
| Tumkur                               | 39.57                    | 47.71 | 70.4           | 85.3  | 0.498     | 0.602 |
| U. Kannada                           | 56.46                    | 62.41 | 65.1           | 84.8  | 0.593     | 0.699 |
| STATE                                | 43.05                    | 50.94 | 58.8           | 77.0  | 0.483     | 0.596 |

**Table 4.6**  
Education budget and sector-wise outlays, 1999-2000

| Item                                       | (Rs in lakhs) |
|--------------------------------------------|---------------|
| State Budget :                             |               |
| Revenue Expenditure                        | 15,39,097.00  |
| Capital Disbursements                      | 2,42,766.00   |
| Total                                      | 17,81,863.00  |
| State Annual Plan Outlay                   | 5,888.00      |
| Share of Education :                       |               |
| State Sector                               | 2,8,986.03    |
| District Sector                            | 1,71,83.72    |
| % of Education Budget to State Plan Outlay | 6.27%         |
| Non-Plan                                   | 2,49,350.00   |
| Total Education                            | 2,95,519.03   |
| Percentage to Total State Budget           | 16.58%        |

secondary education. There is no alternative to a sizeable increase in the budget for education with at least 25% being earmarked for quality improvement, the maintenance of infrastructure and capacity building. This will mean that not more than 75% of the budget should be spent on salaries, compared to the present figure of 88%. As salary scales are fixed,

**Table 4.7**  
**Total state expenditure on education**

| Year    | Total Expenditure | Expenditure on Education | % for Education | Expenditure on Education as % of GSDP |
|---------|-------------------|--------------------------|-----------------|---------------------------------------|
| 1980-81 | 1067              | 161                      | 15.11           | 2.59                                  |
| 1981-82 | 1173              | 186                      | 15.89           | 2.60                                  |
| 1982-83 | 1427              | 230                      | 16.08           | 2.86                                  |
| 1983-84 | 1653              | 256                      | 15.48           | 2.66                                  |
| 1984-85 | 2137              | 307                      | 14.37           | 2.84                                  |
| 1985-86 | 2377              | 361                      | 15.18           | 3.12                                  |
| 1986-87 | 2538              | 413                      | 16.23           | 3.11                                  |
| 1987-88 | 2910              | 540                      | 18.56           | 3.56                                  |
| 1988-89 | 3271              | 605                      | 18.50           | 3.42                                  |
| 1989-90 | 3821              | 683                      | 17.88           | 3.38                                  |
| 1990-91 | 4626              | 759                      | 16.39           | 3.25                                  |
| 1991-92 | 5740              | 908                      | 15.82           | 3.02                                  |
| 1992-93 | 6378              | 1040                     | 16.30           | 3.15                                  |
| 1993-94 | 7321              | 1211                     | 16.53           | 3.18                                  |
| 1994-95 | 8401              | 1369                     | 16.29           | 3.08                                  |
| 1995-96 | 9722              | 1612                     | 16.57           | 3.17                                  |
| 1996-97 | 11353             | 1806                     | 15.90           | 3.19                                  |
| 1997-98 | 12942             | 2090                     | 16.14           |                                       |
| 1998-99 | 14998             | 2510                     | 16.73           |                                       |

Sources: 1. Head-wise Expenditure of Government of Karnataka, Research and Statistics Wing, Finance Department.

2. Annual Financial Statements, Government of Karnataka, Finance Department

this would imply an additional annual outlay of Rs.380 crores.

### Education as the keystone of human development

Education is the basis for all growth. The quality of human capital in the state, that is the physical and mental capabilities of its population, will determine its future progress. Education not only improves the faculties and skills of people; it also dramatically contributes to their physical wellbeing by making them aware of better health practices and increasing their willingness to seek and utilise medical facilities.

The challenge for the state is to make all citizens literate by improving enrolment levels in primary schools as well as through adult literacy programs. The focus has to be on the gender and rural - urban gaps as well on backward areas like Gulbarga division. Attention given to students must also be improved by adequate provision of

primary school teachers so that the teacher - pupil ratio is reduced to satisfactory levels. Dropout rates must be closely monitored especially for girls and Scheduled Castes and Scheduled Tribes and flexible and innovative strategies adopted to enable them to complete their schooling. Some idea of the number of children still out of school has been obtained through a recent survey conducted by the Department of Public Instruction. Active community involvement and awareness programs combined with measures to tackle evils like child labour alone can draw this segment into the formal educational structure. Achieving the constitutional objective of universal primary education is possible when the above initiatives find fruition. Side by side, improvement in pedagogic methods already commenced under the DPEP and the HD Kote project can convert the learning process into a joyful experience for all children

## Achievements

## Concerns

### Literacy

Literacy has increased by more than 88% per cent since 1961 - from 29.80% to 56.04% percent in 1990-91.

Literacy campaigns have been launched in all districts and 3.52 million persons have been made literate.

10 districts have a female literacy rate below the national average of 39%. The rural female literacy rate of Raichur is only 16.48 per cent.

2.5 million persons in the 15-35 age group are illiterate.

### Primary education

Primary enrolment (I-VII) has increased from 35.13 lakhs in 1966 to 82.25 lakhs in 1997.

Since 1960 an additional 5.7 million children have been enrolled in primary schools (I-VII)

Since 1968 the total number of primary schools has increased from 32219 to 46900 in 1997.

Gross enrolment ratio in classes I-VIII has gone up from 65.54 in 1980-81 to 91.67 in 1996-97.

1 million children in the 6-12 age group are still out of school (1996-97).

43.7 per cent of children who enrol in class I do not complete class VII.

Most out-of-school children are engaged in some form or the other of child labour.

The high GER masks the fact of a large number of underage and overage children.

### Secondary education

11.2 lakh additional children have entered secondary schools between 1968 and 1997.

The number of secondary schools has increased four fold since 1968.

Enrolment (classes I to X) has increased from 57.6 lakhs in 1980 to 96 lakhs in 1997.

In the 13-15 age group the number of out-of-school children is 1.5 million.

In Raichur district the GER (class VIII to X) is only 13.71.

Only 49 per cent of high schools have toilets and only 37 per cent have laboratories.

### Tertiary education-

Tertiary enrolment has increased from 54567 in 1965 to 453289 in 1996-97.

- \* The number of colleges has increased from 145 in 1965 to 1035 in 1996-97.

Distortions have emerged in the area of higher education with very few merited students opting for science and humanities streams.

Physical infrastructure in most colleges is very poor, with poorly maintained buildings and ill-equipped laboratories.

### Technical and vocational education

Tertiary enrolment (in engineering/technical & medical, dental, pharmacy and nursing courses has increased from 13724 in 1965 to 43823 in 1996-97.

- \* The number of colleges under the engineering and medical faculty has increased from 36 in 1965 to 229 in 1996-97.
- \* In Karnataka, the availability of skilled computer graduates has enabled the state to become the leader in the IT industry in the country.
- \* The state boasts of one of the largest number of engineering colleges (53) in the country.

Most vocational courses conducted at the +2 stage by the Department of Vocational Education are not relevant to the needs of industry and are poorly designed.

Mushrooming of engineering colleges in the state has led to largescale unemployment among engineers in several disciplines such as civil engineering

### Girls' education

Between 1960 and 1997 female literacy has grown faster than male literacy - up by 161 percentage points, compared to 59 percentage points for men.

Primary enrolment for girls increased at a much faster pace for girls than for boys.

Rural female literacy is less than 35% in most districts.

Female literacy in 9 districts of the state is below the country average.

Only 44% of girls complete elementary school.

Girl participation rates in rural areas and in districts such as Raichur continues to be very poor.

## Agenda for future action in education in Karnataka

### Literacy

- Complete total literacy campaigns throughout the state.
- Mobilise public opinion and activate grama Panchayats to take up imaginative and well thought out post-literacy and continuing education programmes.

### Elementary education

- Take up intensive environment building activities, using micro-planning techniques to ensure 100% enrolment and reduction of dropouts.
- Make curriculum child-centred and activity based, focusing on individualised learning achievement.
- Take up intensive teachers' training (both pre-service and in-service) in child-centred pedagogy.
- Improve infrastructure in existing schools; go in for new schools only where absolutely necessary.
- Continue programme of recruitment of teachers but simultaneously ensure more rational deployment of teachers to reduce imbalances.
- Keep up tempo in construction of classrooms and improve quality of workmanship by involving the local community
- Introduce a flexible alternate schooling programme to address the needs of working children.



### ▪ **Secondary and Pre-university Education**

- Adopt conservative policy in opening new schools and junior colleges, focus on consolidating existing institutions.
- Provide functional laboratories and toilets to each high school and junior college.
- Redeploy teachers from institutions with low strength (including aided institutions) to schools with higher strength.
- Reduce wastage by holding management, the supervisory system and teachers accountable for poor results.
- Provide academic support and compulsory in-service training to teachers
- Close down institutions (especially junior colleges) with strength less than 25.

### **Technical and Vocational Education**

- Ban opening of engineering colleges.
- Close down courses with no demand and replace them with courses with potential, such as in the area of information technology.
- Revamp and professionalise vocational courses by changing curricula to meet the needs of industry.

### **College and Tertiary Education**

- Ban starting of new colleges
- Make colleges more self-financing by enhancing fees
- Provide basic physical infrastructure, such as a proper building and laboratory for each college.
- Enhance state funding of doctoral and post-doctoral research in both physical and social sciences. Provide opportunities to merited students to pursue research by providing fast-track promotions as well as monetary incentives



# Income, employment and poverty

## Slow but steady progress

Per capita income and growth in domestic product have been the traditional measures of economic development. The HDI concept also relies on these concepts but adds on two more indicators to assess welfare. There are several dimensions to the income index. Employment and unemployment, poverty and inequality of incomes and expenditure, participation in the labour force and productivity are among the many areas that will be examined in this chapter. The first section takes a hard look at the pattern of growth in income at the state and district levels and analyses sector-wise growth patterns.

In the second section we look at the extent to which growth in incomes has been translated into increased employment opportunities. The last section is a study of the critical issue of poverty in the context of income and employment.

### Income

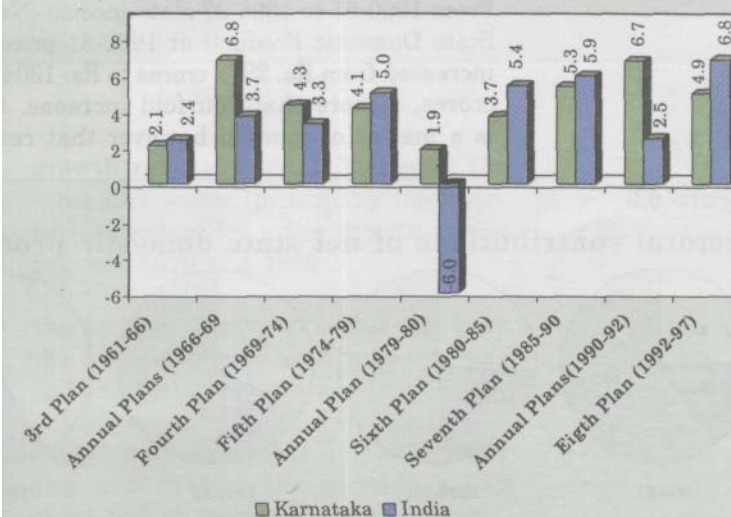
Income was first used by Pigou to measure the welfare of individuals and households. The concept of national income as GDP (Gross Domestic Product) or GNP (Gross Net Product) was developed in the middle of this century; it now refers to the value of the goods and services produced in a country during a year. Increasing GNP was the primary goal of development in the fifties and sixties and it was assumed that the welfare of households and society as a whole would be automatically enhanced with economic growth. The experiences of several countries have subsequently disproved this premise and the concept of development has since widened from economic development to socio-economic development and still further to human development. Development is now not understood principally as increase in the availability of commodities and wealth; it is used to refer to the widening of human choices.

Growth in per capita income is a critical element in promoting human development. Per capita income is thus used with indicators like longevity and educational attainment to construct the Human Development Index. Movements of the three indicators are not necessarily in the same direction. Some societies have achieved high levels of human development at modest levels of per capita income while others have failed to translate comparatively high income levels and rapid economic growth into commensurate levels of human development.

Before independence some attempts were made by economists to compute national income in India. These were based essentially on a series of assumptions and drew on macro-level data. Since independence, however, attention has been paid to the development of official estimates of national income and related

Figure 5.1

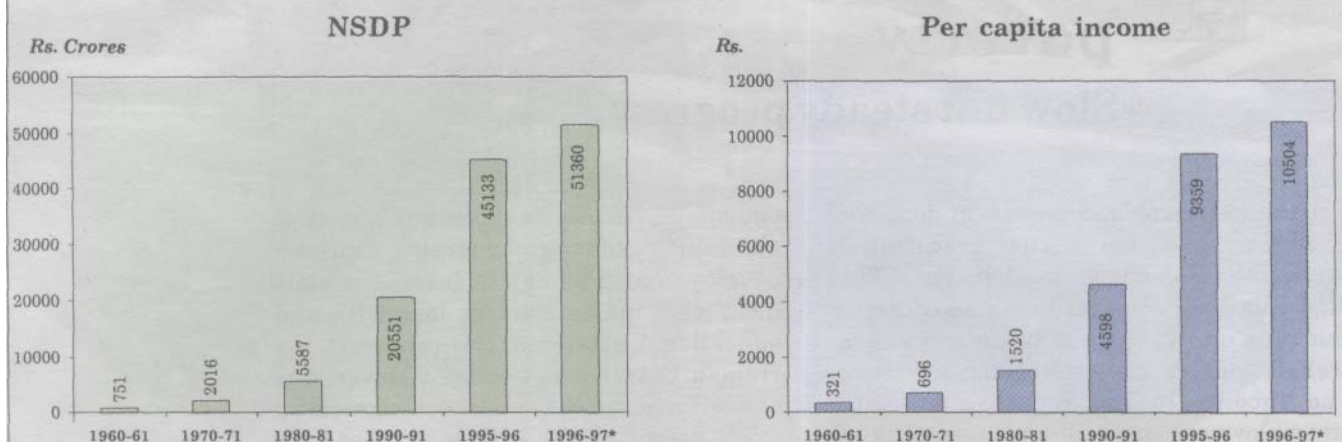
Annual average growth in real income (at 1980-81 prices), Karnataka and India



Source: Directorate of Economics & Statistics, GOK and the Central Statistical Organisation, GOI

Figure 5.2

Net state domestic product and per capita income at factor cost (current prices)



Source: Directorate of Economics and Statistics.GOK

\*Partially revised estimates

aggregates to meet the requirements of planning and policy formulation.

Official estimates of Karnataka's growth performance during the different Plan periods compared to the performance of the country as a whole (at constant prices) show that the rate of growth of the state's economy has been lower than that of the country during the third, fifth, sixth, seventh and eighth Plan periods but higher than that of the country during the fourth Plan and the annual Plan periods of 1966-69, 1979-80 and 1990-92. One redeeming feature is that while the country's economic growth was negative during the annual Plan period of 1979-80, Karnataka's growth rate has always been positive.

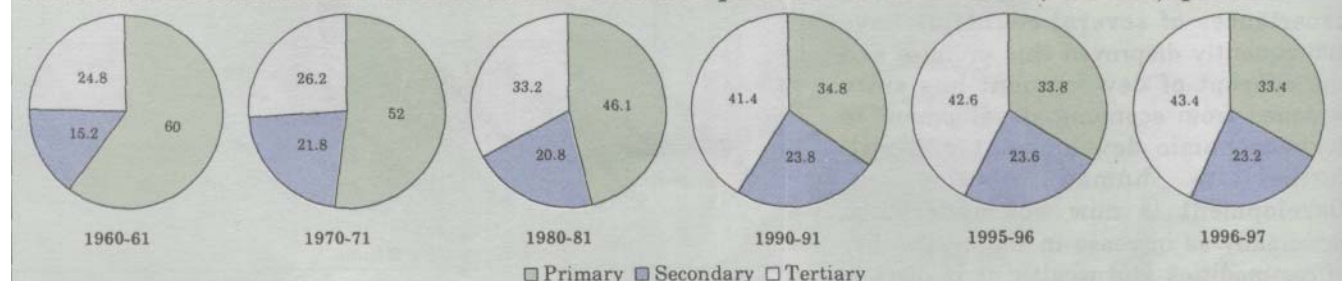
From 1960-61 to 1996-97 state income (Net State Domestic Product) at 1980-81 prices increased from Rs. 2977 crores to Rs. 13047 crores, a more than fourfold increase. It is a matter of concern however that real

per capita income has only doubled from Rs. 1273 to Rs. 2668. At current prices the annual growth rate of Net State Domestic Product (NSDP) was 12.7 per cent, while during the same period it was 10.3 per cent for per capita income.

In the case of NSDP at constant (1980-81) prices, the share of the primary sector has reduced from 60 per cent in 1960-61 to 33.4 percent in 1996-97, while the share of the secondary sector has increased from 15.2 per cent to 23.2 percent, the increase being more than 50 per cent. The share of the tertiary sector has moved from 24.8 per cent to 43.4 per cent, an increase of more than 70 per cent. This spectacular increase in the growth of the tertiary sector is a good trend. Slow growth in the share of the secondary sector, however, is a matter of concern; since 1970 there has been virtually no increase in the share of this sector.

Figure 5.3

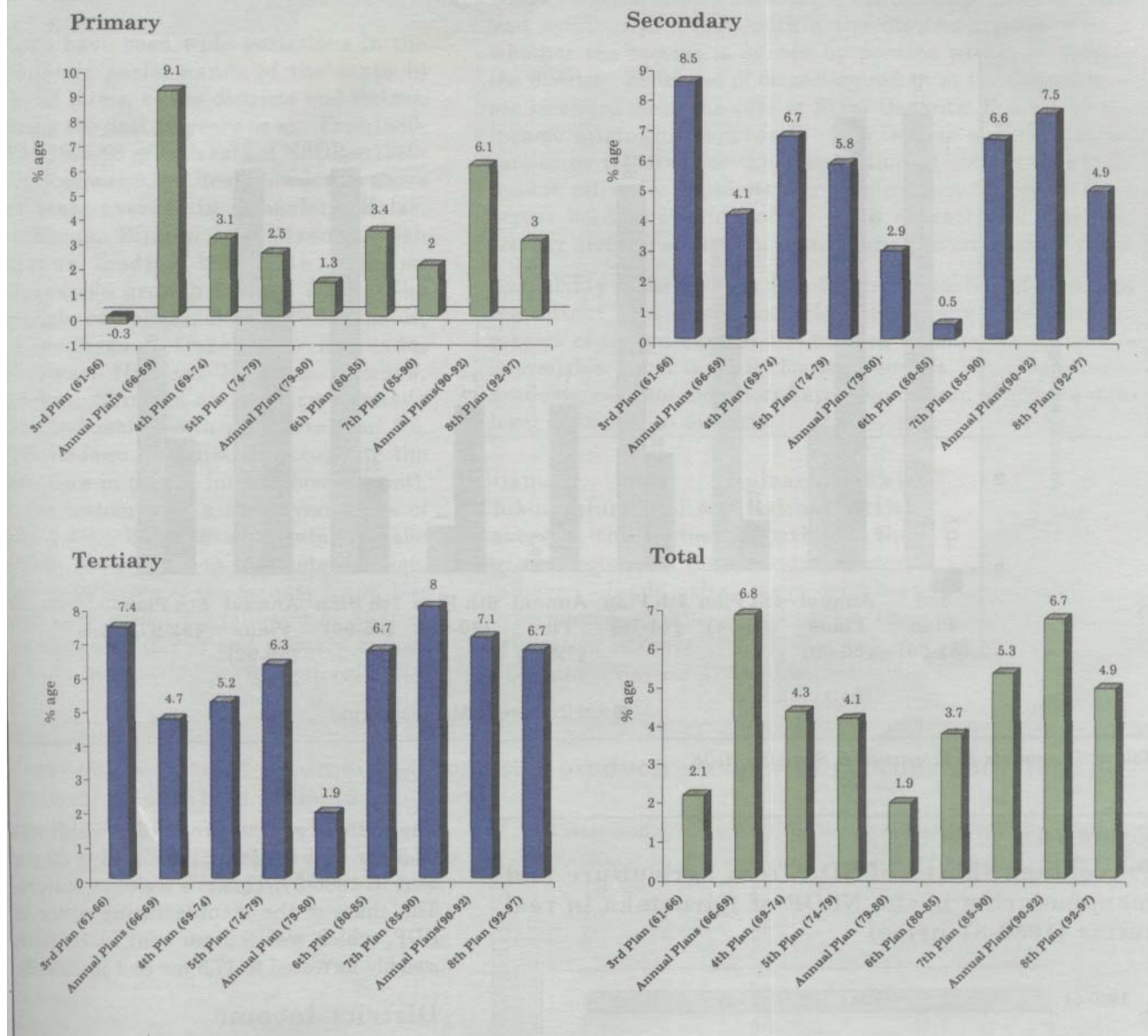
Sectoral contributions of net state domestic product at constant (1980-81) prices



Source: Directorate of Economics and Statistics.GOK

Figure 5.4

Sectoral annual average growth rate of NSDP at constant (1980-81) prices in Karnataka



Source: Directorate of Economics & Statistics, GOK

There is no consistency in the growth rates of different sectors. There have been periods of low growth in all of them over the years. Three main conclusions emerge from the above analysis:

- as expected, the primary sector which is largely dependent on agriculture and climatic vagaries shows the maximum fluctuation and the lowest overall growth rates

- growth rates are much higher in the secondary sector (principally manufacturing) except for a low growth period between 1979 and 1985

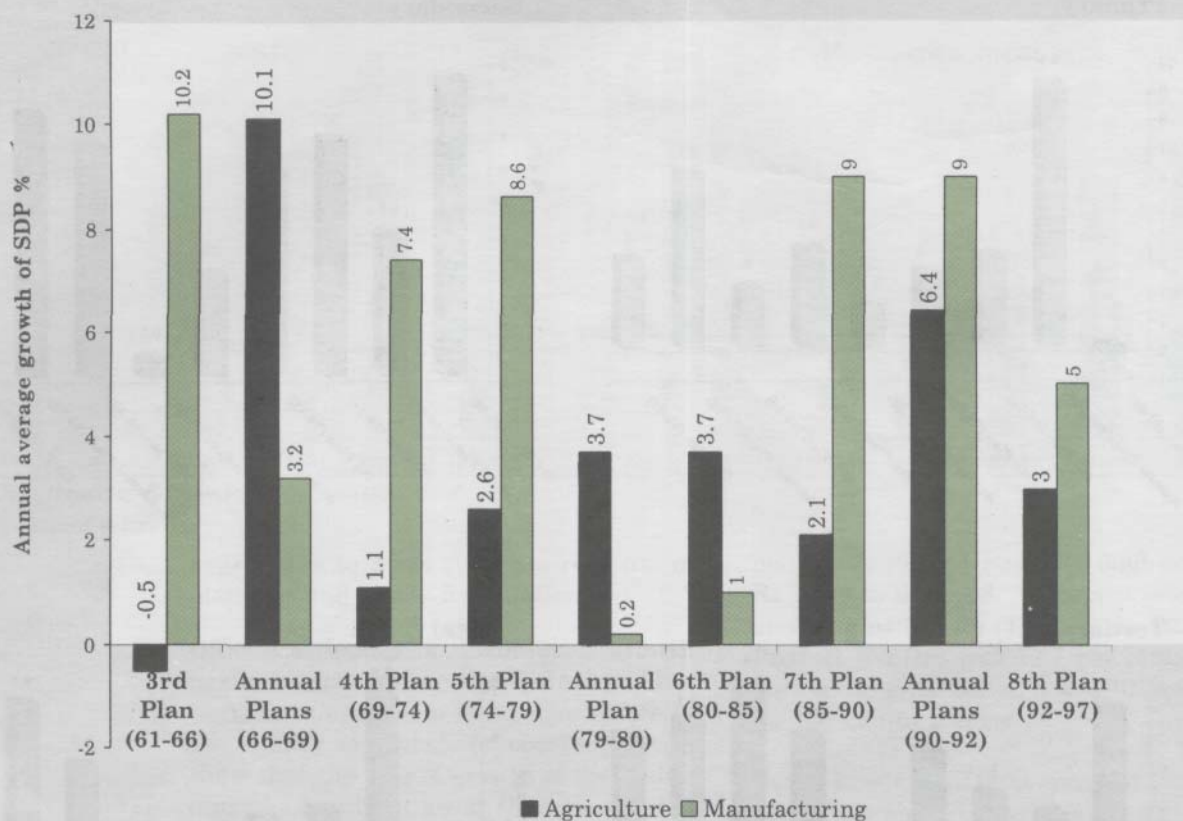
- the tertiary (services) sector has been the highest growth area but even here 1979-80 was a bad year.

Linkages between growth in the primary sector and that in the secondary and tertiary sectors cannot also be ignored.



**Figure 5.5**

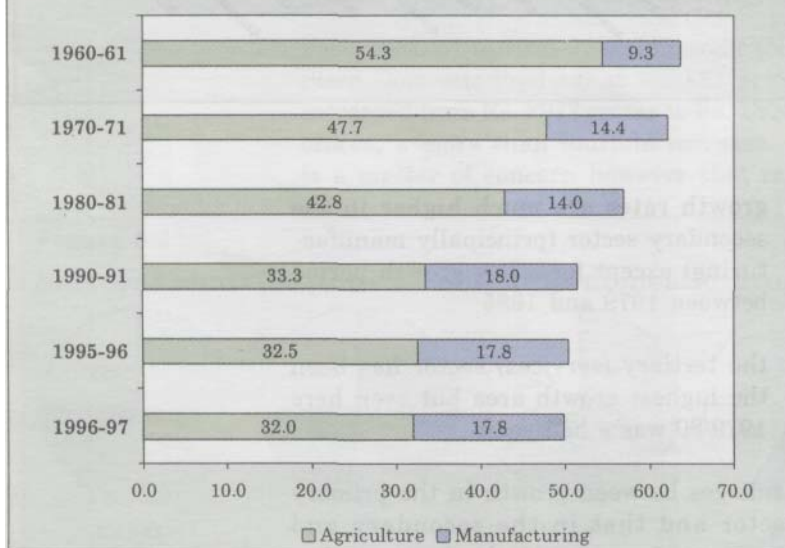
**Annual average growth of SDP in agriculture and manufacturing sectors in Karnataka**



Source: Directorate of Economics & Statistics, GOK

**Figure 5.6**

**Percentage shares of SDP from agriculture and manufacturing in the NSDP of Karnataka in real terms (1980-81 price)**



Source: Directorate of Economics & Statistics, GOK

The share of agriculture in SDP which was 54.3 per cent in 1960-61 declined to 32 per cent in 1996-97. This is a welcome feature. The share of the manufacturing sector in SDP, which was 9.3 per cent in 1960-61, steadily increased to 17.8 per cent in 1996-97.

### District income

With the shift in emphasis to decentralised planning, the need to have relevant data for Plan formulation at the district level was increasingly felt. District income is the single most important barometer to measure economic development. District income estimates also bring to light variations in economic development across districts so that plans can be formulated based on levels of backwardness. In Karnataka attempts have been made as far back as in 1960-61 to make estimates of district income with data available at that point of time. Subsequently district level estimates were made at tenyear



intervals; after 1990-91, annual estimates are being compiled. This is all the more commendable as many Indian states still do not have district income estimates.

There have been wide variations in the economic performance of the state in overall terms, across districts and sectors, during the past 15 years or so. From 1980-81 to 1995-96 growth rate of NSDP at

1980-81 prices was 5.4%. Real growth was above the state average in Bangalore, Kolar, Gulbarga, Bijapur and Mysore, with Bijapur leading the state with an impressive growth rate of 7.3%. The districts of Bellary, Bidar, Chikmagalur, Chitradurga, Dakshina Kannada, Dharwar, Hassan, Kodagu, Mandya, Raichur, Shimoga and Uttara Kannada have had real growth rates less than 5%, with Kodagu (the district occupying the first place in overall human development), at the bottom with a real growth rate of only 2.4%. Belgaum and Tumkur have growth rates equal to the state average. The performance of the tertiary sector has been very good (7%) followed by that of the secondary (6.2%) and primary sectors (3.5%). Mysore(8.7%), Bangalore(7.5%),

### Box 5.1

#### Methodology for computing district income

District income is the sum total of the economic value of goods and services produced within the district irrespective of whether the income is earned by persons within or outside the district. Estimates of domestic product at the district level are compiled as in the case of State Domestic Product by the income originating approach. The income accrual method cannot be followed for the preparation of district and state income estimates to adjust domestic product to income flows across borders because of the open character of economic activity and the absence of data relating to crossborder flows.

Availability of districtwise data for the estimation of income at the district level is still not adequate in any state. Data in respect of the primary and registered manufacturing sectors is available, but it is scanty for other sectors. When data is not available, relevant indicators have been utilised to allocate state level estimates to districts.

Bijapur and Gulbarga(7.3%), Chikmagalur(7.1%) and Raichur (7.1%) have had the fastest growth in the tertiary sector. In the secondary sector, Gulbarga leads the way with a performance of 8%, followed by the districts of Mysore (7.6%), Bangalore (7.1%) and Dharwar (7%). Chitradurga,

**Table 5.1**

**Growth in district income (net domestic product) sectorwise (at constant - 1980-81 - prices), 1980-81 to 1995-96**

| District         | District<br>1980-81 | income (Rs.)<br>1995-96 | Compound<br>Primary | growth rate (in<br>Secondary | per annum) 1980-<br>Tertiary | to 1995-96<br>Overall |
|------------------|---------------------|-------------------------|---------------------|------------------------------|------------------------------|-----------------------|
| Bangalore        | 102810              | 287201                  | 4.9                 | 7.1                          | 7.5                          | 7.1                   |
| Belgaum          | 41271               | 90824                   | 3.8                 | 5.9                          | 7.5                          | 5.4                   |
| Bellary          | 23277               | 43396                   | 2.4                 | 5.2                          | 6.4                          | 4.2                   |
| Bidar            | 13090               | 26940                   | 3.9                 | 4.5                          | 7.0                          | 4.9                   |
| Bijapur          | 23088               | 66871                   | 8.1                 | 5.1                          | 7.3                          | 7.3                   |
| Chikmagalur      | 16795               | 30373                   | 2.4                 | 5.2                          | 7.1                          | 4.0                   |
| Chitradurga      | 28546               | 49963                   | 2.7                 | 2.9                          | 6.0                          | 3.8                   |
| Dakshina Kannada | 39996               | 76018                   | 2.0                 | 4.7                          | 6.3                          | 4.4                   |
| Dharwad          | 37378               | 81257                   | 3.2                 | 7.0                          | 6.7                          | 5.3                   |
| Gulbarga         | 28429               | 67304                   | 4.0                 | 8.0                          | 7.3                          | 5.9                   |
| Hassan           | 18521               | 33641                   | 2.9                 | 4.1                          | 6.3                          | 4.1                   |
| Kodagu           | 13985               | 19815                   | 0.6                 | 3.0                          | 5.9                          | 2.4                   |
| Kolar            | 16075               | 37763                   | 5.7                 | 5.1                          | 6.3                          | 5.9                   |
| Mandya           | 22354               | 40618                   | 2.6                 | 4.9                          | 6.7                          | 4.1                   |
| Mysore           | 37474               | 94553                   | 3.9                 | 7.6                          | 8.7                          | 6.4                   |
| Raichur          | 25528               | 47830                   | 2.7                 | 4.3                          | 7.1                          | 4.3                   |
| Shimoga          | 29510               | 56540                   | 3.3                 | 4.3                          | 6.2                          | 4.4                   |
| Tumkur           | 22961               | 50648                   | 4.4                 | 5.7                          | 6.8                          | 5.4                   |
| Uttara Kannada   | 17650               | 28734                   | 0.2                 | 6.4                          | 5.0                          | 3.3                   |
| <b>STATE</b>     | <b>558736</b>       | <b>1230289</b>          | <b>3.5</b>          | <b>6.2</b>                   | <b>7.0</b>                   | <b>5.4</b>            |

Source: Directorate of Economics & Statistics, COK

Hassan and Kodagu have very low growth rates in the secondary sector. Growth in the primary sector has been very good in Bijapur (8.1%) followed by Kolar (5.7%). Kodagu and Uttara Kannada have had less than 1% growth in the primary sector.

Analysis of annual growth in per capita income in real terms (measured by compound growth rates) shows that Bangalore, Belgaum, Bijapur, Dakshina Kannada and Kolar districts had annual growth rates above the state average, while Chitradurga and Raichur districts had less than 1% of annual growth from 1980-81 to 1990-91. Bidar, Bijapur, Chikmagalur, Chitradurga, Dharwad, Gulbarga, Hassan, Mandya, Mysore, Raichur, Shimoga, Tumkur and Uttara Kannada districts have grown faster from 1990-91 to 1995-96 than in the eighties. However, the annual growth rate was 6% and above in Bijapur, Dharwad, Gulbarga and Mysore districts. If we gauge the

performance of districts in terms of annual growth rates for 15 years from 1980-81 to 1995-96, only Bijapur (5.3%) has crossed the 5% mark. However, Bangalore, Belgaum, Bijapur, Gulbarga, Mysore and Tumkur districts have growth rates above the average for the state.

In 1995-96, per capita income in six districts was above the state average. Kodagu registered the highest per capita income (Rs.20120) followed by Bangalore (Rs.15556), Chikmagalur (Rs.14783), Dakshina Kannada (Rs. 10665), Shimoga (Rs.10121) and Mysore (Rs.9896). The districts of Bidar, Bijapur, Chitradurga, Dharwad, Hassan, Kolar, Mandya, Raichur and Tumkur had per capita incomes less than Rs. 8000. The remaining districts had per capita incomes above Rs. 8000 but below the state average of Rs. 9384.

It is also very important to know the sectoral shares of district income. This

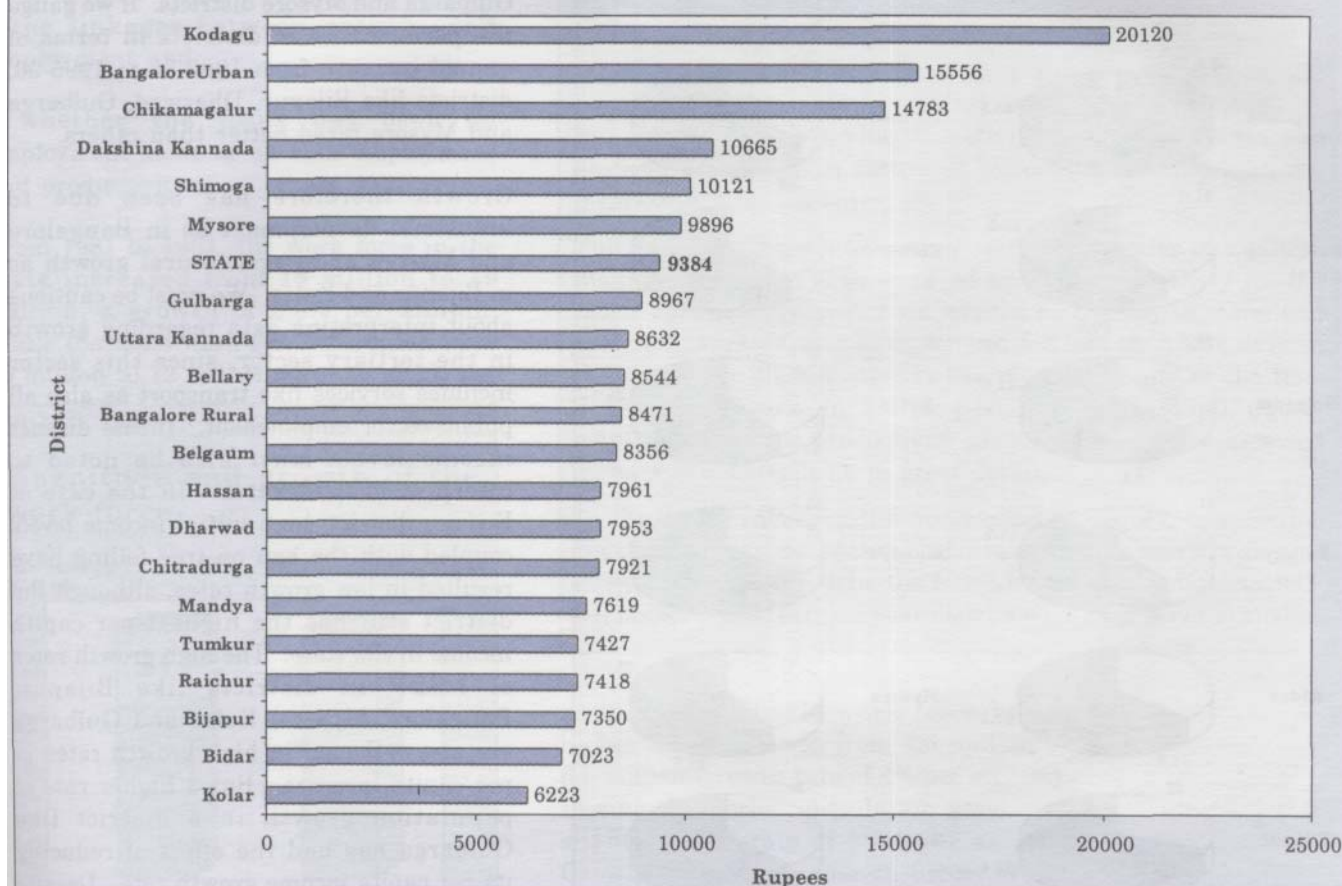
**Table 5.2**  
**Growth in per capita district incomes in real terms - at 1980-81 prices**

| District        | Per capita income (in rupees) |             |             | Compound growth rate(% per annum) |                    |                    |
|-----------------|-------------------------------|-------------|-------------|-----------------------------------|--------------------|--------------------|
|                 | 1980-81                       | 1990-91     | 1995-96     | 1980-81 to 1990-91                | 1990-91 to 1995-96 | 1980-81 to 1995-96 |
| Bangalore       | 2100*                         | 3774        | 4712        | 4.5*                              | 4.5                | 4.6*               |
| Bangalore Rural |                               | 1917        | 2381        |                                   | 4.4                |                    |
| Belgaum         | 1399                          | 2088        | 2363        | 4.0                               | 2.5                | 3.6                |
| Bellary         | 1579                          | 1936        | 2143        | 2.0                               | 2.1                | 2.1                |
| Bidar           | 1329                          | 1588        | 2002        | 1.8                               | 4.7                | 2.8                |
| Bijapur         | 971                           | 1595        | 2130        | 5.0                               | 6.0                | 5.3                |
| Chikmagalur     | 1858                          | 2290        | 2787        | 2.1                               | 4.0                | 2.7                |
| Chitradurga     | 1622                          | 1783        | 2136        | 0.9                               | 3.7                | 1.9                |
| Dakshina Kannad | 1701                          | 2471        | 2632        | 3.8                               | 1.3                | 3.0                |
| Dharwad         | 1283                          | 1597        | 2163        | 2.2                               | 6.3                | 3.5                |
| Gulbarga        | 1381                          | 1758        | 2431        | 2.4                               | 6.7                | 3.8                |
| Hassan          | 1381                          | 1665        | 1999        | 1.9                               | 3.7                | 2.5                |
| Kodagu          | 3069                          | 3582        | 3770        | 1.6                               | 1.0                | 1.4                |
| Kolar           | 853                           | 1335        | 1588        | 4.5                               | 3.5                | 4.2                |
| Mandya          | 1592                          | 1837        | 2308        | 1.4                               | 4.7                | 2.5                |
| Mysore          | 1459                          | 1840        | 2785        | 2.3                               | 8.6                | 4.4                |
| Raichur         | 1447                          | 1549        | 1933        | 0.7                               | 4.5                | 2.0                |
| Shimoga         | 1800                          | 2128        | 2759        | 1.6                               | 5.3                | 2.9                |
| Tumkur          | 1172                          | 1570        | 2047        | 2.9                               | 5.5                | 3.8                |
| Uttara Kannada  | 1662                          | 1979        | 2199        | 1.7                               | 2.1                | 1.9                |
| <b>STATE</b>    | <b>1520</b>                   | <b>2048</b> | <b>2558</b> | <b>3.0</b>                        | <b>4.5</b>         | <b>3.5</b>         |

Source: Directorate of Economics & Statistics, GOK. (\* Figures refer to undivided district of Bangalore)

**Figure 5.7**

**Per capita district income at current prices, 1995-96**



Source: Directorate of Economics & Statistics, GOK

helps planners to study disparities in development among districts and plan accordingly. Districtwise percentage shares of income by broad sectors of the economy at constant (1980-81) prices indicate that apart from Bangalore Urban district, the economies of Dakshina Kannada, Uttara Kannada and Dharwar districts have moved farthest from dependence on the primary sector to dependence on the secondary and tertiary sectors. This is a welcome development as the secondary and tertiary sectors are characterised by greater productivity. In these three districts, the shares of the primary sector are below the state average of 35%-28.8% in Dakshina Kannada, 32% in Uttara Kannada and 34.4% in Dharwar. Mysore, with 35.6% of GDP derived from the primary sector and Bangalore Rural with 37.5% are also quite close to the state average. In all these districts, the shares of both the secondary and tertiary sectors

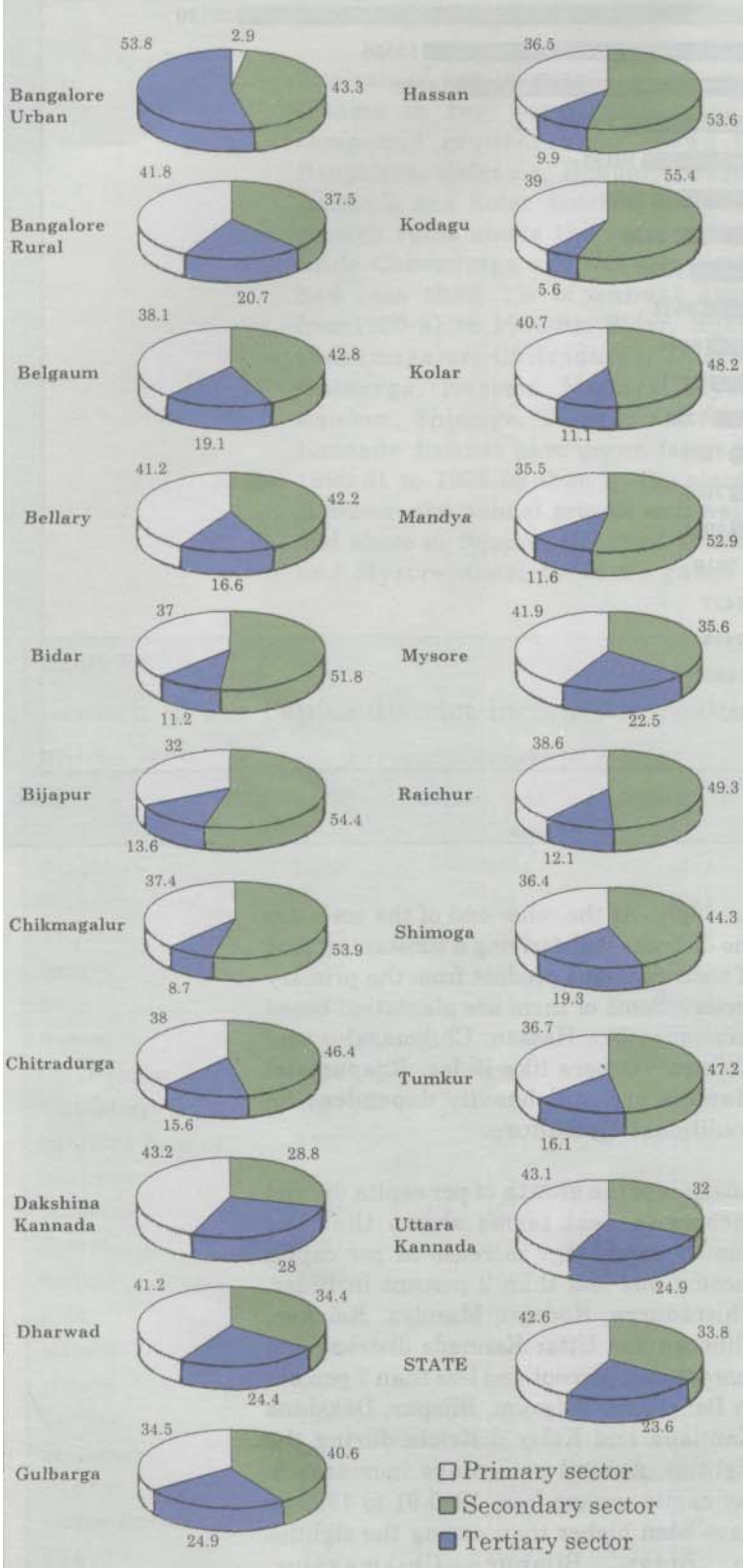
are high. At the other end of the scale are the districts still deriving a substantial part of their domestic product from the primary sector. Some of them are plantation based economies like Hassan, Chikmagalur and Kodagu. Others like Bidar, Bijapur and Mandya are still heavily dependent on traditional agriculture.

Analysis of the growth of per capita district income in real terms shows that the annual percentage increase in per capita income was less than 2 percent in Bidar, Chitradurga, Kodagu, Mandya, Raichur, Shimoga and Uttar Kannada districts and more than 4 percent and less than 7 percent in Bangalore, Belgaum, Bijapur, Dakshina Kannada and Kolar districts during the eighties. Annual percentage increases in per capita income from 1990-91 to 1995-96 have been higher than during the eighties in Bidar, Bijapur, Chikmagalur, Chitradurga, Dharwad, Gulbarga, Hassan,



Figure 5.8

Percentage shares of primary, secondary and tertiary sectors in district income at constant (1980-81) prices, 1995-96.



Source: Directorate of Economics & Statistics, GOK

Mandya, Mysore, Raichur, Shimoga, Tumkur and Uttara Kannada districts. However the annual percentage increase was more than 7 percent in Dharwad, Gulbarga and Mysore districts. If we gauge the performance of districts in terms of annual increase from 1980-81 to 1995-96, districts like Bijapur, Dharwad, Gulbarga and Mysore fared better than others.

Growth therefore has been due to industrial development as in Bangalore and Mysore or to agricultural growth as in Bijapur and Kolar. We must be cautious about interpreting data regarding growth in the tertiary sector, since this sector includes services like transport as also all public sector employment. Initial district income levels must also be noted to interpret growth rates. In the case of Kodagu district, high initial income levels coupled with the ban on tree felling have resulted in low growth rates, although the district still has the highest per capita income in the state. The high growth rates of NSDP in districts like Bijapur, Bangalore, Mysore, Kolar and Gulbarga are also reflected in high growth rates in per capita incomes. But a higher rate of population growth in a district like Gulbarga has had the effect of reducing its per capita income growth rate. Despite such good growth rates, Gulbarga and to a much greater extent, Bijapur and Kolar, still have low absolute levels of per capita incomes at constant prices because of very low initial income levels.

## Employment

Growth in district incomes even at the per capita level is a notional concept which does not have much meaning unless it improves the earning power of individuals in monetary and real terms. This in turn is dependent on earning opportunities (employment opportunities) and the level of earnings. While the magnitude of employment opportunities available in the economy is important, other issues also have a bearing on developmental strategies and programmes. These include:

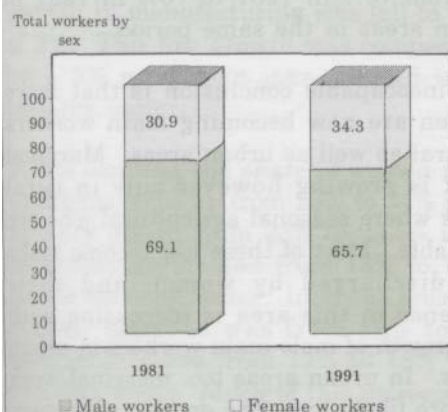
- the stream in which opportunities are expanding: for main or marginal workers,

- the sectors in which employment opportunities are increasing,
- the productivity of employment,
- the linkages between growth and employment and
- whether the focus has been on employment alone or on both employment and productivity

From 1981 to 1991, the work force in the state increased from 15 million to 19 million, a growth of 2.6% per annum. While the male work force increased from 10 million to 12 million (growth of 2% per

Figure 5.9

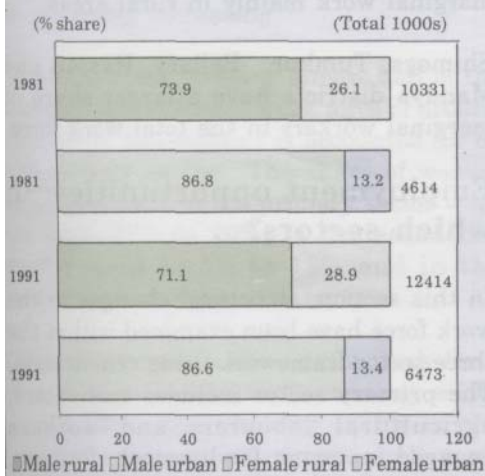
### Magnitude and growth of the work force



Source: Directorate of Economics & Statistics, GOK

Figure 5.10

### Work force - rural and urban



Source: Directorate of Economics & Statistics, GOK

## Box 5.2

### Concept of work force in 1981 and 1991: census and other data sources

Work is measured in terms of time and the focus is on the usual status of the worker. Work is defined as participation in an economically productive activity - participation may be physical or mental in nature. It includes unpaid work on the farm or in a family enterprise.

The census gathers information on two categories of workers: main workers who have engaged in economic activity for the major part of the year (for six months or 183 day or more) and marginal workers who have worked for less than 183 days in the year. This classification is based on continuity or the time dimension of work (full time, part time or seasonal); under-employment or the productivity dimension cannot be assessed as data is not available in great detail.

In the 1991 census, in the non-workers category, information regarding persons seeking or available for work was also elicited. As for NSS data, the latest information relates to 1993-94; however even for this year district-wise data is not available.

annum), the female work force had a higher rate of growth from 4.6 million to 6.5 million (growth rate of 4% per annum). During the period, population grew at a slightly lower rate of 2.1% per annum. Growth has been higher in urban areas; while the urban work force increased by 3.5% per annum from 3.3 million to 4.5 million, the rural work force increased from 11.6 million to 14.4 million (growth of 2.4% per annum) between 1981 and 1991. 76% of the work force is in rural areas in 1991. Nearly 87% of the female work force is in rural areas in both 1981 and 1991 though the share of female rural population was lower (70%). The female work force grew at the same rate in rural and urban areas (around 4% per annum) but the number of male workers in urban areas grew at 3.3% per annum against half that level in rural areas (1.6% per annum). As a result, the share of male workers in rural areas has decreased from 74% to 71%, while in urban areas, it has increased from 26% to 29%. Evidently, more persons (including more women) are joining the work force, but employment is increasing more in urban than rural areas and the additional jobs in urban areas are generally being snapped up by men who are more mobile than women.



Although rural areas do not strictly conform to the primary sector, it is noteworthy that 76% of the work force is in rural areas although the primary sector contributes only 33% of the NSDP. Investment in the secondary and tertiary sectors is more capital intensive; despite growth in urban job opportunities, the proportion of the labour force still dependent on low income rural employment is fairly high. Women appear to be replacing men in rural (lowend agricultural) jobs consequent on the latter moving to towns for better paid employment.

### Employment opportunities : in which stream ?

Most main workers in the state are expectedly males, but the number of women joining the labour force as main workers has grown between 1981 and 1991. In the eighties, the number of main workers in the state increased at an annual rate of 2.7% (from 13.7 million to 17.3 million) but growth was higher for female main workers (4.5% per annum from 3.5 million to 5 million) than for male (2.1% per annum from 10.2 million to 12.3 million). As a result, the share of males in the main work force has come down from 75% in 1981 to 71% in 1991. The higher growth rate for female main workers applies to both urban and rural areas. The vast majority of both male and female main workers are in rural areas (77% in 1981 and 71% in 1991 for men against 83% for women in both years).

A far higher number of marginal workers are women than men-92% in 1991. The number of marginal workers grew at a

slower pace (only 2.3% per annum from 1.3 million to 1.6 million). They account for only 8.5% of the work force in 1991. Growth was positive in rural areas (2.6% per annum from 1.2 million to 1.5 million) against a decline of 1.4% per annum in urban areas (from 96000 to 83000). While the number of male marginal workers decreased from 132000 to 129000 (by 0.2% per annum), that of females went up from 1.2 million to 1.5 million (by 2.6% per annum). The percentage of males in the marginal work force in urban areas was 30% in 1981 but it came down to 24% by 1991. Most of the marginal workers are in rural areas-96% of the women marginal workers and 85% of the men were in rural areas in 1991; these shares have gone up in the eighties. In rural areas, the shares of women in the marginal work force were above 90% in 1981 and 1991 while it went up from 70% in 1981 to 76% in 1991 in urban areas in the same period.

The inescapable conclusion is that more women are now becoming main workers in rural as well as urban areas. Marginal work is growing however only in rural areas where seasonal agricultural jobs are available. Most of these low income tasks are discharged by women and their presence in this area is increasing with the growth of male main workers in urban areas. In urban areas too, marginal work is more likely to be the domain of women. Household tasks and the responsibilities of bearing children and caring for them coupled with difficulties related to mobility and migration have ensured the concentration of women in lowpaid marginal work mainly in rural areas.

Shimoga, Tumkur, Bellary, Hassan and Mandya districts have a larger share of marginal workers in the total work force.

### Employment opportunities: in which sectors?

In this section, structural- changes in the work force have been examined within the three-sector framework using census data. The primary sector includes cultivators, agricultural labourers and workers engaged in caring for livestock, forestry, hunting, plantations, orchards and allied activities. The secondary sector covers

| <b>Table 5.3</b>                 |             |             |                    |                 |             |                    |
|----------------------------------|-------------|-------------|--------------------|-----------------|-------------|--------------------|
| <b>Main and marginal workers</b> |             |             |                    |                 |             |                    |
|                                  | <b>Main</b> |             |                    | <b>Marginal</b> |             |                    |
|                                  | <b>1981</b> | <b>1991</b> | <b>growth rate</b> | <b>1981</b>     | <b>1991</b> | <b>growth rate</b> |
|                                  |             |             | <b>(% p.a.)</b>    |                 |             | <b>(% p.a.)</b>    |
| Male                             | 10199       | 12285       | 2.1                | 132             | 129         | -0.2               |
|                                  | (74.7%)     | (71.0%)     |                    | (10.2%)         | (8.1%)      |                    |
| Female                           | 3452        | 5007        | 4.5                | 1162            | 1466        | 2.6                |
|                                  | (25.3%)     | (29.0%)     |                    | (89.8%)         | (91.9%)     |                    |
| Total                            | 13651       | 17292       | 2.7                | 1294            | 1595        | 2.3                |

Source: Census 1981 and 1991 - Economic Tables

mining and quarrying, household industry, manufacturing other than in the household and construction. The tertiary sector covers trade and commerce, transport, storage and communications and other services.

Sectorwise employment data from the census is available only for main workers. The three sectors grew faster than the population and provided additional employment opportunities (mainly in the seventies). In the eighties, growth in jobs in the state's economy was only 2.7%, against 3.4% in the seventies. The lower growth rate of NSDP from the primary sector has resulted in lower growth of employment generated by the sector. NSDP in the secondary sector grew well in the seventies and so did jobs generated in the sector; in the eighties however, growth in manufacturing jobs fell to a low of 2%. This low growth was compensated by a 5% growth in jobs created in the tertiary sector.

In the eighties, the share of women in the workforce went up from 29% to 34% in the primary sector, from 23% to 23.5% in the secondary sector and from 13% to 15.4% in the tertiary sector. In rural areas the overall increase was from 28% to 33% against increase from 17% to 18% alone in urban areas. Much of this increase was in the primary sector (from 29% to 34%); the share of women in the workforce grew from 30% to 32% in the secondary sector and from 14% to 16% in the tertiary sector. Tertiary sector employment is therefore low for women in rural areas although it is gradually increasing.

In urban areas however almost half of the increase in the female work force of around 300,000 in the eighties is accounted for by the tertiary sector. The share of women in employment in the primary sector went up from 27% to 29%, in the secondary sector from 17.5% to 18% and in the tertiary sector from 13% to 15%.

Overall, growth in the female work force was as high as 7.5% in the tertiary sector and 4.6% in the primary sector in the eighties, while growth in the male work force was highest in the tertiary sector (4.6%); it was only between 1% and 2% in the primary and secondary sectors.

**Table 5.4**  
**Growth of main, marginal & total workers**  
**Karnataka, districtwise : 1981 to 1991**

| District       | (percent p. a.) |                  |               |
|----------------|-----------------|------------------|---------------|
|                | Main workers    | Marginal workers | Total workers |
| Bangalore      | 4.3             | 2.6              | 4.2           |
| Chitradurga    | 2.2             | 3.0              | 2.3           |
| Kolar          | 2.8             | 2.6              | 2.8           |
| Shimoga        | 2.1             | 7.2              | 2.4           |
| Tumkur         | 2.8             | 8.0              | 3.4           |
| Belgaum        | 2.4             | 1.3              | 2.3           |
| Bijapur        | 2.5             | -0.1             | 2.2           |
| Dharwad        | 2.1             | 1.4              | 2.0           |
| Uttara Kannada | 1.8             | -0.6             | 1.5           |
| Bellary        | 3.3             | 6.6              | 3.5           |
| Bidar          | 2.7             | -0.4             | 2.4           |
| Gulbarga       | 2.4             | -3.0             | 1.8           |
| Raichur        | 3.3             | 1.0              | 3.1           |
| Chickamagalore | 1.6             | -1.4             | 1.3           |
| Dakshina       | 1.7             | 1.5              | 1.7           |
| Hassan         | 2.3             | 4.6              | 2.6           |
| Kodagu         | 0.6             | 0.2              | 0.5           |
| Mandya         | 3.2             | 14.1             | 4.0           |
| Mysore         | 3.0             | 3.2              | 3.0           |
| <b>STATE</b>   | <b>2.7</b>      | <b>2.3</b>       | <b>2.6</b>    |

Source : Director of Census Operations, Economic Tables, 1981 & 1991

**Figure 5.11**  
**Distribution of main workers (all age groups) by sector - Karnataka: 1971 to 1991**

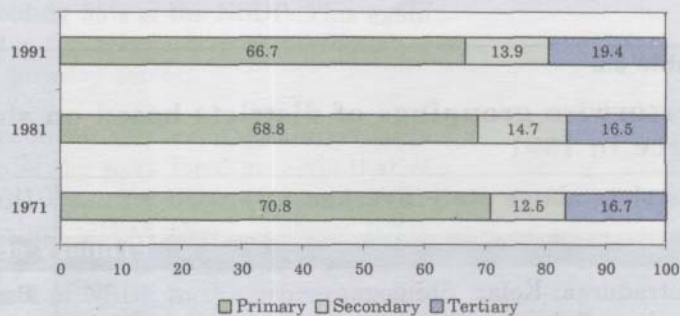
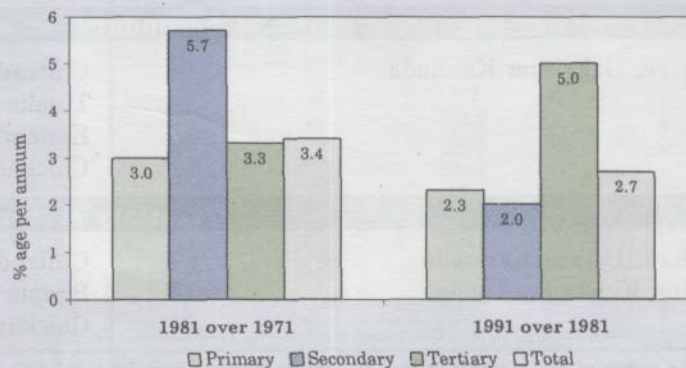


**Figure 5.12**  
**Growth in main workers (all age groups) by sector - Karnataka: 1971 to 1991**



Source: Director of Census Operations: Economic Tables 1971, 1981 and 1991

**Table 5.5**  
**Growth in main workers (all age groups) by sector and sex in rural and urban areas - Karnataka, 1981 to 1991**

| Category      | (percent per annum) |                  |                 |             |
|---------------|---------------------|------------------|-----------------|-------------|
|               | Primary sector      | Secondary sector | Tertiary sector | All sectors |
| Rural         |                     |                  |                 |             |
| Male          | 1.3                 | 0.5              | 5.3             | 1.6         |
| Female        | 4.7                 | 1.4              | 7.5             | 4.5         |
| Male & Female | 2.3                 | 0.8              | 5.6             | 2.4         |
| Urban         |                     |                  |                 |             |
| Male          | 2.0                 | 2.8              | 4.2             | 3.4         |
| Female        | 3.2                 | 3.2              | 7.6             | 4.7         |
| Male & Female | 2.3                 | 2.8              | 4.7             | 3.6         |
| Rural + Urban |                     |                  |                 |             |
| Male          | 1.3                 | 1.9              | 4.6             | 2.0         |
| Female        | 4.6                 | 2.2              | 7.5             | 4.5         |
| Male & Female | 2.3                 | 2.0              | 5.0             | 2.7         |

Source: Director of Census Operations : Economic Tables, 1981 and 1991.

It appears therefore that the tertiary sector is contributing the largest increase in fulltime employment for the work force despite some slackening of the rate of growth of creation of such jobs in the eighties. As we have already noted, many more women are being drawn into the category of main workers and the additional jobs available seem to be higher

in the primary sector in rural areas and in the tertiary sector in urban areas. In the case of males, growth in the work force is noticeable in the tertiary sector.

More or less in line with what we have noted earlier about the shares in GDP from the primary, secondary and tertiary sectors at the district level, Bangalore, Dakshina Kannada and (to some extent) Uttara Kannada districts have a larger than average share of main workers in the work force in the secondary and tertiary sectors and a lower share in the primary sector.

Another interesting area to look at is the unorganised sector. According to the 1990 Economic Census, the number of workers in the unorganised sector was 4.7 million; they worked in about 1.7 million enterprises. The corresponding figure for 1980 was 3.9 million workers in 1.4 million enterprises. Work force in the unorganised sector grew at an annual rate of 2.1% against overall growth in main workers of 2.7% per annum. Workers in the unorganised sector account for 27% of the 17.3 million main workers. Two sectors which account for a large share of

**Table 5.6**  
**Sectorwise groupings of districts based on shares of main workers in the total work force in 1991**

| Districts above state average                                                                                                                    | Districts below state average                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Primary sector</b>                                                                                                                            |                                                                                                                                                                  |
| Chitradurga, Kolar, Shimoga, Tumkur, Belgaum, Bijapur, Dharwar, Bellary, Bidar, Gulbarga, Raichur, Chickamagalur, Hassan, Kodagu Mandya, Mysore. | Bangalore, Uttara Kannada, Dakshina Kannada                                                                                                                      |
| <b>Secondary sector</b>                                                                                                                          |                                                                                                                                                                  |
| Bangalore, Dakshina Kannada                                                                                                                      | Chitradurga, Kolar, Shimoga, Tumkur, Belgaum, Bijapur, Dharwar, Uttara Kannada, Bellary, Bidar, Gulbarga, Raichur, Chickamagalur, Hassan, Kodagu, Mandya, Mysore |
| <b>Tertiary sector</b>                                                                                                                           |                                                                                                                                                                  |
| Bangalore, Uttara Kannada, Dakshina Kannada, Kodagu                                                                                              | Chitradurga, Kolar, Shimoga, Tumkur, Belgaum, Bijapur, Dharwar, Bellary, Bidar, Gulbarga, Raichur, Chickamagalur, Hassan, Mandya, Mysore                         |

Note: The share of the primary sector in Uttara Kannada district (65.5%) is close to the state average of 66.7%

Source: Director of Census Operations, Economic Tables, 1991.



unorganised sector workers are manufacturing and trade and commerce; the shares in these areas are as high as 71%.

## Employment: how productive?

In developing economies, expansion of employment opportunities alone cannot provide a sustainable solution from the viewpoint of growth and human development. It is essential to ensure that expansion contributes to a relatively higher increase in output which implies improvement in labour productivity. Issues relating to the relative expansion of employment opportunities and SDP within the three-sector framework (primary, secondary and tertiary sectors) as well as the overall picture are examined in this section.

The three indicators used for analysis are:

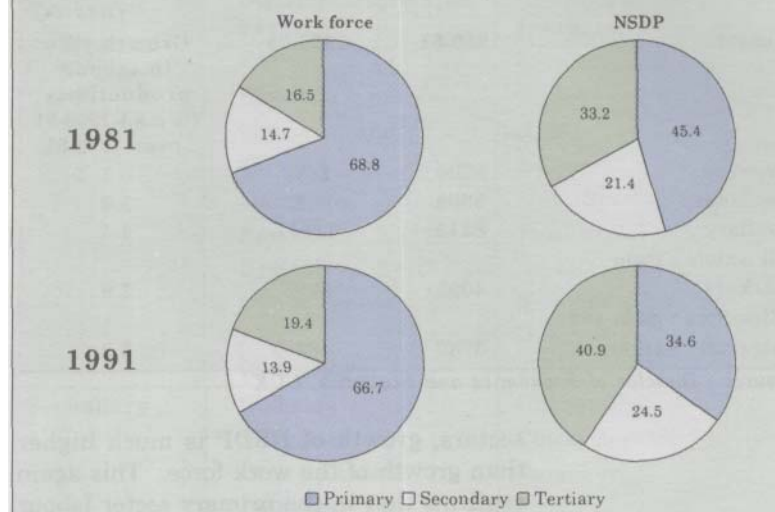
- a comparison between the relative shares of sectors in the work force and in the net state domestic product
- a comparison of growth rates of net state domestic product and of the work force in the three sectors and
- a look at the growth of labour productivity in the three sectors.

Between 1980-81 and 1990-91, the share of the primary sector in NSDP declined by 10% from 45% to 35% whereas its share in the work force decreased by just 2% from 69% to 67%. Such a disparity implies marginal or negative contribution of labour to income in an incremental sense. The share of the tertiary sector in NSDP went up by 8% from 33% to 41% while that of the secondary sector grew by about 3% from 21% to 24.5%. The share of the secondary sector in NSDP has increased despite its share in the work force decreasing by about 1% from 15% to 14%. In the tertiary sector, the share of the work force has gone up by about 3% from 16.5% to 19% whereas its share in NSDP has gone up by 8%. A comparison of relative sectoral shares in NSDP and the work force indicates significant productivity improvements in the secondary and tertiary sectors.

In 1991, 67% of the work force in the primary sector contributed 35% of the NSDP and 33% of the work force in the

Figure 5.13

Sectoral pattern of the work force and NSDP (at 1980-81 prices), 1981 & 1991



Source: Directorate of Economics & Statistics and Census, (Economic Tables) 1981 & 1991

secondary and tertiary sectors contributed 65% of the NSDP. The corresponding figures for 1981 are 69% of the work force in the primary sector contributing 45% of the NSDP and 31% of the work force in the secondary and tertiary sectors contributing 55% of the NSDP. This again indicates the relatively poor performance of the primary sector.

The second indicator of productivity is growth of the work force vis-a-vis that of real NSDP during the reference period. Data shows that there is very little difference between the growth of the work force and of NSDP in the primary sector whereas in the secondary and tertiary

Figure 5.14

Growth rate of work force and NSDP, 1990-91 over 1980-81

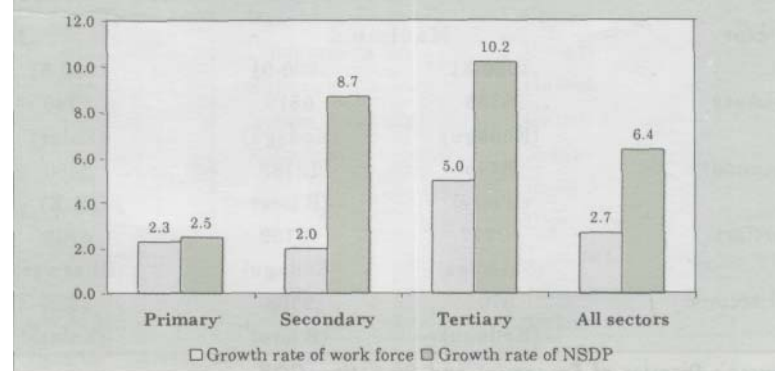


**Table 5.7**  
**Net state domestic product per worker (at 1980-81 prices) :**  
**Karnataka, 1980-81 and 1990-91: sectoral and overall**

| Sector                                     | (Rupees) |         | Growth rate<br>in labour<br>productivity<br>(% p.a.) 1990-91<br>over 1980-81 |
|--------------------------------------------|----------|---------|------------------------------------------------------------------------------|
|                                            | 1980-81  | 1990-91 |                                                                              |
| Primary                                    | 2700     | 2744    | 0.2                                                                          |
| Secondary                                  | 5969     | 9352    | 5.7                                                                          |
| Tertiary                                   | 8243     | 11141   | 3.5                                                                          |
| All sectors : main<br>workers              | 4093     | 5293    | 2.9                                                                          |
| All sectors : main and<br>marginal workers | 3739     | 4846    | 3.0                                                                          |

Source : Director of Economics and Statistics, GOK

sectors, growth of NSDP is much higher than growth of the work force. This again confirms that in the primary sector labour productivity gains have been marginal vis-a-vis the other two sectors.

The third indicator is income per worker. In this respect also there is very little improvement in the productivity of labour in the primary sector; what is of greater concern is the fact that as many as 67% of main workers are engaged in this sector. The performance of the secondary and tertiary sectors in labour productivity appears more encouraging. While there are no indications of declining labour productivity in the state at large, some districts have had negative changes. There are also significant differences in labour productivity in the various sectors across districts.

In the primary sector, the difference between the minimum and the maximum is four to five times in both the years; between 1980-81 and 1990-91, the maximum has increased by about 0.7% per annum Only (in the same district). Inter-district variations can be attributed to factors like differences in cropping pattern (especially for plantation based activity compared to foodgrains based activity), the availability of irrigation, output prices and natural factors like geo-physical conditions.

In the secondary sector, maximum values are around 2 to 3 times minimum values and the maximum has increased by 4.4% per annum (though not in the same district). In the tertiary sector, the maximum value is only around 1.5 times the minimum value. In the secondary sector, a major factor contributing to differences across districts could be the structural pattern of manufacturing industries themselves as different products are produced in the organised and unorganised sectors. Technology has a relatively greater role to play in the secondary sector. The tertiary sector, however, covers service activities in which factor income accrues mainly to labour.

In overall terms, Kodagu and Bangalore stand out for good performance while quite clearly Kolar is a poor performer.

Infrastructure facilities are a pre-requisite to better production performance. Infrastructurally developed districts should fare better in operational efficiency and vice versa. The relative positions of

**Table 5.8**  
**Maximum and minimum NSDP per worker - sectorwise**

| Sector      | Maximum            |                   | Minimum           |                   | State Average |         |
|-------------|--------------------|-------------------|-------------------|-------------------|---------------|---------|
|             | 1980-81            | 1990-91           | 1980-81           | 1990-91           | 1980-81       | 1990-91 |
| Primary     | 6368<br>(Kodagu)   | 6819<br>(Kodagu)  | 1240<br>(Kolar)   | 1748<br>(Dharwar) | 2700          | 2744    |
| Secondary   | 8438<br>(B'lore)   | 12188<br>(B'lore) | 3460<br>(D.K)     | 4220<br>(Kolar)   | 5969          | 9352    |
| Tertiary    | 10277<br>(Shimoga) | 13132<br>(Kodagu) | 6708<br>(Dharwar) | 8799<br>(Bidar)   | 8243          | 11141   |
| All sectors | 6701<br>(Kodagu)   | 9393<br>(B'lore)  | 2336<br>(Kolar)   | 3317<br>(Kolar)   | 4093          | 5293    |

Source: Director of Economics and Statistics, GOK



districts in income per worker in 1991 are given in the adjacent table. Wide variations are observed in this ratio - sectoral as well as overall - among districts. The question is whether these are due to differences in infrastructure development.

In Karnataka's Draft Sixth Five Year Plan (1980-85), based on various indicators of infrastructure development, districts were grouped as highly developed, backward and highly backward. It is interesting to observe that some districts had low labour productivity despite being better off infrastructurally. The overall income per worker of Bangalore, Kodagu, Dakshina Kannada, Chickmagalur, Shimoga, Uttara Kannada and Belgaum districts was above the state average. Among these, only Chickmagalur was considered infrastructurally backward. Among districts with income per worker below the state average, Mysore, Mandya, Chitradurga and Kolar were considered infrastructurally developed. Mysore has performed well only in the secondary sector, Mandya in the primary and tertiary sectors, Chitradurga only in the primary sector and Kolar in none of the sectors. Such problem areas ought to be examined in greater detail for identifying factors which are responsible for low productivity despite better infrastructural facilities.

Not only are there inter-district differences in output per worker in various sectors, some districts have also shown negative changes. In the primary sector, nine out of 19 districts have shown negative growth rates; in the secondary sector, one district has a negative growth rate. There are significant variations in growth rates among districts with the maximum touching 10% per annum in the secondary sector and 6% in the primary sector.

The preceding discussion makes it clear that developmental strategy for tackling the problems of growth, low labour productivity and unemployment has to pay attention to regional differences and identify whether such differences are due to natural, technical and structural factors or to operational inefficiencies.

**Table 5.9**  
**Districts above and below the state average in**  
**income per worker (at 1980-81 prices), Karnataka :**  
**sectorwise 1990-91**

| Sector      | Districts above state average | Districts below state average |
|-------------|-------------------------------|-------------------------------|
| Primary     | Kodagu                        | Bijapur                       |
|             | Dakshina Kannada              | Bellary                       |
|             | Chickmagalur                  | Mysore                        |
|             | Shimoga                       | Raichur                       |
|             | Mandya                        | Bangalore                     |
|             | Hassan                        | Tumkur                        |
|             | Belgaum                       | Kolar                         |
|             | Uttara Kannada                | Gulbarga                      |
|             | Bidar                         | Dharwar                       |
|             | Chitradurga                   |                               |
| Secondary   | Gulbarga                      | Dharwad                       |
|             | Bangalore                     | Chickmagalur                  |
|             | Uttara Kannada                | Tumkur                        |
|             | Belgaum                       | Mandya                        |
|             | Mysore                        | Bellary                       |
|             | Shimoga                       | Raichur                       |
|             |                               | Chitradurga                   |
|             |                               | Bidar                         |
|             |                               | Hassan                        |
|             |                               | Bijapur                       |
| Tertiary    |                               | Kodagu                        |
|             |                               | Dakshina Kannada              |
|             |                               | Kolar                         |
|             | Kodagu                        | Gulbarga                      |
|             | Chickmagalur                  | Bijapur                       |
|             | Belgaum                       | Mysore                        |
|             | Mandya                        | Uttara Kannada                |
|             | Bangalore                     | Dharwar                       |
|             | Shimoga                       | Dakshina Kannada              |
|             | Bellary                       | Chitradurga                   |
| All sectors | Tumkur                        | Raichur                       |
|             |                               | Hassan                        |
|             |                               | Kolar                         |
|             |                               | Bidar                         |
|             | Bangalore                     | Mysore                        |
|             | Kodagu                        | Mandya                        |
|             | Dakshina Kannada              | Chitradurga                   |
|             | Chickmagalur                  | Bellary                       |
|             | Shimoga                       | Hassan                        |
|             | Uttara Kannada                | Gulbarga                      |
|             | Belgaum                       | Bidar                         |
|             |                               | Bijapur                       |
|             |                               | Dharwar                       |
|             |                               | Tumkur                        |
|             |                               | Raichur                       |
|             |                               | Kolar                         |

Source : Directorate of Economics and Statistics, COK

**Table 5.10**  
**Growth rate in NSDP per worker (at 1980-81 prices), Karnataka, districtwise : 1990-91 over 1980-81**

| District       | Growth rate in NSDP per worker     |           |          |            |
|----------------|------------------------------------|-----------|----------|------------|
|                | (% per annum) 1990-91 over 1980-81 |           |          |            |
|                | Primary                            | Secondary | Tertiary | All sector |
| Bangalore      | 0.85                               | 4.44      | 3.48     | 4.43       |
| Chitradurga    | -0.28                              | 1.87      | 1.51     | 1.20       |
| Kolar          | 6.36                               | -1.17     | 2.66     | 4.20       |
| Shimoga        | 1.17                               | 1.50      | 1.56     | 1.44       |
| Tumkur         | -0.02                              | 3.22      | 3.00     | 2.19       |
| Belgaum        | 1.18                               | 10.20     | 5.48     | 4.36       |
| Bijapur        | 6.21                               | 6.22      | 5.42     | 6.07       |
| Dharwad        | -2.03                              | 6.90      | 5.20     | 2.34       |
| Uttara Kannada | -1.99                              | 9.99      | 3.13     | 1.51       |
| Bellary        | -0.07                              | 3.16      | 4.20     | 1.70       |
| Bidar          | 0.65                               | 4.46      | 2.41     | 1.92       |
| Gulbarga       | -2.03                              | 20.85 *   | 4.29     | 2.92       |
| Raichur        | -1.09                              | 3.65      | 1.78     | 0.44       |
| Chickamagalore | 0.13                               | 6.84      | 4.49     | 2.03       |
| Dakshina       | 2.31                               | 4.97      | 2.91     | 4.16       |
| Hassan         | 0.46                               | 2.60      | 1.97     | 1.40       |
| Kodagu         | 0.71                               | 3.46      | 4.09     | 1.93       |
| Mandya         | -1.02                              | 2.18      | 2.15     | 0.31       |
| Mysore         | -1.64                              | 5.45      | 4.20     | 1.85       |
| STATE          | 0.16                               | 5.67      | 3.52     | 2.93       |

*Note: \*In the secondary sector, Gulbarga district has the highest income per worker of Rs. 16,667 While the work force is reported to have declined from 103316 to 82335 between 1981 & 1991, real NSDP is estimated to have increased from Rs. 5582 lakhs in 1980-81 to Rs. 13723 lakhs in 1990-91.*

*Data*

*needs*

*scrutiny.*

*Source : Directorate of Economics and Statistics, GOK*

### Linkages between growth and employment

Both economic growth and expansion of employment opportunities are dependent on several factors. Economic growth is a function of various factors of production and their productivity, employment being one of them. An appropriate method of capturing this is the production function. However, in the absence of district level data on all the determinants of growth and the present context of focusing on linkages between employment and growth alone, the present analysis is restricted to the simple relationship between income and employment. Inter-district differences are analysed in the context of these likely linkages; they are examined using regression techniques and by estimating employment elasticity.

For appreciating the first type of linkage, growth in real NSDP is treated as the independent variable and growth in the work force as the dependent variable.

Cross section regression using growth rates observed between 1981 and 1991 has been carried out covering 19 districts and the state as a whole.

Yet another approach is the computation of employment elasticity which is defined as the ratio between growth in the work force and growth in NSDP, with the former as the numerator and the latter as the denominator. For examining the second type of linkage, regression analysis has been done with the growth of the work force as the independent variable and that of real NSDP as the dependent variable.

Employment elasticity measures the growth rate of employment per unit growth rate of NSDP. The higher the elasticity, the higher the responsiveness of employment to growth in NSDP. In the state as a whole, employment elasticity has been highest in the primary sector (0.9), followed by the tertiary (0.5) and the secondary sectors (0.2). The overall employment elasticity is 0.4 for the state.

Considerable variations are observed in elasticity across districts, including negative elasticity. In the primary sector, elasticity ranges between -4.9 and 4.8 (excluding Gulbarga). In the secondary sector, it ranges between -3.1 and 2. In the tertiary sector, variations are not pronounced with the coefficient ranging between 0.3 and 0.7 only. In the case of all sectors and considering only main workers, elasticity ranges between 0.2 and 0.9. If marginal workers are included, this moves between 0.2 and 1.1.

Two issues are relevant in this context: in the primary sector is high elasticity desirable in a situation like ours? Secondly, in the secondary sector should negative elasticity be reversed as it reflects a possible situation of industrialisation without substantial employment benefits? High employment elasticity accompanied by low rate's of economic growth indicate low or negative growth in labour productivity. Districts with this problem are Raichur, Mandya and Mysore in the primary sector and Kolar in the secondary sector.

Results of cross-section regression with NSDP growth rate as the independent variable and work force growth rate as the

dependent variable across districts in the three sectors as well as for all sectors show a very low value for R. Thus variation in the work force cannot be explained by variation in NSDP growth. There is no significant relationship between growth in NSDP as the cause and growth in the work force as the consequence. For all three sectors, the standard error of the regression coefficient is quite high; however, since the sign of the regression coefficient is positive, the relationship between the two variables is direct. However, regression coefficients are lower than those reported for industrialized countries - 0.49% between 1975 and 1982 and 0.63 between 1982 and 1993\*.

The link between economic growth as the consequence and growth in employment opportunities as the cause has also been examined. Regression results show that there may be no significant relationship between growth in the work force as the cause and that of NSDP as the consequence. This can be explained by the fact that there are significant variations across districts in labour productivity.

### Focus of developmental programmes : employment or employment and productivity

Developmental programmes in state Plans have addressed the problems of unemployment and underemployment through the following strategies:

- In the primary sector, by supplementing land-based agricultural activities with activities like animal husbandry to improve and stabilize the earning capacities of marginal cultivators and agricultural labourers,

- Improvement of productivity and augmentation of returns from investment in the primary sector through subsidised inputs,

- Promotional policies especially for the development of small scale industries and the industrialization of backward areas by providing sources of income and

\* International Labour Organization: *World Employment 1996-97 - National Policies in a Global Context*. Bookwell. 1997;p.22

Table 5.11

Employment elasticity: Karnataka, districtwise 1981 to 1991

| District         | Employment elasticity (growth rate in employment /growth rate of real NSDP) |                  |                 |              |                         |
|------------------|-----------------------------------------------------------------------------|------------------|-----------------|--------------|-------------------------|
|                  | Primary sector                                                              | Secondary sector | Tertiary sector | Main workers | Main + marginal workers |
| Bangalore        | 0.66                                                                        | 0.44             | 0.51            | 0.40         | 0.40                    |
| Chitradurga      | 1.24                                                                        | 0.40             | 0.71            | 0.60         | 0.62                    |
| Kolar            | 0.23                                                                        | 2.05             | 0.57            | 0.34         | 0.34                    |
| Shimoga          | 0.60                                                                        | -1.76            | 0.66            | 0.55         | 0.62                    |
| Tumkur           | 1.01                                                                        | 0.46             | 0.54            | 0.50         | 0.62                    |
| Belgaum          | 0.61                                                                        | 0.08             | 0.37            | 0.31         | 0.29                    |
| Bijapur          | 0.25                                                                        | -0.05            | 0.36            | 0.25         | 0.22                    |
| Dharwad          | -4.11                                                                       | 0.14             | 0.31            | 0.42         | 0.41                    |
| Uttara Kannada   | -4.93                                                                       | -0.04            | 0.39            | 0.50         | 0.42                    |
| Bellary          | 1.03                                                                        | 0.17             | 0.41            | 0.60         | 0.62                    |
| Bidar            | 0.75                                                                        | -0.06            | 0.61            | 0.53         | 0.47                    |
| Gulbarga *       | 16.58                                                                       | -0.14            | 0.42            | 0.40         | 0.30                    |
| Raichur          | 1.77                                                                        | -3.11            | 0.70            | 0.85         | 0.81                    |
| Chickamagalore   | 0.91                                                                        | 0.09             | 0.37            | 0.41         | 0.31                    |
| Dakshina Kannada | 0.03                                                                        | 0.22             | 0.57            | 0.26         | 0.26                    |
| Hassan           | 0.79                                                                        | 0.11             | 0.62            | 0.58         | 0.65                    |
| Kodagu           | 0.32                                                                        | -0.81            | 0.32            | 0.21         | 0.21                    |
| Mandya           | 1.79                                                                        | 0.46             | 0.60            | 0.89         | 1.12                    |
| Mysore           | 4.83                                                                        | 0.30             | 0.42            | 0.55         | 0.56                    |
| STATE            | 0.92                                                                        | 0.22             | 0.49            | 0.42         | 0.41                    |

\* In this exercise, Gulbarga district has an abnormally high elasticity coefficient in the primary sector as the decadal growth rate of the work force is 27.54% and that of real NSDP 1.66%

Table 5.12

Regression analysis: Growth of NSDP as independent variable and growth of work force as dependent variable

| Sector                    | R2   | Regression coefficient | Standard error of the coefficient |
|---------------------------|------|------------------------|-----------------------------------|
| Primary                   | 0.04 | 0.057                  | 0.068                             |
| Secondary                 | 0.09 | 0.141                  | 0.106                             |
| Tertiary                  | 0.13 | 0.246                  | 0.153                             |
| All sectors: main workers | 0.26 | 0.182                  | 0.072                             |
| Main and marginal workers | 0.12 | 0.143                  | 0.092                             |

Table 5.13

Regression analysis: growth of work force as independent variable and that of real NSDP as dependent variable

| Sector      | R2   | Regression coefficient | Standard error of the coefficient |
|-------------|------|------------------------|-----------------------------------|
| Primary     | 0.04 | 0.668                  | 0.790                             |
| Secondary   | 0.09 | 0.637                  | 0.478                             |
| Tertiary    | 0.13 | 0.510                  | 0.318                             |
| All sectors | 0.12 | 0.831                  | 0.534                             |

employment for surplus labour dependent on land,

- Emphasising investment in social sectors like education and health to improve labour productivity and
- Direct expenditure on employment programmes.

In the early days of planning, quantitative exercises were carried out to assess the direct and indirect employment benefits of each Plan scheme, using the normative approach. Policies were announced like differential concessions to private industrial investors to encourage them to invest in backward areas and discourage energy-intensive industries which do not contribute to employment or promote national goals.

There are doubts about the impact of such schemes. The share of those seeking employment between the age 15 and 59 in the overall labour force participation rate of 66.7% is only .9% However, there has been no significant shift in the work force from the primary to the secondary and tertiary sectors and no significant improvement in labour productivity in the primary sector while the distinction between leading and lagging districts continues despite policies and programmes. Failure on the productivity front especially in the primary sector which supports over 65% of the work force needs serious attention more so when more than 25% of Plan expenditure has been on irrigation and another 15% on agriculture

and related activities.

## Labour force participation

In analysing labour force participation rates, main and marginal workers and job seekers are considered together as participants in the labour market; their proportion to the population is the labour force participation rate. In this exercise, only those in the age group of 15 to 59 have been covered. Census data has been used as NSS data does not give district-wise information.

Between the ages .of 15 and 59, the labour force participation rate for the state works out to 67% (85% for males and 47% for females). Participation rates are significantly higher in rural areas. The rate is significantly lower in urban areas for females (22%) than for males (78%). Between the maximum and the minimum, the difference is again more pronounced for females.

## Unemployment

The unemployment problem has been assessed using NSS data for 1993-94 for the state and the country.

The NSS presents unemployment rates based on usual status, weekly status and current status. Usual status indicates persons unemployed for a relatively long period. It is an indicator of chronic unemployment. Some persons considered unemployed on the basis of this criterion might be working in a subsidiary capacity. Another estimate of the unemployed

**Table 5.14**

**Labour force participation rate 1991: maximum and minimum and sexwise data in rural and urban Karnataka, district-wise (percent)**

| Category      | Maximum           |                   |                   | Minimum             |                     |                     | State         |      |        |
|---------------|-------------------|-------------------|-------------------|---------------------|---------------------|---------------------|---------------|------|--------|
|               | Male + Female     | Male              | Female            | Male + Female       | Male                | Female              | Male + Female | Male | Female |
| Rural         | 81.6<br>(Bellary) | 91.6<br>(Raichur) | 71.1<br>(Bellary) | 66.0<br>(Bangalore) | 84.0<br>(D.K)       | 39.7<br>(Bangalore) | 74.2          | 89.0 | 58.9   |
| Urban         | 61.9<br>(D.K.)    | 85.3<br>(Kodagu)  | 44.5<br>(D.K.)    | 45.7<br>(Bidar)     | 70.4<br>(Bidar)     | 16.5<br>(U.K.)      | 51.3          | 78.1 | 21.6   |
| Rural + Urban | 74.1<br>(Tumkur)  | 90.3<br>(Kodagu)  | 59.9<br>(Tumkur)  | 53.5<br>(Bangalore) | 80.9<br>(Bangalore) | 21.8<br>(Bangalore) | 66.7          | 85.3 | 47.0   |

Source: Census, 1991



(usual status adjusted) excludes those employed in a subsidiary capacity. In the adjacent table unemployment rates are presented according to principal status and usual status adjusted. Usual status adjusted is a better indicator of the magnitude of the problem of unemployment as it excludes those employed in a subsidiary capacity. Both indicators point to the fact that the unemployment rate in Karnataka is lower than the rate for the country. Unemployment in rural areas is higher for males but in urban areas, the unemployment rate for females is almost twice that for males.

1991 census data has been used to analyse the unemployment rate because of the limitations of NSS data. While the unemployment rate for the state as a whole and in rural areas is below 1% and in urban areas around 1.5%, across districts it ranges between 0.2% and 2.5% in rural areas and between 0.5% and 4.4% in urban areas. Between males and females, the unemployment rate is higher for females in both rural and urban areas.

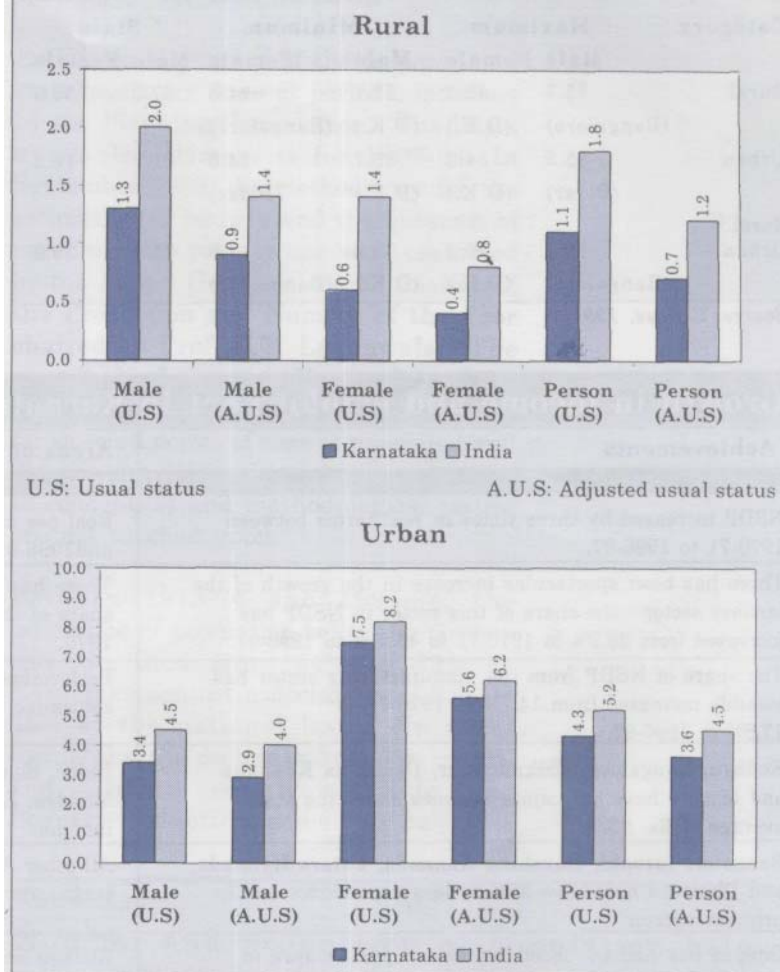
### Sex composition of main workers:

Among main workers, inter-district differences in participation by sex have been analysed for rural and urban areas.

The proportion of females in main workers ranges between 17.5% and 40.2%; in rural areas, it varies between 32.5% and 42.3% while in urban areas, the movement is between 18.3% and 34.3%. The maximum proportion of male workers in Bangalore

**Figure 5.15**

### Unemployment rates, Karnataka and India, NSS 1993-94 - usual status



Source: Government of India, National Sample Survey Organisation: Employment & Unemployment in India, 1993-94: NSS Fiftieth Round (July 1993-June 1994), March 1997.

**Table 5.15**

### Unemployment rates 1991: Karnataka, districtwise in the 15-59 age group by sex in rural and urban areas (percent)

| Category      | Maximum       |          |          | Minimum       |           |            | State         |      |        |
|---------------|---------------|----------|----------|---------------|-----------|------------|---------------|------|--------|
|               | Male + Female | Male     | Female   | Male + Female | Male      | Female     | Male + Female | Male | Female |
| Rural         | 2.5           | 1.9      | 3.0      | 0.2           | 0.2       | 0.1        | 0.6           | 0.6  | 0.5    |
|               | (Kodagu)      | (Kodagu) | (Kodagu) | (Mysore)      | (Mysore)  | (Gulbarga) |               |      |        |
| Urban         | 4.4           | 3.5      | 5.4      | 0.5           | 0.5       | 0.5        | 1.5           | 1.6  | 1.5    |
|               | (Kodagu)      | (Kodagu) | (Kodagu) | (Raichur)     | (Raichur) | (Raichur)  |               |      |        |
| Rural + Urban | 2.8           | 2.2      | 3.3      | 0.3           | 0.3       | 0.3        | 0.9           | 0.9  | 0.8    |
|               | (Kodagu)      | (Kodagu) | (Kodagu) | (Raichur)     | (Raichur) | (Gulbarga) |               |      |        |

Source: Census, 1991

Table 5.16  
Shares of males and females in main workers in districts, 1991  
(percent)

| Category      | Maximum             |                | Minimum        |                     | State |        |
|---------------|---------------------|----------------|----------------|---------------------|-------|--------|
|               | Male                | Female         | Male           | Female              | Male  | Female |
| Rural         | 75.7<br>(Bangalore) | 42.3<br>(D.K.) | 57.7<br>(D.K.) | 24.3<br>(Bangalore) | 67.5  | 32.5   |
| Urban         | 85.5<br>(Bidar)     | 34.3<br>(D.K.) | 65.7<br>(D.K.) | 14.5<br>(Bidar)     | 81.7  | 18.3   |
| Rural + Urban | 82.5<br>(Bangalore) | 40.2<br>(D.K.) | 59.8<br>(D.K.) | 17.5<br>(Bangalore) | 71.0  | 29.0   |

Source: Census, 1991

district is in rural areas and in Bidar in urban areas, Dakshina Kannada leads both in urban and rural areas for female workers.

## Growth in income and employment in Karnataka: highlights

### Achievements

|                                                                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NSDP increased by three times in real terms between 1970-71 to 1996-97.                                                                                               |
| There has been spectacular increase in the growth of the tertiary sector - the share of this sector in NSDP has increased from 26.2% in 1970-71 to 43.4 % in 1996-97. |
| The share of NSDP from the manufacturing sector has steadily increased from 147% in 1970-71 to 17.8% in 1996-97.                                                      |
| Kodagu, Bangalore, Chikmagalur, Dakshina Kannada and Mysore have per capita incomes above the state average of Rs. 9384.                                              |
| Bangalore (urban), Dakshina Kannada, Uttara Kannada, and Dharwad now have 35% or less dependence on the primary sector.                                               |
| Bijapur has had the most impressive performance in income growth between 1980 and 1996.                                                                               |

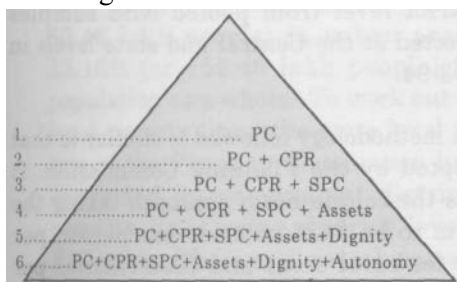
### Areas of Concern

|                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------|
| Real per capita income not even doubled between 1970-71 and 1996-97.                                                   |
| There has been slow growth in the secondary sector - the share of the sector has remained almost unchanged since 1970. |
| Performance in agriculture has been erratic reflecting continued dependence on the monsoon.                            |
| Bidar, Bijapur, Chitradurga, Dharwad, Hassan, Kolar, Mandya, Raichur, and Tumkur lag behind in per capita income.      |
| All other districts still depend on the primary sector to a large extent.                                              |
| Kodagu and Uttara Kannada have had very slow growth during this period.                                                |

|                                                                                                                                                                                                                          |                                                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The work force increased from 15 million to 19 million registering a growth rate of 2.6% per annum compared to a population growth rate of 2.1%.                                                                         | Increase in main workers has been inadequate to reduce the large disguised unemployment in the primary sector.                                                     |
| The female work force increased at a higher rate of 4% compared to the male work force (2%).                                                                                                                             | The female work force continues to be much less in proportion to the male work force - 6.4 million females compared to 12.4 million males.                         |
| The number of main workers increased at 2.6% per annum.                                                                                                                                                                  | The number of female marginal workers increased at 2.6% per annum, though among males the number of marginal workers decreased by 0.2% per annum.                  |
| The share of females in main workers increased from 25% to 29% between 1981 and 1991.                                                                                                                                    | The share of males continues to be high at 71%.                                                                                                                    |
| There has been a 5% growth per annum in the number of main workers between 1981 and 1991 in the tertiary sector.                                                                                                         | There has been very little expansion of non-agricultural employment opportunities in rural areas with 85% of the work force continuing in the primary sector.      |
| Bangalore, Uttara Kannada and Dakshina Kannada districts have less than 65% of the work force in the primary sector. 33% of the work force in the secondary and tertiary sectors contributed to 65% of the NSDP in 1991. | In the remaining districts, the share of the work force in the primary sector continues to be over 67%. 67% of the work force contributed to only 35% of the NSDP, |
| Employment opportunities have expanded faster than growth in the labour force.                                                                                                                                           | However, there has been no significant shift of the work force from the primary sector to the secondary and tertiary sectors                                       |

## Poverty

Poverty, in a broad sense, does not only refer to deprivation with reference to a minimum basket of goods and service that are essential for existence. It also includes socially perceived deprivation with respect to individual basic needs like shortfalls in health and education, inadequacy of shelter and deprivation associated with rigidities in social stratification. UNDP has redefined poverty and devised two new measures of human deprivation-the Capability Poverty Measure (CPM) in the 1996 HDR and the Human Poverty index (HPI) in the 1997 HDR. Due to paucity of data, we have not attempted here to work out the CPM and HPI for the state or for districts. This discussion is confined to income poverty based on minimum living standards. Poverty is closely related to income and consumption. As the economy grows, income levels and purchasing power go up and consumption increases. This results in reduction of the incidence of poverty. The 1998 HDR of the UNDP has focussed on removal of inequalities in consumption and improving the pattern of consumption. The report emphasizes the fact that enhanced consumption by people in lower income groups reduces poverty. Consumption contributes to human development when full scope is given to human beings to enlarge capabilities without depriving others of their wellbeing.



PC: Private consumption

CPR: Common property resources

SPC: State provided commodities

Source: Baulch, R, 1996B, *The New Poverty Agency: A Disputed Consensus, in Poverty, Policy and Aid*, IDS Bulletin Vol 27, No 1, January

Gender, literacy, land ownership, employment status and caste are closely associated with poverty. According to the recent NCAER rural household survey, the incidence of poverty was 68 percent among landless wage earners, 51 percent among Scheduled Castes and Tribes and 45

percent among members of households in which no-one was literate.

## Poverty in Karnataka

Estimates of poverty at the national and state levels are done at periodic intervals by the Planning Commission. The latest available estimate is for 1993-94. In September 1989, the methodology for the estimation of poverty and the question of redefining the poverty line were examined by the Expert Group on the Estimation of the Proportion and Number of the Poor chaired by Prof. D.T. Lakdawala. The magnitude of poverty in Karnataka and the country as reported by the Expert Group for selected points of time is presented and discussed below. Controversies relating to conceptual and methodological issues are not touched upon.

Between 1973-74 and 1993-94, the proportion of population below the poverty line declined from 54% to 33% in Karnataka against a decline from 55% to 36% at the national level. In rural Karnataka, the decline is from 55% to 30% and in urban areas from 53% to 40%. Poverty reduction seems to be more

**Table 5.17**  
**Number and proportion of population below poverty line: modified estimates of the expert group**

| Year      | Rural                  |                | Urban                  |                | Combined               |                |
|-----------|------------------------|----------------|------------------------|----------------|------------------------|----------------|
| 1973-74   | No. of persons (lakhs) | Proportion (%) | No. of persons (lakhs) | Proportion (%) | No. of persons (lakhs) | Proportion (%) |
| Karnataka | 128.40                 | 55.14          | 42.27                  | 52.53          | 170.67                 | 54.47          |
| India     | 2612.90                | 56.44          | 600.46                 | 49.01          | 3213.36                | 54.88          |
| 1977-78   |                        |                |                        |                |                        |                |
| Karnataka | 120.39                 | 48.18          | 47.78                  | 50.36          | 168.17                 | 48.78          |
| India     | 2642.47                | 53.07          | 646.48                 | 45.24          | 3288.95                | 51.32          |
| 1983      |                        |                |                        |                |                        |                |
| Karnataka | 100.50                 | 36.33          | 49.31                  | 42.82          | 149.81                 | 38.24          |
| India     | 2519.57                | 45.65          | 709.40                 | 40.79          | 3228.97                | 44.48          |
| 1987-88   |                        |                |                        |                |                        |                |
| Karnataka | 96.81                  | 32.82          | 61.80                  | 48.42          | 158.61                 | 37.53          |
| India     | 2318.79                | 39.09          | 751.69                 | 38.20          | 3070.48                | 38.86          |
| 1993-94   |                        |                |                        |                |                        |                |
| Karnataka | 95.99                  | 29.88          | 60.46                  | 40.14          | 156.45                 | 33.16          |
| India     | 2440.31                | 37.27          | 763.37                 | 32.36          | 3203.68                | 35.97          |

Source: Government of India (Press Information Bureau): *Estimate of Poverty* (March 1997).

pronounced in rural areas despite the fact that income per worker in the primary sector has been lowest in 1980-81 and 1990-91 and growth rate negligible compared to growth in the secondary and tertiary sectors. This could be due to increase in employment opportunities (including those for marginal workers), though labour productivity has remained low. With increase in the number of marginal workers, some increase in family income has also been realised.

This explanation has been examined using dependency ratios in rural and urban areas based on 1981 and 1991 census data.

Table 5.18  
Dependency ratios: Karnataka:  
1981 and 1991

| Category        | Persons per worker |      |
|-----------------|--------------------|------|
|                 | 1981               | 1991 |
| Rural           | 2.27               | 2.15 |
| Urban           | 3.25               | 3.12 |
| Rural and Urban | 2.48               | 2.38 |

*Note: Workers include main and marginal workers*

*Source: Census, 1981 and 1991*

The dependency ratio is higher in urban areas though it has declined marginally between 1981 and 1991. The higher the dependency ratio, the greater the distribution of a worker's income among a larger number of people. In rural areas, the ratio is not only low, it has also decreased from 2.27 to 2.15 between 1981 and 1991.

In addition to reduction in poverty, the number of persons below the poverty line has also declined in the state from 17.1 million in 1973-74 to 15.6 million in 1993-94; at the national level, the number has almost remained static at 320 million, notwithstanding fluctuations during the period. The number declined from 12.8 million to 9.6 million in rural areas whereas it increased from 4.2 to 6 million in urban areas. This is again a paradoxical situation since income per worker in the secondary and tertiary sectors has increased substantially in the 1980s. One possible explanation is income inequality especially among those employed in the secondary and tertiary sectors.

Despite reduction in overall poverty levels, 15.6 million persons (2.8 million households) below the poverty line in 1993-94 is a large number. Of them, 9.6 million persons (1.7 million households) were in rural areas and 6 million (1.1 million households) in urban areas. By the end of this decade, the number might go up if the relative stagnation in the primary sector and the growing problem of poverty in urban areas are not tackled.

The shares of rural and urban areas in population below the poverty line are 61% and 39% respectively against shares in population of 69% and 31% respectively. The problem of poverty appears to be more acute in urban areas judged by these indicators.

### **Incidence of poverty at the district level**

The Planning Commission provides estimates of poverty at the national and state levels, but there is as yet no mechanism to work out the incidence of poverty at the district level. There is an acute need for such estimates so that effective measures can be taken to reduce the incidence of poverty. The Directorate of Economics and Statistics of the Government of Karnataka has made an attempt for the first time in the country to estimate the incidence of poverty at the district level from pooled NSS samples collected at the Central and state levels in 1993-94.

The methodology followed is similar to that adopted by the Planning Commission. It uses the calorie norm approach-taking the norm to be 2435 calories per person per day for rural areas and 2095 calories per person per day for urban areas looking at minimum nutritional needs and effective consumption demand. The next step is conversion of the calorific content into money. NSS consumption expenditure data are used to determine the cut-off point or the poverty line. Based on this methodology, the Planning Commission has estimated the poverty line and the percentage of people below the poverty line for rural and urban areas for all states and the country for the latest year that is 1993-94. For Karnataka, the poverty line has



**Table 5.19**  
**Population below poverty line in the districts of Karnataka 1993-94**

| District          | RURAL                |      | URBAN                |      | TOTAL                |      |
|-------------------|----------------------|------|----------------------|------|----------------------|------|
|                   | % below poverty line | Rank | % below poverty line | Rank | % below poverty line | Rank |
| Bangalore         | 12.40                | 4    | 32.51                | 4    | 31.42                | 12   |
| Bangalore (Rural) | 42.20                | 15   | 26.69                | 2    | 38.17                | 13   |
| Belgaum           | 27.17                | 12   | 41.98                | 11   | 29.86                | 10   |
| Bellary           | 43.75                | 16   | 46.86                | 13   | 44.50                | 16   |
| Bidar             | 57.00                | 20   | 56.35                | 19   | 56.06                | 20   |
| Bijapur *         | 19.31                | 8    | 55.40                | 18   | 28.98                | 9    |
| Chickmagalur      | 11.11                | 3    | 27.80                | 3    | 15.61                | 3    |
| Chitradurga       | 40.11                | 13   | 36.64                | 7    | 39.00                | 14   |
| Dakshina Kannada  | 6.68                 | 1    | 15.71                | 1    | 8.91                 | 1    |
| Dharwad           | 47.46                | 18   | 52.22                | 17   | 49.75                | 19   |
| Gulbarga          | 45.81                | 17   | 45.94                | 12   | 45.54                | 17   |
| Hassan            | 9.50                 | 2    | 35.08                | 6    | 14.44                | 2    |
| Kodagu            | 15.24                | 5    | 40.38                | 10   | 20.73                | 4    |
| Kolar             | 47.93                | 19   | 50.71                | 16   | 48.45                | 18   |
| Mandya            | 23.89                | 10   | 65.72                | 20   | 30.16                | 11   |
| Mysore            | 26.64                | 11   | 33.82                | 5    | 28.94                | 8    |
| Raichur           | 18.72                | 7    | 50.00                | 14   | 25.11                | 6    |
| Shimoga           | 16.06                | 6    | 50.66                | 15   | 25.56                | 7    |
| Tumkur            | 42.18                | 14   | 36.98                | 8    | 40.64                | 15   |
| Uttara Kannada    | 20.10                | 9    | 38.70                | 9    | 24.97                | 5    |
| <b>STATE</b>      | <b>29.88</b>         |      | <b>40.15</b>         |      | <b>33.16</b>         |      |

*In the case of Bijapur district, due to data problems in the state sample, data of Central samples alone has been considered.*

been fixed at Rs. 186.63 for rural areas and Rs.302.89 for urban areas and the incidence of poverty determined as 29.88% (or 95.99 lakh people) in rural areas, 40.14% (or 60.46 lakh people) in urban areas and 33.16% (or 156.46 lakh people) for the population as a whole. To work out district level poverty lines, the state level poverty line of the Planning Commission has been converted into equivalent district level poverty lines using district level price deflators. The rural retail price index (unweighted) and the Consumer Price Index (weighted) for industrial workers in urban areas computed for districts by the Directorate of Economics and Statistics, Government of Karnataka for 1993-94 serve as price deflators at the district level for rural and urban areas respectively. Pooled NSS data based on Central and state samples provide districtwise estimates of people in different expenditure classes. Using district level poverty lines as cut off points in a particular expenditure group, the number

of people below the poverty line for each district and state has been worked out. State level estimates calculated in this manner do not tally with Planning Commission estimates. Therefore, district estimates of population below the poverty line based on pooled NSS data have been proportionately adjusted to Planning Commission estimates for the state. District population estimates arrived at on the basis of NSS pooled data have also been adjusted to Planning Commission estimates for the state following the above procedure. Poverty ratios have then been worked out districtwise for rural, urban and all areas separately. The findings of the districtlevel analysis must be viewed with caution in this first attempt to pool Central and state NSS samples. Data problems like non-sampling errors were encountered in some districts. Nevertheless, broadly speaking, the results obtained were illuminating.

Analysis of district-wise poverty ratios indicates that the eight districts of

**Table 5.20**  
**Districtwise poverty ratios and per capita incomes, 1993-94**

| Districts %      | of people below poverty line 1993-94 | per capita income 1993-94 (in Rs.) | Rank     | Poverty Ratio | Per Capita Income |
|------------------|--------------------------------------|------------------------------------|----------|---------------|-------------------|
| Bangalore        | 31.42                                | 11609                              | 12       | 2             |                   |
| Bangalore Rural  | 38.17                                | 7910                               | 13       | 5             |                   |
| Belgaum          | 29.86                                | 7307                               | 10       | 7             |                   |
| Bellary          | 44.50                                | 6340                               | 16       | 12            |                   |
| Bidar            | 56.06                                | 4910                               | 20       | 20            |                   |
| Bijapur          | 28.98                                | 5890                               | 9        | 16            |                   |
| Chickmagalur     | 15.61                                | 9850                               | 3        | 3             |                   |
| Chitradurga      | 39.00                                | 6476                               | 14       | 10            |                   |
| Dakshina Kannada | 8.91                                 | 8157                               | 1        | 4             |                   |
| Dharwad          | 49.75                                | 6003                               | 19       | 14            |                   |
| Gulbarga         | 45.54                                | 6037                               | 17       | 13            |                   |
| Hassan           | 14.44                                | 5915                               | 2        | 15            |                   |
| Kodagu           | 20.73                                | 13066                              | 4        | 1             |                   |
| Kolar            | 48.45                                | 4961                               | 18       | 19            |                   |
| Mandya           | 30.16                                | 6347                               | 11       | 11            |                   |
| Mysore           | 28.94                                | 7227                               | 8        | 8             |                   |
| Raichur          | 25.11                                | 5239                               | 6        | 18            |                   |
| Shimoga          | 25.56                                | 7724                               | 7        | 6             |                   |
| Tumkur           | 40.64                                | 5516                               | 15       | 17            |                   |
| Uttara Kannada   | 24.97                                | 6965                               | 5        | 9             |                   |
| <b>STATE</b>     | <b>33.16</b>                         | <b>7155</b>                        | <b>-</b> | <b>-</b>      |                   |

Bangalore (Rural), Bellary, Bidar, Chitradurga, Dharwad, Gulbarga, Kolar and Tumkur had overall poverty ratios above the state average as also in rural areas. Bijapur and Raichur districts, which are identical to Gulbarga and Bellary in many deprivation indicators seem however to have lower poverty ratios. The highest poverty ratio is in Bidar district (57%) and the lowest in Dakshina Kannada (6.68%). As far as urban areas are concerned, 11 districts - Belgaum, Bellary, Bidar, Bijapur, Dharwad, Gulbarga, Kodagu, Kolar, Mandya, Raichur, and Shimoga - had poverty ratios above the state average. The highest poverty ratio was again in Bidar district (56.35%) and the lowest in Dakshina Kannada (15.71%). Incidence of poverty was higher in urban areas in all districts.

The relative positions of districts in poverty ratios have also been compared

with relative positions in respect of per capita income. Rankings of districts in ascending order in respect of poverty ratios and in descending order in respect of per capita income (current prices) are given in the adjacent table.

There is little correspondence between the proportion of population below the poverty line and purchasing power as measured by per capita income. Districts like Bangalore (rural) and Shimoga with per capita income higher than the state average had poverty ratios above the state average. Bangalore (urban), Belgaum, Chickmagalur, Dakshina Kannada, Kodagu and Mysore where per capita income was higher than the state level had poverty ratios below the state average. Districts with per capita incomes below the state average but shares of population below the poverty line better than the state average are Bijapur, Hassan, Mandya, Raichur, Shimoga and Uttara Kannada. Districts which had equal ranks in both per capita income and poverty ratios are Bidar, Chickmagalur, Mandya and Mysore.

### Income adjusted for inequality-Amartya Sen's welfare index

The indicator of per capita income at the macro level captures the average income level of a given population. Inequalities in income distribution have also to be considered to ascertain whether the domestic product is evenly spread over the concerned families. An attempt has been made to construct Gini coefficients at the district level using Central and state samples under the 1993-94 all India NSS survey of household expenditure. The methodology is to plot shares in population against shares in expenditure of different segments of the population using the Lorenz curve technique. The degree of inequality in the distribution of household expenditure has then been assessed on the distance of the plotted curve from the ideal distribution line of household expenditure. Levels of inequality in different districts have been compared using the Gini coefficient method. Per capita district incomes at current prices have been adjusted for inequality to get Amartya

Sen's welfare indices at the district level. A comparative picture of district ranks under per capita incomes and Sen's welfare index is given below:

Application of the adjustment for income inequality reduces the overall income index from 0.196 to 0.133. At the district level, there is also some change

in

calculated on household expenditures have been used to adjust indices of per capita income.

### Poverty alleviation measures

Poverty or deprivation is a multi-dimensional problem requiring attention at the macro, sectoral and micro levels.

| <b>Table 5.21</b>                                    |                      |                           |                            |                |
|------------------------------------------------------|----------------------|---------------------------|----------------------------|----------------|
| <b>Income Index based on Sen's Welfare Index and</b> |                      |                           | <b>per capita</b>          | <b>incomes</b> |
| <b>at current prices</b>                             | <b>for districts</b> | <b>in 1991</b>            |                            |                |
| <b>District</b>                                      |                      | <b>Income Index based</b> |                            |                |
| <b>Per Capita GDP (Current Prices)</b>               |                      |                           | <b>Sen's Welfare Index</b> |                |
|                                                      | <b>Value</b>         | <b>Rank</b>               | <b>Value</b>               | <b>Rank</b>    |
| Bangalore                                            | 0.352                | 2                         | 0.243                      | 2              |
| Bangalore Rural                                      | 0.173                | 10                        | 0.126                      | 8              |
| Belgaum                                              | 0.185                | 6                         | 0.133                      | 6              |
| Bellary                                              | 0.181                | 7                         | 0.126                      | 9              |
| Bidar                                                | 0.124                | 20                        | 0.087                      | 20             |
| Bijapur                                              | 0.149                | 15                        | 0.109                      | 13             |
| Chikmagalur                                          | 0.276                | 3                         | 0.213                      | 3              |
| Chitradurga                                          | 0.163                | 12                        | 0.091                      | 19             |
| Dakshina Kannada                                     | 0.237                | 4                         | 0.157                      | 4              |
| Dharwad                                              | 0.148                | 16                        | 0.102                      | 16             |
| Gulbarga                                             | 0.165                | 11                        | 0.121                      | 11             |
| Hassan                                               | 0.153                | 14                        | 0.112                      | 12             |
| Kodagu                                               | 0.433                | 1                         | 0.298                      | 1              |
| Kolar                                                | 0.133                | 19                        | 0.093                      | 18             |
| Mandya                                               | 0.154                | 13                        | 0.105                      | 15             |
| Mysore                                               | 0.174                | 9                         | 0.130                      | 7              |
| Raichur                                              | 0.138                | 18                        | 0.106                      | 14             |
| Shimoga                                              | 0.181                | 8                         | 0.123                      | 10             |
| Tumkur                                               | 0.145                | 17                        | 0.098                      | 17             |
| Uttara Kannada                                       | 0.201                | 5                         | 0.142                      | 5              |
| <b>STATE</b>                                         | <b>0.196</b>         |                           | <b>0.133</b>               | <b>.</b>       |

*Note: The income index is one of three components of the Human Development Index which measures the relative rankings of districts on the basis of per capita PPP adjusted dollars*

rankings. Bellary and Shimoga move down two ranks when income inequality is taken into account and their positions are taken by Mysore and Bangalore Rural districts. Chitradurga moves down substantially from the 12th to the 19th rank and Mandya to a lower extent from the 12th to the 14th rank, but Raichur moves up from the 18th to the 14th rank, Bijapur and Hassan by two ranks each and Kolar by one rank. The welfare index may be considered a better measure of income availability, but these findings must be treated with caution as analysis of this nature is being done for the first time at the district level. It must also be remembered that Gini coefficients

#### Box No. 5.3

#### Poverty measures require difficult choices

"When poverty is on the agenda, difficult choices have to be made.... should resources be concentrated in high potential areas, where returns will be higher by definition? Or should they be concentrated in low potential areas, because that is where the poor live? Should scarce resources be spent on production incentives or consumption subsidies? Should the priority be growth of output or stability of output? These are all questions on which honourable and poverty minded people can disagree....governments must themselves take the lead in developing the poverty narrative for their country and in seeing that it is carried through into policy and public expenditure...hand in hand with civil society and in a participatory way which involves poor people themselves" Simon Maxwell in Poverty and Human Development:What Next?

There is no unique solution given the complex interplay of causes and the regional and temporal dimensions of poverty. Poverty can be a temporary phenomenon resulting from natural calamities like bad agricultural harvests or crop failure leading to decline in food output and reduction in employment. It could also be a sustained problem due to inherent structural and institutional constraints at the macro and micro levels.

Poverty can be defined in terms of physical deprivation or inadequacy in goods and facilities for meeting basic needs as well as in terms of monetary deprivation reflected in high prices or inadequate purchasing power. This intricate issue is being identified and measured with a simple yardstick - minimum nutritional norms translated into equivalent per capita consumption expenditure as reflected in nutritional and food related deprivation. Poverty could be defined also in a wider manner covering deprivation of all kinds; it could also be confined to lack of a selected number of basic needs. These dimensions must be noted so that we realise the limitations of the nutritional norm approach.

For 30 years, planners and policymakers have been concerned about the problem

and have developed solutions at the macro, sectoral and individual levels. Antipoverty policies and programmes implemented can be classified into producer-based and consumer-based solutions. The former cover policies relating to asset distribution with the focus on strengthening the asset base of the poor as producers as well as on subsidies, incentives, concessions, pricing etc., intended to improve return on assets for the poor. There have also been several programmes to strengthen infrastructure and improve the quality of life at the regional level. Good examples are roads, rural water supply, health, sanitation and electrification programs and slum improvement, irrigation, watershed development and industrial estates programs. There have been efforts at poverty alleviation through beneficiary oriented programmes like the Integrated Rural Development Programme, Antyodaya, assistance of various kinds to small and marginal farmers and area development schemes (the Drought Prone Areas Programme, Western Ghats Development Programme etc.).

There have also been growth focused macroeconomic monetary, fiscal and exchange rate policies. A recent entrant to this list is the policy of liberalisation which has generated heat and controversy

#### **Box No. 5.4**

##### **Vaijinath's story - from rags to riches**

Vaijinath eked out a living by ropemaking in Backchowdi, a remote village in Bidar district. He spent his spare time painting and carving wood. On a day that was to change his life, the General Manager of the District Industries Centre (DIG) visited the village, recognised his potential and suggested that he undergo training in sandalwood carving. Vaijinath underwent training for a period of two years at Shimoga, Sagar, and Bangalore. On his return to Backchowdi he was selected as an IRDP beneficiary. He set up a tiny workshop with a small loan of Rs. 1000. His brother Bandeppa Ganeshapur, who was selling newspapers in Bidar town, joined him. Bandeppa proved to be a fast learner and he too was provided an IRDP loan. Soon the sandalwood pieces being manufactured by them became known for their quality and were snapped up by buyers from as far off as Bangalore. The enthusiasm and talent of the brothers caught the attention of the then Chief Minister, who urged, them to train other villagers under the Vishwa scheme. Thus was born the Handicraft's Cooperative Society. The society bagged an order of Rs. 2.5 lakhs from Japan to supply sandalwood idols of the Buddha and joss stick holders. The DIG encouraged the society to take part in exhibitions. At one exhibition a Taiwanese industrialist was so impressed by one of Vaijinath's carvings that he supplied machinery to the society and entered into a business deal with it. Today, the society earns valuable foreign exchange for the country. The Ganeshapur brothers and other members of the society enjoy a comfortable standard of living. Their effort has resulted in the establishment of two other societies in the district.



on the social costs of adjustment. Much has been written on the adverse impact of economic reforms on the poor and the vulnerable sections. These social costs are attempted to be measured with the help of nutrition-based poverty lines defined for some remote past and adjusted for price changes. Such a simple measure cannot fully capture the complex linkages between economic reforms, growth and poverty. It may also be necessary to assess direct and indirect benefits - immediate and in the medium and long term - of projects and programmes initiated as a component of the economic reforms process.

Consumer-based programmes cover the various components of the Minimum Needs Programme like housing, energy for cooking, education, the public distribution system and nutrition. Here the focus is on supplying basic needs at concessional prices or free of cost to the poor. Some of these services have been continued under the basic minimum services identified for special attention in 1996. Yet another category of programmes with direct impact on earning capacities of individuals is the category of employment generation programmes-the Employment Affirmation Scheme, the National Rural Employment Programme, the Rural Landless Employment Guarantee Programme, the scheme for Training Rural Youth for Self-Employment, Swavalambana and Jawahar Rozgar Yojana. Programmes focused on women and children include schemes for the Development of Women and Children in Rural Areas (DWACRA) and the Integrated Child Development Services (ICDS) programme.

Several programmes have thus been implemented with direct or indirect bearing on poverty eradication. Some are likely to have a gestation period before making an impact on poverty. For example, educational concessions give immediate relief to families which cannot afford to educate children but the benefit is fully reaped in the medium term when income-earning capacity increases; there is also long-term benefit through eventual attitudinal changes among the educated.

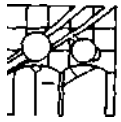
Several studies have pointed out loopholes in these programmes including lack of an

integrated approach and limitations of organisational and delivery systems. There are also programmes with dual effects. Increase in procurement prices of foodgrains for example may compensate farmers as producers but it also increases prices for consumers; partial market intervention by government can result in dual pricing, market distortions and speculation. Another possibility is that a programme which directly benefits the rich may also have beneficial effects on the poor. The green revolution which was intended to bring about productivity gains has been criticised on the ground that its benefits have been captured by relatively well-off farmers. This criticism ignores the fact that increased productivity has improved the availability of foodgrains and reduced prices; eventually employment opportunities and wages have also increased.

In the light of these examples, it is clear that poverty alleviation calls for innovative and coordinated action on several fronts. Poverty measured by nutritional norms and translated into consumption expenditure must also be identified through other indicators of the quality of life. Much of the controversy surrounding the measurement of poverty emanates from the possible price impacts of government intervention and variations in consumer price indices due to differences in the consumption basket. Instead of depending on a poverty line developed for a reference year in the remote past updated with price indices, the poverty line could be directly computed using physical quantities required to satisfy nutritional norms and some non-food items and prices for the relevant reference year. Poverty measures should be able to guide policymakers and planners in adopting a multidimensional approach to poverty alleviation.

It is also essential to properly identify the deprivation of producers and consumers of goods and services and not just nutritional inadequacies. In as much as deprivation takes various forms, solutions ought to emerge from an accurate diagnosis of the problem not only in terms of magnitudes but also in terms of the contributory factors.

*Pro-poor growth is essential and social services and safety nets need to be in place to back this up.*



# Human development and the second sex

## Eliminating gender disparities

### Engendering human development

In the postwar period, it was generally believed that developmental interventions are gender neutral. Policies were framed with the family in mind in the mistaken belief that improvement in incomes and social indicators would improve the quality of life of men and women within the family in equal measure. This approach overlooked the patriarchal practices enshrined in the family structure as it has evolved through time as well as the discriminatory attitudes enforced by religion, society, law and politics. Developmental programs evolved on such misconceptions failed on three counts:

- by excluding half the population while formulating strategies for human development, the needs of women and the specific ways to reach them were not identified

- by ignoring the contributions of women in agriculture, industry and other productive sectors, the best techniques to improve productivity and efficiency in these areas were not evolved

- by targeting programs to males alone, existing economic and social relations were disturbed with unforeseen results; not only did women miss the fruits of development, in many areas their condition worsened because of government programs which did not take into account their economic role

It is now accepted that developmental programs should not be gender blind or gender biased. Strategies must be prepared with a full understanding of the disparities in social and economic development between men and women.

They must provide for the repercussions on women when technological or commercial changes are introduced in productive sectors. Specific programs to reach women must be formulated with the objective of rapidly eliminating differentials in educational attainments and health status between the sexes. Policies should aim at redressing imbalances in the female access to food, shelter, clean water, education and health and family planning services. Above all, development must empower women, give them greater choices, put them in charge of their own future and make them self-reliant and confident. Only then can they become equal citizens in a free world.

### Human development and gender-related development

The Human Development Reports have made a significant contribution to sensitising governments and society to the yawning gender gap in several apparently progressive countries. Even where the overall levels of human development were too high, the reports have shown up the differentials in attainment and access between the sexes. They have aroused the conscience of the world and advocated radical reform of attitudes and behaviour patterns.

The process was started by the 1995 report of the UNDP which looked at development from the viewpoint of gender. It highlighted inequities prevalent almost everywhere that prevented women from being considered as equal claimants, to the fruits of socio-economic growth as well as participants in the political and decision making processes which determine developmental directions and priorities. It demonstrated how unequal status has created considerable disparity

*Developmental programmes must aim at eliminating gender disparities to enable women to become equal citizens*

### Box 6.1

#### The Gender Empowerment Measure assesses:

power over economic resources as revealed in data relating to earned income-per capita income in PPP dollars (unadjusted) access to professional opportunities and participation in economic decisionmaking by shares in jobs classified as professional and technical and administrative and managerial access to political opportunities and participation in political decisionmaking as reflected in shares in seats in parliament The income variable is treated differently in the GDI/HDI and the GEM; income above the world average per capita level is not discounted in the GEM as income is evaluated as a source of economic power that frees the income earner to choose from a wider set of possibilities

between how much women contribute to human development and how little they share in its benefits. To demonstrate the visible divergences in basic indicators between men and women, the report used the instrument of the Gender related Development Index or the GDI, which adopts the same variables of life expectancy at birth, enrolment and literacy and real per capita GDP as the HDI but also assesses the degree of disparity between the human development levels of both sexes. It was evident that income was not the only or the determinant variable in improving the choices of women. By computing the substantial differences in rankings between the HDI and the GDI in many countries, the report drew attention to important issues like legislative and social barriers to the progress of women.

It also went a step further. Apart from speaking of developmental differences, the 1995 HDR pointed out that even where progress has been made in building the capabilities of women, there has been little movement towards overcoming obstacles in using these capabilities. The report stressed that the goal of development for women must be justice not charity and that women must be regarded as agents and beneficiaries of change. With women's participation in political and legislative decisionmaking constrained everywhere, it noted that women are not participating adequately in formulating the legal framework under which they live. To measure the degree of involvement of women in

decisionmaking that affects their lives, environment and futures it computed the Gender Empowerment Measure (GEM) which uses data relating to real per capita income to measure women's control over economic resources, their shares in professional and managerial jobs to evaluate their participation in economic decisionmaking and their representation in parliament to estimate their access to political opportunities. With this tool, the report has demonstrated that gender disparities in building human capabilities are narrower than the gaping disparities in income earning and decision-making opportunities. Expanding capabilities have come up against limited opportunities for women as a result of their exclusion from economic and political decisionmaking levels. The HDR has proved that the battle for equality must be fought not in better facilities and services but in the minds and hearts of people.

Subsequent HDRs have continued with the same approach of calculating GDIs and GEMs to measure inequities based on gender. In fact, these indices have become a permanent feature of the UNDP's annual reports on human development.

The Gender Empowerment Measure as calculated by the UNDP has not been found appropriate for capturing the participation of women in decisionmaking processes in developing countries like India. Computing shares in earned income does not capture the reality in a country in which women predominate as marginal workers in the informal sector whose transactions are imperfectly recorded by the national statistics system. Access to economic decisionmaking cannot be 'assessed by shares in technical and administrative positions for the same reason. As for political participation, a correct evaluation is difficult since participation rates are different at different levels and there is formal reservation of seats in local bodies for women. Consequently, no agreed method of calculating the GEM has emerged in the Indian context although a small body of criticism and comment has been built up on the issue. Hence, no attempt has been made to compute the GEM either for the State or for the districts.

**Box 6.2****HDI, GDI - Same components, different measurements**

|     | Longevity                                | Knowledge                                                                       | Decent standard of living           |
|-----|------------------------------------------|---------------------------------------------------------------------------------|-------------------------------------|
| HDI | Life expectancy at birth                 | Adult literacy rate combined enrolment ratio                                    | Adjusted per capita income in PPP\$ |
| GDI | Female and male life expectancy at birth | Female and male adult literacy rate<br>Female and male combined enrolment ratio | Female and male earned income share |

Source: UNDP, HDR (1998)

**Box 6.3****Gender-related development index**

The GDI is the HDI, discounted or adjusted downwards for gender inequality. It measures gender disparities in basic human capabilities. It uses the same three indicators- life expectancy at birth, adult literacy combined with primary, secondary and tertiary enrollment ratios, suitably weighted and real GDP per capita in terms of purchasing power parity dollars-used in the construction of the HDI, but concentrates on both the inequality Between men and women as well as the average achievement of all people taken together.

GDI values have been worked out for the districts of Karnataka for 1991, following the UNDP methodology. The GDI of the State is 0.451 which is lower than the HDI- 0.470. The highest value of GDI (0.615) is in Kodagu followed by Dakshina Kannada(0.588), Bangalore Urban(0.546) and Uttara Kannada(0.511). The lowest value of 0.376 is in Raichur district. Districts which are below the state average are Chitradurga, Kolar and Tumkur in Bangalore division, Belgaum, Bijapur and Dharwad in Belgaum division, all the districts of Gulbarga division and Mandya and Mysore in Mysore division.

The 1995 HDR acknowledges that important dimensions of gender inequality like consumption of resources within the family, dignity and personal security are not reflected in the GDI. The health and education variables also conceal complex biases linked to gender which are imbedded in the attitudes of society. Again, reliable data regarding crucial areas like maternal mortality is not regularly available in India since a large proportion of births do not take place in institutions. Access to resources is a critical means of empowering women but there is a woeful lack of data especially data on access to credit. Despite the long history of systematized data collection through decennial censuses in India, gender bias in the collection of data is difficult to discount. This is most visible while computing income, which has one-third weightage in the GDI. Despite shouldering a disproportionate share of work, much of women's work is not measured or paid for. Statisticians are yet to accurately reflect this in their data collection although the 1995 HDR has devoted a full chapter to the issue. It must also be noted that human development by itself does not ensure empowerment or full participation in decision making on matters that affect the lives of women.



**Table 6.1**  
**Comparative rankings of values of HDI and GDI**  
**for major states 1991**

| State            | HDI<br>Value | 1991<br>Rank | GDI<br>Value | 1991<br>Rank | HDI rank<br>minus<br>GDI rank |
|------------------|--------------|--------------|--------------|--------------|-------------------------------|
| Andhra Pradesh   | 0.400        | 9            | 0.371        | 8            | 1                             |
| Assam            | 0.379        | 10           | 0.347        | 10           | 0                             |
| Bihar            | 0.354        | 13           | 0.306        | 14           | -1                            |
| Gujarat          | 0.467        | 5            | 0.437        | 3            | 2                             |
| Haryana          | 0.489        | 4            | 0.370        | 9            | -5                            |
| <b>Karnataka</b> | <b>0.448</b> | <b>7</b>     | <b>0.417</b> | <b>5</b>     | <b>2</b>                      |
| Kerala           | 0.603        | 1            | 0.565        | 1            | 0                             |
| Madhya Pradesh   | 0.349        | 14           | 0.312        | 12           | 2                             |
| Maharashtra      | 0.523        | 3            | 0.492        | 2            | 1                             |
| Orissa           | 0.373        | 11           | 0.329        | 11           | 0                             |
| Punjab           | 0.529        | 2            | 0.424        | 4            | -2                            |
| Rajasthan        | 0.356        | 12           | 0.309        | 13           | -1                            |
| Tamil Nadu       | 0.438        | 8            | 0.402        | 6            | 2                             |
| Uttar Pradesh    | 0.348        | 15           | 0.293        | 15           | 0                             |
| West Bengal      | 0.459        | 6            | 0.399        | 7            | -1                            |
| <b>INDIA</b>     | <b>0.423</b> |              | <b>0.388</b> |              |                               |

Source: A.K.Shivkumar's article UNDP's Gender-related Development Index: A Comparison for Indian States - EPW April-16, 1996

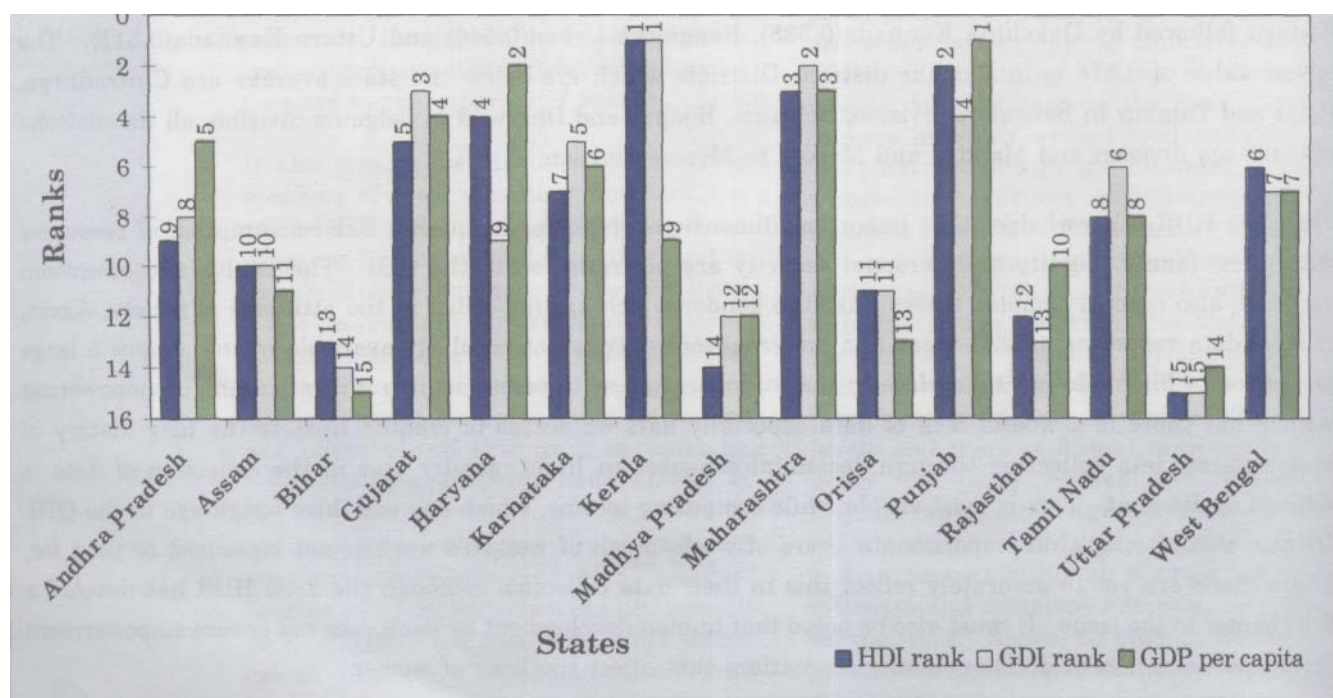
## Gender-related development in Karnataka

The comparative HDI and GDI rankings and values of different states vis a vis Karnataka are worth noting. With the states at the top and bottom of the table (Kerala and Uttar Pradesh respectively) remaining unchanged, Karnataka, like Tamilnadu, Madhya Pradesh and Gujarat, seems to have performed better in gender related development, relatively speaking, than other states. Haryana and Punjab however have adverse differences in rankings between HDI and GDI of 5 and 2 respectively. This is partly due to lower HDI levels themselves, as can be seen from a comparison of the rankings between per capita SDP and GDI. Here Karnataka has a difference in ranking of only one which is however far below the difference of 8 for Kerala or even 2 for Orissa and Tamilnadu. However, it is certainly far better than Haryana with an adverse difference in ranking of 7 and Punjab, Rajasthan and Andhra Pradesh with a ranking difference of 3.

Within Karnataka, it is interesting to note that the HDI is higher than the GDI in all

**Figure 6.1**

**Comparative ranking of HDI, GDI and GDP per capita for major states**



districts; evidently the levels of socio-economic development of women are worse than the general level all over the state. There is not much difference between rankings under HDI and GDI; it is not more than one and that too only in seven districts. Bangalore urban, Belgaum, Bijapur and Mandya districts rank one step lower in GDI than HDI and Kolar, Dakshina Kannada and Chitradurga rank one step higher in GDI than HDI. This positioning may need to be further probed. It is partly due to the fact that the methodology itself is influenced by the overall levels of human development, as a result of which a higher HDI will be reflected in a better GDI. Nonetheless, it appears that relative levels of gender related development are not so substantially out of line with relative levels of human development as to radically disturb inter se positions. In Karnataka at least, a high human development level seems to ensure better socioeconomic development for women too.

There is however much greater disparity in interdistrict rankings for real GDP per capita and GDI. A higher level of economic development is no guarantee of higher gender related or human development. Districts which rank lower in per capita income but have higher ranks in gender related development include the malnad and coastal districts-Hassan (where the difference in rankings is as high as 7), Dakshina Kannada with a difference of 2 and Shimoga and Uttara Kannada with a difference of 1. In Kodagu the question of difference in rankings does not arise since it tops the list under both indicators. The surprise package is Chikmagalur district which ranks third in per capita income but goes down to fifth under GDI. Outside the malnad-coastal region, districts like Dharwad, Tumkur (both with a difference in ranks of 5), Kolar (with a difference of 6), Chitradurga, Bidar and Bangalore rural also fare better under GDI than under per capita income. Districts which have substantially lower rankings in GDI against higher rankings for per capita income are Bellary (with a very high ranking difference of ten), Gulbarga (a difference of 8), Mysore (a difference of 7), Belgaum (a difference of 4), Raichur, Mandya, Chikmagalur and even Bangalore

**Table 6.2**  
**Comparative rankings of real GDP per capita (PPPS) and GDI values for major states 1992**

| State            | Real GDP<br>per capita<br>(PPPS) 1992 |          | GDI 1991     |          | Real GDP<br>per capita<br>(PPPS) rank<br>minus<br>GDI rank |
|------------------|---------------------------------------|----------|--------------|----------|------------------------------------------------------------|
|                  | Value                                 | Rank     | Value        | Rank     |                                                            |
| Andhra Pradesh   | 1227                                  | 5        | 0.371        | 8        | -3                                                         |
| Assam            | 932                                   | 11       | 0.347        | 10       | 1                                                          |
| Bihar            | 640                                   | 15       | 0.306        | 14       | 1                                                          |
| Gujarat          | 1416                                  | 4        | 0.437        | 3        | 1                                                          |
| Haryana          | 1915                                  | 2        | 0.370        | 9        | -7                                                         |
| <b>Karnataka</b> | <b>1224</b>                           | <b>6</b> | <b>0.417</b> | <b>5</b> | <b>1</b>                                                   |
| Kerala           | 1017                                  | 9        | 0.565        | 1        | 8                                                          |
| Madhya Pradesh   | 898                                   | 12       | 0.312        | 12       | 0                                                          |
| Maharashtra      | 1802                                  | 3        | 0.492        | 2        | 1                                                          |
| Orissa           | 896                                   | 13       | 0.329        | 11       | 2                                                          |
| Punjab           | 2124                                  | 1        | 0.424        | 4        | -3                                                         |
| Rajasthan        | 961                                   | 10       | 0.309        | 13       | -3                                                         |
| Tamil Nadu       | 1119                                  | 8        | 0.402        | 6        | 2                                                          |
| Uttar Pradesh    | 884                                   | 14       | 0.293        | 15       | -1                                                         |
| West Bengal      | 1186                                  | 7        | 0.399        | 7        | 0                                                          |
| <b>INDIA</b>     | <b>1230</b>                           |          | <b>0.388</b> |          |                                                            |

Source: A.K.Shivkumar's article UNDP's Gender - related Development Index: A Comparison for Indian States - EPW April-16, 1996

**Table 6.3**  
**Comparative rankings of HDI & GDI for districts of Karnataka 1991**

| District         | HDI 1991 |      | GDI 1991 |      | HDI rank<br>minus<br>GDI rank |
|------------------|----------|------|----------|------|-------------------------------|
|                  | Value    | Rank | Value    | Rank |                               |
| Bangalore Urban  | 0.601    | 2    | 0.546    | 3    | -1                            |
| Bangalore Rural  | 0.472    | 8    | 0.454    | 8    | 0                             |
| Belgaum          | 0.471    | 9    | 0.447    | 10   | -1                            |
| Bellary          | 0.429    | 17   | 0.409    | 17   | 0                             |
| Bidar            | 0.419    | 18   | 0.403    | 18   | 0                             |
| Bijapur          | 0.443    | 14   | 0.420    | 15   | -1                            |
| Chikmagalur      | 0.524    | 5    | 0.505    | 5    | 0                             |
| Chitradurga      | 0.466    | 10   | 0.448    | 9    | 1                             |
| Dakshina Kannada | 0.592    | 3    | 0.588    | 2    | 1                             |
| Dharwad          | 0.459    | 11   | 0.442    | 11   | 0                             |
| Gulbarga         | 0.412    | 19   | 0.388    | 19   | 0                             |
| Hassan           | 0.473    | 7    | 0.460    | 7    | 0                             |
| Kodagu           | 0.630    | 1    | 0.615    | 1    | 0                             |
| Kolar            | 0.443    | 14   | 0.426    | 13   | 1                             |
| Mandya           | 0.444    | 13   | 0.423    | 14   | -1                            |
| Mysore           | 0.440    | 16   | 0.414    | 16   | 0                             |
| Raichur          | 0.399    | 20   | 0.376    | 20   | 0                             |
| Shimoga          | 0.483    | 6    | 0.468    | 6    | 0                             |
| Tumkur           | 0.447    | 12   | 0.435    | 12   | 0                             |
| Uttara Kannada   | 0.533    | 4    | 0.511    | 4    | 0                             |
| STATE            | 0.470    |      | 0.451    |      |                               |

**Table 6.4**  
**Comparative rankings of real GDP per capita (PPP\$) and GDI values for districts of Karnataka 1991**

| District         | Real GDP per capita (PPP\$) 1991 |      | GDI Value    | 1991 Rank | Real GDP per capita (PPP\$) minus GDI rank |
|------------------|----------------------------------|------|--------------|-----------|--------------------------------------------|
|                  | Value                            | Rank |              |           |                                            |
| Bangalore Urban  | 1958                             | 2    | 0.546        | 3         | -1                                         |
| Bangalore Rural  | 1015                             | 10   | 0.454        | 8         | 2                                          |
| Belgaum          | 1078                             | 6    | 0.447        | 10        | -4                                         |
| Bellary          | 1058                             | 7    | 0.409        | 17        | -10                                        |
| Bidar            | 753                              | 20   | 0.403        | 18        | 2                                          |
| Bijapur          | 886                              | 15   | 0.420        | 15        | 0                                          |
| Chikmagalur      | 1557                             | 3    | 0.505        | 5         | -2                                         |
| Chitradurga      | 961                              | 12   | 0.448        | 9         | 3                                          |
| Dakshina Kannada | 1353                             | 4    | 0.588        | 2         | 2                                          |
| Dharwad          | 881                              | 16   | 0.442        | 11        | 5                                          |
| Gulbarga         | 973                              | 11   | 0.388        | 19        | -8                                         |
| Hassan           | 909                              | 14   | 0.460        | 7         | 7                                          |
| Kodagu           | 2388                             | 1    | 0.615        | 1         | 0                                          |
| Kolar            | 802                              | 19   | 0.426        | 13        | 6                                          |
| Mandya           | 913                              | 13   | 0.423        | 14        | -1                                         |
| Mysore           | 1018                             | 9    | 0.414        | 16        | -7                                         |
| Raichur          | 830                              | 18   | 0.376        | 20        | -2                                         |
| Shimoga          | 1058                             | 7    | 0.468        | 6         | 1                                          |
| Tumkur           | 867                              | 17   | 0.435        | 12        | 5                                          |
| Uttara Kannada   | 1161                             | 5    | 0.511        | 4         | 1                                          |
| <b>STATE</b>     | <b>1135</b>                      |      | <b>0.451</b> |           |                                            |

urban. This is a very clear indicator of the fact that a much better income level in Bellary, Gulbarga, Mysore and Belgaum has not ensured a better quality of life or more equal treatment for their women.

### Process and product-the evolution of gender disparities over time

Genderrelated development will have to be assessed within a dynamic perspective in the context of the complex socio-cultural situation of the country and the state. The focus is on both the process and the product with variables being chosen to reflect government's inputs in the form of infrastructure and other facilities as well as the outcomes realised through the chosen strategies. This is especially significant when we speak of women since it is acknowledged that illconceived

developmental policies could have harmed and marginalised women.

Input variables can give the school-population ratio or the student-teacher ratio, but we cannot be content with such indicators unless they are translated into higher female literacy or lower dropout rates for girls. Unfortunately, this is not-always the case. It is necessary then to probe further and investigate why schools do not attract girl children or apparently available medical care is not utilised by young mothers. Evidently, schools and health centres will have to be designed, run and staffed with a view to fulfilling the ultimate objective of equal choices for both men and women. Social practices and cultural hangups will also have to be reformed to this end. This chapter therefore tries to look at data on both the facilities provided and the results obtained in the areas of health, education and income. It attempts to estimate the extent of control women exercise over their own lives and futures. And it diagnoses significant successes and failures in the government's attempts at the development and empowerment of women to enable us to prepare the agenda for the future.

### A woman's right to a healthy life

Demographic and health indicators consistently reveal unequal access to facilities on the basis of gender. This is partly due to the deeprooted social belief that women have only a secondary status within families. As a result, women themselves do not articulate the need for timely medical attention and in poor families they are generally attended to only after the requirements of male members have been met. The same attitude is visible in the case of nutrition. Several studies have confirmed that women and girls eat smaller quantities of nutritious food than men. Workloads however are often much higher than for men, since lowend jobs, including most household work and many tasks on the farm, are performed almost solely by women with no remuneration in the poorer families and they are often also expected to earn a wage by manual labour. Society also looks on women as vehicles of

reproduction, an approach that is echoed by government as well, so that public medical services are principally geared to maternity and postpartum care. To all this must be added the limited control that women have to make decisions relating to their own survival and physical wellbeing. The devalued status of women has in its extreme form even resulted in active violence against the sex through practices like selective abortion after amniocentesis and dowry deaths.

The combined effect of the above tendencies is seen in low life expectancies at birth, adverse sex ratios and female infant mortality rates as well as in high maternal mortality rates. These are proof of the pervasive gender bias in society and government that has resulted in a poorer quality of life for women.

Input and impact indicators can be used to judge whether adequate health facilities have been made available and whether they are having the desired effect on the quality of life of women. Apart from demographic indicators that specifically compare the birth and death rates and life expectancies of men and women, general decline in the birth and fertility rates is also a measure of better human development for women. Morbidity indicators too give a good idea of the differential health status of men and women but these are not regularly or reliably available since institutional support for women is limited due to social and other prejudices. Various indicators used to judge women's health centre around pregnancy and childbirth. Not all of them therefore can also be compared between the sexes. Input indicators to assess the quality of life of women relate to the availability and utilisation of medical facilities for delivery as well as for general ailments.

The access of women to social services is important in two ways: as outcomes of development and as critical elements in the quality of life. There has been a gradual shift in government's perception of women as beneficiaries of programmes and services to seeing them as critical agents in the achievement of sectoral changes in education, health and family welfare.

## Amartya Sen's missing women

Life expectancy at birth and the sex ratio are important demographic ratios which reflect disparities in the quality of life of women and men. In calculating the Genderrelated Development Index, for life expectancy at birth, allowance is made for the biological edge that women enjoy in living longer than men by giving an increase of five years in the range for female life expectancy-27.5 to 87.5 years against 22.5 to 82.5 years for men.. Among the major Indian states, only Kerala shows a life expectancy at birth for women that is more than five years higher than the LEB for men. Karnataka stands second with a difference of more than 3 in the two life expectancies although the overall LEB for women is lower than the levels in Tamilnadu, Maharashtra, Haryana and Punjab as well as in Kerala. Life expectancy at birth for women in different districts looks satisfactory since it is five years or more than that for men except in Bangalore urban, Belgaum and Chikmagalur districts. This data however

**Table 6.5**

### Sex ratios districtwise

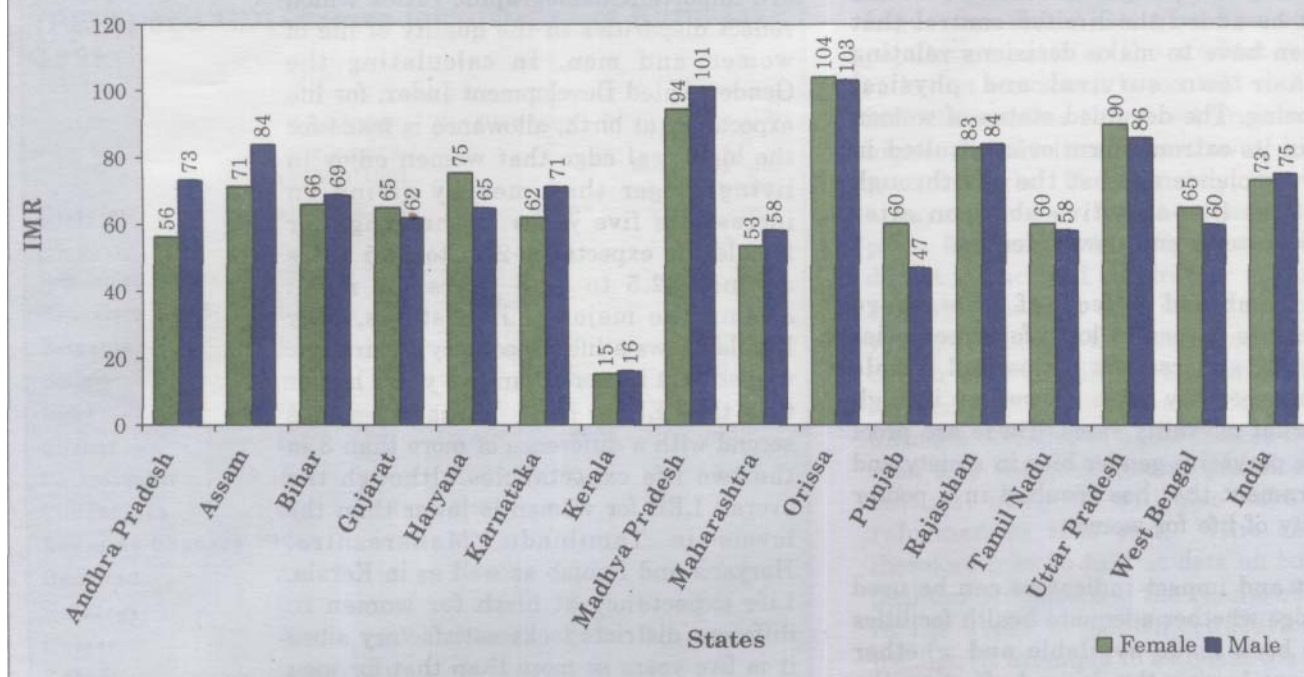
| District         | Sex ratio-females | per 1000 males |
|------------------|-------------------|----------------|
|                  | 1961              | 1991           |
| Bangalore (U)    | 917               | 903            |
| Bangalore (R)    |                   | 945            |
| Belgaum          | 951               | 954            |
| Bellary          | 960               | 965            |
| Bidar            | 971               | 952            |
| Bijapur          | 976               | 964            |
| Chikmagalur      | 903               | 977            |
| Chitradurga      | 940               | 944            |
| Dakshina Kannada | 1082              | 1063           |
| Dharwad          | 951               | 944            |
| Gulbarga         | 989               | 962            |
| Hassan           | 969               | 999            |
| Kodagu           | 862               | 979            |
| Kolar            | 968               | 965            |
| Mandya           | 967               | 963            |
| Mysore           | 950               | 953            |
| Raichur          | 985               | 979            |
| Shimoga          | 898               | 960            |
| Tumkur           | 956               | 959            |
| Uttara Kannada   | 946               | 966            |
| <b>STATE</b>     | <b>959</b>        | <b>960</b>     |

*Source: Census 1961 and 1991*



Figure 6.2

## Female &amp; male infant mortality rates for major states, 1994



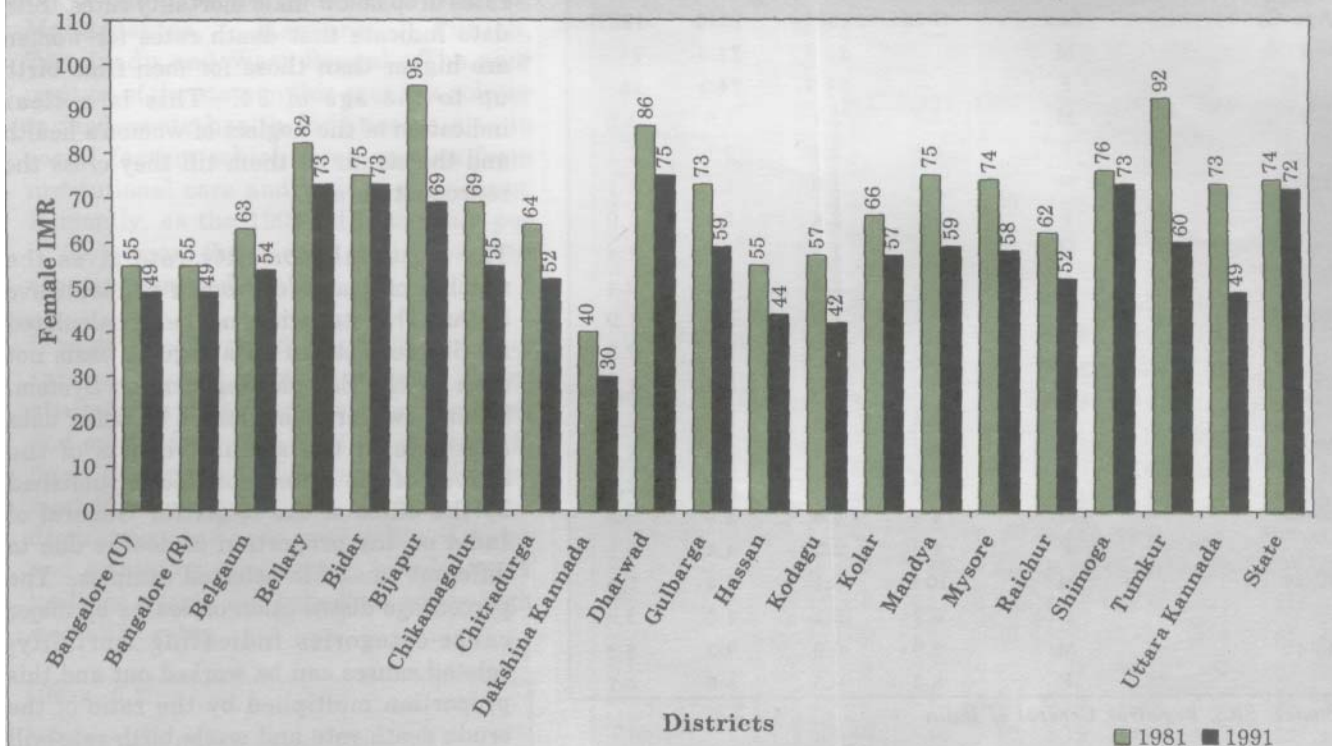
Source: SRS 1994, RGI

masks the reality of an adverse sex ratio and the much higher female mortality rates in all age groups up to the end of the reproductive period.

In a society in which men and women had equal access to health facilities, there would be more women than men in a given population. The fact that in India and in most districts in Karnataka, the ratio of women per thousand men is adverse clearly indicates how unequal the access to health is between the sexes. We must make allowances however for data distortions due to migration of males seeking jobs outside the state or district.

Most districts in the state have unfavourable sex ratios and these are not necessarily in the northern divisions of Gulbarga and Belgaum. Only Dakshina Kannada district has a favourable ratio; in 1991, the next best ratio of 999 was in Hassan district. Some districts with high female literacy rates-Uttara Kannada, Dakshina Kannada, Hassan and Kodagu also have higher sex ratios. Nevertheless, men have outnumbered women in every census period. What is more disturbing is

the decline in the ratio from 963 in 1981 to 960 in 1991. In nine districts, the ratios fell in the eighties; even the best district of Dakshina Kannada has a declining ratio. This is despite improvement in health facilities and bed-population ratios. One cannot help wondering whether the new trend reflects retrograde social practices like preference for male children and selective abortion after amniocentesis as well as dowry deaths and other tendencies which are making an entry among educated people. Low sex ratios in educationally backward areas also reflect the higher mortality rates of women of childbearing age who do not seek institutional care due to ignorance as well as the indifference of the community. In addition, there are the traditionally inculcated and socially approved attitudes of selfsacrifice and selfdenial which reinforce the neglect of health care and nutrition of women by themselves and others within the family. The worrisome adverse trend of the sex ratio must be halted by appropriate targeted interventions by government as well as the public at large.

**Figure 6.3****Female infant mortality rates districtwise**

Source: Computed in the office of the RGI, based on census data of 1981 & 1991

The infant mortality rate for females in 1994 is 62 per thousand live births in Karnataka which is certainly better than the country average of 73. This is however far below the Kerala level of 15 and worse than the IMRs of Maharashtra, Tamilnadu and Punjab.

The infant mortality rate for females has only marginally improved for the state from 74 for every 1000 live births in 1981 to 72 in 1991. The ratio was highest in Dharwad district (75) and Bellary, Bidar and surprisingly Shimoga (73 in all three districts) were above the state average. The lowest IMR was in Dakshina Kannada district (30). The range of diversity within the state is high. Dakshina Kannada district is only behind Kerala state with respect to the female infant mortality rate, but in Dharwar, the female IMR is worse than in even Bihar. The heartening thing is that in the eighties, the rates have decreased substantially in districts like Tumkur and Uttara Kannada. Shimoga and Bidar districts however have not shown significant improvement in this area.

An estimate of the medical certification of the causes of death has been done by the Department of Economics and Statistics of the state. Age specific mortality rates show that 26% of the deaths of women were between the ages of 15 and 34, while this age group accounted for only 15% of

**Table 6.6**  
**Distribution of deaths by sex & age in Karnataka, 1995**

| Age Group<br>(in years) | Male  | Female | Total% |
|-------------------------|-------|--------|--------|
| Below 1 year            | 12.8  | 13.6   | 13.1   |
| 1-4                     | 2.8   | 3.7    | 3.1    |
| 5-14                    | 3.3   | 4.4    | 3.7    |
| 15-24                   | 5.9   | 12.3   | 8.2    |
| 25-34                   | 9.0   | 13.9   | 10.8   |
| 35-44                   | 10.9  | 8.7    | 10.1   |
| 45-54                   | 14.3  | 9.1    | 12.4   |
| 55-64                   | 14.8  | 10.8   | 13.4   |
| 65-69                   | 5.9   | 4.9    | 5.5    |
| 70 & above              | 12.5  | 11.2   | 12.0   |
| Age not stated          | 7.9   | 7.4    | 7.7    |
| Total                   | 100.0 | 100.0  | 100.0  |

Source: Directorate of Economics and Statistics, Karnataka

**Table 6.7**  
**Age specific death rates in Karnataka**

| Age Group | Sex | 1976 | 1981 | 1986 | 1987 |
|-----------|-----|------|------|------|------|
| 0-4       | M   | -    | 23.6 | 24.6 | 24.6 |
|           | F   | -    | 24.9 | 24.3 | 25.6 |
| 5-9       | M   | 5.6  | 2.1  | 1.9  | 1.6  |
|           | F   | 6.5  | 2.4  | 2.1  | 2.1  |
| 10-14     | M   | 1.9  | 1.0  | 1.1  | 1.1  |
|           | F   | 1.7  | 2.4  | 1.2  | 1.0  |
| 15-19     | M   | 3.5  | 1.7  | 1.6  | 1.4  |
|           | F   | 2.4  | 2.8  | 2.3  | 2.4  |
| 20-24     | M   | 2.3  | 1.5  | 2.5  | 1.9  |
|           | F   | 4.5  | 2.7  | 1.9  | 2.5  |
| 25-29     | M   | 3.3  | 2.3  | 2.0  | 1.6  |
|           | F   | 5.5  | 2.4  | 2.9  | 2.9  |
| 30-34     | M   | 4.3  | 2.5  | 2.6  | 2.4  |
|           | F   | 7.8  | 4.7  | 1.9  | 2.5  |
| 35-39     | M   | 4.4  | 4.6  | 3.9  | 3.8  |
|           | F   | 4.3  | 2.2  | 4.4  | 3.1  |
| 40-44     | M   | 10.0 | 6.1  | 4.4  | 5.4  |
|           | F   | 6.2  | 5.1  | 4.6  | 3.9  |
| 45-49     | M   | 9.9  | 9.9  | 8.3  | 8.3  |
|           | F   | 8.3  | 6.5  | 5.6  | 4.7  |

Source: SRS, Registrar General of India

the deaths of men. Only after the age of 35, when women have passed their peak childbearing years do female mortality rates drop below male mortality rates. SRS data indicate that death rates for women are higher than those for men from birth up to the age of 34. This is a clear indication of the neglect of women's health and the strain on them till they cross the reproductive age.

The maternal mortality rate gives the number of deaths of women per lakh live births. This statistic is not being calculated for different states on a regular basis not even by the Sample Registration System. It can however be estimated by using data available in the annual reports of the Survey of the Causes of Death published by the office of the Registrar General of India on the proportion of deaths due to different causes in selected samples. The percentage distribution of deaths by major cause-categories indicating mortality-related causes can be worked out and this proportion multiplied by the ratio of the crude death rate and crude birth rate will give an estimate of the maternal mortality rate. The Progress of Indian States for 1995 published by the UNICEF gives estimates of MMR obtained by regressing infant mortality rates. The report indicates that this relationship can be used to estimate the MMR when the IMR is known since the two are observed to be highly correlated as revealed by global data.

Current understanding of maternal mortality in India-levels, causes and patterns- thus is at best incomplete and unsatisfactory. There is no good system for collecting maternal mortality data on a routine basis. It may not also be possible to generate accurate information from health institutions alone in view of the low proportion of institutional births. Regular and systematic estimations and publication of the results is however essential to refine methodologies and build awareness about the gaps in health care for women. When interstate statistics are itself generated so infrequently, there is little interest in estimating districtlevel variations.

Maternal mortality rates for different states estimated by the UNICEF in 1992 show a level of 450 for Karnataka which is only

**Table 6.8**  
**Mean age at marriage, districtwise**

| District         | Mean age at marriage |         |       |         |
|------------------|----------------------|---------|-------|---------|
|                  | 1981                 |         | 1991  |         |
|                  | Males                | Females | Males | Females |
| Bangalore (U)    | 27.10                | 20.18   | 27.30 | 20.80   |
| Bangalore (R)    |                      |         | 26.71 | 19.69   |
| Belgaum          | 24.73                | 18.35   | 24.79 | 18.75   |
| Bellary          | 24.72                | 18.11   | 24.80 | 19.06   |
| Bidar            | 24.02                | 17.65   | 24.63 | 18.78   |
| Bijapur          | 23.68                | 17.32   | 24.09 | 18.27   |
| Chikmagalur      | 25.77                | 20.82   | 27.07 | 21.54   |
| Chitradurga      | 26.10                | 19.17   | 26.59 | 20.15   |
| Dakshina Kannada | 28.28                | 22.43   | 28.95 | 23.40   |
| Dharwar          | 25.99                | 19.25   | 26.39 | 20.02   |
| Gulbarga         | 24.05                | 17.50   | 24.37 | 18.64   |
| Hassan           | 25.84                | 20.24   | 26.31 | 21.00   |
| Kodagu           | 27.09                | 21.75   | 27.02 | 21.94   |
| Kolar            | 28.44                | 19.10   | 26.15 | 19.90   |
| Mandya           | 26.07                | 18.47   | 26.67 | 19.60   |
| Mysore           | 26.29                | 19.27   | 26.48 | 19.88   |
| Raichur          | 23.65                | 18.61   | 23.79 | 18.20   |
| Shimoga          | 26.82                | 20.53   | 27.28 | 21.20   |
| Tumkur           | 26.50                | 19.22   | 26.72 | 20.05   |
| Uttara Kannada   | 27.00                | 21.23   | 27.79 | 22.35   |
| STATE            | 25.90                | 19.41   | 26.21 | 20.14   |

Source: Population Centre, Government of Karnataka



marginally better than the average country level of 453. It is far worse than the Kerala level of 87 as also more than the levels in Andhra Pradesh, Gujarat, Maharashtra, Haryana, Punjab, Tamilnadu and West Bengal. The poor position of the state in this area is a pointer to inadequate health facilities as also to social factors which keep women from institutional care and trained attendants. Evidently, as the 1995 HDR so aptly put it, for women, the miracle of birth is often the nightmare of death.

It must also be noted that high mortality rates of women between 15 and 34 are attributable to the heavy work in the home and on the farm that they are expected to do in the prime of their youth under the most gruelling conditions. Environmental degradation and poor availability of water and sanitation imply much heavier work loads for women and take their toll in high mortality rates.

#### Box 6.4

##### Reproductive and general health

The tendency of society and government to treat women principally as reproductive machines is reflected in the neglect of health care facilities for them beyond the childbearing and birth control aspects. A broader approach which sees them as individuals and equal citizens implies providing health care throughout their life cycles, rather than only in the reproductive phase

Early marriages and frequent childbirth are also responsible for the deteriorating health status of women. The mean age at marriage for girls is low in the districts of north Karnataka, especially in Bidar, Gulbarga, Raichur, Bijapur and even Belgaum. In fact, Belgaum district has a lower level than even Bellary which is certainly a matter for concern. Such early marriages are detrimental to the physical and psychological development of adolescent girls and limit their social and economic choices.

General demographic indicators also reveal the levels of gender development and empowerment since women bear the

**Table 6.9**  
**Fertility rates in Karnataka, 1981 & 1991**

| District         | Total fertility rate |           |          |           | Total marital fertility rate |          |           |            | General fertility rate |            |            |      | General marital fertility rate |      |      |      |
|------------------|----------------------|-----------|----------|-----------|------------------------------|----------|-----------|------------|------------------------|------------|------------|------|--------------------------------|------|------|------|
|                  | 1981                 | 1991      | 1981     | 1991      | 1981                         | 1991     | 1981      | 1991       | 1981                   | 1991       | 1981       | 1991 | 1981                           | 1991 | 1981 | 1991 |
| Bangalore (U)    | 4                    | 10        | 3        | 52        | 5.80                         | 5        | 46        | 140        | 115                    | 187        | 160        |      |                                |      |      |      |
| Bangalore (R)    | 4                    | 10        | 3        | 76        | 5.80                         | 5        | 32        | 140        | 121                    | 187        | 155        |      |                                |      |      |      |
| Belgaum          | 4                    | 40        | 3        | 57        | 5.30                         | 4        | 65        | 138        | 119                    | 171        | 147        |      |                                |      |      |      |
| Bellary          | 5                    | 00        | 4        | 85        | 6.10                         | 6        | 33        | 163        | 157                    | 200        | 196        |      |                                |      |      |      |
| Bidar            | 5                    | 10        | 4        | 82        | 6.00                         | 6        | 18        | 159        | 155                    | 187        | 189        |      |                                |      |      |      |
| Bijapur          | 5                    | 00        | 4        | 27        | 5.80                         | 5        | 27        | 156        | 139                    | 186        | 167        |      |                                |      |      |      |
| Chikmagalur      | 4                    | 60        | 3        | 13        | 6.60                         | 5        | 46        | 151        | 106                    | 216        | 151        |      |                                |      |      |      |
| Chitradurga      | 4                    | 90        | 3        | 60        | 6.40                         | 5        | 45        | 158        | 120                    | 204        | 158        |      |                                |      |      |      |
| Dakshina Kannada | 4                    | 80        | 3        | 61        | 7.60                         | 6        | 70        | 142        | 111                    | 233        | 183        |      |                                |      |      |      |
| Dharwad          | 5                    | 00        | 3        | 94        | 6.50                         | 5        | 61        | 161        | 130                    | 213        | 171        |      |                                |      |      |      |
| Gulbarga         | 4                    | 80        | 4        | 75        | 5.60                         | 5        | 83        | 154        | 149                    | 183        | 181        |      |                                |      |      |      |
| Hassan           | 4                    | 60        | 2        | 90        | 6.30                         | 5        | 12        | 147        | 97                     | 205        | 136        |      |                                |      |      |      |
| Kodagu           | 3                    | 80        | 2        | 77        | 6.20                         | 5        | 43        | 128        | 98                     | 197        | 140        |      |                                |      |      |      |
| Kolar            | 4                    | 60        | 3        | 89        | 5.80                         | 5        | 44        | 145        | 122                    | 182        | 157        |      |                                |      |      |      |
| Mandya           | 4                    | 50        | 3        | 11        | 5.70                         | 4        | 57        | 145        | 103                    | 183        | 133        |      |                                |      |      |      |
| Mysore           | 4                    | 40        | 3        | 56        | 5.80                         | 5        | 20        | 142        | 118                    | 185        | 156        |      |                                |      |      |      |
| Raichur          | 5                    | 20        | 4        | 65        | 6.00                         | 5        | 71        | 160        | 152                    | 193        | 183        |      |                                |      |      |      |
| Shimoga          | 4                    | 80        | 3        | 72        | 7.00                         | 6        | 15        | 158        | 123                    | 225        | 175        |      |                                |      |      |      |
| Tumkur           | 4                    | 50        | 3        | 46        | 5.70                         | 5        | 11        | 141        | 109                    | 180        | 142        |      |                                |      |      |      |
| Uttara Kannada   | 4                    | 90        | 3        | 66        | 6.80                         | 6        | 22        | 150        | 119                    | 222        | 178        |      |                                |      |      |      |
| <b>STATE</b>     | <b>4</b>             | <b>70</b> | <b>3</b> | <b>87</b> | <b>6.10</b>                  | <b>5</b> | <b>54</b> | <b>149</b> | <b>126</b>             | <b>196</b> | <b>167</b> |      |                                |      |      |      |

Source: Office of the Registrar General of India (RGI)

brunt of childbearing which affects their health status and limits their choices in terms of work and mobility. A country with low birth rates can be assumed to be kinder to its women in terms of human development. The crude birth rate in Karnataka is 22.7 against an average of 27.2 for the country (SRS 1997). It is low in the coastal and malnad districts as well as in Mysore but it is high in the northern districts of both Gulbarga and Belgaum divisions.

Total fertility rates and general fertility rates of different districts in Karnataka have improved between 1981 and 1991. The four districts of Hyderabad Karnataka region and Bijapur district in Belgaum division have still very high fertility rates, which is not surprising considering the low levels of female literacy and the poor utilisation of basic health facilities as well as the generally adverse sanitary and environmental conditions.

Family welfare statistics also conceal one shocking indicator that has ceased to



**Box 6.5****The adolescent girl**

Adolescence is the time when some of the causes of poor health and nutrition and the economic vulnerability of women can be tackled. By preventing early marriages (and the resultant early childbearing) and educating adolescent girls, their lives can be transformed. Appropriate nutritional interventions at this stage can also improve the growth and health status of adolescent girls.

shock. The participation of men in birth control is almost nonexistent. The percentage of vasectomies in total sterilisations has dropped to a shocking level of 0.1% from around 59% in 1959-60! And less than 2% of men with wives of childbearing age were using condoms. The entire burden of birth control has evidently been shifted to women with the tacit consent and approval of society and the medical profession. This is another factor in reducing choices and empowerment for women which needs to be tackled through extensive propaganda and information campaigns.

**The older woman**

The higher life expectancy for women of 63.9 years compared to 60.6 years for men reflects the female advantage in survival at an older age. Thus over time the number of older women to older men will be higher despite the unfavourable sex ratio. Deterioration of the health of elderly women is the result of cumulative neglect of women's health as well as reproductive constraints. The health of older women gets the lowest priority within the public health system as also within the family on whom they depend. The high rate of widowhood, which increases with age (26.5% of women are widows between the ages of 50 and 54 years but 70% are widows in the 60 plus age group) leads to severe economic dependence on children as well as psychological problems. Dependent status makes it more difficult for women to seek treatment when there is already a tendency to play down health problems due to culturally determined perceptions.

**The gender gap in education**

The 1998 south Asia report of Mahboob ul Haq has succinctly analysed the reasons for persistent gender gaps in education everywhere in the world. Poverty ensures that discriminatory hiring and wage practices are translated into lower expenditure levels on female education within families. Ironically, dependence on unpaid female housework also makes it more difficult to release girls from household chores to educate themselves. The distance of schools increases the risk of sending girls to school given the restrictions on mobility placed on them by society, the greater likelihood of molestation and the unwillingness to prepare them to defend themselves. Finally, there are school-related factors, like the availability of female teachers, separate schools and toilets, flexible timings and relevant curricula. Many of these factors apply to regions of Karnataka which show poor female literacy levels.

Literacy rates for the State in 1991 for both men and women are higher than for the country as a whole because of increased enrollment at the primary level as well as the total literacy campaigns. But there is

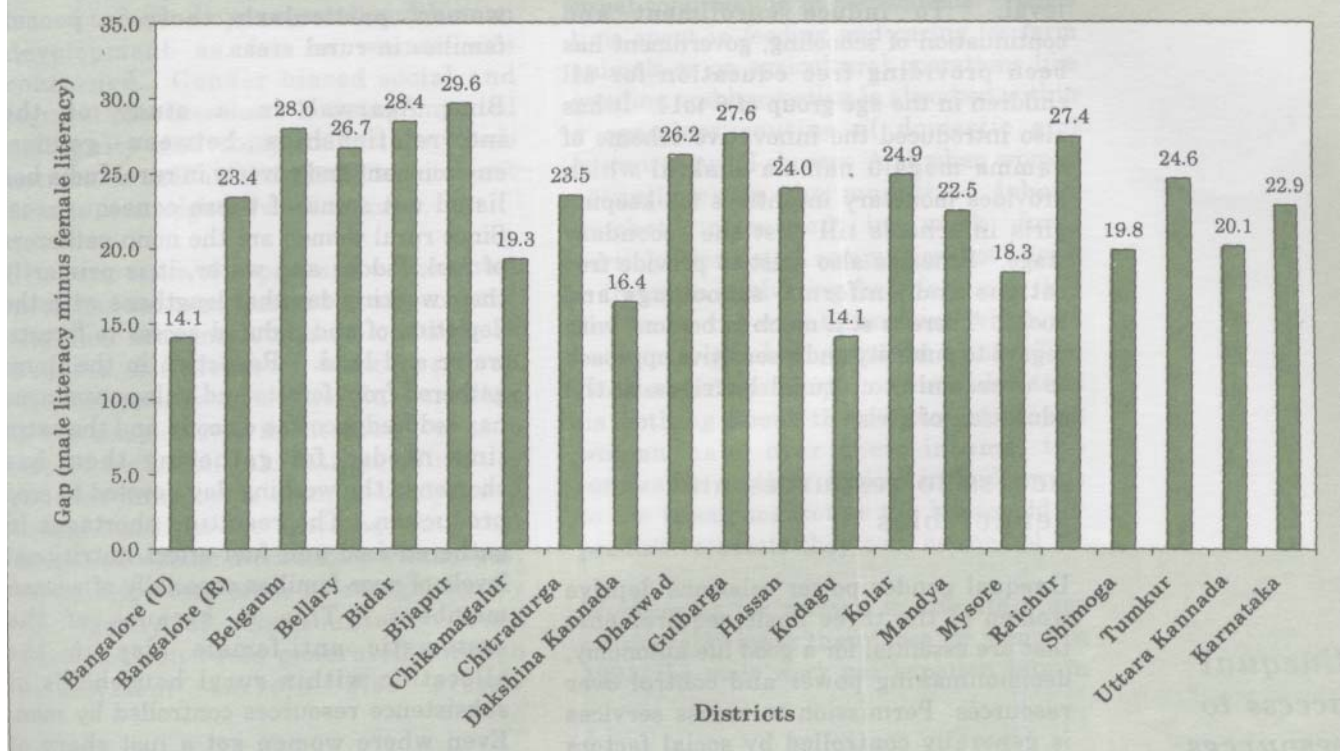
**Table 6.10**  
**Gaps in literacy rates districtwise (%)**

| District         | Gaps in literacy rates of males and females 1991 |              |              |
|------------------|--------------------------------------------------|--------------|--------------|
|                  | Total                                            | Rural        | Urban        |
| Bangalore (U)    | 14.13                                            | 23.88        | 12.60        |
| Bangalore (R)    | 23.36                                            | 25.18        | 14.88        |
| Belgaum          | 27.96                                            | 30.16        | 20.55        |
| Bellary          | 26.74                                            | 28.39        | 22.61        |
| Bidar            | 28.44                                            | 29.34        | 22.85        |
| Bijapur          | 29.63                                            | 30.80        | 25.61        |
| Chikmagalur      | 19.25                                            | 20.40        | 12.70        |
| Chitradurga      | 23.52                                            | 29.94        | 16.15        |
| Dakshina Kannada | 16.44                                            | 17.65        | 12.66        |
| Dharwad          | 26.17                                            | 29.57        | 19.89        |
| Gulbarga         | 27.59                                            | 28.26        | 23.99        |
| Hassan           | 23.67                                            | 25.95        | 12.94        |
| Kodagu           | 14.13                                            | 14.63        | 10.67        |
| Kolar            | 24.94                                            | 27.73        | 15.48        |
| Mandya           | 22.48                                            | 23.77        | 15.09        |
| Mysore           | 18.28                                            | 20.48        | 12.78        |
| Raichur          | 27.38                                            | 27.78        | 24.94        |
| Shimoga          | 19.82                                            | 22.14        | 12.88        |
| Tumkur           | 24.56                                            | 26.02        | 14.72        |
| Uttara Kannada   | 19.62                                            | 21.27        | 14.33        |
| <b>STATE</b>     | <b>22.92</b>                                     | <b>25.54</b> | <b>16.30</b> |

Source: Census 1991

**Figure 6.4**

**Gaps in literacy rates by district, 1991**



a sharp difference in literacy rates between females and males: 44% against 67% in the 1991 census. Female literacy in rural areas is significantly lower than in urban areas: 34.8% compared to 65.7%. The lowest female literacy rates are in the northern districts (Raichur 22%, Gulbarga 24.5%) and the best rates in Bangalore Urban (68.8%) and Dakshina Kannada (68%). Urbanization in Bangalore and the socio-cultural environment of Dakshina Kannada and Kodagu districts have certainly made these areas more conducive to learning for women. Among Scheduled Castes and Tribes, female literacy rates are only 26% and 24% respectively. Literacy gaps between the sexes are lowest in Kodagu and Bangalore Urban districts and most acute again in the northern districts of both Belgaum and Gulbarga divisions. This underlines the persistence of social and economic factors which prevent women from acquiring the same educational levels as men.

The relationship between educational attainment and better awareness of health and hygiene has been established by many

studies. The correlation is so impressive that it was used at one time to explain the very high health indicators of Kerala which did not at all exhibit very high rates of per capita income nor even of expenditure on health facilities. There is a lesson in all this for Karnataka too. Investment in female education is the major (it may even be the principal) method of dramatically improving the health status of the entire population.

The education of women is strongly linked to reduction in fertility. Other outcomes associated with formal education are delay in the age of marriage, small family size and more importantly greater earning potential. Lower investment in the education of girls than of boys is an indicator of the low priority given by the state to women and their development. Apart from fourteen out of twenty districts having exceptionally low female literacy rates and only Dakshina Kannada and Kodagu with rural literacy rates for women close to or above 50%, poor enrolment and high dropout rates must also be cause for concern. The two

*Unequal  
access to  
resources  
reflects  
unequal  
gender power  
relations in  
society and  
within the  
household*

districts of Bellary and Raichur combine the lowest enrollment with the highest dropout rates for girls at the secondary level. To induce enrollment and continuation of schooling, government has been providing free education for all children in the age group of 6 to 14. It has also introduced the innovative scheme of namma magalu namma shakthi which provides monetary incentives for keeping girls in schools till past the secondary stage. Schemes also exist to provide free rations and uniforms, schoolbags and books. There is still much to be done with regard to publicity and a sensitive approach to overcoming cultural barriers to the education of girls.

### Access to resources and gender bias

Unequal gender power relations deprive women of the three basic requirements that are essential for a good life—autonomy, decisionmaking power and control over resources. Permission to access services is generally controlled by social factors since the ability of women to reach them depends on factors other than economic strength or the availability of services. Apart from critical variables which determine access like social class and caste, women face the double jeopardy of gender as well. Societal and institutional barriers to the fulfillment of women's needs operate not only with reference to health and educational facilities but also in the case of water, fuel and sanitation as well as employment, wages and credit. Adequacy and accessibility of resources like water, cooking fuel, sanitation and even the right to earn their own wage are therefore critical issues for women along with access to credit.

Lack of adequate water and toilets for personal hygiene has a greater impact on women than men particularly on their reproductive health. The general division of familial labour is also arranged in such a manner that it is the women of the household who bear the major responsibility for collecting water and fuel. At the same time, environmental degradation manifested in disappearing forests, deteriorating soil conditions and depleting water resources is gradually reducing the availability of water, fuel and

other common property resources. The implications in terms of human development are especially adverse for women, particularly those in poorer families in rural areas.

Bina Agarwal in a study of the interrelationships between gender, environment and poverty in rural India has listed out some of these consequences. Since rural women are the main gatherers of fuel, fodder and water, it is primarily their working day that lengthens with the depletion of and reduced access to forests, water and land. Reduction in the items gathered from forests and village commons has reduced incomes directly and the extra time needed for gathering them has shortened the working day devoted to crop production. The resulting shortages in gathered food and fuel affect nutritional levels of poor families especially of women members. This is because of the systematic anti-female bias in the allocation within rural households of subsistence resources controlled by men. Even where women get a just share of family resources, they tend to spend their incomes mostly on the family's basic needs, while men spend them more on personal needs. All this means that data relating to unsatisfactory housing, water supply or sanitation point to a poorer environment for women with significant consequences in terms of gender-related human development.

The 1991 census indicates that only 42% of rural households and 76% of urban households in the state had access to electricity, 67% of rural households and 81% of urban households to safe drinking water and 7% of rural households and 63% of urban households to toilets. 20% of rural households and 4% of urban households had none of the three facilities. In urban areas, only Bangalore urban, Kodagu and Mysore districts had more than 70% of their households with toilet facilities; the position is below 50% in all the districts of north Karnataka except Uttara Kannada. As for rural areas, the percentage is below 25% in all districts; it is below 10% everywhere except in malnad areas (barring Hassan district) and Bangalore urban. What this means in terms of women's development can well be imagined.

## Work and income

Concepts of work and income are closely bound to both empowerment and human development as far as women are concerned. Gender biased social and cultural practices have however imported ambiguity and complexity into these notions so that it is difficult to interpret data in a straightforward manner.

The basic issue of unpaid and unaccounted work has not been resolved in any country. National accounts statistics continue to adopt a definition of work based on "economic value". As a result, work that is not compensated in monetary terms is missed out in all calculations. Time use studies done on a sample basis have brought to light the shocking truth that almost all women are workers with no pay, no holidays and often no recognition by the family or the country. Work participation rates generated through employment surveys also grossly

underestimate the contributions of women on farms or in own enterprises due to the perceptions of the interlocutors and the social conditioning of respondents. Hence time spent in feeding and caring for farm animals or on agricultural operations like weeding and harvesting is absorbed within a seamless routine of domestic and entrepreneurial chores. And when women actually enter the monetized labour market, measured in work force participation rates, compulsion not choice is the main motivating factor-an issue that has to be taken into account when we estimate gender empowerment. The female work participation rate also tells us nothing about the control employed women have over their income, the constraints to their choices in and access to the labour market or the household or productive assets they own or control.

Work rates for women in the state are considerably lower than those for men. In 1991, the male work participation rate in

| <b>Table 6.11</b>                            |                     |                                    |                     |                                    |                     |                                    |
|----------------------------------------------|---------------------|------------------------------------|---------------------|------------------------------------|---------------------|------------------------------------|
| <b>Female work participation rates, 1991</b> |                     |                                    |                     |                                    |                     |                                    |
| <b>District</b>                              | <b>Total</b>        |                                    | <b>Rural</b>        |                                    | <b>Urban</b>        |                                    |
|                                              | <b>Main Workers</b> | <b>Main &amp; Marginal Workers</b> | <b>Main Workers</b> | <b>Main &amp; Marginal Workers</b> | <b>Main Workers</b> | <b>Main &amp; Marginal Workers</b> |
| Bangalore (U)                                | 13.32               | 14.06                              | 20.84               | 24.56                              | 12.11               | 12.37                              |
| Bangalore (R)                                | 18.60               | 29.91                              | 20.00               | 33.42                              | 12.23               | 13.91                              |
| Belgaum                                      | 19.92               | 29.45                              | 22.84               | 34.79                              | 10.33               | 11.91                              |
| Bellary                                      | 32.26               | 36.29                              | 38.77               | 44.23                              | 16.75               | 17.41                              |
| Bidar                                        | 25.34               | 30.70                              | 29.51               | 35.96                              | 7.59                | 8.28                               |
| Bijapur                                      | 25.14               | 32.30                              | 29.89               | 38.67                              | 9.54                | 11.37                              |
| Chikmagalur                                  | 24.14               | 32.32                              | 26.78               | 36.32                              | 10.82               | 12.14                              |
| Chitradurga                                  | 23.53               | 31.70                              | 28.37               | 39.17                              | 10.12               | 11.04                              |
| Dakshina Kannada                             | 32.20               | 35.14                              | 34.32               | 37.90                              | 26.63               | 27.88                              |
| Dharwad                                      | 23.61               | 30.38                              | 29.74               | 39.25                              | 12.13               | 13.81                              |
| Gulbarga                                     | 29.13               | 34.54                              | 35.04               | 41.84                              | 9.51                | 10.32                              |
| Hassan                                       | 20.34               | 32.93                              | 22.52               | 37.40                              | 9.57                | 10.86                              |
| Kodagu                                       | 31.87               | 35.36                              | 34.79               | 38.84                              | 16.12               | 16.54                              |
| Kolar                                        | 24.97               | 31.74                              | 29.80               | 38.40                              | 8.93                | 9.67                               |
| Mandya                                       | 20.03               | 31.25                              | 21.45               | 34.58                              | 12.54               | 13.75                              |
| Mysore                                       | 17.31               | 22.66                              | 20.11               | 27.38                              | 10.63               | 11.41                              |
| Raichur                                      | 30.37               | 34.97                              | 34.78               | 40.38                              | 13.21               | 13.96                              |
| Shimoga                                      | 20.31               | 26.23                              | 24.22               | 31.96                              | 9.28                | 10.10                              |
| Tumkur                                       | 24.01               | 38.54                              | 26.00               | 42.74                              | 13.54               | 16.46                              |
| Uttara Kannada                               | 17.22               | 23.68                              | 19.87               | 28.05                              | 8.85                | 9.88                               |
| <b>STATE</b>                                 | <b>22.96</b>        | <b>29.62</b>                       | <b>27.64</b>        | <b>36.80</b>                       | <b>12.27</b>        | <b>13.20</b>                       |

Source: Census 1991 data (B series on floppy) from the office of the Director of Census Operations Karnataka, Bangalore.



*Low work participation rates and lower wage rates for women are clear indicators of gender bias in the labour market*

Karnataka was 53% compared to 29% for women. Gender differences in work participation are sharper at the urban level where the rate is only 13% for women compared to 50% for men. But both rural as well as urban work participation rates for women are much higher in Karnataka than national rates. In 1991, work participation for women in Karnataka stood at 29.6% - significantly higher than the corresponding figure of 22% for the whole country. The implications of main and marginal work for women need to be further explored separately for rural and urban areas in the context of what it signifies in terms of enlarged choices, not just increasing compulsions.

All this has an impact on women's incomes. The calculation of gender gaps in income per capita has been done by the UNDP by multiplying wages as a ratio of the national average wage by the shares of women and men in the labour force divided by population shares; if there is difference between these two shares, average real GDP per capita is adjusted downwards depending on the weight attached to inequality. The income variable however only reflects a family member's earning power without indicating the distribution of income or consumption within the family.

There are several indications of gender bias in the labour market in both the formal and informal sectors. The average wage of women is less than that of men, they have a higher rate of unemployment and they are overrepresented in the informal sector, which does not guarantee job security, pays less than minimum wage and has strenuous and poor working conditions. The preponderance of women in the informal sector is a direct result of occupational segregation as well as of unemployment and underemployment in the formal sector. The formal sector offers few choices to most women-domestic services, small scale trade and micro enterprises producing clothes and processed food, mainly oneperson operations requiring limited capital and little access to credit and technology and producing low returns. In the absence of access to assets and consequently to credit, women have no option but to sink to the bottom of the production chain. This is

exacerbated by their lack of bargaining power through union action, concentration in lowskilled jobs, lack of legislation granting maternity leave, unfair perception of greater absenteeism and strongly held cultural norms about which jobs are suitable for women and against mixing men and women in the workplace.

Female agricultural labourers earn lower wages than men. In occupations like dairying, poultry and sheep and goat rearing, there are more women workers than earners. Occupations which directly yield cash income have again a low proportion of women earners whereas women workers are in a higher proportion (sericulture and small business). Significantly women in these categories (dairying, poultry, sheep rearing, sericulture) do not therefore have access to any income mainly because they do not participate in or control market transactions that produce income from these activities.

Poorer women generally work outside the house as domestic servants or daily labourers. While labour laws in general protect working women against exploitation and ensure equal payment, it is not easy to prevent gender discrimination, underscaling of chores and unpaid work. And most women work in the unorganised sector where official labour regulations are not implemented especially in the case of agricultural labourers and domestic servants. Even if it were possible to enforce existing labour regulations throughout the informal sector, it would probably only have the same effect as in the formal sector. There would be a shift to more capital intensive production, labour shedding where possible and more elaborate methods to obtain a flexible low wage work force. The formal-informal duality will remain and women will continue to be concentrated in the informal sector until female access to education improves and the quality of women's empowerment is enhanced.

The cumulative effect of such inequities is the feminization of poverty. In the words of the 1995 HDR, "poverty has a feminine face". Such feminization becomes apparent in an increase in the number of

female headed households below the poverty line. Biases in education, employment and asset ownership work together to limit the opportunities of women so that when adversity strikes, they are the most vulnerable. Income poverty goes hand in hand with lack of mobility to reduce employment opportunities for women outside agriculture in rural areas and their concentration in low wage occupations. The human poverty of women is then mirrored in several indicators-high infant mortality rates and child labour.

### **Box 6.6**

#### **Female headed households**

National Family Health Survey data show that Karnataka had 12.5% female headed households in 1992-93. This is slightly higher than the 1981 level of 11.6%. Rural areas have a higher percentage of femaleheaded households than urban areas perhaps as a result of migration of males in search of employment. However, there is no data on the number of female headed households below the poverty line.

### **Access to credit**

The lack of access to credit for women particularly from formal financial institutions has been well documented, basically linking this to their lack of collateral. Lack of assets for collateral is a constant deterrent for women in approaching the two most popular sources of credit for men, banks and landlords. Women are expected to borrow smaller sums of money and are more responsible for small consumption than men.

Since land is the main source of collateral for women, lack of ownership rights over land restricts their access to the formal financial system. Men dominate assets and inputs like land, credit, seeds, livestock, technology and infrastructure. Many factors obstruct women's access to land. There are legal obstructions like inheritance laws based on patriarchal notions which limit women's right to ancestral property. Social perceptions like son preferences, patrilocal marriages and female seclusion also restrict women's ability to claim and manage land. Even

government programs are genderbiased-land reforms and settlement schemes distribute land and all assets to males alone.

Karnataka has succeeded in enacting the Hindu Succession Act in 1994 giving women the right to an equal share in not only the acquired property of the father but also in ancestral property. Recently government has also directed that all assets given under its programs should be owned and held jointly by the spouses within the family. The impact of such progressive legislation is however minimal. Most women are still ignorant of the amendments and the few who are aware are reluctant to press for their rights. Long procedures and the absence of a conducive atmosphere discourage the few who take up the matter in courts.

Other difficulties also hamper women's access to credit. Banks look only for property owners and wage earners for collateral. Some also accept jewellery as collateral. The limited educational levels of women make it difficult for them to handle complex loan procedures while restrictions on mobility affect their access to a distant bank. To overcome some of these problems, government, public sector banks and NGOs have undertaken credit programmes targeted at poor rural women to enable them to borrow for productive as well as consumption purposes. In mainstream situations, however, women without male guarantees and unmarried women are subject to consistent biases based on the male perception that unmarried girls will move away after marriage and that women who seek credit in general must be standing in for some male relative. Prejudices towards female borrowing persist despite the fact that women are generally fully involved in family enterprises. This explains the wide differential in access to credit between the sexes. Genderbased data on borrowings is also difficult to obtain from the banking system, unless it relates to programs targeted for women. The range of borrowings of men is consistently wider (an average of Rs.1 lakh) than for women (Rs. 25,000 to Rs. 35,000). Credit is in a sense a gateway to almost all forms of selfemployment for poor women. Where

access to credit has been made available both utilisation and repayment have been far better among women borrowers compared to men. Experience shows that recovery rates are exceptionally high (around 95%) for women borrowers organised in self help groups promoted under government programmes like the Development of Women and Children in Rural Areas and the Indira Mahila Yojana and by NGOs like MYRADA. This is due to the high level of group cohesion within the system which ensures that to a reasonable extent the credit needs of women members are met.

### Empowerment-how to measure it

Empowerment not only connotes control over resources-human, financial and physical but also the right to one's own beliefs, values and attitudes. It implies too the freedom and ability to influence the political and societal processes which affect individual lives. Measurement of such a nebulous concept is fraught with

difficulties. The UNDP's 1995 HDR has after careful consideration picked up three proxies for gauging and comparing empowerment levels across countries. Its Gender Empowerment Index uses data relating to real per capita income to measure women's control over economic resources, shares in professional and managerial jobs to evaluate participation in economic decisionmaking and representation in parliament to estimate access to political opportunities.

This methodology has been widely criticised in India as not applicable to the situation in developing countries. There is the dilemma of attributing incomes between the two sexes in the context of the nonreporting and underreporting of female incomes. The technique already adopted for the GDI by the UNDP with all its failings has been suitably adjusted for the GEM and could perhaps be used within the country and the state also. The real difficulty is with the variables used to measure control over economic decisionmaking and access to political

#### Box 6.7

##### Empowerment: the notion and its implications

"Women's powerlessness stems from a lack of resources-human, material and intangible. Gender inequality is thus a result of power asymmetry, where men are in a position of privilege and women of subordination....The ideology of subordination is taken as given-as if men were meant to be dominant and women subordinate...; it is also self-perpetuating.

"For women, absence of power has meant the lack of access to and control over resources, a coercive gender division of labour, a devaluation of their work, lack of control over their own selves-skills, labour, mobility, sexuality, time and fertility. Their powerlessness is expressed in male violence against women, sexual exploitation that erodes their human dignity and a very acute experience of vulnerability...

"Transformation for gender equality thus envisages...the removal of barriers to as well as the facilitation of women's access to and control over resources...As indices of gender equality, the terms 'access' and 'control' serve as sensitive indices to capture women's autonomy and status....Access refers to the opportunity available to use a given resource...Control over a resource is the bargaining power to define or determine the use of that resource...

"Control means the right to make decisions about the use of resources and acceptance of these decisions by others... Women must have the right to an equal say in deciding what crops will be planted on the family land, when and at what price they will be sold, how the resulting income will be spent, what trees should be planted in a community afforestation programme, for whom they will vote in an election or where a school will be located. Control means an acknowledged and socially sanctioned equal share in decision-making in both the private and public spheres. Control means women's right to equal opportunity in all occupational sectors, without regard to gender, the right to negotiate what work they will do and how their income will be used..."

Anita Gurumurthy: *Women's Rights and Status-Questions of Analysis and Measurement in Gender in Development-Monograph Series 7 of April 1998*

opportunities. In nonmonetized economies with large informal sectors in which women predominate as marginal workers, the notion of professional and managerial jobs has little meaning. Nor can findings relating to empowerment drawn from formal transactions be taken as representative of behaviour in the other sector in a dual economy like ours. The situation is further complicated by the socio-cultural practices within families which arbitrate the extent of a woman's control over her own earnings.

There are problems also in assessing access to political power. Representation in a distant parliament may need to be tempered with participation in local bodies and institutions like cooperatives which have both economic and political overtones. What membership, even leadership, in such areas really means in the context of reservations for women has to be assessed. The technique of using women to stand in for powerful males in political bodies is difficult to evaluate though it is acknowledged to be universally prevalent. Whether representation of women in party positions or among electoral candidates should be used as the appropriate indicator is under debate. At the practical level also, not much can be clearly said about political empowerment within the state from statistics relating to representation in assemblies and parliament since the numbers for each district are small, seat allocations are decided at the state level or in national party fora and women's representation fluctuates substantially within a district from election to election.

The biggest objection to the UNDP GEM for India and perhaps for many other developing countries is the fact that two at least of the selected variables may not capture the reality of the power situation for women. When the right to life itself is systematically under attack by a series of social and cultural practices like selective abortion and "dowry deaths", capturing empowerment through parliament seats and representation as women managers becomes meaningless. For all these reasons, no gender empowerment measures have been tabulated in this report.

## Social justice

"Violence against women begins before birth, scars early life, becomes a part of marriage, is sometimes manifested in rape and can end up as murder or suicide" (HDR 1995). While several laws have been voted to address cases of domestic and social violence against women, they have not succeeded in reducing it because of the ingrained attitudes of both victims and their families as well as of law enforcers like the police, magistracy and the judiciary. The problem is compounded by the fact that crimes are committed within a closed family atmosphere so that eye witness accounts are hard to come by.

Agitations by activists to increase legal protection for women against domestic violence has resulted in significant amendments to the penal and evidentiary laws. New offences connected with the demand for and violence related to the taking of dowry have been introduced in the Indian Penal Code by inserting two new sections-section 304b and 498a-which cover respectively the crimes of "dowry death" and cruelty by husband or relatives (even harassment that drives a woman to suicide). The Indian Evidence Act has also been amended to shift the burden of proof in cases of dowry deaths from the prosecution to the accused. None of this has however made a difference to the growing incidence of violence against women. Dowry continues to be demanded openly and with impunity, as there are many loopholes in the law under the category of "customary gifts". Further monetary demands are made on women's families not only in the early years of marriage, but also throughout a woman's marital life, but the special protection of the law is legally available only for the first seven years. What is needed is not increasing the list of offences under criminal acts but proper investigation and enforcement of existing laws. It is here that there are substantial drawbacks within the police and judicial systems.

Investigation of crimes in India is lacking in professionalism and bound up with antiquated practices inherited from colonial days. Legal requirements link a theoretically independent magistracy to

*Laws have had limited success in reducing violence against women because of poor investigation and enforcement*



*The degree of submission of women to victimisation can be gauged from their reluctance to name murderers even on their death beds. This is perhaps one category of murder, in which even dying declarations could be false- women are coerced, threatened or persuaded to cover up for spouses and their families minutes before dying or their thumbprints are taken by unscrupulous officials*

the police machinery but there is much ambiguity about the former's role and responsibilities. The government and the judiciary have failed to streamline the procedure for interaction between the two agencies. This has resulted in two kinds of outcomes. On the one hand, there is duplication of tasks by the magistracy and the police so that police investigation and magisterial enquiry are simultaneously and independently done the scene of the crime is examined, the statements of the same witnesses recorded and findings given. Contradictions between the two can be used by defence lawyers if the case comes to court, but the results of the magisterial enquiry have no other significance in a legal sense. On the other hand, lack of professional familiarity and training and monitoring by higher levels has made the magistrate a passive endorsing machine, meekly parroting the evidence gathered by the police and the conclusions drawn by it. This has affected the investigation of crimes especially those against women which calls for meticulous collection of circumstantial and oral evidence from conniving and hostile members within a family. How the system operates can be understood from a look at the statistics of crimes against women in the state.

Karnataka has been categorised as a low risk state as the number of crimes against women registered by the police is below the Indian average. This classification should however be approached with extreme caution. A recent enquiry by an activist NGO showed that although there were about 1200 unnatural deaths of women in Bangalore city in 1997, the number of cases registered by the police was less than hundred. A very large number of unnatural deaths was categorised as "stove bursts" or "cooking accidents"; these are not added to the figures of "crimes against women" reviewed periodically at higher levels or released to social activists, academics, the press and the public. There is a clear need then to extend reviews to all unnatural deaths of women and insist on indepth monitoring to eliminate the possibility of violence within the home being camouflaged as accidents or suicides.

A study of investigation mechanisms reveals that the critical point in investigation is the decision taken to register an unnatural death as an accident, suicide or murder. Cases listed as accidents are recorded in police data but escape being classified as crimes. Their numbers are large however; more than 700 of the 1200 unnatural deaths of women in Bangalore city in 1997 were cooking accidents and around 80% of them were of women below the age of 30! If some of these incidents are in fact murders, as is very likely, the crime figures of the city would soar and the state would no longer be considered low risk for women. Determination of the cause of an unnatural death is the task of the executive magistrate under the Criminal Procedure Code, but in reality, the decision to classify an unnatural death is taken by the police in a fairly routine manner at lower levels. In the interests of justice for women, this task must be handled by an independent even quasi-judicial authority. The magisterial enquiry prescribed by the Cr.P.C. should be converted into a mandatory judicial process expeditiously held in a courtroom after the police investigation is complete (and not in tandem with the police investigation), at which evidence must be examined and appreciated in public. With training and sensitisation, our magistrates could be converted into effective coroners, answerable to citizens and the judiciary.

There is urgent need to professionalise police investigations. Inordinate delays in forensic examination, perfunctory studies of the scene of the crime and badly done autopsies have loaded the dice heavily in favour of criminals. Meticulous gathering of circumstantial evidence is essential in cases of domestic violence since eyewitnesses will not be available within the family. A friendly, interactive and reassuring atmosphere has to be created in police stations and courts to encourage neighbours and friends of the victim to speak the truth. Even parents and members of victims' families avoid making complaints for fear of reprisals or because of social conditioning. To expect the truth to be revealed and murderers to be punished under such unfavourable circumstances is difficult. It calls for

quantum improvement in police professionalism, close coordination between investigators, forensic experts and doctors, immediate upgradation of facilities in laboratories and mortuaries and techniques like videofilming autopsies to ensure accountability. It also implies special monitoring and frequent reporting requirements in respect of all unnatural deaths of women, not just of dowry deaths, at the highest levels to the legislature and public as well as to statutory bodies like the Women's Commission and the Human Rights Commission.

Other crimes, against women, including routine violence, are heavily underreported. Although the Penal Code has provisions covering assault of any kind on a person irrespective of gender, police officials, courts and victims themselves are conditioned into accepting battering of women as a routine feature of normal married life. Very rarely do we see complaints of wifebeating being registered and prosecuted as offences. Family courts have been set up specially to settle disputes relating to divorce, child custody and maintenance but their working has been disappointing; posts are rarely filled up, incumbents are not sensitised to rise above

conditioned responses, maintenance amounts are fixed at shockingly low levels and decisions poorly enforced.

Going by registrations alone, rape cases constitute 5% of the crimes in Karnataka. The actual number of cases is probably much higher given the reluctance of women to register complaints, dissuasion by relatives and friends and threats from perpetrators as well as the indifference and hostility of the police and the judiciary. In India as elsewhere, assaults on women are used as political weapons in ongoing conflicts between groups. Exploitation is also systematised through practices like ritual prostitution and bigamy. The devadasi system of northern Karnataka has received much publicity. Both government and NGOs are now working to prevent the dedication of young girls to temples, as a result of superstition, helplessness and poverty, to be eventually used as prostitutes by rich and powerful landlords. Income generation and awareness campaigns have been stepped

up in such areas and vigilance exercised at vulnerable moments when temple festivals are conducted.

The police and the formal legal system are therefore clearly not seen as useful by Women for justice and redressal; their utilization by men is definitely at a much higher level both because women experience violence mostly within the marital family as also because of social sanctions against showing spouses and their families in an adverse light. Widespread illiteracy among women, subordination and cultural barriers block their path to justice. Women normally have a very low sense of right to life and the right to seek justice. It is not surprising therefore that they feel insecure and vulnerable in marital situations and with regard to abuses due to their gender than they feel in relation to caste or class. There is an overwhelming need for rightsbased awareness building amongst women and concerted efforts to bring all

*Counselling centres set up ostensibly to assist women end up advising them to adjust to violence and return to the homes they have fled. Often, such women end up again in hospitals and mortuaries.*

**Table 6.12**  
**Crime against women, district-wise**

| District         | Molestation & rape per lakh females |              | Dowry deaths per lakh females |              | Female suicides as % of male suicides |              |
|------------------|-------------------------------------|--------------|-------------------------------|--------------|---------------------------------------|--------------|
|                  | 1991                                | 1996         | 1991                          | 1996         | 1991                                  | 1996         |
| Bangalore (U)    |                                     |              |                               |              |                                       |              |
| Bangalore (R)    | 11.856                              | 10.664       | 4,234                         | 2.711        | 64.11                                 | 85.53        |
| Belgaum          | 17.875                              | 13.328       | 2.681                         | 0.375        | 58.89                                 | 41.81        |
| Bellary          | 10.070                              | 5.829        | 1.060                         | 0.351        | 141.67                                | 84.81        |
| Bidar            | 5.472                               | 3.292        | 1.368                         | 0.235        | 65.73                                 | 41.67        |
| Bijapur          | 14.932                              | 7.649        | 1.493                         | 0.336        | 69.44                                 | 57.65        |
| Chikmagalur      | 1.326                               | 8.021        | 0.000                         | 0.573        | 40.30                                 | 49.28        |
| Chitradurga      | 6.030                               | 4.907        | 0.540                         | 0.209        | 82.87                                 | 74.75        |
| Dakshina Kannada | 1.788                               | 2.381        | 0.298                         | 0.116        | 52.82                                 | 36.84        |
| Dharwad          | 5.478                               | 4.359        | 0.527                         | 0.604        | 65.25                                 | 65.17        |
| Gulbarga         | 22.481                              | 31.636       | 6.076                         | 2.839        | 87.05                                 | 100.00       |
| Hassan           | 6.638                               | 3.935        | 0.000                         | 0.454        | 64.47                                 | 42.29        |
| Kodagu           | 3.618                               | 2.677        | 0.164                         | 0.000        | 47.97                                 | 36.08        |
| Kolar            | 14.670                              | 10.796       | 1.811                         | 1.784        | 70.33                                 | 89.02        |
| Mandya           | 1.495                               | 3.658        | 1.359                         | 0.488        | 35.29                                 | 40.82        |
| Mysore           | 18.555                              | 28.540       | 1.779                         | 1.871        | 68.39                                 | 45.97        |
| Raichur          | 10.819                              | 4.917        | 0.000                         | 0.593        | 83.95                                 | 46.48        |
| Shimoga          | 15.365                              | 12.205       | 2.335                         | 1.149        | 61.08                                 | 47.64        |
| Tumkur           | 1.371                               | 1.376        | 0.228                         | 0.375        | 86.55                                 | 57.32        |
| Uttara Kannada   | 2.362                               | 1.553        | 0.094                         | 0.107        | 56.34                                 | 37.08        |
| <b>STATE</b>     | <b>7.310</b>                        | <b>6.251</b> | <b>1.154</b>                  | <b>0.738</b> | <b>66.81</b>                          | <b>57.89</b> |

Source: Crime Research Bureau of Police Department, GOK

crimes before the courts and the public. The formal system is also relatively inaccessible to women due to high economic costs and low physical mobility.

#### **Box 6.8**

##### **State Commission for Women**

The State Commission for Women was set up in 1995-96; it started functioning in August 1996. It is a statutory body whose task is to investigate and examine matters relating to safeguards provided for women under the constitution and the laws of the land to ensure effective implementation. It is expected to -facilitate redressal of grievances of women arising out of their unequal status.

### **Political participation**

"Political space belongs to all citizens but men monopolize it." This is evident in the abysmally low representation of women in all elected bodies. These figures mask the more disturbing fact that women have no role in the organisation and running of political parties within which major strategies are formulated. The practice is to relegate them to marginal women's wings and use them for decorative or tokenist purposes. Women with political inclinations face a veritable obstacle course unless they are closely associated with powerful male politicians or traditionally political families. The number of women candidates put up for election has been declining everywhere in the country since independence although all political parties have been paying lip service to the notion of adequate political representation for women. The recent agitation for reservation of seats in parliament for women is the expression of years of frustration against the systematic sidelining of women in the political arena.

At the local body level however there has been substantial improvement in political participation by women. Karnataka is considered a pioneer in enacting legislation reserving substantial seats for women in elected local bodies. Although the Karnataka legislation only stipulates a minimum 1/3rd reservation for women, 43% of the elected representatives in

Panchayats and municipal bodies are women. The number of women standing for elections to the state legislative assembly has also increased from 1.3% to 4.5% between 1952 and 1994. The number of women MLAs increased from 5 to 7 in the same period. When cabinets are constituted and executive posts distributed women are however compelled to be content with a single representative who is invariably entrusted with the portfolio of women and child development alone. Due to their poor bargaining capacity, women ministers are not also generally given Cabinet status.

Presence in local bodies does not guarantee effective participation in debates and decisionmaking. In most cases, women have been elected as proxy candidates to stand in for powerful men backers and their ability to be articulate with regard to radical women's issues for all women or for women of lower castes when injustices occur or finances have to be allocated is poor. There are also stray cases of intimidation of independent women who attempt to strike out on their own by discarding patriarchal attitudes.

Increasing the proportion of women in local bodies is certainly a welcome step but the nature of participation has to change. Facilitation programmes assume crucial significance in such circumstances. Recognising the need for such training the Department of Women & Child Development in collaboration with NGOs has already trained not only newly elected women representatives but also members and functionaries of gram Panchayats. With greater experience and selfconfidence, we can expect women representatives to gradually develop into a powerful pressure group for improving the status of women. Already, there are cases of women panchayat members effectively increasing allocations for anganwadi buildings and advocating women's issues at the local level.

Again women are almost absent in all major recognised trade unions like the AITUC and CITU. Women's issues are rarely given priority in negotiations. As for cooperatives, representation in mainstream credit, production or marketing institutions is nonexistent. In

March 1996, there were 723 exclusive societies for women out of 26411 registered in the state. But women members accounted for only 1.28 lakhs of the total membership of cooperatives of 1.35 crores!

Women have found their voice however in exclusive women's sanghas and selfhelp groups. An encouraging trend is the significant number of women who belong to a local mahila sangha or women's group. Karnataka has the distinction of pioneering the concept of selfhelp groups, which are predominantly and successfully organised and run by women. This is clearly the result of efforts made by NGOs working with women and mobilising them. Women have still a long way to go however in terms of leadership positions in non-women's organisations.

### Government programs for the development and empowerment of women

Government intervention for improving the incomes and living standards of women began in 1952 with community development programs initiated after independence. Women were trained to be homemakers and emphasis was laid on activities like health and family planning, nutrition, food processing, storage and kitchen gardening. The focus of the program was on the family unit and the specific requirements and handicaps of women within the developmental process were ignored. In the sixties, to attain the goal of selfsufficiency in foodgrains, gramsevikas were trained as farm extension workers to contact and influence women. Mahila mandals were also organised to train women in tasks considered appropriate for them. Gram sevikas worked through mahila mandals to impart "feminine" skills to women. Early developmental strategies therefore totally ignored the special requirements of women and did not encourage greater participation by them in economic and political decisionmaking. It must be noted that the major land reforms program implemented in the seventies in the state was through all male people's tribunals. Even the training and visit system of agricultural extension introduced in 1978

#### Box 6.9

#### Women's representation in rural local bodies in Karnataka under the Panchayati Raj Act, 1993

- The share of female gram panchayat members among those below 30 years of age is 28 percent; at the taluk and zilla levels the percentages work out to 37% and 34% respectively. Evidently, younger generation women are showing interest in PRIs.
- The overwhelming majority (68%) of women members at all the 3 levels of the PR system are married. However, single women like widows, divorcees and devadasis have also attained positions of power. This is a promising start.
- In all, 17.7 percent of women members are illiterate. Illiteracy among female members is higher at the grama panchayat level. However, it is promising to observe that 17.4 percent of the members at the zilla panchayat level are graduates.
- Data show domination of backward castes among women representatives (35.3% at the GP level, 34.6% at the TP level and 46.4% at the ZP level).
- Women members have low exposure to mass media. This is particularly true in the case of newspaper reading at the GP level (38% only).
- Participation of female members in other organisations and associations like youth associations, mahila mandals and cooperative societies is very low (26% only).
- 94 percent of the female members do not have previous political experience. There are more freshers at the grama and taluk panchayat levels than at the ZP level.
- Members of the family, the village community and self appear to be the major motivational forces for the entry of women representatives in PRIs.
- Social justice is the ideology of the majority of female members at all the three levels (49.3%, 68.4% and 61% respectively at the GP, TP and ZP levels).
- Data show that most women members are affiliated to political parties; only 6.8 percent were independents.

*Findings based on a research study conducted by the Institute of Social Sciences in Karnataka 1996 covering 1931 women members of PRIs in a larger sample intended to cover other related aspects also. The research report has been published in 1997 as: Karnataka Panchayat Elections 1995; Progress, Issues and Membership Profile by Dr. K. Subha at the Institute of Social Sciences, Bangalore*



*The welfare orientation of schemes for women needs to be replaced by a positive campaign for the promotion of equality between the sexes*

with World Bank aid bypassed women at the beginning although it later provided for a 30% coverage of women contact farmers. By then the cadre of gramsevika had been replaced by the multipurpose male agricultural assistant. The Danida funded Women and Youth Training and Extension Program of 1982 was the first and most effective agricultural extension program which took note of the needs of women in the families of small and marginal farmers. The program continues but it has not yet been absorbed into the mainstream of agricultural extension work.

Programs of the state also concentrated on increasing women's incomes by setting up suitable training and production units. The Karnataka State Social Welfare Advisory Board was the first official institution set up in 1954 to reach women. A Department of Rehabilitation and Aftercare Services was established in 1956 which was converted into the Department of Women and Child Welfare in 1975 following the announcement of the International Women's Year. The Women's Development Corporation was set up in 1987 to fund income generating programs for women. These departments and bodies focussed on the care and welfare of destitute women and children on the one hand and training and financing income earning projects for poor women on the other. Acts like the Immoral Traffic (Prevention) Act, the Juvenile Justice Act, the Probation of Offenders Act etc. are administered by the department to the extent that they affect women and children. Today, there are 8 State Homes, 11 Reception Centres, 24 Juvenile Homes, 20 Observation Homes and 5 Aftercare Homes run by the department. In 1983 a State Home was opened at Athani and a Juvenile Home at Saundatti specifically for the benefit of devadasis after the passing of the Devadasi (Prohibition of Dedication) Act in the wake of protests by activists. Government also extends aid to destitute cottages run by voluntary agencies under a scheme introduced in the seventies. In all institutions, the training given is genderbiased, based on traditional notions of the role of women in society. There is also no focus on rehabilitation within the natal family, foster care or adoption.

Other social welfare schemes for poor and destitute women are also being administered through different departments. These include pensions for the old, for the physically handicapped and for destitute widows at Rs. 100 per month and maternity allowances of Rs. 500 for poor rural women in the last stages of pregnancy and the early days after childbirth for the first two. There is also cash assistance to cover the marriage expenses of widows, devadasis and poor women. Special tenmonth scholarships are also offered to rural girls at Rs. 25 and Rs. 50 respectively for continuing studies at the higher primary and secondary levels. Children with parents in especially difficult circumstances are given monetary incentives to pursue their education. There is assistance for training in job-oriented courses.

To improve women's incomes, both the department and the women's corporation provide skill training to poor women. The corporation also catalyses financial assistance from banks through margin money and subsidy. Special programs cover selected areas like devadasi rehabilitation. The mane belaku is the bestknown scheme of the corporation in this area.

The major departmental initiative is in the field of child nutrition. The Centrally sponsored Integrated Child Development Scheme is meant to identify and provide supplemental nutrition for children below six and pregnant and nursing mothers. This is primarily aimed at improving the health status of poor children and has been discussed in greater detail in the chapter relating to the status of children. Anganwadi workers do not pay adequate attention to advising pregnant and nursing women to supplement their diet and providing them iron and folic acid tablets. Under the ICDS program attempts are being made to use the anganwadi as the base for other developmental interventions for girls and women. Literacy, advice to adolescent girls and even creche services are being planned around this institution which has by now become a permanent feature of village life. If such facilities are also provided, the quality of life of women and the control exercised by them over

their own futures could dramatically improve.

The welfare orientation of government schemes needs to be replaced by a positive campaign for the promotion of equality between the sexes. At present, government programs are not focussed on enabling women to realise their full potential; they only partially compensate for economic and social disabilities. Assistance is also confined to the very poor and is too meagre to significantly improve women's control over resources. Much still remains to be done regarding publicising the gamut of schemes available for women. All programs view women only as homemakers and nurturers-working women's hostels continue to police inmates as if they were incapable of running their lives as free adults, schemes providing assistance for marriage reinforce the stereotype that a woman's destiny is only through *marriage* and skills in which women are trained are lowpaying and arduous so that they continue to remain at the bottom of the economic scale. There is no attempt to reduce domestic responsibilities, educate men and society to view women as independent agents or strengthen women to negotiate freely with the rest of the world. Though well intentioned, welfare schemes do not go to the roots of the discrimination against women and tackle only symptomatic manifestations of ageold prejudices relating to the subjugation of women.

Despite several attempts there *is* still difficulty in pushing through the agenda for a woman-oriented perspective in the face of the widespread indifference of males at the bureaucratic and political levels. Under the Sixth Five year Plan reservations were introduced for women in allocating funds under poverty alleviation schemes. The Integrated Rural Development Program which subsidises small bank loans for income generating activities for the poor now sets aside 50% of its funds for women alone. On paper, the number of women assisted has grown steadily towards the targeted figure. It is universally acknowledged however that most of these cases are really those of women standing in for men and passively signing papers to fill official quotas. What

is required in this and other programs is therefore a bottoms up approach which starts with identifying what women need and understanding how they can be strengthened by appropriate training and awareness programs(including awareness and sensitisation programs for officials and other men). The strategy of selfhelp groups first tried out by NGOs has succeeded in actually reaching rural women and improving their lot. Hasty replication of such groups under the program for the Development of Women and Children in Rural Areas can however again dilute their effectiveness. Even the program for training rural youth for selfemployment (TRYSEM) is bogged down in traditional ideas of the skills appropriate for women when it should be looking at what would increase their incomes in the shortest timeframe. Not much has also been done in the tricky area of marketing which is a major weak link in the economic chain as far as women are concerned. Employment programs like the Jawahar Rozgar Yojana and the Employment Assurance Scheme are not imaginatively designed to reach women rural landless labour.

Several initiatives to remove gender biases have been incorporated into major programs under primary education. Four districts - Mandya, Kolar, Raichur and

| <b>Box 6.10</b>                                |                |                    |                |                    |                |                                  |
|------------------------------------------------|----------------|--------------------|----------------|--------------------|----------------|----------------------------------|
| <b>Coverage of government programs</b>         |                |                    |                |                    |                |                                  |
| <b>Programme</b>                               | <b>1996-97</b> |                    | <b>1997-98</b> |                    | <b>1998-99</b> |                                  |
|                                                | <b>Target</b>  | <b>Achievement</b> | <b>Target</b>  | <b>Achievement</b> | <b>Target</b>  | <b>Achievement up to Dec. 98</b> |
| 1. IRDP (beneficiaries)                        | 50000          | 42-407             | 37570          | 35239              | 40000          | 19011                            |
| 2. TRYSEM (beneficiaries)                      | 8211           | 9839               | 8211           | 9439               | 5159           | 1849                             |
| 3. JRY (lakh mandays/ person days)             | 85.27          | 78.39              | 77.38          | 67.54              | 62.30          | 43.60                            |
| 4. DWCRA (groups)                              | 2318           | 2128               | 1400           | 2243               | 2607           | 1130                             |
| 5. Special nutrition programme - women (lakhs) | 5.44           | 4.78               | 5.34           | 4.80               | 5.26           | 4.65                             |

*Recent initiatives like DPEP, Mahila Samakhya and the CSSM have attempted to reduce gender gaps in education and health*

Belgaum - were selected under the World Bank funded District Primary Education Program in 1993-94 in a selection process in which female literacy was a major criterion. Under the program teachers are expected to interact closely with female children, their families and the community to encourage continuation in school and completion of education. Nonformal education centres set up under the program are providing training to school dropouts to enable them to improve their incomes. And a great deal of attention has been paid to the systematic removal of gender biases in school textbooks. The Department of Women and Children has extended support to the Total Literacy Campaign by bringing out a series of ten booklets in 1993 called Namma Kanunugalu (Our Laws) to educate women about the legal protections available to them. The Mahila Samakhya empowerment program was introduced in Bijapur, Mysore and Bidar in 1989 and extended to Raichur and Gulbarga in 1992. Through women's collectives or mahila sanghas interaction is encouraged between sahayoginis (mainly volunteers) and poor women and information disseminated on women's rights and schemes.

In the health sector too, there have been attempts to take a holistic approach to women's health. The family welfare program, aimed at birth control and related issues with a view to reducing the growth rate of the population, had initially focused on laparoscopic techniques of sterilisation and paid little attention to popularising spacing methods or looking at the health needs of women. This has happened despite maternal and child health services being integrated with family welfare services since 1965. The World Bank funded Child Survival and Safe Motherhood program launched in 1992 however provides for training dais and Auxiliary Nurse-cum-Midwives and setting up first referral units to ensure safe deliveries. As elsewhere in the country, pressure on the ANM to achieve family welfare targets has resulted in neglect of maternal and child health work. Incentives are given only for family welfare, not for immunisation, birth spacing, ante and postnatal checkups or

the distribution of nutritional supplements. And the entire approach is to view women as mothers alone. Since rural women tend to neglect ailments due to problems of access and social conditioning, there is a case to expand existing facilities for providing maternal and child health services to advice on other illnesses and deficiencies too.

Statutes to give equal status to women are honoured more in the breach than in the observance. The Equal Remuneration Act, enacted as far back as 1976 is almost a dead letter, given the abysmal conviction level and lack of data regarding the number of complaints filed by women themselves. The position is not very different under the Maternity Benefits Act either. The Dowry Prohibition Act even after a major amendment in 1984 is violated with impunity. Lack of conviction in the spirit behind these legislations among all groups is the major reason for such a situation. Lawmakers and enforcers themselves and the general public must be subject to a concerted and systematic awareness campaign through the intervention of activists before we can expect women to really enjoy legal protection.

The idea of a Special Component Plan for women has been in the air for some time. After considerable deliberation, Karnataka introduced for the first time in the country earmarking of one-third of the funds for beneficiary oriented programs for women under all heads of development. Over the last few years, departments have become familiar with the process of earmarking and expenditure. Constant monitoring has ensured that notional attributions of expenditure on indivisible items are not accounted for under the Women's Plan and active selections of beneficiaries and channelling of benefits to them takes place. Although the effectiveness of the Plan depends on the commitment of each department, initiatives are being taken to publicise schemes among women and prepare innovative methods of reaching them. However, the possibility of women actually being used as fronts for male beneficiaries still remains. By spreading benefits thinly across sectors, major transformations in the human

development levels of women cannot also be expected. There is some thinking regarding the best method of channelling these resources to critical points which make a difference to women's development and empowerment, like greater mobility, residential facilities in training and educational institutions, publicity campaigns, marketing of products, etc. Karnataka has also recently resolved to grant government assets under welfare programs jointly in the names of spouses to strengthen women's bargaining position within poor families.

#### Box 6.11

##### Karnataka Abhivrudhi Yojana (KMAY)

##### Mahila

Karnataka has been the first state in the country to introduce a scheme of intersectoral allocations for women. The KMAY earmarks one-third of the resources under all schemes and programmes of various

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- Giving up the notion of the family as the appropriate economic unit and looking at the status of women within families
- Moving from targets to an appreciation of the appropriate processes for development of the poor and the underprivileged; if the right processes are triggered, social and economic transformation will follow
- Sensitising all bureaucrats to women's issues

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- Intensive training of functionaries at all levels who are in the vanguard of developmental initiatives

If human development is about enlarging people's choices, the greatest challenge facing us today concerns women. In the words of Mao " women hold up half the world" but their choices in all matters have been constrained by social and familial requirements. The usual strategies of education, better access to facilities and even higher incomes cannot by themselves remove the shackles that bind women-the malaise goes much deeper as it is bound up in attitudes and ideas that are embedded in the environment. Justice and equality for women is possible only with transformation in many spheres: in legal and economic thinking as well as in social and religious perceptions. The effort required is immense and will extend over a long period.

#### Box 6.12

##### Itte Hejje Mundakka

The Department of Women and Child Development developed a series of 12 training films, entitled Itte Hejje Mundakka with UNICEF support for elected panchayat women members. The films discuss issues relating to the history of panchayat raj in india, the need for reservations, decentralisation and devolution of power, as well as the procedures involved in panchayat functioning. The films also focus on intersectoral issues relating to the education system, health care, nutrition, water and common property resources. Gender and caste equity is a theme cutting across all the films. The underlying belief is that collective action by women, which cuts across caste and class lines, will increase the negotiating power of women in connection with access to and control of resources. Developed in a series of workshops with elected gram Panchayat women members, many of whom are also members of Mahila Samakhya Sanghas, the films document the real and lived experience of elected panchayat women, inspiring other women to join hands in the struggle for a more equal future for all women. Women say:

'You've moved forward,  
now there's no looking back.  
'The country is yours,  
the land is yours,  
Rivers flow for you,  
The forest is for you.  
'You've moved forward,  
now there's no looking back '



**Box 6.13****Devadasi rehabilitation: an initiative with community participation**

The Devadasi Rehabilitation Project (DRP) was set up in Belgaum district in 1991 by the Karnataka State Women's Development Corporation to eradicate the degrading devadasi system prevalent in the district. MYRADA, a voluntary organisation, launched the Devadasi's Efforts towards Voluntary Initiatives (DEVI) project to support government effort. The initial focus was on economic rehabilitation through skill training and subsidised loans for income generating activities. But eradication of this humiliating system meant much more than economic rehabilitation. It called for the full involvement of the community, which had kept the practice alive despite social legislation. The process of community mobilisation began from the devadasis themselves. They were organised into self-help groups to discuss the evils of the system. This was also discussed with villagers at gram sabhas and panchayat meetings. Widespread awareness campaigns were launched in villages and during fairs at the Yellamma temple at Saundatti. Devadasi women participated actively in these campaigns. The community and the devadasis themselves began detecting cases and helped in stopping incidences of dedication. Ex-devadasis have come together to form an organisation of their own - the Mahila Abhivrudhi matthu Samrakshana Samsthe. The success of the project can be attributed largely to the fact that the community, women, government and the voluntary sector worked together in complete partnership.

**Box 6.14****Status of women in different districts (ranks under crucial indicators)**

| District         | GDI 1991 | Sex ratio 1991 | Female life expectancy at birth | Female infant mortality rates 1991 | Differences in mean age at marriage between men & women 1991 | Gaps in literacy rates between men & women 1991 | Percentage of house holds with toilets 1991 |
|------------------|----------|----------------|---------------------------------|------------------------------------|--------------------------------------------------------------|-------------------------------------------------|---------------------------------------------|
| Bangalore Urban  | 3        | 20             | 15                              | 5                                  | 5                                                            | 1                                               | 1                                           |
| Bangalore Rural  | 8        | 17             | 6                               | 6                                  | 2                                                            | 9                                               | 11                                          |
| Belgaum          | 10       | 14             | 14                              | 9                                  | 9                                                            | 18                                              | 13                                          |
| Bellary          | 17       | 7              | 19                              | 19                                 | 13                                                           | 15                                              | 16                                          |
| Bidar            | 18       | 16             | 13                              | 18                                 | 11                                                           | 19                                              | 18                                          |
| Bijapur          | 15       | 9              | 12                              | 16                                 | 12                                                           | 20                                              | 20                                          |
| Chikmagalur      | 5        | 5              | 10                              | 10                                 | 17                                                           | 5                                               | 6                                           |
| Chitradurga      | 9        | 19             | 18                              | 7                                  | 6                                                            | 10                                              | 10                                          |
| Dakshina Kannada | 2        | 1              | 1                               | 1                                  | 16                                                           | 3                                               | 2                                           |
| Dharwad          | 11       | 18             | 16                              | 20                                 | 7                                                            | 14                                              | 8                                           |
| Gulbarga         | 19       | 11             | 10                              | 14                                 | 14                                                           | 17                                              | 17                                          |
| Hassan           | 7        | 2              | 3                               | 3                                  | 19                                                           | 11                                              | 12                                          |
| Kodagu           | 1        | 3              | 2                               | 2                                  | 20                                                           | 1                                               | 3                                           |
| Kolar            | 13       | 7              | 9                               | 11                                 | 8                                                            | 13                                              | 9                                           |
| Mandya           | 14       | 10             | 7                               | 13                                 | 1                                                            | 8                                               | 14                                          |
| Mysore           | 16       | 15             | 8                               | 12                                 | 4                                                            | 4                                               | 5                                           |
| Raichur          | 20       | 4              | 5                               | 8                                  | 15                                                           | 16                                              | 19                                          |
| Shimoga          | 6        | 12             | 17                              | 17                                 | 10                                                           | 7                                               | 4                                           |
| Tumkur           | 12       | 13             | 20                              | 15                                 | 3                                                            | 12                                              | 15                                          |
| Uttara Kannada   | 4        | 6              | 4                               | 4                                  | 18                                                           | 6                                               | 7                                           |

*Note: Ranks have been assigned to districts as per descending order of values for each indicator except for the female IMR and gaps in literacy rates where it is in ascending order.*

### Box 6.15

#### Women's development and empowerment - findings of a study

- The Women's Policy Research and Advocacy Project of the National Institute of Advanced Studies funded by the Ford Foundation undertook a series of interviews of men and women in different districts of Karnataka on a wide range of issues connected with women's development and empowerment and came up with the following major conclusions:
- Women bear the major responsibility for collecting water and fuel for the household
- Women's access to food is much lower than men's in times of scarcity and particularly when wage work is not available:
- Women do not have the same access to higher expenditure on their medical care as men and must make do with low cost services and other inputs.
- Nearly two-thirds of the women were delivering under unhygienic conditions with untrained birth attendants
- About one in five women had suffered the death of a young child
- The majority of women do not own either formally or functionally the major assets of the household and few perceive themselves as able to independently liquidate the asset in times of crisis.
- Women are engaged in not only an equal number of productive activities as men but even slightly more in terms of mean number of activities per capita; however, only about two-thirds of this work is remunerated. Although all women are engaged in productive activity of some kind, only about three-fourths earn income from this in their own hands, while virtually all men do so.
- Women's participation is highest in home-based occupations, which can be combined with their domestic responsibilities and be performed by them without disturbing the gender relations status quo-without increasing their physical mobility, their unsupervised interactions with unrelated men, their education or skills and their access to or control over family assets and resources. But few households could survive without women's labour and income.
- More men than women retain a larger share of their income for their personal expenses.
- Very few women feel that they can change their occupation or go out and start earning without someone else's sanction, particularly the husband's
- Most women hand over earnings to a male relative and very few exercise control over the disposal of that income
- Women take greater responsibility for saving out of their minuscule income
- Women are permitted to move around on their own to perform vital economic or survival tasks for the household but not for leisure or information
- Women have a very low sense of their right to live free of violence or their right to seek justice
- For men, economic and social circumstances, rather than cultural norms, are the key factors governing their access to justice, particularly in the public sphere; for women, their gender is the major barrier to seeking redress outside the family

*Source: Status of Rural Women in Karnataka by the Women's Policy Research and Advocacy Unit of the National Institute of Advanced Studies Bangalore, 1998.*

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### Box 6.16

#### Women's empowerment and development-some initiatives

With UNDP sponsorship, the Karnataka Women's Information and Resource Centre and the Women and Child Development Department of the Government of India had studied 8 districts in the four States of Gujarat, Karnataka, Tamilnadu and West Bengal with the intention of generating appropriate variables and indices for assessing the development and empowerment of women in India. Under the leadership of Devaki Jain, the team had generated two kinds of Development Measures for men and women- the first from 30 individual based core variables grouped under six heads and the second from 9 community based variables grouped under four heads. Gender Empowerment Measures were also generated under this exercise. The districts of Karnataka selected for analysis were Bangalore Rural and Tumkur. This effort has revealed data gaps in assessing both gender development and empowerment. The present thrust is therefore on field level studies and other methods to update the statistical system from the local body level upwards and reform national statistical arrangements to take note of the decentralised political set-up

| Achievements & Concerns: Highlights                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Achievements                                                                                                                                                                                                                                                            | Concerns                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Sex ratio</b>                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>Sex ratio favourable in Dakshina Kannada; Hassan district a close second.</li> </ul>                                                                                                                                             | <ul style="list-style-type: none"> <li>Men outnumber women in every census period.</li> <li>Further decline in overall sex ratio between 1981 and 1991.</li> <li>Significant decline in nine districts of Bangalore (Urban), Bellary, Bidar, Bijapur, Gulbarga, Kolar and Raichur.</li> </ul>                                                                                                                        |
| <b>Maternal mortality rate</b>                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>Maternal mortality rate for Karnataka better than country average but only marginally.</li> </ul>                                                                                                                                | <ul style="list-style-type: none"> <li>Karnataka maternal mortality rates far worse than in Kerala.</li> <li>Levels in Andhra Pradesh, Gujarat, Maharashtra, Haryana, Punjab, Tamil Nadu and West Bengal also better than in Karnataka.</li> </ul>                                                                                                                                                                   |
| <b>Age specific death rate</b>                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                                                                                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>Female age specific death rates higher than male in 15 to 34 age group.</li> <li>Reduction in female age specific death rate only after women have crossed peak childbearing years.</li> <li>Older women outnumber older men but low priority for older women in public health system and their economically dependent status create major psychological problems.</li> </ul> |
| <b>Infant mortality rate</b>                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>All districts have registered reduction in female IMR between census periods 1981 and 1991.</li> <li>Significant reduction in female IMR in the northern districts of Belgaum, Bellary, Bijapur, Gulbarga and Raichur</li> </ul> | <ul style="list-style-type: none"> <li>Karnataka female IMR average higher than in other advanced states like Kerala, Gujarat, Haryana, Punjab, Maharashtra, West Bengal • and Tamil Nadu.</li> </ul>                                                                                                                                                                                                                |
| <b>Mean age at marriage</b>                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>Improvement in overall mean age at marriage females.</li> </ul>                                                                                                                                                                  | <ul style="list-style-type: none"> <li>Large number of girls married off below 18, for especially in Belgaum, Bellary, Bijapur, Bidar, Gulbarga and Raichur.</li> <li>Neglect of the adolescent girl in matters relating to health, nutrition, education and economic independence does not prepare her for womanhood.</li> </ul>                                                                                    |
| <b>Fertility rates</b>                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>Overall decline in total and general fertility.</li> </ul>                                                                                                                                                                       | <ul style="list-style-type: none"> <li>Fertility rates in all districts of Gulbarga division and Bijapur district of Belgaum division continue to be high.</li> <li>Birth control measures continue to target women only. Male participation in birth control virtually non-existent.</li> </ul>                                                                                                                     |
| <b>Literacy &amp; education</b>                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>Literacy rates for men and women are higher for Karnataka than for the country as a whole.</li> <li>Official statistics point to reduction in gender gap in enrollment of children at primary levels.</li> </ul>                 | <ul style="list-style-type: none"> <li>Gender gap in literacy continues to be high, gap Rural female literacy in Raichur and Gulbarga districts at abysmal levels. SC/ST female literacy also very poor.</li> <li>Number of girls dropping out without completing primary stage of education in classes III or IV much higher than number of boys.</li> </ul>                                                        |

| Achievements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Concerns                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>• Workforce participation rates indicate that girls are increasingly replacing boys on farms. Thus, the percentage of girls dropping out at upper primary and secondary stages is very high.</li> <li>• Irrelevant curricula, teaching material &amp; methodology and evaluation systems lead parents into under-estimating the value of education for girls.</li> </ul>                                                                                                                                                                                                                                  |
| Work participation, income, access to credit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• Both rural and urban work participation rates for women are higher in Karnataka than country average.</li> <li>• Increase in main female workers between census periods 1981 and 1991.</li> <li>• Amendment to Hindu Succession Act in 1994 gives women equal share in ancestral and acquired property.</li> <li>• First state in the country to introduce the Mahila Abhivruddhi Yojana which earmarks 30% of the resources under all schemes for women.</li> </ul>                                                                                                                          | <ul style="list-style-type: none"> <li>• Low proportion of females among cultivators, high proportion among agricultural labourers.</li> <li>• Time spent by women in non-monetised agricultural operations not taken cognisance of in computing work participation rates</li> <li>• Over-representation of women in the informal sector; consequently, they have no job security and are subject to strenuous working hours and poor working conditions.</li> <li>• Average wage for women is lower than that for men.</li> <li>• Lack of ownership rights over land, (despite 1994 amendment) restricts women from accessing credit</li> </ul> |
| Social justice and legislation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• Good track record of legislation in the country and the state</li> <li>• Equal Remuneration Act</li> <li>• Maternity Benefit Act</li> <li>• Child Labour Act</li> <li>• Dowry Prohibition Act</li> <li>• Devadasi (Prohibition of Dedication) Act</li> <li>• Hindu Succession (Amendment) Act.</li> <li>• 'Namma Kanunugalu' (Our Laws) a series of ten booklets developed in simple Kannada to inform women about available legal protection.</li> </ul>                                                                                                                                     | <ul style="list-style-type: none"> <li>• Poor enforcement of legislation</li> <li>• Increase in the number of crimes against women-rape, dowry deaths, etc</li> <li>• Many cases of crime against women remain unreported and unregistered.</li> <li>• Crime investigation lacks professionalism.</li> <li>• Unnatural deaths 'conveniently' categorised as 'stove i bursts' or 'cooking accidents' and not counted towards figures of crimes against women.</li> <li>• Enforcement officials hardened into viewing battering of women as a routine feature of 'normal' marital life.</li> </ul>                                                 |
| Political participation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• Substantial improvement in political participation by women at the local body level.</li> <li>• 43% of elected representatives in Panchayats are women.</li> <li>• Film base training modules, entitled 'Itte hejje mundakka' focussing on issues related to reservation, decentralisation, devolution of power, as well as inter-sectoral issues in education, health, nutrition, water and common property resources developed for elected women Panchayat members.</li> <li>• Karnataka has pioneered the concept of self-help groups, successfully organised and run by women.</li> </ul> | <ul style="list-style-type: none"> <li>• Participation of women in state legislative assembly and council is low.</li> <li>• Women are virtually absent from all major trade unions.</li> <li>• Presence in local bodies does not guarantee participation in debates and decision making. Often, women are mute spectators rather than active participants in the decisionmaking process.</li> </ul>                                                                                                                                                                                                                                             |



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## Gender equity policy matrix

| Issue                                                                                                                                                  | Effect                                                                                                                                                                                                         | Proposed change                                                                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. The household approach to development presumes that by improving the economic status of the family, the status of women will automatically improve. | This presumption has been belied by experience. Economic improvement of the family tends to impose greater restrictions and taboos on women and girls in the family.                                           | Developmental programmes must be conceptualised with a fuller understanding of the disparities in social and economic development between men and women.                                                                                                                         |
| 2. The welfare approach views women as objects of charity, condescension and concession.                                                               | The welfare schemes do not compensate for the economic and social disparities faced by women and cannot lead to their development or enable them to achieve the constitutional goal of equality.               | The welfare approach must be replaced by a positive campaign for the promotion of equality between the sexes.                                                                                                                                                                    |
| 3. Development programmes largely view women only as homemakers and nurturers.                                                                         | Such program cannot enable women to lead lives as free adults.                                                                                                                                                 | Development programmes must begin with understanding what women need for access to credit and information and control over resources.                                                                                                                                            |
| 4. Women's lack of access to and control over resources must be acknowledged.                                                                          | This leads to power asymmetry; men are in a position of privilege and women of subordination.                                                                                                                  | There must be an active crusade for removing barriers and facilitating women's access to and control over resources. Women must have equal say, for example, in deciding which crops will be planted, when and at what price they will be sold and how the income will be spent. |
| 5. The Karnataka Mahila Abhivruddhi Yojana (KMAY), an inter-sectoral programme earmarks 30% of the allocations under identified schemes for women.     | In the absence of gender sensitisation of the large number of male functionaries at the delivery level, this can may degenerate into yet another physical and financial target-achievement oriented programme. | KMAY must move beyond the traditional target-identifying achievement approach to processes and indicators for the social and economic transformation of women. It must be accompanied by gender sensitisation of all persons implementing field programmes.                      |

| Issue                                                                                                       | Effect                                                                                                                                                                                                                                                 | Proposed change                                    |
|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| 6. The structure of public health facilities presumes that the principal role of women is bearing children. | The focus is only on achieving family planning targets; many other aspects, including reproductive health are neglected; non-maternal aspects of health for women, including respiratory, circulatory and infectious diseases, given a complete go-by. | Policy must focus on all Aspects of women's health |
| 7. Irrelevant and gender biased school curricula, teaching material, methodology and evaluation systems.    | They lead parents into underestimating the value of education for girls.                                                                                                                                                                               |                                                    |
| 8. Inadequate systems and mechanisms to handle the increasing cases of domestic violence against women.     | Cases of domestic violence - wife battering, dowry deaths, unnatural deaths-continue to soar.                                                                                                                                                          |                                                    |
| 9. Reservations for greater political participation of women.                                               | Reservations provided at the level of local bodies.                                                                                                                                                                                                    |                                                    |



## The child in Karnataka

The future of the state is closely bound up with the condition of its child population. Early attention to the health and educational status of this group will pay dividends in terms of the human capital of Karnataka in coming decades. The present chapter aims at considering major areas of concern relating to the children of Karnataka so that corrective steps can be taken to safeguard their welfare.

The child population of Karnataka which was about 16.2 million in 1991 accounts for more than one-third of the State's population. With steady decline in the crude birth rate and focus on child survival and development over the past four decades, there has been noticeable improvement in the infant mortality rate from 81 per 1000 live births in 1981 to 53 per 1000 live births in 1997. The National Family Health Survey has also reported a neo-natal mortality rate of 45.3 and a mortality rate of children below the age of five of 87 per 1000 live births. These favourable trends are however offset by an adverse sex ratio of 960, a ratio which is declining rather than improving over the years. Population projections for Karnataka indicate a male child population below 14 yrs of 77 lakhs and a female child population of 73.66 lakhs by 2001.

United Nations Conventions on the Rights of the Child unanimously adopted by the General Assembly set universal legal standards for protecting children against neglect, abuse and exploitation and guaranteeing basic human rights-ranging from survival to development and full participation in social, cultural, educational and other processes necessary for growth and well-being. However, policies articulated at international levels need to be translated into clear and realistic programmes of action for the child on the basis of a full understanding of the status of children who form more than a third of the population of the state. The 1990 World Summit for Children laid down a set of specific commitments or goals to be

achieved by the end of the century: these include eradication and control of major childhood diseases, halving child malnutrition, reducing under-five child deaths by a third, halving the maternal mortality rate, safe water and sanitation for all communities, universal availability of basic education and improved female literacy.

Where does Karnataka stand in the above context? Several positive developments have taken place in the state with reference to the condition of children over the last four decades. Improvement in demographic parameters also implies better attention for the fewer children born and greater opportunities for their growth and development. The major favourable trends are the following:

- The birth rate has declined from 42 per 1000 in the fifties to 30.2 per thousand in the eighties and 22.7 per thousand in 1997.
- The death rate has declined from 19 per 1000 in the fifties to 10 in the eighties and 7.6 in 1997.
- The infant mortality rate has declined from 81 per 1000 live births in 1981 to 53 in 1997.
- Life expectancy at birth has increased from 47.1 (male) and 45.9 (female) in the sixties to 60.6 years (male) and 63.9 (female) in 1993.
- The age at marriage for women has been increasing at roughly a year per decade from 16.5 years in 1961 to 19.4 years in 1981 and 20.1 years in 1991.

Child marriages are clearly on the decline.

- There has been rapid expansion in the primary schooling network along with programmes for increasing literacy and awareness through systematic total literacy campaigns.
- The number of working children

*There have been several positive developments relating to children such as a sharp decline in IMR to 53 per 1000 live births*



between the ages of five and fourteen has come down from 11.31 lakhs at the time of the 1981 census to 9.76 lakhs in 1991.

Nevertheless, despite all that has happened to improve the conditions of children in Karnataka, several areas of concern remain.

- The sex ratio has declined from 963 in 1981 to 960 in 1991. Tamil Nadu (974) and even Andhra Pradesh (972) and Orissa (971) have less adverse sex ratios.
- Age specific death rates are distinctly higher for female children.
- The total fertility rate was 3.87 in 1991 (4.7 in 1981). The number of incomplete pregnancies is high. Over 50% of pregnant women are anaemic; this accounts for a large proportion of maternal deaths. Nearly one-third of newly born children have low birth weights due to the low nutritional status of mothers and their frequent pregnancies.

• National Nutrition Monitoring Bureau data reveals that the level of severe protein malnutrition has remained stagnant at 8.3% since 1988. Moderate protein energy malnutrition (PEM) has on the other hand shown a sharp increase from 48.8% in 1988-90 to 54.5% in 1991-92.

• Peri-natal deaths (that is the number of stillbirths and deaths of children within seven days of birth per thousand births), a sensitive index reflecting standards of health care prior to and during pregnancies and child birth as well as the effectiveness of measures in support of vulnerable groups, have increased from 43.2 in 1981 to 47.8 in 1994.

• The mean age at marriage has been increasing at the rate of only one year per decade; it has been virtually stagnant in the eighties and is still lower than the level in states like Kerala.

• Despite state and NGO efforts to mobilise public opinion against the practice,

### **Box 7.1**

#### **Factors affecting the status of the child: findings of a study**

##### **Sex ratio**

- The sex ratio for the population studied, computed on the basis of the number of members in a household is 969, which is almost identical to the state 1991 census figure. When computed separately for adults and children, however, the ratios reveal a disturbing trend. The adult (persons older than 14 years) sex ratio is 1001 but the child sex ratio is a shocking 922. The exact reason for this phenomenon has to be determined through further analysis.

##### **Reproductive health**

- Of 1033 women surveyed who had delivered at least one child, around two-thirds (63%) had delivered the last child at home, not assisted by trained attendants. The high percentage of home-based deliveries is a reflection of the poor response of health services to women's reproductive health needs.
- An incredible 1 in 5 women reported having lost at least one child before it reached the age of 5.

##### **Education**

- Data on education shows predictable gender differences and follows trends available in existing literature. 59% of the males and 37% of the women surveyed reported having attended school.

*Source : The Status of Rural Women in Karnataka (A Study in Five Districts)  
Women's Policy Research and Advocacy Unit, National Institute of Advanced Studies*

prevalent particularly among Scheduled Castes in northern Karnataka, of dedicating young girls as devadasis, surreptitious abandoning of girls to prostitution has not been totally eliminated.

- According to the 1991 census, 56% of the women in the state are still not literate. This is compounded by high dropout rates for girls (16 % at the primary and 46% at the middle school level in 1997-98).

## Child health

Infant and child mortality rates are sensitive indicators of socio-economic development as well as of the effectiveness of public health and medical programmes. According to SRS data, the infant mortality rate in Karnataka is 53 (1997)-63 in rural areas and 24 in urban areas. The National Family Health Survey (NFHS) of 1992 reported an IMR of 65.4 per 1000 live births, with neo-natal mortality at 45.3 and post neo-natal mortality at 20.2. Despite the encouraging decline in the

infant mortality rate, under-five child mortality remains high at 87 per 1000 (NFHS).

While child and infant mortality have declined over the past two decades, the decline has been more significant in recent years. This is also true of neo-natal and post neo-natal mortality; in the case of neo-natal mortality, decline is visible only during the last 15 years. Neo-natal mortality rate has been around twice the level of post neo-natal mortality. The health of the mother, her age, the order of birth of the child and the quality of maternal care during pregnancy and at the time of delivery are all linked to the movement of these indicators. While trends indicate that women residing in urban areas, women with better literacy levels and women with fewer living children have a higher rate of institutional deliveries, the percentage of institutional deliveries is still far lower than that of deliveries attended by traditional birth attendants or other persons. For the state

- Contrary to official statistics which claim a gross enrollment ratio of over 100%, study data for enrollment computed on the basis of all children in the households surveyed, shows that only 69% of the girls and 74% of the boys below 15 attended school.

### Aspirations for children's education

- An equal percentage (43%) of male and female respondents agreed that girls must complete matriculation. A large percentage of respondents - 46% of the women and 36% of the men - believe that boys should study "as much as they want". But the most telling gender difference in perceptions of the desirable level of education is that almost twice as many women respondents (25%) as men (13%) think girls should study "as much as they want". Women reveal greater aspirations for their children's education in general and for their daughters' education in particular than men.

### Age at marriage

- 34% of the women in the sample reported being married before menarche, but only a negligible 3% of the women said they would choose the option of a pre-menarche marriage for their daughter, if left to themselves.
- Although 52% of the women respondents had married before the age of 16, only 23% opined that they would get their daughters married at this age, an encouraging trend. In fact 30% of the men chose the option of getting their daughters married before 16.

### Child-bearing decision

- Women's participation in decision-making about child-bearing, integral to sexual rights, was much lower than men's. 1001 women and 959 men answered the question pertaining to decision-making about the total number of children they should have. Only a fifth of these women and 61% of the men reported having participated in the decision.

as a whole, the figure reported by the department itself is only 42%, with districts like Raichur, Gulbarga and Bidar showing figures between 11% and 13%!

## Immunisation

Karnataka attained universal immunisation coverage in 1990 and has succeeded in sustaining coverage levels since then. In 1992-93, more than 85% coverage was reported for each antigen, except in some northern and eastern districts. However, even in relatively better districts, evaluation surveys reveal lower levels of achievement for the measles vaccine. Effective maintenance of the cold chain is a critical variable in achieving full coverage. Although the cold chain equipment breakdown rate has been held at less than 6% and more than 85% of OPV samples tested have been found satisfactory with regard to potency levels, there is considerable scope for improvement.

Areas of concern remain; coverage in urban areas, especially in the slums, needs

to be improved and sustained. Despite outreach services and urban ICDS projects and despite growing involvement by NGOs as well as the private sector, there are still areas, especially in urban slums, where coverage is inadequate. Availability of all antigens, especially of the measles vaccine, needs to be ensured. Strong performance surveillance data on vaccine preventable diseases like poliomyelitis, neo-natal tetanus and measles has to be collected. Reporting mechanisms especially for measles, tetanus and acute flaccid paralysis are still incomplete.

Measles vaccine coverage is reported to be 85% in the state but there are considerable inter-district variations. Uttara Kannada, Bellary, Dharwar and Chickmagalur failed to reach even this level in 1992-93. Coverage evaluation surveys, however, indicate lower figures, with the difference in coverage being as large as 10% in some districts.

Diarrhoea, a major cause of mortality in children under 5 years of age, continues to be an area of concern. Although

### Box 7.2

#### Nutrition profile-Karnataka

A nutrition profile study was conducted by the Centre for Youth and Cultural Development for the Department of Women and Child Development and UNICEF, with a primary study in 3 rural areas of the state - one with high malnutrition (Gulbarga), one with low malnutrition (Uttara Kannada) and one in a drought-prone district (Chitradurga) - a tribal area of Mysore and urban slum areas of Tumkur. Using data of the National Nutrition Monitoring Bureau for 1988-90, districts were selected according to the prevalence of malnutrition and a target sample size of 2000 households drawn from rural and urban PHCs in the five districts.

- Weight curves indicate that boys and slum pre-schoolers were better placed compared to tribal and rural children.
- Mean weights of boys and girls were close to NNMB data but much below standards laid down by the National Child Health Survey.
- Higher weights and heights of pre-schoolers compared to the NNMB (rural) average of 1975-79 indicate that the growth status of pre-school children may have improved as a secular trend over 10-15 years; nevertheless these are still far below international standards.
- NNMB repeat surveys show reduction in severe malnutrition over a decade in rural Karnataka. Reduction in moderate malnutrition has been marginal with slight increase in mild malnutrition.
- Severe malnutrition was about 15% in tribal and rural areas while it was around 7% in Tumkur urban slums.
- Socio-economic factors related to malnutrition:-
  - Caste: Malnutrition was higher among SCs, STs and hill tribes than in other communities. Stunting or chronic malnutrition was highest (80%) among SC and ST children whereas undernutrition was highest (71%) among the hill tribes of Mysore district.
  - Type of dwelling: Those who lived in pucca houses had the lowest levels of undernutrition (48%) compared to those in kachcha houses (61%). Stunting was also found to follow a similar pattern.
  - Landholdings: 65% of the children in households without land suffered from undernutrition compared to about 60% of the children in households possessing land. However the prevalence of stunting was found to be the same among all landholding groups.

distribution of packets of oral dehydration salts (ORS) has been integrated with the primary health care system, the ORT use rate revealed by coverage evaluation survey data is only between 30% and 35%. 24 hour availability of ORS at the village level has to be ensured. Information, education and communication activities also need to be intensified for health workers, mothers and households.

**Nutrition**

In general 22% of the babies born in the state are below normal birth weight but there are rural-urban variations. Maternal malnutrition is the major cause for this phenomenon. Low birth weight is an important contributor to neo-natal mortality.

Protein Energy Malnutrition is the most widespread disorder among children. Severe malnutrition was estimated at around 3% in 1989 against 6% in 1976-79. Chronic malnutrition was estimated at 37% in 1989. The prevalence of Protein

- Occupation: Children belonging to households of landless agricultural labourers had the highest levels of undernutrition (67%) compared to those belonging to unorganised labour groups (55%) who were mostly from urban slums. Stunting was similar in both these groups as well as among cultivators (above 70%). However

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Energy Malnutrition is higher in northern districts than in the west and the south. Although there has been significant decline in the levels of severe malnutrition, improvement in child nutrition is not reflected in the growth performance of children and a disturbing majority of children in lower socio-economic groups suffer from varying degrees of growth retardation. Mean heights and weights of children have also almost remained static over the decade.

The nutrition component of the Integrated Child Development Scheme is mainly aimed at preventing PEM among children between the ages of 6 months and 6 years through supplementary feeding in anganwadi centres. Late introduction of supplementary feeding while weaning a child is the most important reason for faltering growth and subsequent severe malnutrition. However, the scheme is only able to effectively reach children attending anganwadis who are between 3 and 6 years. Children between 6 months and 3 years have to be reached therefore



### Box 7.3

#### Children in bondage: silk reeling in Karnataka

Karnataka is the country's primary producer of silk, accounting for 90% of India's silk thread. Approximately 400,000 people make a living from the cultivation of silk worms or the production of silk thread. An estimated 100,000 of these workers are children.

Reeling is the process by which silk filament is pulled off the cocoon. Cocoons are cooked in boiling water to loosen the sericin, a natural substance holding the filaments together. The reeler dips his hands into the scalding water and palpates the cocoons, judging by touch whether the fine threads of silk have loosened enough to be cooled. When they are ready, the worker finds the ends of 8 to 10 filaments and gently begins to reel them off. The average length of a single unbroken filament is 700 meters.

More than 80% of the silk reelers are under 20 years of age, with most of them between 10 and 15 years old. As in other industries, the myth of children having natural advantages and skills is used to justify the exploitation of young girls and boys in this dangerous work. The myth is perpetuated not only by the employers of children but by society as a whole including the educated elite.

Human Rights Watch spoke to two boys working as silk reelers in the Karnataka town of Ramanagaram, India's largest cocoon market. Ajad and Marukh, both 10 years old, had been working in the industry since the age of 5 - Ajad for an advance of Rs.1000 and Marukh for an advance of Rs.5000. According to the boys, advances are given to keep children tied to employers and prevent them from leaving factories. If they try to get away they are beaten and restrained. The children earn Rs. 20 a day for reeling the threads of boiling cocoons compared to Rs. 10 a day for other jobs. Work hours vary with the seasons, depending on market demand and cocoon availability. Ajad and Marukh were initially identified by Human Rights Watch researchers as silk reelers by looking at their hands. Their palms and fingers were white with thick tracks of fissures, burns and blisters.

#### Silk twisting

Silk twisting (or twining) is the process by which individual silk threads are twisted into a strong multiply thread. Twisting usually takes place in small factories with fifty to a few hundred spindles. These factories utilise bonded child labour. In one taluk alone, there are about one hundred twining factories, together employing more than 8000 children, all of them believed to be bonded.

The children tend to the spindles, fitting them with thread, correcting deviations and performing other routine tasks. Many of the factories seen by Human Rights Watch were dark and stuffy with doors shut and windows barred, filled with the deafening racket of clacking machines. Advances from twining factory owners range from Rs.2000 to 10000. During the first six months, children earn just two or three rupees a day, enough for a snack or, for those living far away, for bus fare to the factory. After this initial "training" period ends, children earn between fifty paise and two rupees an hour, depending on age and skill. The typical workday is from 7 a.m. till 8 p.m., not including transit time to and from factories. Child workers, who are recruited from all the villages in the area, travel an average of twelve kilometers to the factories where they work. Many children spoke to us of their walk home from work as their only pleasure of the day, a chance to relax and talk with friends. The walk to work in the morning on the other hand is filled with anxiety. The work is difficult and the days long and children face beatings and scoldings from employers if they slow down or ask questions. The bondage in some cases is also quite tangible; a pair of Belgian investigators who visited the area in 1995 found several instances of children being locked inside factories to prevent exit during frequent power outages.

When they reach the age of seventeen or eighteen the children are released. As adults, they are entitled to higher wages. Rather than pay such wages, employers fire them and bring in a new batch of younger children to take their place.

*Source: The Small Hands of Slavery: Bonded Child Labour in India, Human Rights Watch*

through supplementary feeding by community action as this is the group that is most vulnerable to malnutrition. The importance of covering children in this age group should be emphasised through awareness programmes so that all pre-school children are provided adequate feeding at home by families and communities.

There are 185 ICDS blocks in the state in addition to 2500 balwadis run by the Education Department. Lack of adequate training of workers continues to be an issue; while anganwadi workers are provided orientation training for three months, inservice and refresher training are not adequately emphasised and the pre-primary education component is weak.

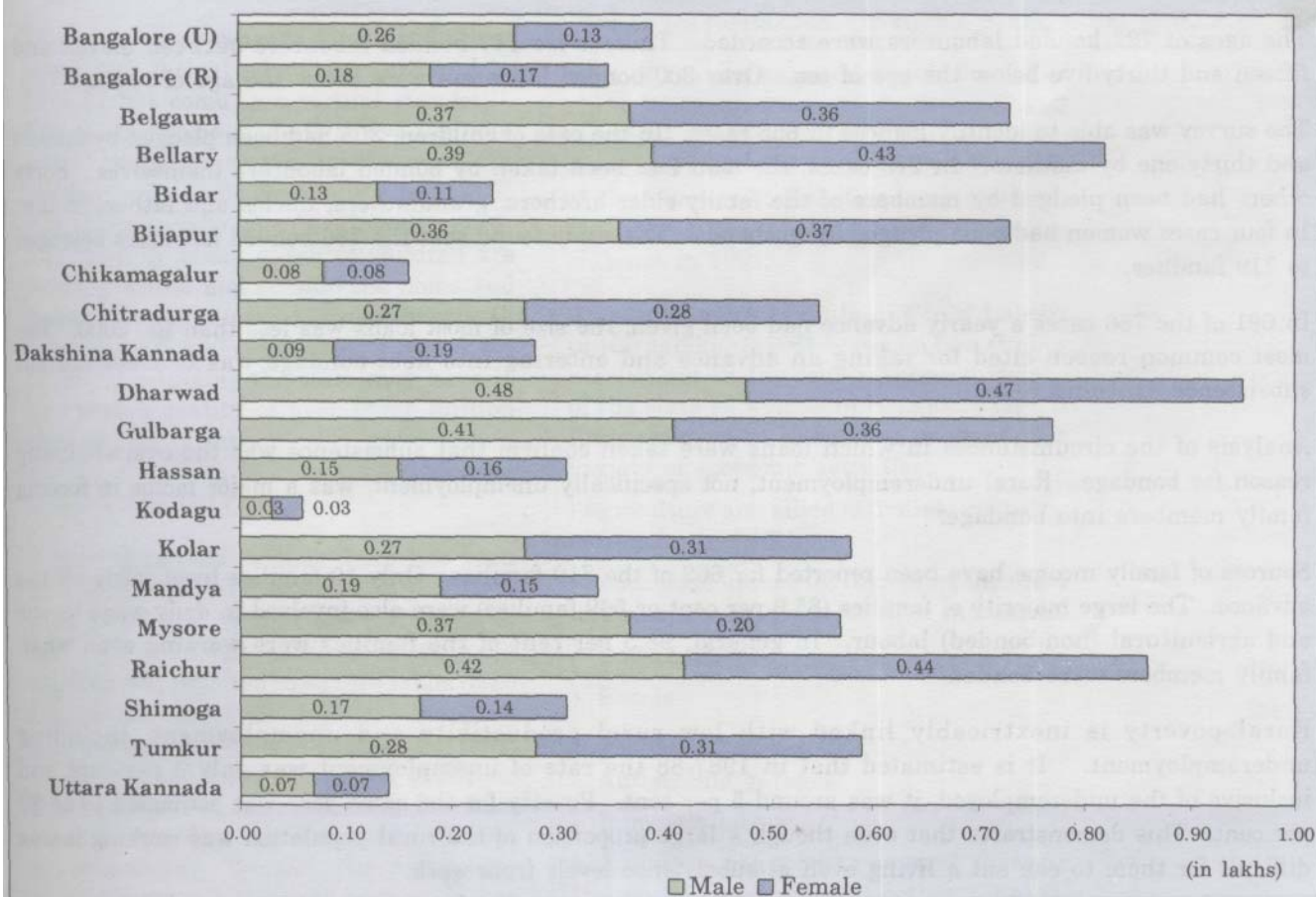
## Education

While Karnataka's literacy rate of 56% (1991) is marginally higher than the national literacy rate of 52%, female literacy continues to be far lower than male literacy at 44% and 67% respectively. Inter-regional variations are considerable, with Raichur district having the lowest female literacy rate. 14 out of the 20 districts have female literacy rates lower than the national average.

In primary education, gross enrolment ratios are 84% for girls and 92% for boys in the 1st to VIIth class age group, with the dropout rate at the primary level coming down from 65% in 1986-87 to 44% in 1997-98 (for girls from 68% to 46%). Lower primary schools have been

Figure 7.1

### Child labour (5-14 age group) 1991



## Box 7.4

### A profile of bonded labour in Anekal taluk

In 1988, Father Kiran Kamal Prasad, with the help of young dalits in the villages of Anekal taluk, began a two-year survey of the incidence of bonded labour. The practice of bonded labour is colloquially known as jeeta and is described by Prasad as follows:

A bonded labourer is a person who has to work for the individual from whom he has taken a loan. He may work in his house or in his field or in any other way. He may work only to repay interest on the loan or to pay back the principal itself. If the loan is a big sum, he may have to work only for the interest. He may repay the loan by coming to an understanding regarding the yearly or monthly sum that can be deducted from the loan in consideration of the work he has put in. Normally, since he and his family have no other means of livelihood, he is forced to take extra loans during the year to look after the daily needs of dependents. Thus the original loan may never be reduced or it may even increase. The yearly or monthly sum deducted from the loan does not even come to one-fourth or one-third of the prevalent daily wage, let alone the minimum wage fixed by law. On certain occasions poor families in villages need sums larger than those which can be procured from regular sources. This can only be obtained from a wealthy person in exchange for labour to be provided by the borrower or his dependents. Marriage in a family, grave illness or even day to day needs force people to take loans. The only security for a loan is a promise to provide labour. If the borrower is a small farmer, he may even mortgage his land and eventually never get it back.

On March 12, 1991, Prasad published the results of his survey. He found 786 bonded labourers in 120 out of the 298 surveyed villages. The survey documented the castes of 731 out of the 786-690 were dalits (Scheduled Castes), twenty-one belonged to other lower castes, eleven were from dominant castes and nine were Scheduled Tribes. Nineteen of the 786 bonded labourers were women.

The ages of 727 bonded labourers were recorded. There were 147 bonded labourers between eleven and fifteen and thirty-five below the age of ten. Over 300 bonded labourers were below the age of twenty.

The survey was able to identify loanees in 655 cases. In the case of children, 305 had been pledged by fathers and thirty-one by mothers. In 279 cases, the loan had been taken by bonded labourers themselves. Forty others had been pledged by members of the family-elder brothers, grandfathers, uncles and fathers-in-law. In four cases women had been pledged by husbands. The study found that the 786 bonded labourers belonged to 719 families.

In 691 of the 786 cases a yearly advance had been given; the size of most loans was less than Rs. 2000. The most common reason cited for taking an advance and entering into debt-bondage was to meet normal subsistence expenditure.

Analysis of the circumstances in which loans were taken confirm that subsistence was the overwhelming reason for bondage. Rural underemployment, not specifically unemployment, was a major factor in forcing family members into bondage.

Sources of family income have been reported for 662 of the 719 families. Only 10 families lived solely off the advance. The large majority of families (85.9 per cent or 569 families) were also involved in daily wage labour and agricultural (non-bonded) labour. In general, 98.5 per cent of the families were working even when family members were bonded.

Rural poverty is inextricably linked with low rural productivity and unemployment, including underemployment. It is estimated that in 1987-88 the rate of unemployment was only 3 per cent and inclusive of the underemployed, it was around 5 per cent. Poverty for the same year was estimated to be 30 per cent. This demonstrates that even though a large proportion of the rural population was working it was difficult for them to eke out a living even at subsistence levels from work.

*Source: Human Rights Watch: The Small Hands of Slavery, Bonded Child Labour in India*

established within a walking distance of one kilometer in practically all habitations with a population of over 300 persons. There are 46900 lower and higher primary schools in the state. 82 lakh children are studying in schools between classes I and VII and there are 1.92 lakh teachers working in these schools. The teacher-pupil ratio is around 43 and 6074 schools still only have a single teacher. In practice many schools are functioning with a single teacher due to delayed recruitment, absenteeism and other administrative problems.

While there has been a significant spatial spread of primary education infrastructure, rates of stagnation and wastage are high and quality of education uneven. The proportion of girls enrolled to total enrolment at the primary level has been increasing; however, the number of girls, (especially those belonging to the Scheduled Castes and Tribes) at the primary stage as a proportion of girls in the relevant age group is still low indicating the need for specific interventions.

There are many reasons for high dropout rates. Non-formal education initiated in 1986-87 has come to a virtual standstill. Efforts need to be made to revive the non-formal education system to cope with the problem of dropouts especially among girls and other socially disadvantaged groups. The majority of out-of-school children are working within and outside the home and unless efforts are made to experiment with a variety of flexible and viable alternatives to formal schooling the state may have to live with a reality of over three million children out of school.

## Child labour

Census data tells us that there has been an increase in child workers in the state from 8.09 lakhs in 1971 to 11.32 lakhs in 1981; in 1991 the number of working children was reported to be 9.76 lakhs (8.18 lakh main workers and 1.58 lakh marginal workers in the 5-14 age group). In 1961, 11.9% of male children and 8% of female children were child labourers; in 1991, these figures had come down to 8% and 5% respectively. Overall, the percentage of child workers to the child population was 6% in 1991. At the time of the 1981 census,

### Box 7.5

#### How many: where?

Karnataka has a relatively high incidence of child labour, especially in rural areas. The census of 1981 recorded more than 11.31 lakh child labourers in the state, of which 43% were working girls. In 1991, although this came down to 9,76,000, the percentage of girls has gone up to 49% which is a very disquieting fact.

If we accept the view that every child who is not going to school is a potential working child, it is estimated that there are over 3 million working children in Karnataka, the majority being girls. Most girls work at home as domestic servants in chores such as cleaning, cooking and child care or in household industries. Children are also involved in non-domestic non-monetary work like farm work, fuel, fodder or water collection. Girls working in the silk twisting industry are mostly bonded labourers. Bonded child labour contributes to the settlement of family debts.

Although governmental and non-governmental organisations are engaged in the struggle against child labour, it has become increasingly evident that their efforts can eradicate the practice only if backed by political will.

Most out-of-school children who are not free to attend school can be called working children. We need to experiment with a variety of choices and alternatives to formal schooling if we are to make education available to the working child.

2.6% of the states population consisted of child labourers covering both main and marginal workers. By 1991, this had come down marginally to 2.2%. In 1981, 6.96% of the workers in the state were children, but only 4.76% of the labour force were children in 1991.

Ammu Joseph's "Profile of Child Labour in Karnataka" (1996) draws on five studies carried out in the four revenue divisions of the state as well as in Bangalore city; it finds children in Karnataka engaged in a variety of economic activities:

- Agriculture and allied activities (including caring for livestock)
- Small scale industries (including ancillary units supplying goods to large industries)
- Construction
- Hotels
- Shops
- Automobile garages
- Domestic labour
- Activities common to several areas in the state: beedi rolling, cotton ginning, quarrying, fish processing, sericulture-



## Box 7.6

### The ICDS in Karnataka

Launched as a pilot project at T.Narasipura in Mysore district on 2nd October 1975, the programme has expanded to cover 166 rural, 9 tribal and 10 urban projects across 175 taluks. 40015 anganwadi centres (36184 rural, 2801 tribal, 1030 urban) have been sanctioned. The programme envisages a package of services covering a supplementary nutrition programme for children below 6 years and pregnant and nursing mothers, pre-school education for children in the 3 to 6 age group, immunisation of children and mothers, health checkups by medical officers, referral services and health and nutrition education.

Departmental information indicates that in 1998-99, up to December 1998 against a targeted 13 lakh children in the 0-3 age group, 11.33 lakh children were reached; against a targeted 12.86 lakhs in the 3-6 age group, 11.72 lakhs were reached; similarly, there is generally a shortfall in reaching pregnant and lactating mothers and adolescent girls. Around 24% of the beneficiaries belong to the Scheduled Castes and Tribes, while 12% belong to minority groups. At least 161 centres have yet to become operational. Training, which has been receiving attention in recent years, remains a matter of some concern, with two training centres at Muddebihal and Bethamangala having closed for lack of facilities. There are significant gaps in the staffing pattern. On 1/10/98, 43 of 185 sanctioned posts of CDPOs were vacant as also 1304 of 2036 supervisors' posts and more than 1247 posts of anganwadi workers and 482 posts of helpers; of the last two groups, 3060 workers and 6897 helpers of those working are untrained. There continues to be substantial backlog in the area of refresher training.

Infrastructure is also a cause for concern. Only 14,000 out of nearly 40,000 anganwadis have their own buildings; many are run in rented or panchayat and school buildings or temples and around 3,000 continue with makeshift arrangements often without adequate water, sanitation, ventilation and other essential facilities. The situation in urban areas is particularly disturbing. Achievement in the construction of buildings fell short of the target in 1997-98 (737 against 826). At this rate, it will take about three and a half decades for all anganwadis to be housed in their own buildings!

Achievement under the health check-up programme for mothers and children for 1997-98 is only 67%. Assessments of the infant mortality rate are made from time to time using ICDS data. Up to March 1998, it was calculated as 45 per 1000 in ICDS areas against the national average of 71 per 1000. Sample registration scheme figures for the state for 1994 however indicate an IMR of 65 per 1000. Latest departmental data show that there are 16841 children under Grade III and 1343 children under Grade IV malnutrition - that is, 9.07% moderately malnourished and 0.78% severely malnourished children. However, comparison with NFHS data reveals fairly large reporting gaps.

Progress under immunisation in 1997-98 continues to hover around 70% to 80% of the target-77% for polio and diphtheria, 76% for tetanus and 71% for measles; only for BCG did the figure go up to 81%.

The pre-school feeding programme for children and the ICDS are the major programmes of the Department of Women and Child Development accounting for around Rs. 120 crores of the Rs. 140 crores annually allocated. Nevertheless, it is clear that gaps in supervision have affected the quality of the child survival and

development programme. The focus has been on the pre-school age group and on supplementary feeding; the needs of pregnant and lactating mothers require greater attention if the widespread prevalence of undernourished infants and children is to be tackled. In poor families, the feeding component is often still seen as a substitute meal for children who are malnourished and not as supplementary nutrition. ICDS coverage in urban slums remains another very major challenge, given that more than thirty per cent of the state's population is in urban areas. The quality of delivery of the program would improve significantly if staff are regularly trained and retrained and supervision systematised.

related work, agarbathi and brick-making.

These studies reveal clearly that child workers are involved in almost the entire spectrum of economic activity performed by the unorganised sector of labour. The studies also report, even more disturbingly, the continued existence of bonded child labour in many parts of the state. Children are often even lured into prostitution in several ways including under the quasi-religious devadasi system which provides a veneer of religio-cultural legitimacy to the practice of recruiting girls for the sex trade.

It is therefore necessary to recognise the phenomenon of child labour as a symptom of a far deeper malaise and evolve holistic strategies to eliminate the poverty that is pushing children prematurely into the labour force in such large numbers in Karnataka. Strategies to eliminate child labour should aim at securing social and economic justice for the unorganised sector of the labour force; they will also have to take note of the significant influence of gender and caste on child labour, especially with regard to the increasing participation of female children in the waged and unwaged labour force leading to a disproportionately high representation of children from Scheduled Castes among child labourers.

Simultaneously, issues of not only access but also content, relevance, structure and flexible functioning of the primary schooling system will have to be honestly and systematically addressed if the unacceptably high dropout rates in Karnataka are to be brought down and the goal of universalisation of primary education achieved in the foreseeable future.

## Child labour in India

The Child Labour (Prohibition and Regulation) Act of 1986 lists hazardous occupations and processes in which child labour is prohibited. While beedi making, building and construction are areas where urgent and immediate interventions are necessary, action is also needed regarding the large numbers of children working in the primary sector in agriculture and allied activities. Many children are also employed in hotels, motor garages, newspaper vending agencies, repair shops, foundries etc.

Current programmes for elimination of child labour include enforcement of the Child Labour Act in registered factories and scheduled industries. Enforcement, however, is limited. Several voluntary agencies, including The Concerned for Working Children, BOSCO, REDs etc., are also working in selected areas. Their programmes aim at weaning children away from child labour through non-formal education and other services.

## Girl child

The situation of the girl child in Karnataka is a matter of concern. An adverse sex ratio, high malnutrition and maternal mortality rates, poor school enrolment levels, high dropout rates and low skill levels with low value work are indicators of a fundamental preference for the male child and a belief that girls are more a liability than an asset. This belief has resulted in the perpetuation of socio-cultural practices which affect the entire life cycles of girls and women. The sex ratio in the state has been declining. From 963 in 1981, higher than the 1961 and 1971 rates, it declined to 960 in 1991. Even states such as Andhra Pradesh (972), Orissa (971) and Tamil Nadu (974) have higher sex ratios than Karnataka.

The NFHS reports that preference for sons is fairly strong in Karnataka; among women who want another child, 44 per cent have indicated that they would prefer a son while only 16 per cent have said they would prefer a daughter. Preference for sons is stronger in rural areas (48 per cent) than urban areas (34 per cent).

## The urban child

Karnataka has an urban population of 13.85 million (around 31 per cent of the total population of the state) spread over 254 cities and towns. The state ranks fifth in the degree of urbanisation and accounts for 6.3% of the total urban population of the country. There are 17 Class I towns with a population of more than one lakh each accounting for 72% of the urban population of the state. 4.91 million of the urban population lives in 237 towns with a population of less than one lakh. Rates of growth of urban population in Class I and Class II towns were 42% and 47%

*Elimination of child labour requires holistic strategies, which also take note of the significant influence of gender and caste*

### Box 7.7

#### Profile of the deprived child in Bangalore

Born into poverty, underweight, poorly nourished, racked by ill health, school dropout, working in hazardous and/or exploitative conditions, a study on the problems of poor children in Bangalore has highlighted the multiple deprivations faced by them.

#### *The Statistics: The Child's Environment*

- 25% of the city's population lives in 778 slums; 55% of them are below the poverty line (there are other poor families scattered throughout the city).
- The estimated coverage of basic amenities in slums is: drinking water supply-66%-76%, streetlights-45%-73%, toilets-20%-29%, roads-66%; often services provided do not function properly. Most slums do not even have such essential services.
- In 1995, there were only 10 family welfare hospitals and health centres, 30 anganawadis and 24 schools (including those in the vicinity) for 338 slums.

#### *The Child's Status*

- The infant mortality rate for the city is 53 per 1000 live births, implying that the rate is higher in slums;
- Less than 40% of the children are fully immunised and another 45% partially immunised against major childhood diseases.
- A quarter of the new-borns in one slum were low birth weight babies.

#### *Conclusions*

- The basic liability of the deprived urban child is poverty, with more than half being from families below the poverty line - more employment, better wages and credit for self-employment are needed.
- In addition to housing shortages and inadequacies, lack of security of tenure is a major problem, hindering both provision of civic amenities and improvement of housing by slum-dwellers.
- Irregular supply of water as also lack of latrines, poor drainage and garbage dumps affect the health of all, especially children, increase workloads and waste time.
- Lack of electricity affects safety and curtails children's study time.
- Poverty and environment-induced health and nutritional problems abound; incorrect practices and inadequacies of government programmes Compound them.
- An environment of adult illiteracy, high dropouts and early induction into the work force creates a vicious cycle of poverty and limited career options. Apart from the Total Literacy Campaign (TLC), a drive to enroll and retain in school all children in the 6-11 age group, recently started in some slums jointly by the government, NGOs and TLC must be strengthened and expanded.

#### *Implications*

- To sum up, rights guaranteed both by the Constitution and by India's ratification of the Convention on the Rights of the Child, are being violated for the majority of children in the city. Their awareness and implementation by all concerned - government, parents, citizens in general, voluntary agencies, etc., must be heightened and accelerated.
- At the state level, there is need for a comprehensive policy aimed at improving the conditions of the deprived urban child, set within the framework of the Child Rights Convention. At the city level, a plan of action for implementing this policy, adequate resources and co-ordination between the government, NGOs and the community is essential to make it meaningful.

*Source: Dr. Padmini, "Profile of the Deprived Child in Bangalore"*

respectively during the eighties. This coupled with migration to the metropolis and other major towns are creating acute problems of housing, traffic and transportation. It has to be recognised that by 2011 A.D., more than 50% of India's population will be living in urban areas.

Children in urban areas suffer from multiple disadvantages with regard to nutrition, health, sanitation and access to facilities and services appropriate for their balanced growth; these problems are further compounded by existing social inequities. It is evident that rapid urbanisation has deprived urban children of food, shelter, education, health and other services. It is estimated that at least 25% of urban children belong to economically disadvantaged "at risk" groups in dispersed urban pockets. Strategies planned to reach the disadvantaged child should take such dispersal into account.

### **The disabled child**

Data on the disabled remains disturbingly inadequate, with a 1991 survey report on persons with disabilities in Karnataka indicating that its own finding of about one per cent of the population having impairments leading to functional disability is an underestimation. Doubts have been raised because of the relatively low prevalence reported against international estimates that put the figure of persons with impairments at as high as ten per cent of the total population in developing countries.

The survey indicates that a total of 355819 persons, that is 208645 males and 147174 females, are disabled: roughly much less than one per cent of the state population, of which 58.6% are males and 41% females. Raichur accounts for 10% of the disabled, while Kodagu has only 1% of the disabled population.

The orthopaedically handicapped constitute 57.6% of the totally disabled; 48 per cent of these were disabled at birth and 25 per cent before 6 years. The disturbingly high rate of orthopaedic disability at birth calls for serious preventive, curative as well as rehabilitation measures aimed at giving the disabled child a fair chance in life. 9 per cent of the orthopaedically disabled are

from Raichur which also has 11.74 per cent of those disabled before 6 years.

The hearing impaired is the second largest category of the disabled, constituting 14.6% of the total in the state, with Raichur again accounting for the largest percentage of 9 per cent. A disturbing 78 per cent of hearing impairment is at birth itself; 8 per cent are those disabled before 6 years. Mysore with 8.8 per cent accounts for the largest number of hearing impaired from birth. 11 per cent of the hearing impaired are below 6 years and 25 per cent between 7 and 14 years.

The visually impaired account for 12.45 per cent of the disabled in the state; the numbers are highest in Raichur. Around 8.6 per cent of the total population of the visually impaired is below 6 years and 15 per cent between 7 and 14 years.

Mental retardation accounts for 10 per cent of the disabled population. A troubling 70 per cent of mental retardation is found to have been at birth. The highest prevalence is in Dharwar. 12 per cent of the mentally retarded are below 6 years; another 26.66 per cent are between 7 and 14 years. Dharwar has the highest prevalence of the mentally retarded 10 per cent of those below 6. Raichur has the highest numbers between 7 and 14 years- 8.9 per cent.

65 per cent of multiple disabilities were found to have occurred at birth, once again emphasising the need for maternal health and prenatal care. Onset of multiple disability before 6 years is highest in Dharwar and Raichur.

In poorer families, therefore, a significant group of children are subjected to deprivation and hardship. The environment is harsher for girls, slum children and the children of Scheduled Castes and Tribes. These problems can be effectively tackled only through wideranging measures covering targeted formal and informal education, supplementary nutrition, immunisation, health and hygiene and the prevention of pernicious practices like child labour and debt-bondage. Interventions by government and voluntary agencies must extend to amelioration of the conditions of poorer groups with regard to higher incomes and better educational and health facilities.

***Wideranging measures are required, both preventive and curative, to deal with disabled children***



## Goals for the year 2000

### Health goals

- Reduction of infant and under-five child mortality rates by one third or to 50 and 70 per 1000 live births respectively, whichever is less.
- Reduction of maternal mortality by half.
- Reduction of severe and moderate malnutrition among under-five children to half of 1990 levels.
- Special attention to the health and nutrition of the female child and of pregnant and lactating women.
- Access by all couples to information and services to prevent pregnancies that are too early, too closely spaced, too late or too many.
- Access by all pregnant women to prenatal care, trained attendants during childbirth and referral facilities for high-risk pregnancies and obstetric emergencies.
- Reduction of the rate of low birth weight (less than 2.5 kilograms) babies to less than 10 per cent.
- Reduction of iron deficiency anaemia in women by one third of 1990 levels.
- Virtual elimination of iodine deficiency disorders.
- Virtual elimination of Vitamin A deficiency and its consequences, including blindness.
- Empowerment of all women to exclusively breastfeed their children for four to six months and to continue breastfeeding with complementary food for up to two years of age or beyond.
- Growth promotion and its regular monitoring to be institutionalised in all countries by the end of the nineties.
- Global eradication of poliomyelitis by the year 2000.
- Elimination of neonatal tetanus.
- Reduction by 95 per cent in measles deaths and reduction by 90 per cent in measles cases compared to pre-immunization levels by 1995 as a major step to the global eradication of measles.
- Maintenance of high level of immunization coverage (at least 90 per cent of children under one year of age) against diphtheria, pertussis, tetanus, measles, poliomyelitis and tuberculosis as well as against tetanus for women of child-bearing age.
- Reduction by 50 per cent in deaths due to diarrhoea in children under the age of five years and 25 per cent reduction in the diarrhoea incidence rate.
- Reduction by one-third in deaths due to acute respiratory infections in children under five years.
- Elimination of guinea worm disease.

*Source : UNICEF, Rights and Opportunities, The Situation of Children and Women in India, .*

### **Other sectoral goals**

- Universal access to safe drinking water.
- Universal access to sanitary means of excreta disposal.
- Universal access to basic education and achievement of primary education by at least 80 per cent of primary school age children through formal schooling or non-formal education of comparable learning standard, with emphasis on reducing the current disparities between boys and girls.
- Reduction of the adult illiteracy rate (the appropriate age group to be determined by each country) to at least half its 1990 level with emphasis on female literacy.
- Improvement in protection of children in especially difficult circumstances and tackling the root causes of such situations.
- Dissemination of knowledge and supporting services to increase food production and ensure household food security.
- Expansion of early childhood development activities, including appropriate low-cost family and community-based interventions.
- Increased acquisition by individuals and families of the knowledge, skills and values required for better living made available through all educational channels, including the mass media, other forms of modern and traditional communication and social action, with effectiveness measured in terms of behavioural change.

*Source : UNICEF, Rights and Opportunities, The Situation of Children and Women in India .*



# Housing, water supply, sanitation and electricity

## Towards fulfillment of basic needs

Housing and water supply are universally accepted as basic human needs, which are critical for determining the quality of human life. Availability and quality of housing affect the physical and mental wellbeing of occupants. Adequacy of housing stock, construction quality, the number of occupants in proportion to the number of rooms and the provision of basic amenities like water supply, electricity and toilets are all important indicators of development. This section will first outline the progress made in the last two decades in increasing the stock of houses and improving quality and estimate the gaps. This will be followed by an assessment of the drinking water supply and sanitation situation in the state. The chapter will close with a look at the power situation with particular reference to the electrification of hamlets and households.

### The country-wide picture

The 1991 census puts the size of the average Indian household at 5.52-5.59 persons in rural areas and 5.35 in urban areas. There are 153 million households, of whom 112.5 million are in villages. But there are only 140 million residential houses, since the number of households per house is around 1.03. Growth in the number of households since 1971 has been between 25 and 30 million per decade.

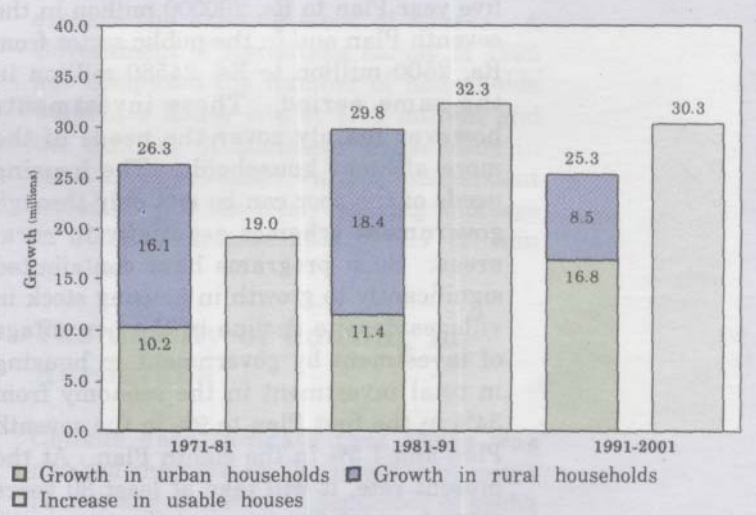
Growth in the number of households is expected to slow down considerably in the last decade of the century. Growth is also expected to be concentrated in urban areas; in the nineties, almost 17 million out of the 25 million additional households are likely to be urban.

Increase in usable housing stock was estimated at 19 million in the seventies but increases are assessed at over 20 million each in the eighties and nineties. Increase in the stock of houses in the

nineties is expected to outstrip growth in the number of households. Despite this, there will be a tremendous housing shortage at the end of the century.

Figure 8.1

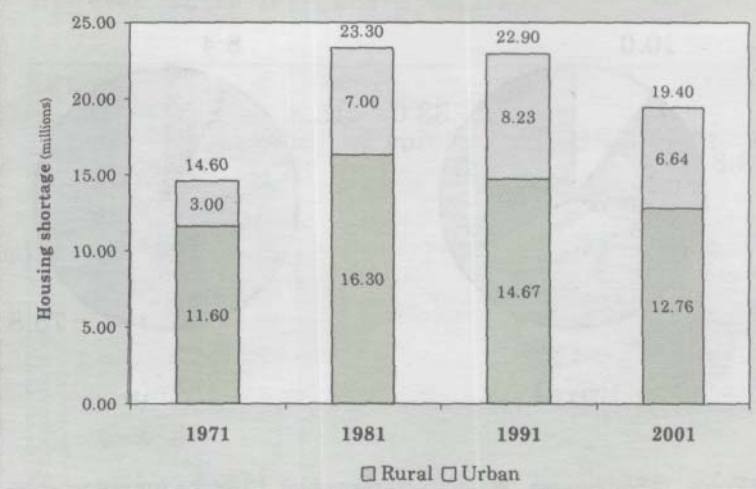
### The housing situation in India



Source: "Prominent Facts on Housing 1997" National Buildings Organisation, GOI

Figure 8.2

### Housing shortage in India



Source: "Prominent Facts on Housing 1997" National Buildings Organisation, GOI

**Table 8.1**  
Number of houses by type - pucca, semi-pucca and kacha (%age)

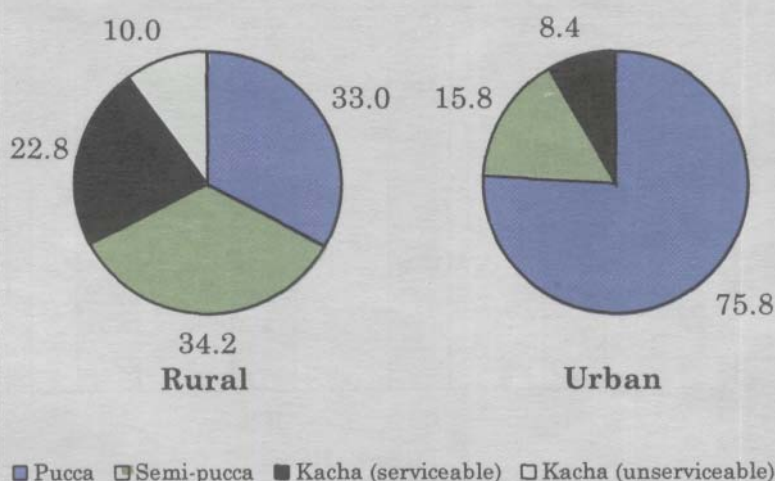
|                       | 1971  |       | 1981  |       | 1991  |       |
|-----------------------|-------|-------|-------|-------|-------|-------|
|                       | Rural | Urban | Rural | Urban | Rural | Urban |
| Pucca                 | 19.0  | 63.8  | 21.1  | 64.6  | 33.0  | 75.8  |
| Semi-pucca            | 37.0  | 23.5  | 37.6  | 24.3  | 34.2  | 15.8  |
| Kacha(serviceable)    | 32.0  | 12.7  | 29.0  | 11.1  | 22.8  | 8.4   |
| Kacha (unserviceable) | 12.0  | -     | 12.3  | -     | 10.0  | -     |

Source: "Prominent Facts on Housing 1997" National Buildings Organisation, GOI

Increase in housing stock by about 30 million in the last two decades is mainly due to massive increases in investment by the public and private sectors. In the private sector, investment in housing increased from Rs. 9000 million in the first five year Plan to Rs. 290000 million in the seventh Plan and in the public sector from Rs. 2500 million to Rs. 24580 million in the same period. These investments however mainly cover the needs of the more affluent households. The housing needs of the poor can be met only through government schemes especially in rural areas. Such programs have contributed significantly to growth in housing stock in villages despite decline in the percentage of investment by government in housing in total investment in the economy from 34% in the first Plan to 9% in the seventh Plan and 1.5% in the eighth Plan. At the present rate, it will take at least 30 years more to meet the housing shortage.

**Figure 8.3**

Houses by type, in India - 1991



Source: Census of India 1991

## The quality of housing

Apart from the quantitative dimension, that is the provision of a roof over one's head, there is also the issue of the quality of housing. We must examine the extent to which available housing satisfies the basic needs of human beings and contributes to their wellbeing. The quality of housing is generally assessed through three criteria: the percentage of pucca and kacha houses, the proportion of rooms in a house to the number of occupants and the availability of safe drinking water, electricity and toilets.

While houses can be classified in many ways depending on the material used for roofs, walls, floors etc., a simple technique is to categorise them as pucca, semi-pucca and kacha. Kacha houses are those that require periodic reconstruction and pose a recurring financial burden on occupants. The proportions of pucca, semi-pucca, kacha (serviceable) and kacha (unserviceable) houses have not changed appreciably over the last three decades.

The shares of houses with only one or two rooms have also not changed for the better to a great extent.

More than 70 % of the houses have only one or two rooms and house more than 5 occupants.

The percentages of households with safe drinking water, toilets and electricity are as below:

**Table 8.2**

Percentage of households by type of facilities - the national picture

|                     | 1981  |       | 1991  |       |
|---------------------|-------|-------|-------|-------|
|                     | Rural | Urban | Rural | Urban |
| Safe drinking water | 26.50 | 75.06 | 55.54 | 81.38 |
| Toilet facility     | 4.00  | 58.15 | 9.48  | 63.85 |
| Electricity         | 14.69 | 62.51 | 30.54 | 75.78 |

Source: Census of India 1991 - Tables on Houses and Household Amenities(Series I-Part VII)



The number of rural houses with electricity has doubled in the eighties but this amenity is still confined to only 30% of the houses.

## Housing in Karnataka

Houselisting operations undertaken during the 1981 and 1991 censuses give the following results for Karnataka:

**Table 8.3**  
**Growth of houses in Karnataka**

|       | 1980      | 1990      | Growth rate 1980-1990 (%) | Projections for 2001 |
|-------|-----------|-----------|---------------------------|----------------------|
| Total | 5,562,995 | 7,270,710 | 30                        | 9,509,290            |
| Rural | 3,963,095 | 4,920,170 | 24                        | 6,101,010            |
| Urban | 1,619,900 | 2,350,540 | 45                        | 3,400,280            |

Source: Director, Census Operations, Karnataka

Projections have also been made for 2001. Growth in the stock of houses in the eighties in the state approximates to the figure for the country as a whole.

The housing situation in Karnataka has shown considerable improvement between 1961 and 1991. The stock of houses almost doubled from 4.2 million to 7.9 million during this period. In the last decade, the housing shortage has come down since growth in the number of residences (30%) outstripped growth in the number of households (26%). This was the trend in the rest of India also. Increase in the number of houses was due to public and private sector investment which is of course largely directed to the more affluent households.

The table given below compares estimated housing shortages for the state and the country in 1991.

**Table 8.4**  
**Estimated housing shortage**

|                     | Karnataka |       | India     |           |
|---------------------|-----------|-------|-----------|-----------|
|                     | Rural     | Urban | Rural     | Urban     |
| Houseless           | 16000     | 15000 | 3.0 lakhs | 3.1 lakhs |
| Housing shortage(%) | 7.72      | 9.87  | 12.30     | 12.08     |
| Kacha houses(%)     | 20.2      | 8.4   | 32.5      | 9.3       |

Source: Tables on Housing and Household Amenities (Series I, Part VII) Census of India - 1991

\*STEM 1991

**Table 8.5**  
**Houses by number of rooms**

|                                         | 1971  |       | 1981  |       | 1991 (%) |       |
|-----------------------------------------|-------|-------|-------|-------|----------|-------|
| Number of rooms                         | Rural | Urban | Rural | Urban | Rural    | Urban |
| One room                                | 47.3  | 50.0  | 44.3  | 45.8  | 40.8     | 39.7  |
| Two rooms                               | 28.5  | 27.0  | 28.9  | 27.8  | 30.6     | 30.4  |
| Three rooms                             | 12.1  | 11.4  | 12.3  | 12.2  | 13.5     | 14.8  |
| Four or more rooms                      | 12.0  | 11.4  | 12.1  | 12.1  | 14.0     | 14.7  |
| No exclusive room and unspecified rooms | 0.1   | 0.2   | 2.4   | 2.1   | 1.1      | 0.5   |

Source: "Prominent Facts on Housing 1997" National Buildings Organisation, GOI

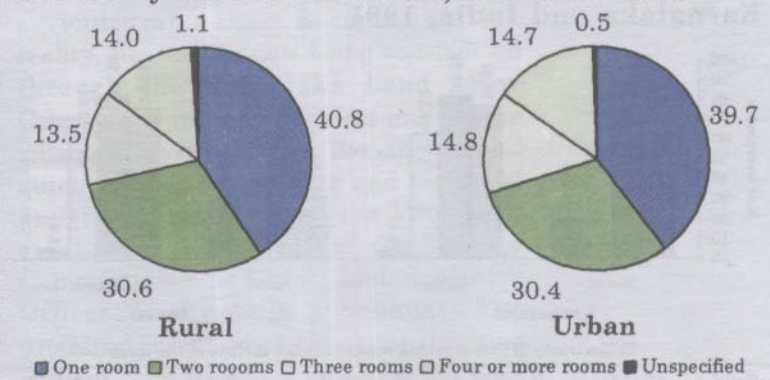
The estimated housing shortage in Karnataka in 1991 in urban areas was 9.87% against 12% for the country. It was 7.72% for rural areas against 12% at the all India level. However demand still exceeds the existing stock of houses. A Government of Karnataka survey of 1995 has computed the number of households without a house site at 1.15 million and the number of homeless households in rural areas at 78000. Various independent estimates put the likely housing shortage in 2001 at around 25% or 2.7 million houses\*

## The quality of housing in Karnataka

Census data indicate that there was marked increase in the number of pucca houses and decline in the number of kacha houses in the eighties. On the whole, the proportion of kacha units is far less in Karnataka than in the rest of the country. The state also accounts for a higher proportion of semi-pucca houses. However, there is a sharp contrast

**Figure 8.4**

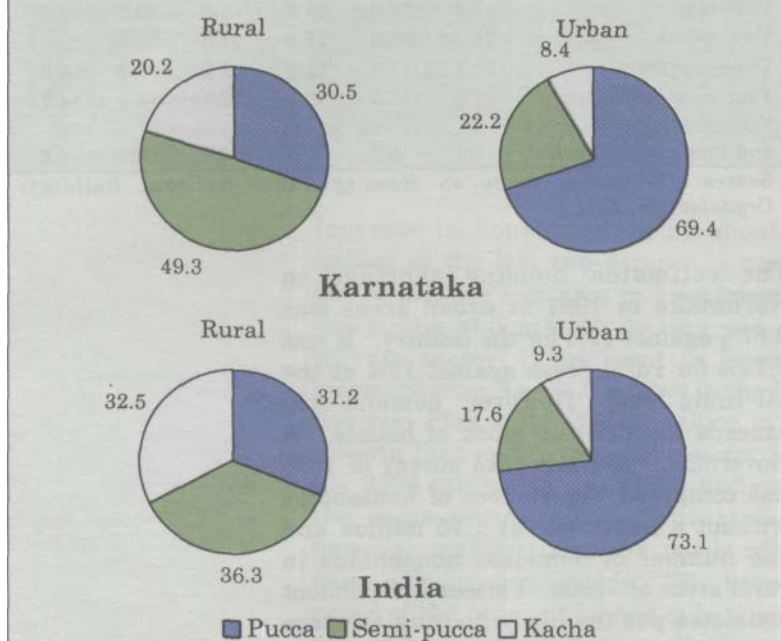
**Houses by number of rooms, in India - 1991**



Source: Census of India 1991

**Figure 8.5**

**Quality of housing - Karnataka and India, 1991**



Source: <sup>1</sup> Census of India 1991: Housing and Amenities: A Brief Analysis of the Housing Tables-1991 Census

*Pucca*: houses using high quality material throughout for floors, walls and roofs.

*Semi-pucca*: houses using partly low quality and partly high quality material.

*Kacha*: houses made with mud thatch or other temporary material

between rural and urban areas in the use of building material. While burnt brick is predominantly used in urban areas, rural houses are generally built of stone or mud or with bamboo and palm leaves. In urban areas, kacha buildings are usually found in slums.

Kacha houses are more vulnerable to natural calamities. Incidents of huts catching fire in rural and urban areas are usually reported in the summer months. The government releases money to poorer people to rebuild such houses.

In almost all districts, houses with only one room predominate. The exceptions are the malnad districts of Shimoga, Hassan, Chikmagalur, Dakshina Kannada, Uttara Kannada and Kodagu as also Dharwar. In Shimoga, almost 25% of the houses have three rooms and another 25% have four rooms while in Kodagu, 41% have four rooms or more. However, in most districts, 70% of the houses have only one or two rooms. The situation is especially bad in Bellary, Bidar, Bijapur and Gulbarga. In these districts, the number of persons in a household is also more than in the rest of the state. In all these districts more than 50% of the houses have more than 6 occupants.

### Availability of other amenities

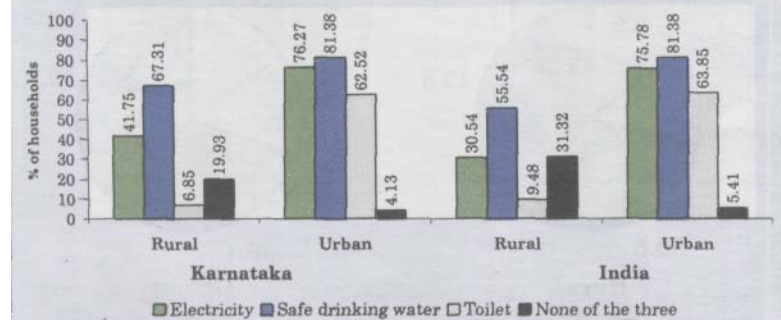
The percentages of houses with drinking water, toilet and electricity facilities in the state and the country according to the 1991 census are given in figure 8.6. These figures show that households in Karnataka have better amenities compared to the all - India average.

### Meeting the housing shortage

It has been estimated by STEM that 2.7 million housing units will be required to meet the housing shortage in the state by 2001. Growth in the quantity of money in circulation and increase in the number of nuclear middle class families have been accompanied by a spurt in building activity in recent years. Increasing family incomes have led to the construction of "own" houses. This accounts for the big jump in "own" houses in the eighties. By 1991, 80% of the houses in the state were owned by the persons occupying them (92 % in rural areas and 54% in urban areas). However, as far as the lower middle class and the poor are concerned, particularly in rural areas, housing is still a grave problem and most persons live in extremely miserable conditions. It is quite the norm in rural areas to find a one room house occupied

**Figure 8.6**

**Percentage of households by type of facilities - Karnataka and India, 1991**



Source : "Tables on Houses and Household Amenities" Census of India 1991

by old parents, two or three grownups with families and several younger siblings. Very often, brothers report that they live separately, which only means that households have separate cooking arrangements while living under the same roof. The smoke, squalor and lack of privacy can be imagined. Mere statistics about the number of housing units cannot fully capture the true picture. Housing needs of the poor, especially in rural areas and slums, can only be met by enlightened forwardlooking government policy and well planned and executed schemes.

9.9 lakh houses have been built between 1978-79 and 1996-97, while the census indicates that increase in the number of houses in Karnataka in the eighties was about 17 lakhs. It is evident that government schemes contribute considerably to increase in housing stock. Much more important is the fact that government schemes cater to the poorest persons, mainly in rural areas, a group which does not normally interest the public and private sectors. However, as the 1995 survey showed, there are still 11 lakh sites to be found for the rural poor of the state and 78000 houseless households among them. The government has been providing housing under its Ashraya and Ambedkar housing schemes (the latter scheme is specifically targeted to Scheduled Castes and Tribes) as well as under the Centrally sponsored Indira Aawaas Yojana, but this is far short of requirements. Progress in achievement of the ambitious targets under the Ashraya scheme in recent years for example has been as below:

Including houses taken up under the employment generation scheme -the Indira Aawaas Yojana - and the Ambedkar housing scheme for SCs and STs, about a lakh houses are being constructed under government programs every year. In some years, the performance is even less. The unit cost is now Rs. 20000 for all kinds of houses. For Ashraya houses, this is funded through a subsidy of Rs. 9000 from the state government, a subsidy of Rs. 1000 from the Central government and a HUDCO loan of Rs. 10000. The Ambedkar housing scheme for Scheduled Castes and Tribes provides the entire housing cost as subsidy - Rs. 19000 from the state and

**Table 8.6**  
**Progress under Ashraya housing scheme**

| Programme/<br>Scheme         | 1995-96 |             | 1996-97 |             | 1997-98 |             |
|------------------------------|---------|-------------|---------|-------------|---------|-------------|
|                              | Target  | Achievement | Target  | Achievement | Target  | Achievement |
| Distribution of house sites  | 254000  | 46674       | 207326  | 95804       | 150000  | 41219       |
| -rural                       | 175000  | 32808       | 142192  | 83693       | 100000  | 37821       |
| -urban                       | 79000   | 13866       | 65134   | 12111       | 50,000  | 3398        |
| Construction of rural houses | 85739   | 25571       | 100168  | 37567       | 103234  | 39271       |

*Source: Annual Reports on Housing-1996-97 and 1997-98 and Annual Plan for 1998-99*

Rs. 1000 from the Centre. The Indira Aawaas Yojana also provides a total grant of Rs. 20000 from the Central government. Under the erstwhile People's Housing scheme, operated in the seventies and eighties, part of the funding was by loan, which was almost never recovered. A major issue therefore in the housing program is loan repayment by occupants of houses under the Ashraya program.

### **Evaluation of government housing programs**

From the beginning, housing programs were formulated with the intention of involving beneficiaries themselves in the construction process. This arrangement has only met with limited success. Rural groups, whose occupations were linked to house construction, have been successfully involved in constructing their own houses under government programs but even such families must be paid for their time as they would have otherwise spent it on earning a minimum agricultural wage. Recognising this reality, houses are now being constructed through the Karnataka Land Army Corporation in some districts and by the zilla Panchayat in others. For efficient and quick loan disbursements and technical assistance, monitoring cells have been created in the offices of the Deputy Commissioner and the Chief Executive Officer of the zilla Panchayat. The professed intention is house construction without contractors or middlemen to keep



***Housing programmes should provide for greater transparency in the selection of beneficiaries and greater involvement of beneficiaries in construction***

costs to the minimum. It is, however, an open secret that houses are actually constructed by contractors and beneficiaries contribute their own labour only in rare cases. This naturally affects the quality of construction.

While choice of the building design under the Ashraya and Ambedkar schemes is left to the zilla Panchayat and the Karnataka Land Army Corporation, the minimum plinth area has to be 20 sq. mts. Each house consists of a single room and a kitchen area with a door and small windows. This is in fact the basic minimum housing unit in which a human family can be expected to live. In 1997-98, the government insisted that houses built under government schemes should include a toilet and a smokeless chulha. However, there are problems in constructing toilets and ensuring their subsequent use. One issue is that the cost of construction of the toilet is part of the unit cost of Rs. 20,000. This reduces the living space and very often the household uses the toilet as just another storage area. Dearth of water also creates difficulties in using the toilet. It is usually women who suffer most from the lack of toilet facilities. Unless they have sufficient clout in the household, the toilet is not constructed, or if constructed under duress, not used for the intended purpose.

The slow pace at which houses are constructed under various government housing schemes and the gaps between targets and achievements are attributed by government functionaries to delayed release of funds, the difficulty of completing construction without the toilet and chulha or delay in constructing these units and delay in identifying beneficiaries for whom houses are intended. Taluk committees have been set up, chaired by the local M. L. A., to identify beneficiaries, with the President of the taluk Panchayat and other elected members of local bodies as members. Very often, differences of opinion between the members and the chairperson cause considerable delays in the selection of beneficiaries. A smoother procedure must be introduced so that the process of selection of beneficiaries is completed quickly. After all, it should not be difficult to identify agricultural

labourers in villages as they are definitely the poorest of the poor and give them priority in housing schemes.

Government should also look into the methodology adopted for construction. Since contractors and middlemen have to be avoided at all costs, the possibility of forming beneficiaries' collectives needs to be explored. Sites could be handed over to beneficiaries who can construct their own houses and the zilla or taluk panchayat could release funds in 2 or 3 installments, depending on the progress made. Even if this procedure requires some intense groundwork in the beginning, the results could be rewarding, since the initiative will be given to the people who have otherwise been reduced to passive beneficiaries in recent years. The reasons for smokeless chulhas and toilets not becoming popular should also be analysed by discussing the matter with beneficiaries, particularly with women, and making appropriate changes.

***Urban housing and the slum problem***

In coming years, the biggest problems in the housing sector will arise in urban areas as the rate of growth of urban population is outstripping rural population growth rates. Increasing urban growth rates are predominantly due to the migration of unskilled and semi-skilled persons from surrounding villages where the scope for economic development is poor and there is great pressure on land. Land costs in cities and towns are very high because of the demand for urban land as also because of speculation, which can sometimes raise land prices, to absurd heights, as has happened in Bangalore in 1995. If government policy does not take into account the rapid growth in urban population and their housing, schooling and other requirements, cities could become gigantic slums with squatters occupying all available land. This is already happening in Bangalore with huts coming up in tank beds and on all available government land. However the number of households is too large to be covered solely under government housing schemes. At the same time, land developers and estate agents have roaring business in cities like Bangalore. The



government should regulate land developers in an effective and creative manner by identifying areas suitable for housing layouts and residential complexes, helping developers to obtain land by amending the Land Revenue and Land Reforms Acts and cutting red tape while insisting on a sufficiently high proportion of houses being constructed for low and middle income groups. Private investment must be encouraged since land developers have access to capital unlike government. Farsighted and unambiguous government policies can help land developers and also ensure that the needs of the poor are met.

## Slums

With unplanned urbanisation and the influx of migrant labour the proportion of slum dwellers to urban population in Karnataka has become 12 percent in 1995. According to government surveys, Karnataka had 1871 slums in 1995, offering shelter to nearly two million slum dwellers. It is estimated that slum population will cross the 3 million level by 2000. Since the growth of slums is totally unplanned, even the most basic amenities, like water, electricity, drains and toilets are missing in such areas. Even if, in course of time, some slums- are provided with electricity and bore wells, most will still be without drainage or toilets. The large number of ramshackle sheds squeezed close together with no sanitary amenities whatever creates an environment of dirt and squalor which pollutes the surroundings and ensures a miserable life for slumdwellers. Efforts are being made periodically to remove slums and offer housing facilities to slum dwellers in some other usually remote area. But these efforts have only met with partial success. The Karnataka Slum Clearance Board was set up under the provisions of the Karnataka Slum Areas (Improvement and Clearance) Act of 1973. The Board has two main functions: undertaking schemes for improving the slum environment by providing basic amenities like drinking water, street lights, roads, drains, public toilets and bathrooms and constructing houses for slum dwellers. It is also competent to remove unauthorised huts and prevent the formation of new slums. To mobilise resources for the development of slums,

government collects a slum dwellers' cess when municipal and developmental authorities approve layout plans and give building licences. This amount is used by the Karnataka Slum Clearance Board for financing slum clearance and development plans in notified slums.

The Slum Clearance Board has so far taken up 867 slums for improvement. It has constructed 18207 houses for slum dwellers at a cost of Rs. 4147 lakhs. Of this 5751 houses costing Rs. 1655 lakhs are in Bangalore city alone. Since 12 % of the urban population lives in slums and the growth rate of urban population between 1981 and 1991 is as high as 29.62 % and even higher growth rates are likely in coming decades, it is evident that only the fringe of the problem has been touched so far. Because of population density, urban squalor is a hundred times worse than rural squalor. New forms of old diseases are coming back to remind us that basic public health issues cannot be neglected. While government bodies like the Slum Clearance Board can contribute their mite, it is only the planned promotion of new growth centres within and outside existing

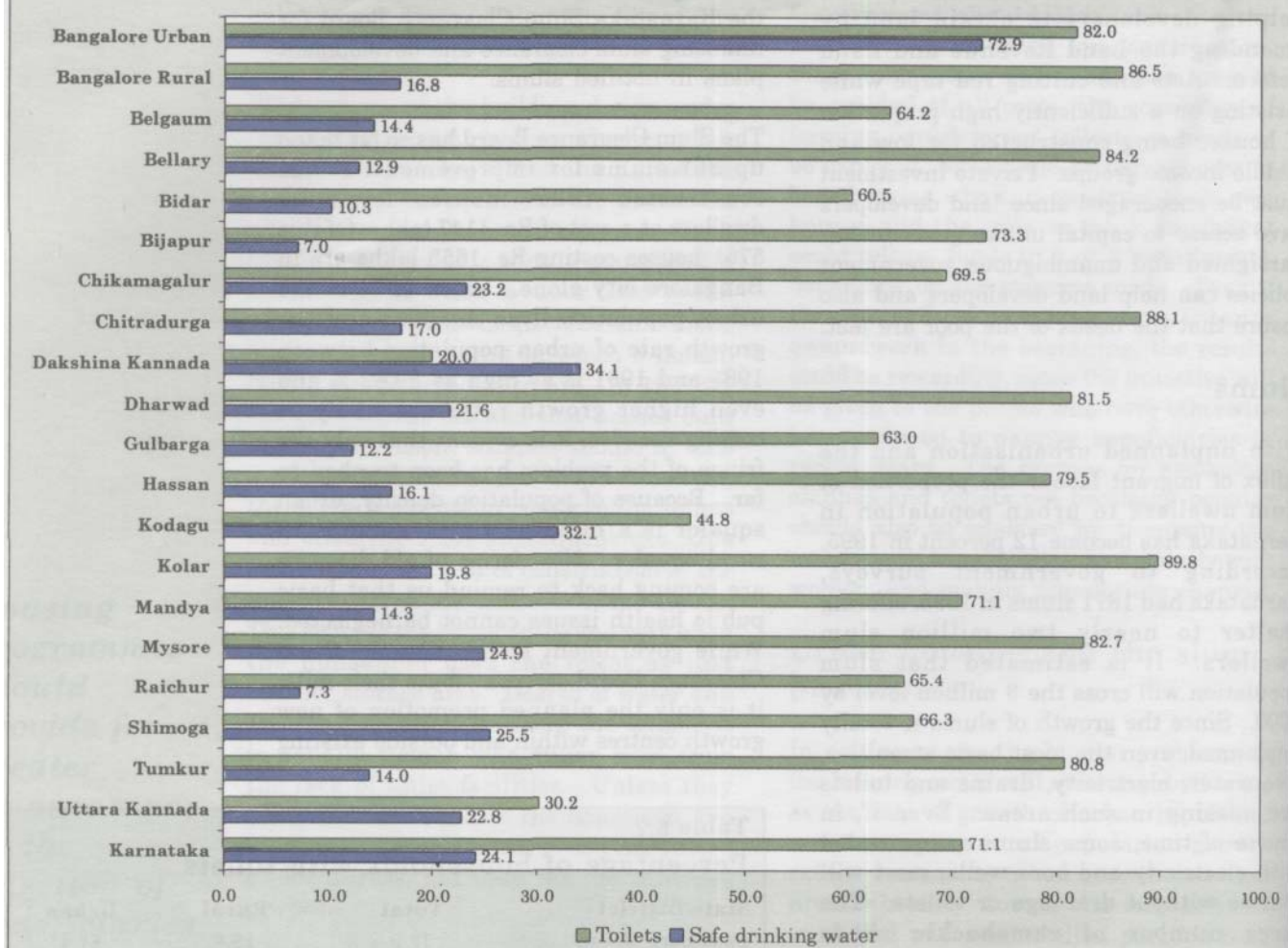
**Table 8.7**  
**Percentage of households with toilets**

| State/District   | Total       | Rural      | Urban       |
|------------------|-------------|------------|-------------|
| Bangalore Urban  | 72.9        | 18.8       | 81.4        |
| Bangalore Rural  | 16.8        | 6.0        | 66.3        |
| Belgaum          | 14.4        | 4.3        | 47.9        |
| Bellary          | 12.9        | 3.3        | 35.0        |
| Bidar            | 10.3        | 2.7        | 48.4        |
| Bijapur          | 7.0         | 1.3        | 25.7        |
| Chickamagalur    | 23.2        | 14.3       | 66.7        |
| Chitradurga      | 17.0        | 4.5        | 51.8        |
| Dakshina Kannada | 34.1        | 20.1       | 69.5        |
| Dharwar          | 21.6        | 8.3        | 47.0        |
| Gulburga         | 12.2        | 2.2        | 46.7        |
| Hassan           | 16.1        | 5.8        | 65.1        |
| Kodagu           | 32.1        | 24.9       | 72.0        |
| Kolar            | 19.8        | 7          | 62.8        |
| Mandya           | 14.3        | 6.2        | 55.1        |
| Mysore           | 24.9        | 5.3        | 73.0        |
| Raichur          | 7.3         | 1.9        | 27.8        |
| Shimoga          | 25.5        | 10.0       | 66          |
| Tumkur           | 14.0        | 4.3        | 64.2        |
| Uttara Kannada   | 22.8        | 11.9       | 55.9        |
| <b>KARNATAKA</b> | <b>24.1</b> | <b>6.9</b> | <b>62.5</b> |

*Source: Census of India, 1991 - Tables on Houses and Household Amenities*

Figure 8.7

Percentage of households with toilets and safe water, 1991 by district



Source: Census of India, 1991 - Tables on Houses and Household Amenities

cities and improvement of the rural economy that can ultimately solve the problem of urban housing.

### The availability of household toilets

Though awareness of the need for proper sanitation and toilet facilities has grown in recent days, only 34% of the households in the state has access to toilets. In rural areas, the position is dismal with only 6.85% of households having toilet facilities; in urban areas, the percentage is around 62.5%. Bijapur, Gulbarga and Raichur are particularly bad with almost no access at all to toilets. Only in Dakshina Kannada and Kodagu districts more than 20% of rural households have toilet facilities. The

percentage availability of toilet facilities in the state in 1991 is given below:

The availability of toilets is dismal in urban areas of districts like Gulbarga, Bellary and Raichur. The percentage is poor in almost all districts with Bangalore Urban, Kodagu and Mysore alone being exceptions to the general situation. Even in the towns and cities of Karnataka, almost 40% of the population does not have toilets in their houses.

The majority of the population of the state still uses open spaces for defecation. This is a major cause for the prevalence of diseases related to worm infections as well as of diarrhoea, typhoid, polio and cholera. In urban areas, the better off sections have

toilets but the poor have neither space nor money to build toilets. Most of them tend to defecate in open plots. Women who have to thus wait for twilight are subject to harassment and considerable discomfort. Even where common toilets have been provided in slums, poor maintenance tends to drive users away.

Thus, particularly in urban areas, the absence of toilets considerably increases the misery of the poor and affects their health badly. In recent years, government has taken major steps to increase the number of toilets for better sanitation and improvement in living standards. It has gone to the extent of amending the Panchayat Raj Act to make it mandatory for all members of zilla Panchayats, taluk Panchayats and gram Panchayats to have toilets in their houses. The biggest problem in the use of toilets is the availability of water. However, Karnataka has made remarkable progress in this area in the decade of the eighties.

### Potable water for households

In 1991, 71.68 % of the households in the state had access to potable water, covering 81% of urban and 67% of rural households.

There is much variation among districts in the availability of drinking water. In 1991, tap water was the major source of drinking water; 419 out of 1000 households used tap water to meet drinking water needs. Hand pumps and tube wells were the next major source of drinking water. There has been tremendous progress since 1981 when 354 out of 1000 households reported that they depended on wells for drinking water. Even in rural areas, 287 out of 1000 households drew their drinking water from taps and 386 from hand pumps and tube wells in 1991. In urban areas, as expected, as many as 712 households out of 1000 depend on taps for drinking water but most households still draw water from sources outside the house premises.

Since the provision of drinking water was taken up as a drive by the government in the eighties, almost all districts made much progress during that period. The backward districts of Bidar, Bijapur, Raichur and Gulbarga have in fact also added

**Table 8.8**  
**Percentage of households having access to safe drinking water**

| District      | Total       | Rural       | Urban       |
|---------------|-------------|-------------|-------------|
| Bangalore (U) | 82.0        | 88.6        | 81.0        |
| Bangalore (R) | 86.5        | 86.0        | 89.0        |
| Belgaum       | 64.2        | 60.7        | 75.9        |
| Bellary       | 84.2        | 82.0        | 89.3        |
| Bidar         | 60.5        | 59.7        | 64.2        |
| Bijapur       | 73.3        | 69.1        | 87.3        |
| Chikmagalur   | 69.5        | 64.6        | 93.3        |
| Chitradurga   | 88.1        | 86.3        | 93.0        |
| D. Kannada    | 20.0        | 11.8        | 40.9        |
| Dharwad       | 81.5        | 78.0        | 88.1        |
| Gulbarga      | 63.0        | 56.7        | 84.8        |
| Hassan        | 79.5        | 76.8        | 92.4        |
| Kodagu        | 44.8        | 37.8        | 83.9        |
| Kolar         | 89.8        | 90.4        | 87.6        |
| Mandya        | 71.1        | 69.6        | 79.3        |
| Mysore        | 82.7        | 79.8        | 89.8        |
| Raichur       | 65.4        | 60.5        | 84.0        |
| Shimoga       | 66.3        | 58.9        | 85.6        |
| Tumkur        | 80.8        | 79.5        | 87.3        |
| U. Kannada    | 30.2        | 24.1        | 48.6        |
| <b>STATE</b>  | <b>71.7</b> | <b>67.3</b> | <b>81.4</b> |

*Source: Census of India, 1991 - Tables on Houses and Household Amenities*

*Note : Safe drinking water is defined in the census to cover only tap and borewell water; hence there is likely to be some underestimation in respect of malnad and coastal areas which depend on open wells.*

considerably to the number of taps and tube wells.

### Rural water supply in Karnataka

The state has been investing substantial sums out of budgetary resources and mobilising Central grants and external assistance under various programmes and projects to improve the supply of potable water in rural areas. It has fully endorsed the decision of the 1996 Conference of Chief Ministers relating to the provision of basic minimum services to rural areas in which the provision of drinking water has been accepted as the most important of the seven identified basic services.

National norms for the supply of water for domestic purposes aim at providing at least 40 litres per capita daily to rural habitations to meet minimum requirements. This water has also to be safe for drinking and free from bacterial and chemical contamination. The supply

will have to be available within 500 metres of the place of residence. The norm was revised in 1996 and raised to 55 litres.

### **The current rural water supply position**

At present, Karnataka depends mainly on ground water resources for water

supply

to rural habitations. In most parts of the state groundwater is generally free from bacterial and mineral contamination when tapped from deep aquifers through bore wells. Since bore wells can be drilled within villages or close to habitations, the cost of pumping and conveying water to dwellings is minimal. Therefore, in Karnataka over 97 % of the rural water supply schemes depend upon groundwater. Drilling bore wells under piped water supply and mini water supply schemes and bore wells fitted with hand pumps has been the strategy followed in the last twenty years. In piped water supply schemes water is pumped using power pumps, stored in overhead or surface tanks and distributed through a network of public taps and even through a few household taps. In mini water supply schemes water is pumped with a power pump into small cisterns fitted with taps. Such schemes do not have overhead or surface level storage tanks nor do they have a distribution network.

In the last 25 years (up to March 1998) as many as 11,908 piped schemes and 12,917 mini schemes have been completed by the state government. In addition, 1,57,773 borewells have been drilled and fitted with hand pumps. In 1998-99 it is targeted to complete 940 piped schemes and 1190 mini schemes and drill 7052 bore wells and fit them with hand pumps. According to information available with the Department of Rural Development 66.78 percent of the rural population has access to safe drinking water of over 40 litres per capita daily. 30.32 percent of the rural population have a daily availability between 10 to 40 litres per capita. 2.9 percent of the population do not have government sources of drinking water or have access to less than 10 litres per capita daily of safe drinking water.

Typically, a piped water supply scheme for a village costs between about Rs. 10 lakhs to Rs.15 lakhs, depending upon the population of the habitation, the distance from which water is conveyed and the spread of the distribution network. A mini water supply scheme on the other hand costs between Rs. 1 lakh and Rs. 2 lakh. A bore well with a hand pump costs between Rs. 30000 and Rs. 40000. The annual maintenance cost of these schemes is between 5% to 10% of their capital cost. At present, Karnataka is investing about



## **Box 8.1**

### **Community-participation in running water supply schemes**

A main feature of the World Bank assisted Integrated Rural Water Supply and Environmental Sanitation Project is the involvement of the local community at all levels. This is done by drawing on NGOs for initial brainstorming through PRAs and community participation activities, constituting village water supply and sanitation committees and assisting them to mobilise local contributions for environmental sanitation measures. Community response has been very encouraging. 30% of the cost of environmental sanitation works amounting to nearly 7% of project costs is being collected from the community. By end December 1998, around Rs. 9.5 crores were mobilised in this manner. Village water supply and sanitation committees set up in project villages collect local contributions to meet the capital cost of environmental sanitation work, the operation and maintenance of water supply and drainage schemes and monitoring the health, communication and latrine sanitation component. They are involved in the supervision of the construction of water supply facilities and participate in joint inspection of works prior to commissioning. Committees have been set up in 1129 villages and have been trained by the project's management consultants. In about 35 villages schemes have been handed over to committees and water tariff is being collected from users. The committees themselves look after their operation and maintenance. Water supply schemes are likely to be sustainable in the long run because of community ownership.

Rs. 200 crores per year on rural water supply schemes (construction and maintenance) and commissioning about 1000 piped and mini schemes and about 7000 bore wells with hand pumps every year.

These schemes are funded by the state government (expenditure in 1997-98 was Rs. 101 crores) as also through the Accelerated Rural Water Supply Programme of the Central government (in 1997-98, Rs. 105.68 crores were released). A substantial portion of the maintenance expenditure of existing schemes (excluding electricity charges and wages paid to operators) is also incurred under these two programmes. The state is implementing three externally aided rural water supply projects.

Despite the large number of schemes implemented in the last two decades, a survey carried out through zilla Panchayats has estimated that 7749 piped and 8086 mini schemes and 48,020 borewells are necessary if all rural habitations in the state are to be provided with water supply as prescribed in the minimum norms. It is also estimated that an additional expenditure of about Rs.900 crores (at 1996-97 prices) is needed to implement these schemes. About 1300 habitations which were without public sources of water supply, mainly in remote areas of Shimoga and Uttara Kannada

#### Box 8.3

##### Rajiv Gandhi National Drinking Water Mission

The Rajiv Gandhi National Drinking Water Mission takes a sub-mission approach to tackling the problem of high levels of fluoride and other chemicals in water in many parts of the country. Under the sub-mission, states are given grants to the extent of 50% of the capital cost (75% of the cost for projects sanctioned up to 31-3-1998) of the schemes taken up for providing safe water in such villages. The remaining 50% is borne by the state under its Minimum Needs Programme. These schemes include treatment plants for reducing the fluoride content of water drawn from borewells, as well as regional/single village water supply systems drawing water from distant sources. The following sub-mission projects were taken up in Karnataka between 1995-96 and 1997-98 with Central assistance.

| District | No. of schemes | No. of villages | Cost in Rs.<br>lakhs |
|----------|----------------|-----------------|----------------------|
| Bellary  | 3              | 15              | 673.00               |
| Belgaum  | 2              | 34              | 1570.51              |
| Raichur  | 1              | 39              | 814.50               |
| Dharwad  | 1              | 7               | 137.36               |
| Total    | 7              | 95              | 3195.37              |

districts, are proposed to be provided with open wells and natural spring based systems by 1998-99.

### The problem of potability

Most rural water supply schemes aim at setting up water works at the village and

#### Box 8.2

##### Externally assisted rural water supply projects

1. The Karnataka Integrated Rural Water Supply and Environmental Sanitation Project with assistance from the World Bank has been taken up at a cost of Rs. 447 crores in about 1200 villages in twelve districts of the state. Phase I aims at providing water supply schemes and environmental sanitation works in 249 villages before the end of December 1998. Phase II covering about 950 villages is expected to be completed by the end of December 1999.

2. The Integrated Rural Water Supply and Sanitation Project with assistance from the Netherlands government covers 191 villages in Bijapur and Dharwar districts. Objectives include the provision of both water supply and sanitation and organising the community for the operation and maintenance of the facilities created. The project outlay is Rs. 67.7 crores. Water supply works have been taken up in over 50 villages so far. The project is expected to be completed by December 2001.

3. The Rural Drinking Water Supply and Sanitation Project with DANIDA (Danish government) assistance seeks to upgrade existing water supply and sanitation facilities in about 300 grama Panchayats of Bijapur, Bagalkot, Chitradurga, Davangere and Kolar districts. Outlay on the project is Rs. 51 crores and it is expected to be completed in 2001.

habitation level to pump, store and distribute groundwater available in the vicinity of a habitation to ensure adequacy of water supply. However, in about 4500 habitations, the groundwater available is not potable as it contains high levels of chemicals like fluoride and iron. Consumption of contaminated water with fluoride in excess of 1.5 ppm and iron in excess of 1 mg./litre is highly hazardous to health and can cause diseases like dental and skeletal fluorosis. Often, the water is also brackish (containing excessive salts) and unfit for drinking. In such cases available groundwater has to be appropriately treated before supply or potable water free from contamination has to be conveyed from distant sources like rivers, canals or reservoirs (surface sources) or high yielding deep bore wells. Both treatment and drawal of water from distant sources increase the per capita cost of drinking water supply schemes considerably. Costs can be reduced to a certain extent by designing schemes for a cluster of villages (all of which may have problems of water quality) instead of providing independent schemes for each village. Such regional schemes are financially sustainable when they draw water from surface sources like reservoirs and rivers and are preferred by users because of their reliability and the adequacy of supply.

### Linking water supply and sanitation

The picture we have so far presented is uni-dimensional as it depicts only the quantitative aspect of availability and not

the actual use of water. There are reasons to believe that use of water even in quantitative terms varies greatly across regions of the state and across different social and economic groups within society. It has been observed that economically weaker sections of rural society have lifestyles which make use of less than 40 litres per capita daily of water, while better off rural households use more than this quantity. However, awareness of the linkages between the use of water, sanitation and health seems to be generally low among rural households even though there are variations in the perceptions of different socio-economic groups and particularly between households with literate members and those without. An emerging challenge is to bring about a minimum level of awareness of the importance of improving personal and environmental hygiene in rural areas at the household and community levels while increasing the availability of water. Safe disposal of waste water and household wastes, improved cattle rearing practices and, most important, the use of sanitary latrines are facilitated by greater availability of water. A massive and sustained campaign is necessary to achieve this objective so that the benefits of increased water availability are translated into improved health and a better quality of life. Government has been making earnest efforts to tackle part of this problem by launching a massive programme called the nirmala grama yojana in October 1995 to assist rural households to build sanitary latrines. Over 4,50,000 rural households have been assisted under this programme till the end

#### Box 8.4

##### Sanitation - Kamplikoppa shows the way

Streets in Kamplikoppa village of Kalghatagi taluka in Dharwad had become mounds of filth due to the lack of drainage resulting in the stagnation of waste water. Villagers had to hold their noses while wading through the slime and muck on the streets! BAIF, a voluntary organisation, demonstrated the use of a soak pit in one street during a health awareness campaign. Within minutes, the filth had vanished. The results were instantaneous. There was no need for further pep talks and lectures on cleanliness. A soak pit costs as little as Rs. 150. The village now has six functional soak pits.

Encouraged by this effort BAIF initiated a discussion with the people of Kamplikoppa for the construction of a gutter. Stagnant water used to seep into stored foodgrains and cause tremendous damage. With contributions from villagers BAIF was able to have the gutter constructed at a modest cost of Rs. 4500 against the estimate of Rs. 22000 prepared by the local engineer. More important was the fact that the people of the village built the gutter themselves! This gutter stands out even today because it is always clean and well maintained.

of March 1998 to build sanitary latrines of the 'twin pit pour flush' model recommended by the UNICEF. The state has targeted coverage of 30% of the rural population under this programme by the end of 2000.

## Sustainability of systems

Sustainability of water supply systems installed in rural areas has emerged as a major issue which needs to be tackled with urgency. Over 97% of rural water supply facilities depend on ground water sources. Progressive decline in the water table and drying up of ground water aquifers have been rendering many water supply schemes non-functional every year. Additional investment thus becomes necessary to locate fresh sources for many schemes for sustained provision of even the minimum requirements of water. The problem escalates into crisis in many parts of the state during the summer months when the water table is generally at its lowest level and demand for water at the highest level. Of late, there is a growing realisation that recharge of ground water aquifers and regulation of extraction of ground water are essential for sustaining rural water supply systems on a long term basis.

Another aspect of Sustainability is the management of facilities including operation and maintenance. The state's policy so far has been one of providing both technical assistance and financial support for the maintenance and repair of rural water supply installations with only day to day operation and the payment of energy charges left to grama Panchayats. With the number of water supply installations increasing every year, the need for transferring the responsibility for

Table 8.9

Per capita availability and inadequate supply of potable water in urban areas, 1997-98

| District     | (in litres per capita daily) |                                   |                         |
|--------------|------------------------------|-----------------------------------|-------------------------|
|              | Total                        | No of towns inadequately supplied | Per capita availability |
| Bangalore    | 10                           | 10                                | 49                      |
| Kolar        | 12                           | 11                                | 64                      |
| Tumkur       | 10                           | 10                                | 44                      |
| Chitradurga  | 9                            | 9                                 | 55                      |
| Shimoga      | 10                           | 9                                 | 69                      |
| Mysore       | 12                           | 10                                | 87                      |
| Mandya       | 7                            | 7                                 | 85                      |
| Hassan       | 8                            | 6                                 | 78                      |
| Chikmagalur  | 8                            | 7                                 | 58                      |
| D. Kannada   | 10                           | 10                                | 89                      |
| Kodagu       | 3                            | 2                                 | 59                      |
| Gulbarga     | 12                           | 10                                | 61                      |
| Raichur      | 10                           | 10                                | 58                      |
| Bidar        | 6                            | 6                                 | 36                      |
| Bellary      | 11                           | 10                                | 59                      |
| Dharwad      | 22                           | 21                                | 61                      |
| Belgaum      | 16                           | 15                                | 71                      |
| Bijapur      | 18                           | 18                                | 62                      |
| U. Kannada   | 11                           | 9                                 | 72                      |
| <b>STATE</b> | <b>205</b>                   | <b>190</b>                        | <b>67</b>               |

Source : Karnataka Urban Water Supply and Sewerage Board

both operation and maintenance to rural communities is being increasingly realised. In water supply schemes being set up under externally aided projects, village water supply committees have been set up. Apart from liaising with project functionaries in the construction of schemes, they are also expected to take over the ultimate responsibility of operation and maintenance. The arrangement may provide a viable model for replication in other parts of the state although the relationship between these committees and local bodies is still not clear.

### Box 8.5

#### School sanitation in Mysore

Health, hygiene and sanitation and drinking water are inextricably linked. There is no better way to spread this message than through school children. Mysore taluka is successfully demonstrating this through the school sanitation programme under implementation since October 1995. Its objectives are to effect an attitudinal change in children by inculcating the habit of using toilets as well as basic hygiene and sanitation and also provide safe drinking water. 160 of the 204 primary schools in the taluka have already been provided with toilets and a source of safe drinking water. Special attention is paid to regular maintenance of toilets. The programme has shown encouraging results and children have started passing on their knowledge to parents.



***Urban water supply needs special attention. As many as 93% of urban areas have inadequate water supply.***

A notable feature of the rural water supply scene in Karnataka is control of the engineering services for the construction and installation of rural systems undertaken under normal programs by Panchayat raj institutions. Zilla panchayat engineering divisions and subdivisions which go down to the taluk level are responsible not only for construction but also for maintenance. As these divisions are accountable to taluk and zilla Panchayats, problems in the management of services get forcefully highlighted in the deliberations of local bodies leading to early corrective action. In externally aided projects it is hoped that in the near future, it will be possible to similarly involve local communities at the village level to improve the sustainability of projects.

### **Urban water supply**

There is a qualitative difference between the issues arising in urban water supply programs and those in rural schemes. Ground water sources like bore wells are not adequate to meet the water needs of urban populations which are concentrated in small compact areas. Rivers and reservoirs often need to be tapped. This considerably increases per unit costs. Yet the availability of potable water in urban areas is only 67 litres per capita daily in the state.

There are however significant variations in water supply in towns across districts. The urban areas of Mysore, Mandya, Hassan, Bijapur and Dharwad have water availability higher than the state average. At the bottom end of the spectrum lie the urban areas of Bangalore (excluding Bangalore city), Tumkur, Chitradurga, Chikmagalur and Kodagu, the four districts of Gulbarga division, Belgaum and Uttara Kannada. Another way of looking at things is to list the number of towns with inadequate supply of potable drinking water. The criteria accepted for adequacy of water supply is 135 litres per capita daily for towns with a population above one lakh, 100 litres for towns with populations between 20,000 and 1,00,000 and 70 litres for towns with populations up to 20,000. In terms of these criteria as many as 190 out of 205 towns or 93 % of the urban areas have inadequate water supply. The

inadequacy cuts across regions and districts within the state. In most districts over 80% of towns (the exceptions are Kodagu and Hassan) have inadequate supply of potable water.

The Karnataka Urban Water Supply and Drainage Board (KUWS & DB) set up in 1975 is responsible for executing water supply and sewerage schemes in all urban areas except Bangalore city. There is a separate board, the Bangalore Water Supply and Sewerage Board, exclusively for Bangalore city whose population (98 lakhs) is equivalent to almost half the population of 205 urban towns. The table above therefore, excludes figures for Bangalore city.

Since inception, KUWS&DB has spent Rs 438.67 crores and commissioned 310 schemes. Although inadequate, this expenditure has resulted in significant additional potable water being provided to urban areas since 1975. Mysore and Dharwad have been provided additional potable water of over 20,000 mn. litres. In all, 1,68,551 mn. litres of additional potable water have been provided by the Board.

### **Water supply in the metropolis**

The phenomenal growth of Bangalore city in area (from 29 sq. kms. at the beginning of the century to 446 sq. kms. in 1991) and even more in population (from 1.63 lakhs to 41.3 lakhs in 1991 and 48.5 lakhs in 1995) has posed major challenges to planners and policymakers. Today the city has become the sixth largest city in the country.

The first systematic attempt to provide assured water supply to the city was launched in 1896 when the Hesarghatta reservoir across the Arkavathi was built 18 kms. from the city to store 22.5 million litres per day. Due to increase in the population of the city, the per capita availability of drinking water touched an all time low of less than 45 litres a day in 1930. In 1933, a second and much larger source was created when another reservoir was built across the Arkavathi near Thippegondanahalli 28 kms. from the city. Increase in demand for water due to rapid industrialisation from the close of the

forties to the early sixties could not be met despite increases in storage capacities of both reservoirs. A scheme to draw drinking water from the only perennial and dependable source, the river Cauvery, with financial assistance from the World Bank was thus proposed and the Bangalore Water Supply & Sewerage Board (BWSSB) set up through an enactment in 1964.

The first stage of this project was executed between 1969 and 1974 and the second stage from 1979 to 1982. 135 mlds. of potential was created at costs of Rs. 35 crores and Rs. 80 crores respectively for the two stages of the project. Under stage three, 270 mlds. were added between 1985-86 and May 1993 at a cost of Rs. 240 crores. The total potential created is thus 540 mlds. The Cauvery now contributes 76% of the water supplied to the city. Per capita availability of drinking water reached the required standard of 140 litres per day in 1995 and went down again to 110 litres in 1998. To maintain the 140 lpcd level for at least another decade, the BWSSB has formulated the fourth stage of the Cauvery project which is expected to add 540 mlds. of water at a cost of Rs. 1072 crs. To be executed in two phases, the project is expected to be completed by December 2001.

In the early years, not much attention was paid to the conveyance of sullage and the disposal of sewage in Bangalore; the city had no major programme of sewage disposal before 1950. The Cauvery water supply scheme is the first in the country to simultaneously tackle the problems of supplying water and disposing of sewage. Two sewage treatment plants have been constructed for the city in the Vrishabhavathi valley; secondary treatment plants have also been functioning at Koramangala and in the Challghatta valley for eight years. Additional secondary treatment plants are being built in the Vrishabhavathi and Hebbal valleys. The sewage treatment capacity is expected to exceed the existing level of sewage flow estimated against the present rate of water supply after the sewage scheme proposed under the third stage of the Cauvery project is executed.

## The power situation in Karnataka

Karnataka was the first state to develop electric power in the country. The first hydel power station in Asia was set up in 1902 by the Maharaja of Mysore at Shivanasamudram. The initiative for these developments came from the great engineer-statesman of Karnataka, Sir M. Vishweswaraiah, whose grand vision envisaged the powering of modern industries and agriculture through the revolutionary medium of electricity. The power potential then seemed limitless as the state was richly endowed with hydro potential, especially since westward flowing rivers descended from high altitudes and flowed over relatively short distances into the sea. After the formation of the state, the Karnataka Electricity Board (KEB) was constituted to manage the generation and distribution of power. While power supply still continued to be the responsibility of the government, this ensured greater autonomy. At that stage, the requirement for power was not very large. The construction of the Sharavathi generation station made the state surplus in power for several years. In 1970 a separate corporation, the Karnataka Power Corporation, was set up for the exclusive task of developing and managing power generation. During this period, incentives were given for putting up power intensive industrial units and establishments like Indian Aluminium and the Visweswaraya Iron and Steel Limited continued to operate on abundant and cheaply available power. The power supply situation was comfortable till the late seventies. Since then, rapid agricultural and industrial growth in the state has outpaced the development of generation and transmission and distribution facilities. Today the electricity shortage is estimated at 20 percent. This problem is worsened by the fact that Karnataka does not possess reserves of coal, natural gas or oil for the generation of thermal power. Of its hydel potential of 7750 mws., just about 3000 mws. have been utilised to date.

The establishment of sub-stations is directly related to improvement in the quality of the power supplied. Up to 1970, 120 sub-stations had been established. By 1996-97, the figure had gone up to 557.

*While heavy subsidy for irrigation pumpsets may have brought prosperity to farmers, it has also released them from the obligation to use power economically*

Karnataka has limited potential for surface irrigation. Large areas of central and south interior Karnataka will always be dependent on rainfed agriculture. These areas are also deficient in rainfall, as they fall within the rain shadow of the Western Ghats. In the past, irrigation was predominantly through tanks and open wells. A few seasons of drought could however dry up tanks and lower ground water levels seriously affecting agricultural production and drinking water supply. With greater development of bore wells, farmers of these areas have been liberated from the vagaries of the monsoon. Availability of electricity is essential for the spread of the bore well culture. Energisation of irrigation pumpsets is the single most important area of operation of the Karnataka Electricity Board which has brought prosperity to the farming community. From the early 70s the state has witnessed a spurt in the drilling and electrification of bore wells. However, consumption of electricity by irrigation pumpsets which was 6% in 1978-79 has increased to more than 40% at least in the nineties. In the state's response to the burgeoning pressure for the supply of electricity for agriculture, were sown the seeds of the problems that now plague the sector. In the early seventies a decision was taken to stop metering agricultural pumpsets and substituting a HP based tariff. This had two immediate adverse outcomes - it struck a body blow to the accounting of power distribution, which is essential to monitor the efficient use of power and it released farmers from the obligation to use power economically.

### **The KEB's problems**

The KEB confronts two financial problems. It has not only to suffer revenue loss from free power supply to farmers; it is also obliged to accelerate the extension of its distribution network to service all installed pumpsets. When this was done year after year with limited financial resources and without much planning, the problem became aggravated through overloading of the transmission and distribution network, resulting in greater inefficiency. This vicious cycle has proved to be counterproductive. Though more than 11

lakh bore wells now exist, power is not available round the clock and the quality of power supplied has suffered. The system has caved in on itself. Limits to further growth are now clearly manifest. The spurt in installation of borewells has also resulted in serious overexploitation of ground water sources. The state has now imposed total or partial restrictions on taking up bore wells in more than 40 taluks. An additional one and a half lakh applicants are also waiting for energisation. Once this is done, the state will probably reach saturation levels in the installation of bore wells. The KEB faces the tough task of catching up on network strengthening to improve the quality of power. The state is still burdened with a whopping bill of more than Rs. 700 crores to sustain the supply of subsidised power to farmers. Since farmers do not get quality power, they are wary of the reimposition of metering and hikes in tariff. But quality power cannot be made available because there is no comfort for investors to set up the expensive transmission and distribution facilities required. The four major areas of concern in the electricity sector are:

- electricity shortage estimated at 20% of unrestricted demand in a good monsoon year,
- irrational tariffs with around 40% of the power supplied to agriculture being charged a mere 15 paise per unit while industrial and commercial consumers pay as much as twice the cost of power,
- cross - subsidisation stretched to the limit but still leaving a gap of about Rs. 700 crores per year,
- despite the notional availability of cheap hydro-potential in the state of more than 4000 mws., tapping it in the near future may be difficult since most projects are on east flowing rivers beset with interstate water sharing problems. Most generation facilities in the pipeline are therefore for relatively expensive thermal power.

The only cold comfort is that probably the KEB is not worse off than any other Electricity Board!

## Electrification of households and rural electrification

Electrification of households is a critical factor in improving the quality of life. Karnataka achieved the target of 100% electrification of villages in 1988-89. However, progress in the electrification of hamlets and households has been uneven in the state.

### Electrification of hamlets

Hamlets are a feature of the malnad of northern Karnataka. In some areas they cover only two or three households. Hamlet electrification has not kept pace with village electrification; in some districts it has been outpaced by the growth and dispersion of settlements. Increase in settlements has been very large in absolute terms in the districts of Dakshina Kannada, Chikmagalur, Shimoga and Bangalore and in percentage terms in Bidar, Bijapur, Dharwad and Raichur.

The overall picture is not too healthy with the percentage of hamlets electrified moving up from 15% in 1981 to 36% in 1998. The percentage is particularly low in the coastal and malnad districts of Dakshina Kannada (3.62%), Kodagu (16.27%), Chikmagalur (23.53%), Shimoga (24.42%) and Uttara Kannada (24.64%). Gulbarga also has a very low level of 22%. Belgaum leads the state with 100% electrification of hamlets followed by Kolar (97.2%) and Dharwad (89.5%). This is basically on account of the very few hamlets in these districts. The situation is also quite good in Mandya (78.25%) and Bellary (74.76%). Other districts have less than 70% of hamlets electrified.

### Electrification of households

In the state as a whole only 52.54% of households were electrified in 1991. The percentage was much lower in respect of SC (34%) and ST households (31%). The percentage of rural households electrified was less than 42%, though it was 76% in urban areas.

Bangalore district, with its predominantly urban population leads the state with

79.4% of households with electric connections. There is no other district with over 60% of households electrified. The districts of Belgaum, Kolar, Bangalore Rural, Chitradurga, Dharwad, Shimoga and Uttara Kannada are above the state average in this respect. In Raichur, Gulbarga, Bidar and Kodagu less than 40% of households have electricity. The situation is almost as bad in Bellary and Bijapur. These districts have expectedly an even lower percentage of households with electricity in rural areas. In urban areas all districts have over 70% of households electrified, except Raichur (55%), Mandya (69%), Bellary(61%) and Bijapur(69%).

Despite electricity being eagerly used for agricultural purposes, as evidenced by the spurt in power supply to irrigation pumpsets, it has not yet been effectively used for improving the quality of life of households. Poor progress in the electrification of houses is due to high capital costs on internal wiring which have to be borne by the consumer, relatively high levels of metered traffic and the fact that when electric connections are initially extended to a locality, the first consumer has to bear a significant portion of the laying charges. Relatively better off households who can afford such charges delay electrification in the hope of eventually obtaining a free connection under some government scheme or the other.

Recognising the need to rapidly spread the benefit of electricity to rural households, government has introduced a program of installing single light connections in houses belonging to weaker sections. Such Bhagya Jyoti connections have been instrumental in the electrification of almost 15 lakh households in the state. As in the case of irrigation pumpsets, incentives have increased the number of electrified households. However, here too, connections are not metered as a result of which the program suffers from all the inefficiencies of under-metering. Recently government has taken a decision to meter Bhagya Jyoti connections provided before 1991; this is expected to bring about 9 lakh consumers into the paying fold.

*Electricity shortage, irrational tariffs and extreme cross-subsidization are major areas of concern in the power sector*



**Table 8.10**  
**Percentage of hamlets electrified**

| Districts    | 1981         | 1998         |
|--------------|--------------|--------------|
| Bangalore    | 28.92        | 76.88        |
| Belgaum      | 33.57        | 100.00       |
| Bellary      | 22.32        | 74.76        |
| Bidar        | 35.37        | 44.07        |
| Bijapur      | 58.51        | 50.34        |
| Chickmagalur | 13.05        | 23.53        |
| Chitradurga  | 20.68        | 59.25        |
| D.Kannada    | 1.23         | 3.62         |
| Dharwad      | 100.00       | 89.58        |
| Gulbarga     | 9.00         | 22.44        |
| Hassan       | 18.48        | 44.25        |
| Kolar        | 64.81        | 97.82        |
| Mandya       | 42.17        | 78.25        |
| Mysore       | 36.23        | 58.47        |
| Raichur      | 8.60         | 41.26        |
| Shimoga      | 9.79         | 20.42        |
| Tumkur       | 27.97        | 69.69        |
| U.Kannada    | 1.95         | 24.64        |
| <b>STATE</b> | <b>15.18</b> | <b>35.95</b> |

Sources: 1. Report on Household Electrification in Karnataka, Planning department, May 1984  
2. Karnataka Electricity Board

**Table 8.11**  
**Percentage of households electrified - 1991**

| District        | Total        | Rural        | Urban        |
|-----------------|--------------|--------------|--------------|
| Bangalore Urban | 79.40        | 63.97        | 81.84        |
| Bangalore Rural | 55.86        | 51.38        | 76.46        |
| Belgaum         | 59.37        | 51.95        | 83.88        |
| Bellary         | 41.23        | 32.69        | 60.90        |
| Bidar           | 39.32        | 33.65        | 71.24        |
| Bijapur         | 41.19        | 32.96        | 68.70        |
| Chickmagalur    | 50.67        | 44.72        | 80.03        |
| Chitradurga     | 53.68        | 46.54        | 73.56        |
| D.Kannada       | 43.75        | 31.55        | 74.73        |
| Dharwad         | 54.81        | 46.65        | 70.31        |
| Gulbarga        | 35.91        | 25.85        | 70.64        |
| Hassan          | 54.70        | 49.26        | 80.59        |
| Kodagu          | 36.28        | 29.08        | 76.04        |
| Kolar           | 57.96        | 50.76        | 82.20        |
| Mandya          | 51.68        | 48.17        | 69.43        |
| Mysore          | 48.27        | 36.76        | 76.57        |
| Raichur         | 32.51        | 26.47        | 55.48        |
| Shimoga         | 53.89        | 45.45        | 76.02        |
| Tumkur          | 53.01        | 47.57        | 81.08        |
| U.Kannada       | 53.33        | 45.38        | 77.49        |
| <b>STATE</b>    | <b>52.47</b> | <b>41.75</b> | <b>76.27</b> |

Source : Census, 1991, Tables on Houses and Household Amenities

Though the next census will take place only in 2001, the Karnataka Electricity Board has estimated that between 1991 and 1998 the percentage of households electrified has gone up from 52% to over 73%. The districts of Raichur, Gulbarga, Bidar, Bellary and Bijapur are now estimated to have over 50% of households electrified. Even if these estimates are a little over-stated, progress has been striking since 1991 uniformly across all districts.

## Household electrification and development

An attempt to find a relationship between household electrification and urbanisation and literacy levels has been done in 1994.\* A comparison has also been made with the district development index. There seems to be a significant correlation between the level of electrification of households and the development index. Changes in urbanisation and literacy levels also seem to affect the percentage of households electrified. It is quite clear that these trends are self-reinforcing - the supply of electricity acts as a spur on literacy and greater awareness spurs on electrification.

## Power sector reform

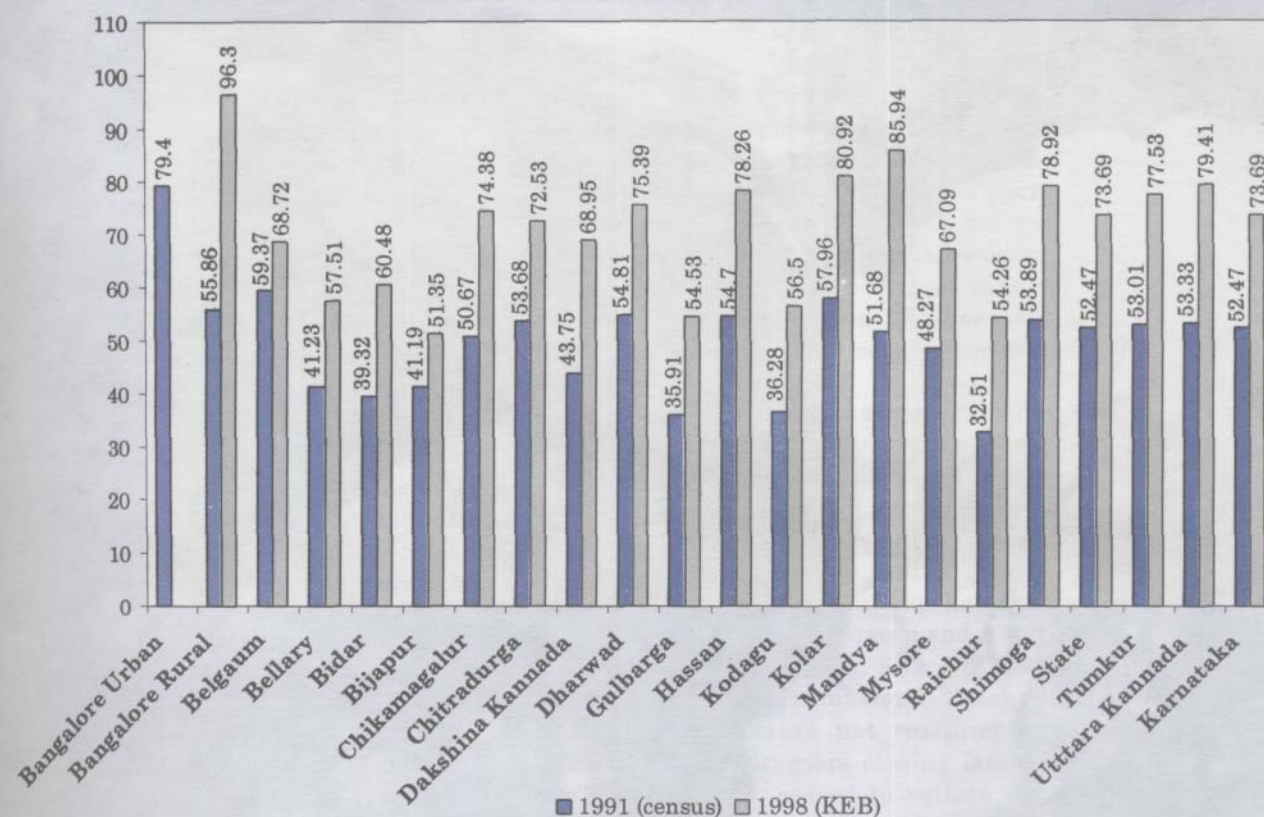
The Karnataka government has recognised the need for fundamental and thorough reform of the power sector. Karnataka suffers and will continue to suffer from acute scarcity of power unless reform is undertaken. There is also the realisation that investment will not be possible in power generation and transmission in the absence of sustainable financial health. Comprehensive reforms are contemplated to achieve the objectives of capacity creation in generation to cover the existing deficit and meet the growing demand, improvement in transmission and distribution to improve the reliability and quality of power supply and enhance customer satisfaction and keeping the cost of power to the minimum to improve economic competitiveness.

Government has announced a power

\*Report on Household Electrification in Karnataka. Planning Department, GOK, May, 1994.

**Figure 8.8**

**Percentage of households electrified by district, 1991 & 1998**



sector policy for the state in January 1997 to attract private investment in power generation, transmission and distribution. The policy envisages the establishment of a regulatory environment so that generation costs are kept to the minimum through a process of competitive bidding for setting up capacity and the provision of incentives for improvements in operational efficiency, cost reduction and enhancement of the quality of customer service in transmission and distribution. The policy speaks of the unbundling of generation, transmission and distribution, the breaking up of the distribution function into a number of smaller entities to promote greater operational efficiency, corporatisation of entities functioning in the sector into registered companies and commercialization of their functioning to be followed eventually by privatisation and competition in the setting up of generation capacity.

A direct effect of the setting up of a regulatory authority will be the delinking of tariff determination from the KEB and transparency in tariff fixation. This mandate of the authority is expected to safeguard the interests of both producers and consumers by bringing out inefficiencies in the system, defining them and setting targets for their elimination. Tariff reform is expected to ensure that the power sector as a whole is viable and able to attract investment necessary for meeting eventual demand. It will also give the power sector a strong consumer orientation by building in adequate institutional mechanisms to ensure that customer service levels are substantially improved. Reform could also signal an end to the supply of unmetered power, as it would be more dangerous for market reform to provide power without proper accounting than to give it practically free. The results of these reforms cannot but be beneficial for the state.

Towards decentralization

**The need for direct public participation in governance**

Policy interventions in the area of human development do not often achieve the desired objective due to institutional infirmities. Structures which depend on government officials alone are likely to be less flexible, responsive and accountable than those that provide for direct public participation through local self government or voluntary organizations. This reduces their effectiveness and the scope for early corrective action based on feedback obtained during implementation. An assessment has therefore been made of the functioning of government structures, the experience with decentralization through panchayat raj bodies and the role of non-governmental organizations in promoting human development.

The institutional challenge is on two fronts. On the one hand, government structures have to be brought closer to the people they serve. Simultaneously, grassroots organizations have to be promoted and supported so that avenues for direct popular participation are created. Such arrangements could be within or outside the government; decentralized administration through local bodies works through clearly defined statutes and procedures, while publicspirited individuals and non-governmental organizations operate on their own steam. Both kinds of public involvement need to be encouraged and nurtured.

In spite of efforts at introducing transparency, the credibility gap of government departments has widened. Their competence to formulate programs appropriate to the environment is under question. Public policy is often accused of not having paid adequate attention to regional imbalances and properly identified groups which require positive discrimination. A complain that has been

frequently voiced against the government is that income inequalities appear to have increased despite reservations. Such charges cannot be totally denied. Policy planners are often out of touch with reality so that the designing of schemes becomes flawed. No wonder then that many governmental schemes end up alienated from the community they seek to benefit.

Inefficient and sub-optimal government structures at the level of implementation can also destroy many of the intended benefits of schemes. Public accountability is minimal at many administrative levels and nonperformers are hardly ever brought to book. The community has also developed a passive indifference and a sad acceptance of the situation, a feeling that nothing can improve matters. Teacher absenteeism, doctors not residing in headquarters, officegoers coming late to work—all this has ceased to agitate the public mind.

**Box 9.1**

**Introducing transparency in the recruitment of teachers**

Before 1992-93, the recruitment of teachers in government primary schools was done through committees who conducted interviews at the district level. In several instances rampant corruption reportedly took place and vested interests prevented recruitment from being objective. In a farreaching move government decided to scrap these committees. Since the last five years recruitment has been strictly on the basis of marks obtained in the qualifying examination, with reservations as per statute for Scheduled Castes and Tribes and backward classes. 50% of the posts are reserved for women.

Despite this, vested interests continued to plague the system. Influence and money played a large part at the time of postings of newly recruited teachers. In a bold move in 1997-98 it was decided to introduce a system of centralised computerized counseling. Teachers were invited, based on merit and reservation rankings, to select schools for postings themselves. Appointment and posting orders have been issued on the spot in this manner for 29,300 teachers in 1998-99.

The recruitment of primary school teachers (including postings), which accounts for the biggest share of recruitment in government, is now totally transparent.



# Karnataka

Some glimpse

## The need for direct public participation in governance

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Inspite of efforts at introducing transparency, the credibility gap of government departments has widened. Their competence to formulate programs appropriate to the environment is under question. Public policy is often accused of not having paid adequate attention to regional imbalances and properly identified groups which require positive discrimination. A complaint that has been

frequently voiced against the government is that income inequalities appear to have increased despite reservations. Such charges cannot be totally denied. Policy planners are often out of touch with reality so that the designing of schemes becomes flawed. No wonder then that many governmental schemes end up alienated from the community they seek to benefit.

Inefficient and sub-optimal government structures at the level of implementation can also destroy many of the intended benefits of schemes. Public accountability is minimal at many administrative levels and nonperformers are hardly ever brought to book. The community has also developed a passive indifference and a sad acceptance of the situation, a feeling that nothing can improve matters. Teacher absenteeism, doctors not residing in headquarters, officegoers coming late to work—all this has ceased to agitate the public mind.

### Box 9.1

#### Introducing transparency in the recruitment of teachers

Before 1992-93, the recruitment of teachers in government primary schools was done through committees who conducted interviews at the district level. In several instances rampant corruption reportedly took place and vested interests prevented recruitment from being objective. In a farreaching move government decided to scrap these committees. Since the last five years recruitment has been strictly on the basis of marks obtained in the qualifying examination, with reservations as per statute for Scheduled Castes and Tribes and backward classes. 50% of the posts are reserved for women.

Despite this, vested interests continued to plague the system. Influence and money played a large part at the time of postings of newly recruited teachers. In a bold move in 1997-98 it was decided to introduce a system of centralised computerized counseling. Teachers were invited, based on merit and reservation rankings, to select schools for postings themselves. Appointment and posting orders have been issued on the spot in this manner for 29,300 teachers in 1998-99.

The recruitment of primary school teachers (including postings), which accounts for the biggest share of recruitment in government, is now totally transparent.



## **Karnataka has a long history of panchayat raj dating back to 1959**

The most alarming factor adversely affecting the implementation of government scheme is however the lack of transparency in departmental transactions. Even procedures which have been designed to ensure accountability and openness are circumvented and manipulated by vested interests which have been unfortunately sent their roots down deep into the system. Instances of school and health centre buildings developing cracks after one season, the purchase of sub-standard equipment and appointments made on patronage, influence or case are no longer isolated or exceptional cases.

### **Panchayati Raj and the history of decentralized governance.**

The inherent weakness of governmental structures that are distanced from the people have agitated the public mind for over a century. Even before independence, leaders like Gandhiji made efforts to develop institutions of governance at the grassroots level. In the princely state of Mysore many measures were introduced to establish institutions of local government. Although these were influenced by the thinking of the period, they helped focus attention on the need for devotion of power. Two statutes enacted at that time were the Mysore Village Panchayat Regulation and the Mysore District Boards Regulation of 1926, both of which remained in force till after independence.

It was largely on the instance of Mahatma Gandhi that the concept of Panchayats found a place in the Constitution of India. Article 40, one of the Directive Principles, states that: 'the state shall take steps to organize village panchayats and endow them with such powers and authority as may be necessary to enable them to function as units of selfgovernment'. The Balwantrai Mehta committee (Report of 1957) recommended a three tier structure of panchayati raj institutions. Despite the Gandhian heritage and public support, however, the decentralization effort had a chequered history. The Ashok Mehta committee which assessed the progress in setting up panchayats, has identified three phases in the story of panchayat raj: the period of

ascendancy (1959-64), that of stagnation (1965-69) and that of decline (1969-77). This committee recommended a two tier structure consisting of zilla parishads and mandal panchayats.

In Karnataka also there were important developments. Soon after independence, the Venkatappa and Chandrashekaraiah committees gave reports on local government. This resulted in the Mysore (Karnataka) Village Panchayats and District Boards Act, 1951, under which a three tier panchayat raj structure, comprising village panchayats, Taluka Development Boards and District Development Councils was set up. This Act remained in force till 1984.

The panchayat raj experiment in Karnataka got a big boost in 1983 with the enactment of a legislation that in significant ways improved upon the Ashok Mehta committee's report. A wide range of functions of the state government was transferred to zilla parishads and mandal panchayats. In a bold move the law made the adhyakshas of taluka and zilla panchayats their chief executives. By April 1992, one term has been completed by the representatives elected under the Act which came into force in April 1987.

### **The Karnataka Panchayat Raj Act, 1993**

The 1983 Act has since been comprehensively altered, mainly to incorporate the changes mandated by the 73<sup>rd</sup> amendment to the Constitution. The Karnataka Panchayat Raj Act of 1993 provides for an elected three tier structure at the village (gram panchayat), block (taluka panchayat), and district (zilla panchayat) levels. The gram sabha, which consists of all persons on the electoral roll in a village, is the foundation of the structure. It meets twice a year to review the accounts and performance of the gram panchayat and identify beneficiaries for various development programmes.

The gram panchayat has a population ranging between 5,000 and 7,000 (at present the average population is 5,300). There are 5640 gram panchayats in the state. Members are elected on a

non-party basis, each member representing about 400 people. The gram panchayat has some source revenue like taxes on buildings, entertainment and markets apart from statutory grants. In the social sector, it is the gram panchayat's responsibility to maintain drinking water and rural sanitation schemes, construct and maintain village roads, drains and culverts, construct primary school buildings and maintain village libraries and reading rooms. An amendment is under way to improve the administrative and financial viability of gram panchayats by increasing the population covered by each such body to 10000 to 16000 (from the present level of 5000 to 7000). This is likely to considerably reduce the number of such panchayats. Each gram panchayat member would then represent about 1000 people against the present level of 400.

The taluka panchayat covers the area of a revenue taluka and consists of elected members at the rate of one member for a population of 10,000. Elections to the 175 taluka panchayat were held in March 1995. The taluka panchayat is not empowered to raise resources from taxation; instead it depends on government grants for both establishment costs and scheme implementation. In the social sectors the most important functions of taluka panchayats are the maintenance of rural water supply and sanitation schemes, the establishment and maintenance of primary schools, the implementation of poverty alleviation, primary health and family welfare programmes and the maintenance of health sub-centres and anganwadi centres.

There are now 27 zilla panchayats after the creation of seven new districts. Like taluka panchayats, zilla panchayats too have no powers of taxation. Their sources of revenue are statutory and discretionary grants from the government. The zilla Panchayat prepares the district plan and integrates it into the plans of taluka Panchayats. Each zilla panchayat has five standing committees: a general standing committee, a finance, audit and planning committee, a social justice committee, a committee for education and health and one for agriculture and industry.

An outstanding feature of panchayat raj institutions in the state has been the determined effort of the government to empower the weak. At least one third of the seats are reserved for women, apart from reservation for the Scheduled Castes (15%), Scheduled Tribes (3%) and other backward classes (33%).

Assignment of functions to different levels is based on the capacities of functionaries and structures at each level. Autonomy for Panchayat raj institutions is sought to be combined with a system of positive checks to guarantee optimal results. The Act also makes a clear demarcation of responsibilities in respect of Plan schemes for each level. The lack of congruence between functions and powers at various levels had in the past created a deep sense of frustration in panchayat raj institutions especially at the lower rungs. This is sought to be avoided through clear allocations for zilla, taluka and gram Panchayats. Panchayat raj institutions also enjoy full autonomy in deciding the locations for services as well as fixing the parameters of implementation. Within limits they have freedom to alter outlays for schemes.

Government and panchayat raj institutions need to work very closely together to integrate plans formulated at different levels. This is the essence of multilevel planning where the process is continuous and interactive. Grassroot needs are communicated upwards; they exert an influence over state and national policymaking. At the same time, the larger perspective is communicated downwards so that a framework is created within which local needs can be housed. It is perhaps too early to assess whether this two way communication is taking place in an effective manner. To achieve optimal results government must be consciously responsive to local initiative. It must promote schemes for awareness generation so that broad social goals are kept in mind by the local community while formulating village and block level plans. In the social sectors there is also need to converge and integrate all efforts. Instead of the present planning methodology, which deals separately with each sector, a system of integrated area planning has to be adopted starting from the gram sabha.

Ideally, funds should be allocated as block rather than sectoral grants. The P. R. Nayak committee has also made such a recommendation in its report of March 1996

### **Vesting power with the people**

The principal purpose of panchayat raj is vesting power with the people. Of 80,627 gram panchayat members spread over 5640 gram Panchayats in the state, 22% of the elected members belong to the Scheduled Castes, 9% to the Scheduled Tribes and 35% to the backward classes. 43.8% are women. Another important feature is reservations for women, Scheduled Castes, Scheduled Tribes and backward classes as chairpersons (adhyakshas) and vice chairpersons (upadhyakshas) of gram, taluka and zilla Panchayats. Statutory reservations have been provided at all the three tiers.

\* for Scheduled Castes & Tribes – in proportion to their population subject to a minimum of 15% and 3% of the seats

#### **Box 9.2**

##### **Interview with Shivanavva - Gram Panchayat member from Bijapur**

"I was supposed to become the chairperson because the seat was proposed to be reserved for an SC woman. But the landlord in our village didn't want me to become the chairperson. 'Why should she, an illiterate person, become chairperson?' they asked. Four or five men got together, convened a meeting and declared him chairperson - despite the seat being reserved for an SC! I didn't get elected because they couldn't bear to be superseded by an SC. How can they be above us? they asked.

"But I fought with them. 'Why deny me what is mine? You are not giving me anything that is yours. The government has given us reservation. So let us have it'. I asked.

"We cannot do that, Shivanavva' they said. Then I asked them to make me vice chairperson, but that was a general seat. I said that just as they had taken away our reserved seat, they should give us the general one. They hushed up the matter for three months. After that the landlord produced a low income certificate and was made chairperson; his wife was made vice chairperson.

"There were three of us in the reserved category - two men and me. We remained members; the landlord and his wife became chairperson and vice-chairperson."

\* for women - one - third of the seats in each category.

The term of office of members of panchayat raj institutions is five years. Adhyakshas and upadhyakshas of taluka and zilla Panchayats hold office for 20 months so that in a period of five years rotation of offices will cover each of the three reserved categories. Adhyakshas of zilla and taluka Panchayats have been designated as the executive heads of these bodies. They have explicit powers to monitor, supervise and control the administration of the Panchayats.

Budget allocations to panchayat raj institutions under Plan schemes have increased from Rs 368.64 crores in 1987- 88 to Rs 1420 crores in 1997-98. Over the

#### **Box 9.3**

##### **From the diary of a resource person from Dharwad**

A tank was built in our village. It was inaugurated with great fanfare. The tank

had taps on all sides but it didn't have a cover. It was left open. Leaves and seeds from the tamarind and banyan trees nearby would fall into the tank. Water in the tank became so contaminated that many children began to suffer from dysentery. The women's sangha in the village sent petitions and appeals to the zilla and taluk Panchayats but there was no response. When they went to the taluk panchayat office, they were taunted. 'Why have you women come to waste our time?' They shouted at the women and sent them back.

Some time later there were elections to the taluk panchayat. The women in the village decided that they would boycott the elections. They said that they didn't need Panchayat help for anything and would, therefore, not vote for anyone. Persons who came to the village to canvass for votes got worried. They agreed that the tank should be cleaned and provided with a cover by the very next day. They gave a commitment to do so in writing.

What had actually happened was that the Gram Panchayat chairman had pocketed the money meant for the tank cover. Because of the condition laid down by the women and fear of an inquiry into the matter, the chairman took out a loan and got the tank covered overnight!

same period non-Plan allocations have increased from Rs 551.73 crores to Rs 2021 crores.

### **Evaluating the Panchayat raj experience**

Local government has had a long history in Karnataka. Over a period of time, the inherent disadvantages of decentralized governments have also become apparent. Local bodies find it difficult to ensure desired quality standards for the services to be delivered. Over-reliance on decentralisation can also perpetuate (and sometimes even reinforce) disparities between various regions or local communities. This is becoming a major concern in the state, as the more powerful regions and sections within elected bodies (who generally represent the advanced areas and groups) resist initiatives for

giving special consideration to backward or underdeveloped pockets. Government must therefore continue to intervene to ensure balanced human development.

Experience suggests too that the greater the control of Panchayats over resources, the better the delivery of services, provided there is wide participation and involvement of the people in the working of local bodies. An evaluation committee appointed by the government soon after the 1983 legislation became operational in 1987 reported that with the setting up of Panchayats the functioning of schools and health facilities had visibly improved. School attendance of teachers and students had gone up noticeably and local bodies had given priority to the extension, repair and maintenance of school buildings. Substantial allround improvement was also reported in health services and housing activity. On the whole, it is now increasingly recognised that Panchayats reflect local priorities better than bureaucratic structures. The proximity of Panchayat leaders to institutions delivering social services enhances accountability. It cannot, however, be yet said that in Karnataka the Panchayat raj system has fully matured and become accountable. There have been several instances of local vested interests and caste considerations undermining the positive impact of the decentralisation process.

Panchayat raj institutions work within a multilevel system. They cannot be evaluated in isolation of other levels of governance like state and union governments. Their autonomy will necessarily be influenced by this nexus with other levels. Panchayat raj institutions must be nurtured and protected against erosion of their autonomy. They must also be allowed to mature over time and develop greater resilience and strength. By allowing for gradual and steady growth we can guarantee that these institutions become mature and truly accountable. Karnataka's vibrancy in this respect is largely due to the recognition of this important factor. The challenge for the future is to evolve mechanisms to widen and deepen the participation of the community at large so that human development endeavours make the maximum impact under the Panchayat raj structure.

### **The role of non-governmental Organizations**

The broad rubric of nongovernmental organisations (NGOs) is being applied to variety of institutions that have emerged in recent years to express the common concerns of citizens' groups on social and community issues. Such associations have one basic characteristic: their orientation is essentially philanthropic and they are not driven by the profit motive. Throughout history, there have been several religious and radical movements in Karnataka in response to the perceived need to promote specific areas of human welfare and culture. Some groups serve only their members, some have service to the poor as their motto and for others this is only a marginal objective. In recent years, more professionally managed and relatively large NGOs have also emerged and developed with assistance from external donors. Their activities supplement government efforts in rural development and the social sectors. Broadly speaking, NGOs are of three types: the first type concentrates mainly on relief and welfare activities. The



## Box 9.4

### Sumangali Seva Ashram - an organisation dedicated to human development

Founded by Smt. Susheelamma, Sumangali Seva Ashram started as a small voluntary effort in 1975. The Ashram runs two schools, nine non-formal centres and 32 creches. It also manages a full-fledged ICDS project with 130 centres. It conducts classes in food and nutrition, health and hygiene. It has been training elected women Panchayati Raj members. A vocational training programme has been taken up in Kuntigrama slum of Bangalore. It has also been assisting

women to obtain credit and trains them in entrepreneurship development. The Ashram provides shelter for the mentally and physically disabled and for the aged.

second type focuses mainly on community development and acts as mobilisers in the community. They teach people how to help themselves. The third type of NGOs comprises those which have evolved from peoples' movements. All NGOs network actively with individuals and organizations and have access to extensive support, groups. The NGO's role is therefore principally that of activist and educator.

NGOs have, in certain situations, some inherent advantages which can increase the effectiveness and impact of investments. A major comparative advantage is their ability to establish a rapport with people and mobilise peoples' participation. Quite often, since NGOs operate in local compact areas, the quality of their interventions is markedly superior to more widespread government interventions.

There is one fundamental difference in approach between NGOs and the government. An NGO focuses on the efforts made by people themselves to organise and set up sustainable institutions. Government on the other hand focuses on the delivery of goods and services. The panchayat raj philosophy aims at developing local institutions and empowering them to manage their own

resources. NGOs by and large are also imbued with this philosophy.

Government must approach NGOs with trust and confidence. There is need to clearly identify the NGO's responsibilities as also why it is required. There must be flexibility in the design of schemes so that an NGO working in a local area is able to implement a programme within the local context. Government must also be conscious of the fact that capacities of NGOs vary widely across the state. Identification of the right type of NGO is a major challenge. Each NGO must be assessed in the context of the project in which it is to be involved. Only NGOs with a strong local presence and wide acceptance within the community can promote new initiatives in participatory developmental strategies. NGOs on their part must learn to build partnerships with elected local bodies on the one hand and government on the other. Conflicts often arise because of lack of understanding and maturity on both sides.

NGOs have made significant contributions in demonstrating new approaches to social sector programs in many parts of Karnataka. They have been particularly successful in evolving effective participatory training methodologies and harnessing local resources in their area of operation. Several NGOs have also made their mark in meeting exacting quality standards in their work. Such NGOs require to be encouraged and supported. At the same time it must be recognised that the scale of operation of NGOs and governments are different so that NGO experiences may not provide replicable models of development, even where they provide very rewarding learning experiences.

## Box 9.5

### Training for self-employment-a successful initiative

The Rural Development and Selfemployment Training Institute, better known as RUDSETI throughout Karnataka, has done yeoman's service in promoting entrepreneurship among poor youngsters in rural and urban areas through raining, motivation and finance. Sponsored by the SDME Trust and the Syndicate and Canara Banks, the institution as since July 1982 expanded to fifteen locations, only half of which are in Karnataka. Almost 65000 poor persons have been trained for selfemployment since inception up to end 1997, of whom around 65% (more than 42000) have set up units of their own. This high a success ratio in an area in which governmental and quasigovernmental institutions normally cannot cross the 15% mark is proof of the commitment with which trainees are selected and trained and the sincerity of the followup offered after training is completed. Government of Karnataka is now working closely with the institute to promote its own rural entrepreneurship development programs in the state.

### **Box 9.6**

#### **Relationship between government and NGOs: the MYRADA perception**

"The officials who represent government work at three levels.

Level A includes .... senior representatives of the government.

Level B covers all those who consider visits to the field as part of their supervisory role but where field tours do not take up more than a fraction of their time.

Level C includes all those who consider interaction with people as their main role.

NGO experience indicated that there are several level A officers with certain skills such as the ability to listen and learn and to function in a situation that *is* continuously evolving; they are willing to take calculated risks and quick decisions; many have experience in working with NGOs. Where such officers led the government intervention synergy grew between government and NGOs and provided excellent support to the staff of both institutions, as well as to the people; it also created a conducive working situation.... such officers were also willing to support the emergence of peoples' institutions officers at this level, however, generally do not have tenures over two years. Unfortunately... the qualities described here were not shared equally by all incumbents.

The willingness and ability to take risks and decisions at level B diminish sharply. Officials at this level normally have longer tenures than their superiors and are reluctant to take innovative decisions that do not conform to rules and procedures, since they may not be appreciated later by a new boss. By and large, officials of this level are uncomfortable with NGOs; this results in a lack of mutual trust. Some have had previous and limited experience with NGOs, where, as it often happens, only the negative features or a few failures have influenced their opinions NGOs are even viewed in some projects as potential threats to their interest, since NGOs often have direct access to their superiors....

On some occasions NGO staff (including Myrada's) have contributed towards strengthening these negative images by their inexperience and enthusiasm

Government staff at level C whose major role is to interface with people normally relate well with NGO field staff....

In general, however, there are certain negative perceptions at all levels of government that do not contribute towards strengthening the relationship with NGOs, though the number of officials supporting this collaboration has increased significantly. For example, there are certain sections in government who cannot understand why NGOs should receive funds, especially when they are scarce One irritant to government-NGO relations, which officials find difficult to cope with, is the 'halo', which NGOs tend to claim".

**Source: *The Myrada Experience*, Aloysius P. Fernandes, October 1996.**

MYRADA is an example of a successful NGO working in the state in the area of rural development which has been able to build the right kind of partnership with government agencies. It has been able to take the lead in promoting innovative community based initiatives and provide local level structures which government sponsored projects have been able to take advantage of while implementing schemes

Federation of Voluntary Agencies in Rural Development (FEVARD), Voluntary Health Association for Karnataka (VHAK) and Society for Service to Voluntary Associations (SOSVA) are three prominent apex organisations of NGOs which have made significant contributions in the networking of NGOs, as well as provided a forum for NGOs to collectively collaborate with government agencies.

## Users' and self help groups

A technique that is being widely adopted in Karnataka as in the rest of the country to encourage direct people's participation in social sector development is the constitution of groups of users for specific services. The method has been introduced under externally aided projects to respond to user demands and perceptions in areas like rural water supply and sanitation. When organised and managed well, these groups substantially increase the efficiency and sustainability of projects. They have also become the life force of watershed

development and drought prone area programs which focus on the problems of vulnerable groups. The challenge is however to find room for such groupings within the decentralised political structure itself.

A mechanism to tackle the crucial issue of rural credit which has taken deep roots in Karnataka is that of selfhelp groups; These were originally devised as informal support systems for the very needy who could not access funds for consumption and production purposes because of poverty and vulnerability. By coming together,

### Box 9.7

#### Women's selfhelp groups - towards empowerment

When Sakkamma's husband died in 1990, she feared for her children's future. Today, however, this 40-year old woman has her own milk dairy. A resident of Kammasamudram, a village near Kolar, Sakkamma is one of hundreds of women in the state, who have transformed their lives through self help groups. Efforts at organising women's self help groups have had considerable success in the state. These efforts have been supported both by government as well as by voluntary initiative. We document below some success stories from Kolar and other districts.

##### Bangalore (rural)

- **Sheep rearing at Chikkagangawadi** - Chikkagangawadi village is situated 30 kms. from Ramanagram in Bangalore (Rural) district. Sakthi, a voluntary organisation began working with women in the area in 1992-93. It imparted training to members of groups and inculcated the savings habit. Group members were also made aware of the need for education and health. In 1996 12 women members formed a DWACRA group and decided to take up sheep rearing as a group activity. Starting with a revolving fund of Rs. 25000 and 4 rams and 14 sheep the group has in the last two years bred 44 sheep and sold 11 of them. There is heartbreak when sheep die from disease. But women are hopeful and optimistic. They now own 26 sheep. Two women at a time graze the sheep. Out of sale proceeds of the sheep Rs. 10000 of the loan has already been repaid, a rearing shed constructed and a nearby field taken on lease for grazing.

- **Leaf plate making at Virupasandra** - Sakthi adopted another village, Virupasandra in Ramanagram taluka, in 1992-93. They formed women's self-help groups, imparted leadership and gender training and encouraged the savings habit. The women took a revolving fund of Rs. 25000 for leaf plate making and are earning Rs. 25 to Rs. 30 per day as additional remuneration during the lean agricultural season. They have begun to understand the value of working as a collective - they have better bargaining power when they purchase groceries and foodgrains jointly from the wholesale market instead of buying them from the local retailer at a much higher rate.

- **Mallamma gives the lead** - Mallamma along with 15 other women started a savings group in Narayanapura, a village on the outskirts of Magadi in Bangalore (Rural) district in 1995. Mallamma's is one of 311 DWACRA groups covering over 4000 women operating in Bangalore (rural) district.

##### Kolar

- **Brickmaking at Mohammadpura** - Brickmaking is normally considered a male preserve. But a group of 10 women from Mohammadpura village of Chintamani taluka in Kolar district has taken up brickmaking with assistance under the DWACRA scheme.

they were able to pool resources and provide mutual support in times of distress. Financial institutions only had to feed the common fund of the group and tended to save time and money in appraising small individual borrowings. They have also been pleasantly surprised to discover that recoveries made by groups are consistently high since the system makes allowance for flexibility in the selection of projects and interest rates and depends on peer group pressure to ensure proper utilisation and repayment of loans. Eventually, such groups have sown the seeds of political and gender empowerment.

If the democratic culture has to be deepened and strengthened, the involvement of citizens in formal and informal institutions should become a continuous, natural and fulfilling process. Every member of the public must recognise and articulate his right to a certain quality of public service; he must also willingly contribute his mite to ensuring accountability from elected representatives and bureaucrats. The evolution of appropriate institutions is thus of immense importance for the state and the country.

• **Chokkahalli takes up sericulture** - In Chokkahalli village of Chintamani taluka, a group of 10 women has successfully taken up sericulture under the DWACRA scheme. They have marketing facilities for finished products at the silk filature and get silk yarn from and sell finished goods to the sericulture society.

#### **Bidar**

• **DCC bank shows the way** - The DCC bank of Bidar has been in the lead in organising women's self help groups in the district. It has an exclusive cell for this purpose and has been collaborating with NGOs in setting up groups. At present there are 658 groups sponsored by the bank. The bank is enthusiastic about continued support to these groups for a very bankable reason - the recovery percentage is as high as 98%! The credit so far advanced is over Rs. 30 million and more than 50% of the amount has been used for income generation activities.

#### **Belgaum**

• **Zilla Panchayats can also do it!** - In July 1997 after detailed discussion the zilla panchayat decided to launch a campaign to organise self help groups to coincide with the nation's 50th independence day celebrations. A team of district level resource persons comprising bankers and NGOs imparted training to identified facilitators in each taluka. Information and publicity material was printed and distributed. A task force was constituted in each taluka to implement and monitor the programme. By December 1997, 666 self help groups had been formed. The Zilla Saksharta Committee has taken them up as a sub-programme under the post literacy campaign. CADA, Malaprabha and Ghataprabha projects have also provided assistance for awareness building activities.

#### **Dakshina Kannada**

• **SKRDS sets a record in Belthangady** - The Sri Kshetra Dharmasthala Rural Development Society (SKRDS) has adopted 81 villages in Belthangady taluka of Dakshina Kannada district and has been working for the uplift of the people in these villages since 1982. It has organised 2011 self help groups (Pragathi Bandhu). They have availed of Rs. 32 million as bank loan, saved Rs. 24 million and have annual transactions of the value of Rs. 70 million. These groups have improved the economic status of members through cooperative, thrift and credit activities.

#### **Dharwad**

• **Chinyard promotes self help** - Chinyard, a voluntary organisation based in Tadas in Shiggaon taluka of Dharwad district has been promoting the self help concept among women for over five years. It has organized 5100 families into groups in 110 villages and set up 178 self help groups. The total amount saved comes to over Rs. one million. Women members of groups have not restricted their activities to credit and savings alone but have begun acting as pressure groups to address social issues.



A sound understanding of where we are today is essential for setting milestones for future development. When the objective is not just economic growth but human development, the challenge is even greater, since strategies must be devised for providing good quality health and educational facilities for the poorest and most exploited groups as well as for reducing inequalities and raising real incomes.

Despite substantial investment in the social sectors, the level of human development in Karnataka is only marginally above that of the country as a whole. However, many districts have demonstrated that with a favourable climate the state can rise above the average and be on par with China and the countries of southeast Asia.

Most social indicators for the state hover around the national average. Per capita income has been fluctuating around the country average in recent years. The tendency for state figures to stabilise at the all India level is even more evident when we look at health and educational statistics. For several critical parameters, Karnataka is ranked sixth or seventh among the fifteen major states. But the wide range within which these measures fluctuate in different areas proves that there are sharp interdistrict disparities.

The first challenge is therefore to break out of the average national mould and improve the overall quality of life. This calls for action on all three fronts: improving income and production levels, raising educational attainments and providing better basic health facilities.

The gender picture is, on the whole, a shade brighter. Karnataka's ranking on the also to provide better facilities in poor performing

districts. A good sign is the Genderrelated Development Index scale is marginally higher than for the HDI, Yet the lower absolute ratio proves that there is unequal access to basic facilities or men and women; women in all districts are worse off than men in incomes, educational attainments and health status. The degree of women's empowerment has not been assessed in this document because of inadequacies in the UNDP GEM measure for estimating gender inequities in developing economies like India. Several areas in which there is glaring injustice in the treatment of women by government as well as by society have however been studied. Efforts must be made to set this right so that women in Karnataka face the world side by side with men as equal citizens.

Greater government investment in social sectors targeted to the more needy districts is a necessary condition for achieving higher levels of human development and improving the wellbeing of the population. Enhanced allocations alone, however, are not sufficient to reach the desired objective. In depth analysis of the social sectors indicates that the state has also to overcome structural inadequacies to get the maximum benefit from government interventions.

### Health and hygiene

A better quality of life must start with improved health for all segments of the population. This is dependent on the adoption of appropriate practices of hygiene and sanitation, the availability of protected sources of drinking water as well as the distribution of medical facilities.

The state must further raise the life expectancy of its population from 62.5 to the 70s; this implies making special efforts to improve the health of women and children as continued improvement in the infant mortality rate which has come down to an encouraging 53 per 1000 live births in 1997.

**There is need for greater government investment in social sectors, targeted to the more needy districts**

**Uneven development of health infrastructure compounded by a poor delivery system has led to poor health indicators in the northern districts**

Total immunisation coverage is a prerequisite for reduction of the IMR but information outside the official statistical network reveals substantial gaps in coverage. This is a major challenge calling for innovative approaches to reach vulnerable groups like slum children and the children of migrant workers. Infrastructure in rural areas requires considerable strengthening as infant mortality rates are distinctly higher outside urban clusters. Other frequent killers like diarrhoea can be tackled by effective publicity campaigns designed to build awareness among the general population.

The health and educational status of women are the key to overall improvement in the health status of the entire population. Better nutritional and health levels among pregnant and nursing mothers, wide adoption of population control methods and improved hygienic practices can contribute significantly to better health indices for the state. Yet maternal mortality and morbidity rates are hardly monitored, nor have nutritional programmes for poorer women been delivered with much success. This is a neglected area calling for immediate action. Every available technique including publicity and easy access to medical advice and attention must be adopted to bring down maternal mortality and fertility rates.

Uneven development of health infrastructure compounded by a poor delivery system are to some extent responsible for the poor health indicators in northern districts. Critical to improving health indicators is the extent to which the large primary health care network can become more people-centred and responsive to the needs of the local community. Efforts are being made to correct imbalances in health expenditure in favour of the tertiary sector (specialities and superspecialities) at the cost of quality basic health facilities; these efforts require reinforcement. The Karnataka Health Systems Development project (KHSDP), it is hoped, will improve the coverage and quality of secondary level health care facilities in the state. It should also provide a platform to address issues relating to health sector reform. This will include the promotion and regulation of private health providers. Their role has to be

recognized and a proper regulatory framework devised.

A serious problem facing the state is that of inducing qualified health staff to render committed and continuing service in less developed areas. Different methods have been employed all over the world to tackle this issue. A judicious combination of incentives and deterrents must be worked out to draw public and private medical personnel into poorly served districts.

Organisational reform in the health sector needs to be backed by government and matched by a substantial hike in outlays on basic health. Changes in approach are also required in reaching the health, sanitational and nutritional message to the farthest corners of the state.

### **Raising literacy levels**

The realisation that education is the key to all human development has slowly dawned on policymakers. Growth in incomes and productivity as well as adoption of improved health practices depend on high literacy levels. A fullfledged campaign has been launched to bring down the number of illiterate people in Karnataka. The issue is being tackled on two fronts-on the one hand, attempts are being made to draw all children into schools and reduce dropout rates; on the other hand, adults who have missed out on schooling are being identified and taught to read and write.

Literacy rates however are not yet significantly better than national figures. The gender and rural-urban divides are alarming. The range of disparity in educational attainments at the district level is also a matter of concern. Only the four districts of Kodagu, Dakshina and Uttara Kannada and Bangalore Urban have crossed both the 70% mark in respect of overall literacy and the 60% level for female literacy. The four districts of Hyderabad-Karnataka have very poor literacy levels, with Raichur recording as low a figure as 26% for female literacy. The task of achieving full enrolment of children of schoolgoing age can be accomplished by improving infrastructure at the primary and secondary levels as well as by

adopting innovative methods to reach out-of-school children.

Karnataka can be justifiably proud of recent initiatives taken to expand the primary school network to cover all habitations with population above three hundred, recruit a record number of teachers and take up classroom construction on a massive scale. As a result, the targeted population and area coverage levels for primary schools laid down by the Centre have been attained. Close to a lakh teachers have also been put in place. These achievements signal clearly the government's determination to make education the cornerstone of its social development program. Side by side, efforts are on to improve the quality of teaching in primary schools. The DPEP programme, specially focused on quality, is already yielding encouraging results.

However, if universalisation of elementary education has to become a reality, a multipronged strategy to reach the estimated 2.5 million out-of-school children in the 6-14 years age group must be sustained for the next decade. This will require fanning out to each household and each out-of-school child. Girl participation rates are particularly poor especially beyond the lower primary stage and much greater attention focussed on this group is required to correct the distortion.

Major reform in the education sector to make it childcentred will entail hard decisions including rational redeployment of existing teachers keeping in view the needs of children in remote rural areas. Under the existing regulatory framework, the department has been distanced from the community, the teaching fraternity and the child. Corrective mechanisms depend on a basic change in attitudes at all levels. Supervisory mechanisms and the 'inspector raj' culture will have to be quickly dismantled and replaced with a system that is child and community friendly.

Teachers' training must be redesigned to enable teachers to become facilitators and operate in the reality of a multigrade classroom. Only then can the school draw out the full potential and creativity of each child. Curriculum reform must be undertaken to

make it more locally relevant and gender sensitive. The focus must be on value education and the inculcation of a scientific temper. The massive school network must be consolidated and the quality of the delivery system improved instead of spreading resources thin by opening a large number of unviable high schools, junior colleges and higher grade institutions of learning. Grama Panchayats and the recently set up village education committees must also become vibrant and more closely integrated with the schooling system.

The aim must be to eventually create a climate in which every family demands and receives quality primary schooling at the state cost as a matter of right. Such an atmosphere has already been created in the coastal and malnad districts which are steadily moving closer to the literacy levels prevalent in Kerala state, but in other regions the position is far from satisfactory.

The adult literacy effort has necessarily to be at the micro level with active voluntary involvement. Publicity, dissemination of learning material and above all continuing postliteracy campaigns have all to be adopted to reach those who have missed out on schooling.

### **Growth in income and employment**

The state should also enable every citizen to earn an adequate income through a satisfying economic activity. The state domestic product of Karnataka has not grown at a faster rate than GDP at the national level. An encouraging sign is reduction in the share of NSDP from the primary sector and growth of the tertiary or services sector. The general stagnation of the secondary (manufacturing) sector needs to be addressed by improving infrastructure and promoting entrepreneurship. The concentration of women in badly paid jobs as both main and marginal workers in agriculture is another area of concern. The performance of the primary sector has been disappointing in terms of productivity; at the same time significant shift to the secondary and tertiary sectors is confined to a few districts. The secondary and tertiary sectors do not also seem to be absorbing as large a proportion of workers as

their growth rates would warrant.

Growth in domestic product and per capita incomes across districts does not follow any regional pattern. This is distinctly different from the regional grouping of the best and worst districts observed for educational and health indices. GDP growth has been due both to growth in the primary sector (that is in agriculture) in districts like Bijapur and Kolar as well as to industrial growth (in Bangalore urban district). Growth in per capita incomes is a function of initial income levels as also of the rate of increase of the population. Noticeably unequal income levels across districts at the time of states' reorganisation seem to have levelled out as a result of high rates of income growth in some backward areas.

On the whole, poverty levels have come down significantly over time. At present the percentage of population below the poverty line in Karnataka is less than the percentage for the country as a whole. In urban areas, however, a greater proportion of households seems to be below the poverty line in the state (40%) than in the country (32%). This underscores the need for targeting poverty alleviation programmes to the marginalised and the weak. It is also a pointer to the limitations of existing programmes and the inadequacies of the delivery system.

For the first time, an attempt has been made in the present document to look closely at interdistrict variations in income, employment and poverty levels. Insights drawn from these tables have to be further probed to comprehend the complex relationships between growth, income distribution, the economic structure and the kind and quality of employment generated in different sectors.

As a first time effort, district level poverty estimates have been prepared based on pooled (Central and state) samples of the NSS study on household expenditure. We have gone a step further and used this data to generate Gini coefficients (to capture levels of inequality) at the district level and computed welfare indices for districts using the formula developed by the Nobel laureate

Amartya Sen. There is considerable scope for further analysis of these issues which could sharpen our understanding of the functioning of the state economy. This could be of enormous help for future policymaking.

### Deprivation of essential basic amenities

Although the human development index by itself does not capture the availability of amenities like housing, sanitation and potable drinking water, the importance of these facilities has been recognised by the UNDP. They have therefore been included in Human Development Reports as part of the assessment of the general deprivation of populations. The present document has also looked closely at the availability of these services in the state.

Substantial investments have been made to provide housing for the shelterless poor and potable drinking water and sanitation in rural and urban areas but there is still much to be done. Interdistrict variations in some of these sectors (water supply and sanitation for example) are also striking. For maximum success on these fronts, funds will have to be raised and investments made by canvassing community participation and support. This calls for much ingenuity and imagination.

### People-centred development

If human development means people centred development, we cannot ignore the claims of neglected and exploited groups. The present report has therefore chosen to look at the future of Karnataka from the viewpoint of its women and children. Prospects for this segment of the population will continue to be bleak unless we bring them to the forefront of our developmental strategy.

Genderrelated Development Indices prepared on the UNDP model reveal one fairly satisfying fact-rankings of districts based on GDIs are very close to their rankings based on HDIs. This is not necessarily the general pattern at the international level. Improvement in overall educational and health status appears to be translating into improvement in the educational and health status of women too. At the microlevel, however, the gender gap cuts across sectors and regions-in all districts and in



all areas, women are treated as the second sex, neglected and exploited.

Persistent and declining sex ratios are symptomatic of the adverse environment in which women continue to live. There are distinct disparities in literacy, dropout and mortality rates for men and women. Nutritional levels are poorer among girls and women, mean age at marriage is lower and incomes earned are poorer.

Going beyond statistics, there is substantial proof of the subordinate status of women in all areas-a subordination that denies them the right to make choices in matters affecting their lives and futures. Much of the work done by women is unpaid and escapes notice. They are denied access in both formal and real terms to resources and credit on an equal basis with men. No wonder, despite longer working hours and more arduous conditions of labour, women's wages are far below what is paid to men. Lack of access to basic services by women is equally evident when we look at other human needs - housing, water supply, sanitation and electricity.

There is also glaring proof of domestic violence that goes unnoticed and unpunished. A significant finding from police records relates to the growing number of young married girls succumbing to "stove bursts" and "cooking accidents". Attacks on women within the home are condoned and covered up, to some extent because of ingrained patriarchal attitudes which law enforcers themselves cannot escape. Social outcry and strict monitoring of such cases alone can create a climate in which women can enjoy the basic right to life guaranteed by any democracy.

Policies are still crafted with the family as the target. As a result, power relations within toilet construction as women face insecurity and indignity in the absence of proper sanitation facilities. At the macro level, there must be substantial investment in programs designed to change the attitudes of politicians and government functionaries as well as of society at large.

families and social attitudes that discriminate against women are swept under the carpet. The callous disregard with which almost all sterilisations are done on women alone in a routine manner is glaring proof of gender bias within government and society. Because of such attitudes, the effects of public programs are considerably diluted. Schemes for raising productivity and incomes will not succeed if the role of women is systematically ignored. Absorption of best practices in areas like agriculture and animal husbandry can be faster if women who do much of the work in these sectors are involved and trained. Programs which are designed and managed without keeping the needs of women in mind can also have serious repercussions on their welfare.

If a perceptible dent is to be made in the state's social and economic indices, improvement of the status of women must become central to policymaking in all sectors. Housing schemes must involve beneficiaries, especially the women of the household. This is also true of the program for toilet construction as women face insecurity and indignity in the absence of proper sanitation facilities. At the macro level, there must be substantial investment in programs designed to change the attitudes of politicians and government functionaries as well as of society at large.

The status of children of Karnataka has been selected for special study in the present report. Large number of child labourers and high levels of malnourishment among children does not present a rosy picture for the future generation. The problems of girl children require special attention. Child health indicators, such as infant mortality rates, have been encouraging in recent years but efforts have to be stepped up if we are to approach global levels

## Issues of convergence

Eventually, developmental issues are inextricably intermeshed. Higher literacy levels and educational attainments improve the access of people to other social services. Interlinkages between the health and education sectors have always been acknowledged at the academic level-better health facilitates

educational attainment and (what is more important for policymakers) greater literacy and the spread of primary education increase the receptiveness of a population to improved health practices as well as the demand for medical care. There is thus a very close correlation between educational and health indicators. Poverty alleviation also appears to be closely linked to literacy and health. Education and improved health status mean expanded opportunities, better employment and higher incomes. Literacy also gives an impetus to women's empowerment. Education can have considerable indirect impact on other sectors too. Literacy appears to spur even the electrification of households through better awareness.

The close interdependence of social sectors must be recognised for improving programme implementation and the functioning of delivery systems. Not only must government become more responsive to local initiative, it must also integrate programmes for human development. The present segmented approach which treats education, health, housing, poverty alleviation and water supply as separate initiatives without interlinkages has to be discarded. The issue of gender cuts across all sectors and cannot be the responsibility of the Women and Child Development department alone. Gender concerns must pervade all schemes and programmes. Similarly, how can there be awareness of health issues without literacy?

Convergence must be encouraged through integrated local area planning at the village and grama Panchayat level. Predetermined sectoral earmarking of funds for education, health, women's development and the rest should be abandoned. Block grants should be given to the local community and the grama Panchayat induced to draw up action plans covering all human development interventions. The village school could become an extension of the anganwadi. The ANM's subcentre could use schools as focal points for health activities with the teacher as well as the health worker taking on the responsibility of improving the health of children. Easier access to schools means upgrading village roads for which funds will

have to be pooled from employment generation programmes. The school development plan should be implemented using inputs from other sectors. The same kind of integration must be introduced in other areas too.

## Regional and districtlevel disparities

To improve the human development index attention must be focussed on key problem areas. For the first time, we have a reasonably clear picture of variations in the quality of life in the state across districts. The marked divergence in the rankings of districts on the income scale as opposed to the health and education scales is a matter of concern. As apparent at the international level as well as in other countries, in Karnataka too, better income levels do not automatically imply higher levels of human development. This analysis helps us to identify the regions in which micro level initiatives must be taken to translate economic growth into a better quality of life. Divergence between income availability and health and educational status is particularly marked in three of the northern Karnataka districts-the difference in rankings is as large as 11 and 8 in Bellary and Gulbarga districts. In southern Karnataka, Mysore district, which has a difference in rankings of 7, also presents a disturbing picture.

Rankings of districts based on the HDI indicate that they can be broadly classified into three categories:

At the top of the scale on almost all indices lie the malnad and coastal districts-this can be further subdivided into two-the top three districts of Kodagu, Dakshina Kannada and Bangalore Urban and a second group of four districts covering Uttara Kannada, Shimoga, Chikmagalur and Hassan.

At the bottom lie the four districts of Hyderabad-Karnataka-Raichur, Gulbarga, Bellary and Bidar.

Nine other districts fall in between and there is no distinctive ranking pattern among them

Historical factors can partly explain this

clustering, since three at least of the four bottom districts were part of erstwhile Hyderabad state generally believed to have been neglected from the developmental point of view before independence. The rankings of the seven topmost districts are due more to sociocultural factors; in the coastal and malnad regions, demand for education and consequently for basic health facilities is high even where access may be difficult due to hilly terrain. These deductions should help us to comprehend the complex processes governing improvements in literacy and enrolment rates and enable us to focus programs for better results.

The range of variation between the leading and lagging districts is also fairly high. Where Kodagu or Dakshina Kannada by themselves may rank as high as 104 and 111 in HDI at the global level, Raichur and Gulbarga would go down to ranks near

140. The obvious conclusion is that the HDI for Karnataka as a whole cannot go up unless these problem areas are given greater attention. This is even more necessary since the vast mass of illiterate population of the lower ranking districts is less capable of articulating its needs and demanding greater public facilities than the better educated and empowered citizens of this and other areas. Government action should therefore also aim at empowering people in the lower ranked areas and making them conscious of their rights and requirements.

Reallocating resources to these regions may not be the only or even the best strategy. Over the years, government policies have to some extent been geared to directing investment in social sectors to districts which need them most. The District Primary Education Program of the Government of India for example selects districts on the basis of the single criterion of female literacy. On the whole, statelevel budgets are framed to ensure that greater attention is given in every sector to needy regions. The criteria adopted for allocation of Plan funds in the district sector among zilla Panchayats give weightage to population and several measures of backwardness. Yet, many factors operate to dilute the effect of such equalisation techniques.

The allocation of additional resources to regions like Hyderabad-Karnataka is limited by the extent to which people of other areas are willing to forego their own needs to favour this region. Coastal and malnad districts may be better off with regard to basic educational and health facilities and have reasonably satisfactory indicators but they have other problems requiring government attention and funding-mainly in secondary and higher education. Arbitrage between competing budget demands is not easy when every district demands an equal share of public funds or insists that most of the revenue generated within its borders must be returned to it on the expenditure side. Costeffective resource allocation which still has an equalising effect is possible only if:

- Political representatives and the public are repeatedly sensitised to the need to improve standards in the poorer performing districts and made willing participants in this effort.
- Schemes are not applied across the board to all districts but the special needs of each of them are appreciated. This would mean for example that allocations under rural employment generation programs of the Government of India might be reduced for coastal and malnad areas where the demand for rural employment appears to be limited, but additional funding could be provided for road construction and repair (since these suffer greater damage due to heavy rainfall).
- Zilla Panchayats are encouraged to raise resources where feasible to fund additional requirements; already, in coastal areas like Dakshina Kannada, public initiative in tackling problems like monsoon damaged roads is quite pronounced.

Most grievances of higher ranking districts could also be satisfied if departmental time and attention (if not resources) are devoted to advising them on finding solutions to the problems experienced in secondary and higher education and promoting private sector investment in these areas.

The task of raising HDI levels in north Karnataka requires not just funds; a more urgent need is to find committed personnel

willing to work in schools and medical institutions. Community vigilance in noting the absence of teachers or health personnel and demanding quality service from them is also much lower in the poor performing districts. This means that appropriate strategies of community participation and staff training and motivation must be evolved before we can expect substantial success. Programs like the DPEP provide for NGO and community involvement. At the micro level, volunteers have been actively working in difficult pockets but there are limits to the extent to which individual success stories can be replicated. Government will also have to create an environment which is conducive to such initiatives.

From the coastal and malnad experience, it appears that the creation of a sociocultural ambience favourable to the attainment of basic educational and health standards is the key to increasing the demand for better services and raising HDI levels. Not much attempt has been made to rouse public awareness through channels like the media. This is a method that could be better exploited to reach out to the lower ranked districts.

Inter-district disparities in the GDI seem to follow those in the HDI-if Kodagu and Dakshina Kannada districts rank 104 and 111 at the international HDI level, they rank 65 and 69 on the GDI scale against Raichur which ranks 142 and 101 on the HDI and GDI lists respectively. There is very little difference in rankings for individual districts on the HDI and GDI lists. This is partly due to the fact that the UNDP methodology provides for the GDI to capture both HDI developmental levels as well as gender disparities. Yet, at the international level and elsewhere, GDI rankings do not normally align themselves so closely with HDI rankings as in Karnataka. We might tentatively conclude that better human development in the state might also translate into better development for women as well as for men. Concerted attention must be given to districts like Bellary, Gulbarga or Mysore with better per capita incomes in which the status of women is distinctly lower.

## Funds for needy districts

Governmental spending has a major say in determining the level of human development and improving access to social services. Since the advent of Panchayat Raj in Karnataka, most of the expenditure on social sectors is done at the level of local bodies. Resource allocations to the district sector are governed by the recommendations of the State Finance Commission under which 36% of the nonloan gross own revenue receipts of the state are transferred to rural and urban local bodies in the ratio of 85:15. This in effect puts a cap on the resource flow to local bodies. NonPlan expenditure is committed expenditure; districts which for historical reasons have better infrastructure and are now ranked higher in human development have a greater share of non-Plan outlays. Such funds tend to get protected while formulating the budget.

Positive discrimination in favour of backward districts is therefore possible only when Plan funds are allocated. However, flow of resources to districts under the Plan is much less than allocations to them on the nonPlan side. The formula for distributing Plan outlays among districts is based on criteria which give weight to population as well as to backwardness. Nonetheless, resource transfers to zilla Panchayats in less developed districts on the Plan side are more than neutralised by much higher nonPlan transfers for committed items.

The current system of allocation of funds to districts requires review if interdistrict imbalances are to be corrected. Allocation cannot be based on a predominantly per capita approach. The relative human development needs of districts will have to become the starting point for rational and objective decisions on fund allocations. For this, we must look at the relative needs of districts and not parcel out resources on a pro rata basis. Better off districts must accept the economic interdependence of regions; faster growth in Raichur will have beneficial spin off effects on Dakshina Kannada and Kodagu too. It is



equally true that stagnation in one part of the state will pull down the performance of the better off regions.

Eventually, however, people not governments must seize the initiative for development. In the words of the women in the film-Itte Hejje Mundaka:

'You've moved forward,

now there's no looking back.

The country is yours,

the land is yours.

Rivers flow for you.

The forest is for you.

You've moved forward,

now there's no looking back.'

# STATISTICAL TABLES

### 3. GENDER RELATED DEVELOPMENT INDEX

| District           | Adult literacy rate 1991 |      | Combined gross enrolment ratio (1st to Xth class) 1991 |        | Adult literacy index |       | Gross enrolment index |       |
|--------------------|--------------------------|------|--------------------------------------------------------|--------|----------------------|-------|-----------------------|-------|
|                    | Female                   | Male | Female                                                 | Male   | Female               | Male  | Female                | Male  |
|                    | 9                        | 10   | 11                                                     | 12     | 13                   | 14    | 15                    | 16    |
| 1 Bangalore        | 64.3                     | 81.4 | 83.48                                                  | 86.18  | 0.643                | 0.814 | 0.835                 | 0.862 |
| 2 Bangalore Rural  | 28.1                     | 55.5 | 70.98                                                  | 88.51  | 0.281                | 0.555 | 0.710                 | 0.885 |
| 3 Belgaum          | 30.7                     | 62.8 | 66.62                                                  | 80.38  | 0.307                | 0.628 | 0.666                 | 0.804 |
| 4 Bellary          | 25.9                     | 55.6 | 59.87                                                  | 85.11  | 0.259                | 0.556 | 0.599                 | 0.851 |
| 5 Bidar            | 21.7                     | 53.7 | 62.78                                                  | 77.43  | 0.217                | 0.537 | 0.628                 | 0.774 |
| 6 Bijapur          | 31.5                     | 65.2 | 57.46                                                  | 78.79  | 0.315                | 0.652 | 0.575                 | 0.788 |
| 7 Chikmagalur      | 44.3                     | 66.7 | 75.91                                                  | 82.93  | 0.443                | 0.667 | 0.759                 | 0.829 |
| 8 Chitradurga      | 36.2                     | 63.0 | 76.73                                                  | 94.13  | 0.362                | 0.630 | 0.767                 | 0.941 |
| 9 Dakshina Kannada | 61.9                     | 81.5 | 99.06                                                  | 127.86 | 0.619                | 0.815 | 0.991                 | 1.279 |
| 10 Dharwad         | 37.6                     | 68.8 | 67.21                                                  | 78.23  | 0.376                | 0.688 | 0.672                 | 0.782 |
| 11 Gulbarga        | 18.5                     | 48.6 | 46.61                                                  | 70.04  | 0.185                | 0.486 | 0.466                 | 0.700 |
| 12 Hassan          | 36.8                     | 64.3 | 70.28                                                  | 83.62  | 0.368                | 0.643 | 0.703                 | 0.836 |
| 13 Kodagu          | 56.1                     | 72.9 | 86.80                                                  | 97.89  | 0.561                | 0.729 | 0.868                 | 0.979 |
| 14 Kolar           | 29.1                     | 57.3 | 74.88                                                  | 89.22  | 0.291                | 0.573 | 0.749                 | 0.892 |
| 15 Mandya          | 26.9                     | 52.7 | 70.11                                                  | 87.35  | 0.269                | 0.527 | 0.701                 | 0.874 |
| 16 Mysore          | 31.3                     | 51.9 | 61.95                                                  | 75.98  | 0.313                | 0.519 | 0.620                 | 0.760 |
| 17 Raichur         | 17.5                     | 47.5 | 39.42                                                  | 59.70  | 0.175                | 0.475 | 0.394                 | 0.597 |
| 18 Shimoga         | 44.6                     | 67.9 | 74.91                                                  | 87.93  | 0.446                | 0.679 | 0.749                 | 0.879 |
| 19 Tumkur          | 32.9                     | 61.7 | 77.35                                                  | 93.17  | 0.329                | 0.617 | 0.774                 | 0.932 |
| 20 Uttara Kannada  | 50.6                     | 73.8 | 79.95                                                  | 89.44  | 0.506                | 0.738 | 0.800                 | 0.894 |
| STATE              | 37.5                     | 63.8 | 69.17                                                  | 84.59  | 0.375                | 0.638 | 0.692                 | 0.846 |
| Maximum :-         | 100                      | 100  | 100                                                    | 100    |                      |       |                       |       |
| Minimum :-         | 0                        | 0    | 0                                                      | 0      |                      |       |                       |       |

Source:- Working Group (HDR), GOK.

## 8. INCOME AND EMPLOYMENT

### (I) Income

| District              | Growth in per capita income |             |             | Ranking of growth in per capita income |         |         |
|-----------------------|-----------------------------|-------------|-------------|----------------------------------------|---------|---------|
|                       | 1971-81                     | 1981-91     | 1991-95     | 1971-81                                | 1981-91 | 1991-95 |
|                       | 19                          | 20          | 21          | 22                                     | 23      | 24      |
| 1 Bangalore           | 2.64                        | 4.64        | 4.09        | 2                                      | 2       | 12      |
| 2 Bangalore rural     |                             |             | 4.22        |                                        |         | 10      |
| 3 Belgaum             | 3.12                        | 4.09        | 4.63        | 1                                      | 4       | 9       |
| 4 Bellary             | -1.34                       | 2.06        | 1.63        | 17                                     | 11      | 18      |
| 5 Bidar               | 1.14                        | 1.80        | 3.27        | 6                                      | 13      | 15      |
| 6 Bijapur             | -0.13                       | 5.09        | 9.32        | 12                                     | 1       | 2       |
| 7 Chickmagalur        | -0.16                       | 2.11        | 4.64        | 13                                     | 10      | 8       |
| 8 Chitradurga         | 0.95                        | 0.95        | 4.10        | 8                                      | 18      | 11      |
| 9 Dakshina<br>Kannada | 1.48                        | 3.80        | 0.44        | 5                                      | 5       | 19      |
| 10 Dharwad            | 0.63                        | 2.21        | 6.80        | 10                                     | 9       | 5       |
| 11 Gulbarga           | -0.87                       | 2.44        | 5.60        | 14                                     | 7       | 7       |
| 12 Hassan             | 0.66                        | 1.89        | 6.91        | 9                                      | 12      | 4       |
| 13 Kodagu             | -1.74                       | 1.56        | -0.82       | 18                                     | 16      | 20      |
| 14 Kolar              | -2.61                       | 4.58        | 3.57        | 19                                     | 3       | 13      |
| 15 Mandya             | 1.70                        | 1.44        | 7.99        | 4                                      | 17      | 3       |
| 16 Mysore             | 1.10                        | 2.35        | 10.44       | 7                                      | 8       | 1       |
| 17 Raichur            | -0.87                       | 0.68        | 3.35        | 15                                     | 19      | 14      |
| 18 Shimoga            | 0.15                        | 1.69        | 6.17        | 11                                     | 15      | 6       |
| 19 Tumkur             | 1.83                        | 2.97        | 2.63        | 3                                      | 6       | 16      |
| 20 Uttara Kannada     | -1.21                       | 1.76        | 2.52        | 16                                     | 14      | 17      |
| <b>STATE</b>          | <b>0.70</b>                 | <b>3.03</b> | <b>4.76</b> |                                        |         |         |

**Source :-** Directorate of Economics and Statistics.

**Note :-** Break-up not available for Bangalore (U) & Bangalore (R) districts from 1960-61 to 1980- hence value of undivided district of Bangalore is shown against Bangalore (U) district.



## 8. INCOME AND EMPLOYMENT

### (I) Income

| District           | % share in total district income at current prices |         |         |         |         |
|--------------------|----------------------------------------------------|---------|---------|---------|---------|
|                    | primary sector                                     |         |         |         |         |
|                    | 1960-61                                            | 1970-71 | 1980-81 | 1990-91 | 1995-96 |
|                    | 25                                                 | 26      | 27      | 28      | 29      |
| 1 Bangalore        | 30.2                                               | 22.3    | 11.0    | 2.6     | 3.9     |
| 2 Bangalore rural  |                                                    |         |         | 37.1    | 42.5    |
| 3 Belgaum          | 65.7                                               | 58.5    | 53.9    | 40.9    | 43.9    |
| 4 Bellary          | 60.6                                               | 67.6    | 55.0    | 46.4    | 46.9    |
| 5 Bidar            | 54.1                                               | 62.0    | 60.4    | 48.1    | 50.2    |
| 6 Bijapur          | 51.5                                               | 55.8    | 49.0    | 50.3    | 52.2    |
| 7 Chickmagalur     | 76.7                                               | 81.1    | 68.3    | 59.0    | 59.3    |
| 8 Chitradurga      | 58.5                                               | 61.9    | 54.5    | 46.0    | 48.3    |
| 9 Dakshina Kannada | 64.5                                               | 53.9    | 40.5    | 31.2    | 31.6    |
| 10 Dharwad         | 53.5                                               | 51.6    | 46.7    | 31.9    | 37.6    |
| 11 Gulbarga        | 55.2                                               | 63.9    | 53.2    | 37.3    | 44.7    |
| 12 Hassan          | 73.5                                               | 69.3    | 63.6    | 56.8    | 56.8    |
| 13 Kodagu          | 84.3                                               | 80.6    | 71.6    | 67.3    | 64.4    |
| 14 Kolar           | 64.4                                               | 63.7    | 49.1    | 49.4    | 51.3    |
| 15 Mandya          | 69.5                                               | 72.1    | 65.2    | 54.3    | 52.9    |
| 16 Mysore          | 56.0                                               | 62.0    | 50.9    | 37.8    | 41.2    |
| 17 Raichur         | 59.9                                               | 72.7    | 61.9    | 53.5    | 53.0    |
| 18 Shimoga         | 66.3                                               | 70.1    | 52.2    | 48.5    | 47.3    |
| 19 Tumkur          | 71.6                                               | 67.5    | 54.5    | 45.4    | 49.5    |
| 20 Uttara Kannada  | 77.3                                               | 69.5    | 50.3    | 37.8    | 36.4    |
| STATE              | 61.2                                               | 59.6    | 46.0    | 36.4    | 38.6    |

**Source :-** Directorate of Economics and Statistics.

**Note :-** Break-up not available for Bangalore (U) & Bangalore (R) districts from 1960-61 to 1980- hence value of undivided district of Bangalore is shown against Bangalore (U) district.

## 8. INCOME AND EMPLOYMENT

### (I) Income

| District           | % share in total district income at current prices |         |         |         |         |
|--------------------|----------------------------------------------------|---------|---------|---------|---------|
|                    | secondary sector                                   |         |         |         |         |
|                    | 1960-61                                            | 1970-71 | 1980-81 | 1990-91 | 1995-96 |
|                    | 30                                                 | 31      | 32      | 33      | 34      |
| 1 Bangalore        | 29.2                                               | 42.6    | 39.7    | 45.9    | 39.6    |
| 2 Bangalore rural  |                                                    |         |         | 24.8    | 17.6    |
| 3 Belgaum          | 11.6                                               | 19.4    | 17.7    | 24.0    | 19.5    |
| 4 Bellary          | 14.8                                               | 13.8    | 14.6    | 16.3    | 15.8    |
| 5 Bidar            | 13.0                                               | 12.5    | 11.9    | 15.1    | 13.5    |
| 6 Bijapur          | 18.8                                               | 18.3    | 18.7    | 16.7    | 17.0    |
| 7 Chickmagalur     | 10.7                                               | 6.7     | 7.3     | 7.5     | 6.2     |
| 8 Chitradurga      | 18.1                                               | 18.6    | 17.6    | 19.0    | 16.1    |
| 9 Dakshina Kannada | 14.5                                               | 22.8    | 26.8    | 29.5    | 29.8    |
| 10 Dharwad         | 14.1                                               | 19.9    | 19.2    | 25.3    | 23.2    |
| 11 Gulbarga        | 15.0                                               | 15.2    | 18.5    | 28.2    | 22.7    |
| 12 Hassan          | 7.5                                                | 13.3    | 9.8     | 10.8    | 10.1    |
| 13 Kodagu          | 5.9                                                | 7.2     | 5.1     | 4.5     | 4.4     |
| 14 Kolar           | 10.5                                               | 13.1    | 12.4    | 13.8    | 11.5    |
| 15 Mandya          | 11.9                                               | 10.8    | 10.3    | 14.4    | 13.2    |
| 16 Mysore          | 16.6                                               | ; 18.2  | 19.1    | 25.2    | 18.5    |
| 17 Raichur         | 12.8                                               | 11.1    | 12.1    | 11.3    | 12.3    |
| 18 Shimoga         | 22.0                                               | 15.0    | 19.6    | 18.1    | 17.1    |
| 19 Tumkur          | 10.6                                               | 11.8    | 15.4    | 19.3    | 16.3    |
| 20 Uttara Kannada  | 9.0                                                | 11.7    | 15.9    | 22.1    | 22.9    |
| STATE              | 15.2                                               | 18.6    | 20.8    | 24.8    | 21.5    |

**Source :-** Directorate of Economics and Statistics

**Note :-** Break-up not available for Bangalore (U) & Bangalore (R) districts from 1960-61 to 1980- hence value of undivided district of Bangalore is shown against Bangalore (U) district

## 8. INCOME AND EMPLOYMENT

### (I) Income

| District           | % share in total district income at current prices |         |         |         |         |
|--------------------|----------------------------------------------------|---------|---------|---------|---------|
|                    | tertiary sector                                    |         |         |         |         |
|                    | 1960-61                                            | 1970-71 | 1980-81 | 1990-91 | 1995-96 |
|                    | 35                                                 | 36      | 37      | 38      | 39      |
| 1 Bangalore        | 40.6                                               | 35.1    | 49.3    | 51.5    | 56.5    |
| 2 Bangalore rural  |                                                    |         |         | 38.1    | 39.9    |
| 3 Belgaum          | 22.7                                               | 22.1    | 28.4    | 35.1    | 36.6    |
| 4 Bellary          | 24.6                                               | 18.6    | 30.4    | 37.3    | 37.3    |
| 5 Bidar            | 32.9                                               | 25.5    | 27.7    | 36.8    | 36.3    |
| 6 Bijapur          | 29.7                                               | 25.9    | 32.3    | 33.0    | 30.8    |
| 7 Chickmagalur     | 12.6                                               | 12.2    | 24.4    | 33.5    | 34.5    |
| 8 Chitradurga      | 23.4                                               | 19.5    | 27.9    | 35.0    | 35.6    |
| 9 Dakshina Kannada | 21.0                                               | 23.3    | 32.7    | 39.3    | 38.6    |
| 11 Gulbarga        | 29.8                                               | 20.9    | 28.3    | 34.5    | 32.6    |
| 12 Hassan          | 19.0                                               | 17.4    | 26.6    | 32.4    | 33.1    |
| 13 Kodagu          | 9.8                                                | 12.2    | 23.3    | 28.2    | 31.2    |
| 14 Kolar           | 25.1                                               | 23.2    | 38.5    | 36.8    | 37.2    |
| 15 Mandya          | 18.6                                               | 17.1    | 24.5    | 31.3    | 33.9    |
| 16 Mysore          | 27.4                                               | 19.8    | 30.0    | 37.0    | 40.3    |
| 17 Raichur         | 27.3                                               | 16.2    | 26.0    | 35.2    | 34.7    |
| 18 Shimoga         | 11.7                                               | 14.9    | 28.2    | 33.4    | 35.6    |
| 19 Tumkur          | 17.8                                               | 20.7    | 30.1    | 35.3    | 34.2    |
| 20 Uttara Kannada  | 13.7                                               | 18.8    | 33.8    | 40.1    | 40.7    |
| STATE              | 23.6                                               | 21.8    | 33.2    | 38.8    | 39.9    |

**Source :-** Directorate of Economics and Statistics.

**Note :-** Break-up not available for Bangalore (U) & Bangalore (R) districts from 1960-61 to 1980- hence value of undivided district of Bangalore is shown against Bangalore (U) district.

## 8. INCOME AND EMPLOYMENT

### (I) Income

| District              | % shares of sectors in district income at constant (1980-81 ) prices |         |         |                  |         |         |
|-----------------------|----------------------------------------------------------------------|---------|---------|------------------|---------|---------|
|                       | primary sector                                                       |         |         | secondary sector |         |         |
|                       | 1980-81                                                              | 1990-91 | 1995-96 | 1980-81          | 1990-91 | 1995-96 |
|                       | 40                                                                   | 41      | 42      | 43               | 44      | 45      |
| 1 Bangalore           | 11.0                                                                 | 2.2     | 2.9     | 39.7             | 45.5    | 43.3    |
| 2 Bangalore rural     |                                                                      | 33.6    | 37.5    |                  | 25.1    | 20.7    |
| 3 Belgaum             | 53.9                                                                 | 41.3    | 42.8    | 17.7             | 22.1    | 19.1    |
| 4 Bellary             | 55.0                                                                 | 45.8    | 42.2    | 14.6             | 15.0    | 16.6    |
| 5 Bidar               | 60.4                                                                 | 52.9    | 51.8    | 11.9             | 11.1    | 11.2    |
| 6 Bijapur             | 49.0                                                                 | 49.4    | 54.4    | 18.7             | 15.2    | 13.6    |
| 7 Chickmagalur        | 68.3                                                                 | 57.9    | 53.9    | 7.3              | 7.9     | 8.7     |
| 8 Chitradurga         | 54.5                                                                 | 45.2    | 46.4    | 17.6             | 17.5    | 15.6    |
| 9 Dakshina<br>Kannada | 40.5                                                                 | 30.2    | 28.8    | 26.8             | 28.5    | 28.0    |
| 10 Dharwad            | 46.7                                                                 | 29.9    | 34.4    | 19.2             | 24.5    | 24.4    |
| 11 Gulbarga           | 53.2                                                                 | 33.5    | 40.6    | 18.5             | 29.7    | 24.9    |
| 12 Hassan             | 63.6                                                                 | 57.3    | 53.6    | 9.8              | 9.2     | 9.9     |
| 13 Kodagu             | 71.6                                                                 | 63.0    | 55.4    | 5.1              | 4.7     | 5.6     |
| 14 Kolar              | 49.1                                                                 | 47.1    | 48.2    | 12.4             | 11.9    | 11.1    |
| 15 Mandya             | 65.2                                                                 | 56.1    | 52.9    | 10.3             | 11.3    | 11.6    |
| 16 Mysore             | 50.9                                                                 | 35.0    | 35.6    | 19.1             | 24.9    | 22.5    |
| 17 Raichur            | 61.9                                                                 | 52.6    | 49.3    | 12.1             | 9.8     | 12.1    |
| 18 Shimoga            | 52.2                                                                 | 51.0    | 44.3    | 19.6             | 14.9    | 19.3    |
| 19 Tumkur             | 54.5                                                                 | 42.9    | 47.2    | 15.4             | 18.2    | 16.1    |
| 20 Uttara Kannada     | 50.3                                                                 | 35.2    | 32.0    | 15.9             | 23.5    | 24.9    |
| STATE                 | 46.0                                                                 | 34.8    | 35.1    | 20.8             | 24.3    | 23.3    |

Source :- Directorate of Economics and Statistics, Government of Karnataka.



## 8. INCOME AND EMPLOYMENT

### (I) Income

| District           | % shares of sectors in district income at constant (1980-81) prices tertiary sector |         |         | Sectoral composition of net district income 1995-96 at constant prices (Rs. lakhs) |                      |         |                      |
|--------------------|-------------------------------------------------------------------------------------|---------|---------|------------------------------------------------------------------------------------|----------------------|---------|----------------------|
|                    | 1980-81                                                                             | 1990-91 | 1995-96 | agriculture including animal husbandry                                             | forestry and logging | fishing | mining and quarrying |
|                    | 46                                                                                  | 47      | 48      | 49                                                                                 | 50                   | 51      | 52                   |
| 1 Bangalore        | 49.3                                                                                | 52.3    | 53.8    | 6788                                                                               | 177                  | 150     | 2                    |
| 2 Bangalore rural  |                                                                                     | 41.3    | 41.8    | 15519                                                                              | 323                  | 135     | 36                   |
| 3 Belgaum          | 28.4                                                                                | 36.6    | 38.1    | 38230                                                                              | 609                  | 13      | 9                    |
| 4 Bellary          | 30.4                                                                                | 39.2    | 41.2    | 17357                                                                              | 301                  | 285     | 360                  |
| 5 Bidar            | 27.7                                                                                | 36.0    | 37.0    | 13690                                                                              | 232                  | 40      | -                    |
| 6 Bijapur          | 32.3                                                                                | 35.4    | 32.0    | 35808                                                                              | 499                  | 83      | 29                   |
| 7 Chickmagalur     | 24.4                                                                                | 34.2    | 37.4    | 15826                                                                              | 252                  | 15      | 275                  |
| 8 Chitradurga      | 27.9                                                                                | 37.3    | 38.0    | 22582                                                                              | 361                  | 212     | 19                   |
| 9 Dakshina Kannada | 32.7                                                                                | 41.3    | 43.2    | 19870                                                                              | 483                  | 1522    | 10                   |
| 10 Dharwad         | 34.1                                                                                | 45.6    | 41.2    | 27267                                                                              | 564                  | 107     | 3                    |
| 11 Gulbarga        | 28.3                                                                                | 36.8    | 34.5    | 26597                                                                              | 448                  | 49      | 231                  |
| 12 Hassan          | 26.6                                                                                | 33.5    | 36.5    | 17483                                                                              | 306                  | 222     | 20                   |
| 13 Kodagu          | 23.3                                                                                | 32.3    | 39.0    | 10719                                                                              | 243                  | 8       | -                    |
| 14 Kolar           | 38.5                                                                                | 41.0    | 40.7    | 17444                                                                              | 398                  | 289     | 72                   |
| 15 Mandya          | 24.5                                                                                | 32.6    | 35.5    | 20973                                                                              | 307                  | 196     | 8                    |
| 16 Mysore          | 30.0                                                                                | 40.1    | 41.9    | 32556                                                                              | 598                  | 317     | 225                  |
| 17 Raichur         | 26.0                                                                                | 37.6    | 38.6    | 22967                                                                              | 406                  | 122     | 87                   |
| 18 Shimoga         | 28.2                                                                                | 34.1    | 36.4    | 23877                                                                              | 847                  | 304     | 17                   |
| 19 Tumkur          | 30.1                                                                                | 38.9    | 36.7    | 23065                                                                              | 432                  | 364     | 30                   |
| 20 Uttara Kannada  | 33.8                                                                                | 41.3    | 43.1    | 8002                                                                               | 625                  | 544     | 23                   |
| STATE              | 33.2                                                                                | 40.9    | 41.6    | 416620                                                                             | 8411                 | 4977    | 1456                 |

Source :- Directorate of Economics and Statistics, Government of Karnataka.

## 8. INCOME AND EMPLOYMENT

### (1) Income

| District           | Sectoral composition of net district income 1995-96 at constant prices (Rs. lakhs) |               |               |              |                                            |           |
|--------------------|------------------------------------------------------------------------------------|---------------|---------------|--------------|--------------------------------------------|-----------|
|                    | primary                                                                            | manufacturing |               | construction | electricity,<br>gas and<br>water<br>supply | secondary |
|                    |                                                                                    | registered    | un-registered |              |                                            |           |
|                    | 53                                                                                 | 54            | 55            | 56           | 57                                         | 58        |
| 1 Bangalore        | 7117                                                                               | 82555         | 5445          | 14171        | 3659                                       | 105830    |
| 2 Bangalore rural  | 16013                                                                              | 5948          | 1545          | 788          | 546                                        | 8827      |
| 3 Belgaum          | 38861                                                                              | 7809          | 4513          | 3732         | 1298                                       | 17352     |
| 4 Bellary          | 18303                                                                              | 3422          | 1508          | 1832         | 440                                        | 7202      |
| 5 Bidar            | 13962                                                                              | 698           | 851           | 1181         | 288                                        | 3018      |
| 6 Bijapur          | 36419                                                                              | 1762          | 4223          | 2434         | 659                                        | 9078      |
| 7 Chickmagalur     | 16368                                                                              | 781           | 756           | 829          | 267                                        | 2633      |
| 8 Chitradurga      | 23174                                                                              | 2825          | 2142          | 2220         | 597                                        | 7784      |
| 9 Dakshina Kannada | 21885                                                                              | 5283          | 11432         | 3742         | 867                                        | 21324     |
| 10 Dharwad         | 27941                                                                              | 11131         | 4157          | 3755         | 770                                        | 19813     |
| 11 Gulbarga        | 27325                                                                              | 11529         | 2049          | 2787         | 377                                        | 16742     |
| 12 Hassan          | 18031                                                                              | 930           | 790           | 1292         | 326                                        | 3338      |
| 13 Kodagu          | 10970                                                                              | 166           | 260           | 603          | 85                                         | 1114      |
| 14 Kolar           | 18203                                                                              | 515           | 1388          | 1495         | 801                                        | 4199      |
| 15 Mandya          | 21484                                                                              | 1927          | 949           | 1446         | 390                                        | 4712      |
| 16 Mysore          | 33696                                                                              | 12261         | 4551          | 3707         | 790                                        | 21309     |
| 17 Raichur         | 23582                                                                              | 2409          | 1589          | 1406         | 393                                        | 5797      |
| 18 Shimoga         | 25045                                                                              | 6762          | 1550          | 1946         | 647                                        | 10905     |
| 19 Tumkur          | 23891                                                                              | 3489          | 2289          | 1664         | 728                                        | 8170      |
| 20 Uttara Kannada  | 9194                                                                               | 3937          | 889           | 2051         | 275                                        | 7152      |
| STATE              | 431464                                                                             | 166139        | 52876         | 53081        | 14203                                      | 286299.   |

Source :- Directorate of Economics and Statistics, Government of Karnataka.

## 8. INCOME AND EMPLOYMENT

### (1) Income

| District              | Sectoral composition of net district income 1995-96 at constant prices (Rs. lakhs) |                                |         |                     |                                       |                             |
|-----------------------|------------------------------------------------------------------------------------|--------------------------------|---------|---------------------|---------------------------------------|-----------------------------|
|                       | ! railways                                                                         | transport<br>by other<br>means | storage | commu-<br>nications | trade<br>hotels<br>and<br>restaurants | banking<br>and<br>insurance |
|                       | 59                                                                                 | 80                             | 61      | 62                  | 63                                    | 64                          |
| 1 Bangalore           | 84                                                                                 | 11636                          | 225     | 3987                | 56704                                 | 29989                       |
| 2 Bangalore rural     | 33                                                                                 | 642                            | 11      | 280                 | 7860                                  | 844                         |
| 3 Belgaum             | 77                                                                                 | 3247                           | 23      | 498                 | 14961                                 | 4266                        |
| 4 Bellary             | 117                                                                                | 1418                           | 28      | 229                 | 7943                                  | 1743                        |
| 5 Bidar               | 28                                                                                 | 1386                           | 9       | 114                 | 3242                                  | 731                         |
| 6 Bijapur             | 73                                                                                 | 1457                           | 14      | 293                 | 8640                                  | 2016                        |
| 7 Chickmagalur        | 33                                                                                 | 866                            | 4       | 190                 | 4474                                  | 1575                        |
| 8 Chitradurga         | 57                                                                                 | 1905                           | 16      | 277                 | 6937                                  | 2265                        |
| 9 Dakshina<br>Kannada | 52                                                                                 | 3718                           | 20      | 1102                | 8907                                  | 9263                        |
| 10 Dharwad            | 113                                                                                | 2732                           | 60      | 570                 | 11985                                 | 5527                        |
| 11 Gulbarga           | 73                                                                                 | 1750                           | 15      | 256                 | 10344                                 | 1848                        |
| 12 Hassan             | 71                                                                                 | 920                            | 9       | 219                 | 3919                                  | 1575                        |
| 13 Kodagu             | -                                                                                  | 1264                           | 10      | 148                 | 2381                                  | 1366                        |
| 14 Kolar              | 70                                                                                 | 1741                           | 30      | 260                 | 3571                                  | 1807                        |
| 15 Mandya             | 29                                                                                 | 682                            | 8       | 137                 | 6793                                  | 1446                        |
| 16 Mysore             | 42                                                                                 | 2837                           | 25      | 642                 | 18901                                 | 5624                        |
| 17 Raichur            | 37                                                                                 | 1130                           | 48      | 212                 | 8004                                  | 2089                        |
| 18 Shimoga            | 44                                                                                 | 1204                           | 26      | 270                 | 8804                                  | 2466                        |
| 19 Tumkur             | 34                                                                                 | 1303                           | 8       | 226                 | 6855                                  | 1952                        |
| 20 Uttara Kannada     | 16                                                                                 | 1312                           | 36      | 257                 | 4002                                  | 1944                        |
| STATE                 | 1083                                                                               | 43150                          | 625     | 10167               | 205227                                | 80336                       |

Source :• Directorate of Economics and Statistics, Government of Karnataka.

## 8. INCOME AND EMPLOYMENT

### (I) Income

| District              | Sectoral composition of net district income 1 995-96 at constant prices (Rs. lakhs) |                               |                   |          |                                       |                                             |
|-----------------------|-------------------------------------------------------------------------------------|-------------------------------|-------------------|----------|---------------------------------------|---------------------------------------------|
|                       | real estate,<br>ownership of<br>dwellings<br>and<br>business<br>services            | public<br>admini-<br>stration | other<br>services | tertiary | net<br>domestic<br>product<br>1995-96 | per capita<br>income<br>(in Rs.)<br>1995-96 |
|                       | 65                                                                                  | 66-                           | 67                | 68       | 69                                    | 70                                          |
| 1 Bangalore           | 5481                                                                                | 12078                         | 11362             | 131546   | 244493                                | 4712                                        |
| 2 Bangalore rural     | 2546                                                                                | 2689                          | 2963              | 17868    | 42708                                 | 2381                                        |
| 3 Belgaum             | 4155                                                                                | 3016                          | 4368              | 34611    | 90824                                 | 2363                                        |
| 4 Bellary             | 2345                                                                                | 1312                          | 2756              | 17891    | 43396                                 | 2143                                        |
| 5 Bidar               | 1511                                                                                | 1158                          | 1781              | 9960     | 26940                                 | 2002                                        |
| 6 Bijapur             | 3608                                                                                | 1616                          | 3657              | 21374    | 66871                                 | 2130                                        |
| 7 Chickmagalur        | 1459                                                                                | 1354                          | 1417              | 11372    | 30373                                 | 2787                                        |
| 8 Chitradurga         | 2732                                                                                | 1676                          | 3140              | 19005    | 49963                                 | 2136                                        |
| 9 Dakshina<br>Kannada | 3324                                                                                | 1919                          | 4504              | 32809    | 76018                                 | 2632                                        |
| 10 Dharwad            | 4244                                                                                | 3119                          | 5153              | 33503    | 81257                                 | 2163                                        |
| 11 Gulbarga           | 3315                                                                                | 2246                          | 3390              | 23237    | 67304                                 | 2431                                        |
| 12 Hassan             | 2119                                                                                | 1321                          | 2119              | 12272    | 33641                                 | 1999                                        |
| 13 Kodagu             | 838                                                                                 | 798                           | 926               | 7731     | 19815                                 | 3770                                        |
| 14 Kolar              | 2921                                                                                | 1961                          | 3000              | 15361    | 37763                                 | 1588                                        |
| 15 Mandya             | 2217                                                                                | 1051                          | 2059              | 14422    | 40618                                 | 2308                                        |
| 16 Mysore             | 4113                                                                                | 2815                          | 4549              | 39548    | 94553                                 | 2785                                        |
| 17 Raichur            | 2939                                                                                | 1475                          | 2517              | 18451    | 47830                                 | 1933                                        |
| 18 Shimoga            | 2504                                                                                | 2213                          | 3059              | 20590    | 56540                                 | 2759                                        |
| 19 Tumkur             | 3230                                                                                | 1569                          | 3410              | 18587    | 50648                                 | 2047                                        |
| 20 Uttara Kannada     | 1625                                                                                | 1303                          | 1893              | 12388    | 28734                                 | 2199                                        |
| STATE                 | 57226                                                                               | 46689                         | 68023             | 512526   | 1230289                               | 2551                                        |

## 8. INCOME AND EMPLOYMENT

### (1) Income

| District |                  | Growth rate of NSDP : 1980-81 to 1990-91 |                  |                 |             |
|----------|------------------|------------------------------------------|------------------|-----------------|-------------|
|          |                  | primary sector                           | secondary sector | tertiary sector | all sectors |
|          |                  | 71                                       | 72               | 73              | 74          |
| 1        | Bangalore        | 3.0                                      | 12.0             | 11.2            | 10.6        |
| 2        | Bangalore rural  |                                          |                  |                 |             |
| 3        | Belgaum          | 3.7                                      | 12.3             | 13.0            | 7.9         |
| 4        | Bellary          | 3.5                                      | 4.0              | 10.1            | 5.6         |
| 5        | Bidar            | 3.3                                      | 4.1              | 9.8             | 5.2         |
| 6        | Bijapur          | 10.5                                     | 5.7              | 12.0            | 10.1        |
| 7        | Chickmagalur     | 1.6                                      | 8.1              | 9.7             | 4.0         |
| 8        | Chitradurga      | 1.4                                      | 3.5              | 8.3             | 3.7         |
| 9        | Dakshina Kannada | 2.4                                      | 7.5              | 10.9            | 6.6         |
| 10       | Dharwad          | -0.5                                     | 9.0              | 10.0            | 4.9         |
| 11       | Gulbarga         | 0.2                                      | 14.6             | 10.9            | 6.0         |
| 12       | Hassan           | 2.7                                      | 3.0              | 7.7             | 4.1         |
| 13       | Kodagu           | 1.1                                      | 1.7              | 7.5             | 2.6         |
| 14       | Kolar            | 10.3                                     | 1.5              | 9.4             | 8.2         |
| 15       | Mandya           | 1.7                                      | 5.0              | 8.1             | 3.6         |
| 16       | Mysore           | 0.5                                      | 10.1             | 10.5            | 5.4         |
| 17       | Raichur          | 1.9                                      | 0.7              | 10.0            | 3.8         |
| 18       | Shimoga          | 3.6                                      | 0.5              | 6.7             | 3.9         |
| 19       | Tumkur           | 2.3                                      | 8.3              | 10.1            | 5.6         |
| 20       | Uttara Kannada   | -0.4                                     | 9.2              | 6.5             | 3.5         |
| STATE    |                  | 2.5                                      | 8.7              | 10.2            | 6.4         |

Source :- Directorate of Economics and Statistics, Government of Karnataka.



### 3. GENDER RELATED DEVELOPMENT INDEX

| District              | Educationa<br>attainment index<br>index of edu.<br>attainment |       | Equally<br>distributed<br>active<br>population | % share of<br>economically |       | Agricultural<br>wages |       |
|-----------------------|---------------------------------------------------------------|-------|------------------------------------------------|----------------------------|-------|-----------------------|-------|
|                       | Female                                                        | Male  |                                                | Female                     | Male  | Female                | Male  |
|                       | 17                                                            | 18    |                                                | 20                         | 21    | 22                    | 23    |
| 1 Bangalore           | 0.707                                                         | 0.830 | 0.767                                          | 0.183                      | 0.817 | 18.00                 | 21.80 |
| 2 Bangalore Rural     | 0.424                                                         | 0.665 | 0.521                                          | 0.330                      | 0.670 | 16.26                 | 19.32 |
| 3 Belgaum             | 0.427                                                         | 0.687 | 0.529                                          | 0.342                      | 0.658 | 11.92                 | 16.93 |
| 4 Bellary             | 0.372                                                         | 0.654 | 0.477                                          | 0.394                      | 0.606 | 10.65                 | 12.91 |
| 5 Bidar               | 0.354                                                         | 0.616 | 0.453                                          | 0.373                      | 0.627 | 14.83                 | 17.30 |
| 6 Bijapur             | 0.402                                                         | 0.697 | 0.512                                          | 0.378                      | 0.622 | 11.01                 | 16.99 |
| 7 Chikmagalur         | 0.548                                                         | 0.721 | 0.624                                          | 0.353                      | 0.647 | 16.97                 | 21.88 |
| 8 Chitradurga         | 0.497                                                         | 0.734 | 0.596                                          | 0.355                      | 0.645 | 12.56                 | 17.22 |
| 9 Dakshina<br>Kannada | 0.743                                                         | 0.970 | 0.838                                          | 0.419                      | 0.581 | 16.72                 | 26.77 |
| 10 Dharwad            | 0.475                                                         | 0.719 | 0.576                                          | 0.348                      | 0.652 | 7.68                  | 10.25 |
| 11 Gulbarga           | 0.279                                                         | 0.557 | 0.374                                          | 0.394                      | 0.606 | 12.96                 | 19.51 |
| 12 Hassan             | 0.480                                                         | 0.707 | 0.572                                          | 0.365                      | 0.635 | 13.04                 | 14.82 |
| 13 Kodagu             | 0.663                                                         | 0.812 | 0.731                                          | 0.370                      | 0.630 | 25.25                 | 27.27 |
| 14 Kolar              | 0.444                                                         | 0.679 | 0.539                                          | 0.355                      | 0.645 | 18.25                 | 24.32 |
| 15 Mandya             | 0.413                                                         | 0.643 | 0.505                                          | 0.342                      | 0.658 | 16.97                 | 25.92 |
| 16 Mysore             | 0.415                                                         | 0.599 | 0.493                                          | 0.274                      | 0.726 | 13.45                 | 19.40 |
| 17 Raichur            | 0.248                                                         | 0.516 | 0.336                                          | 0.390                      | 0.610 | 8.32                  | 11.95 |
| 18 Shimoga            | 0.547                                                         | 0.746 | 0.633                                          | 0.311                      | 0.689 | 14.05                 | 15.01 |
| 19 Tumkur             | 0.477                                                         | 0.722 | 0.577                                          | 0.391                      | 0.609 | 13.12                 | 15.27 |
| 20 Uttara Kannada     | 0.604                                                         | 0.790 | 0.686                                          | 0.300                      | 0.700 | 16.15                 | 21.37 |
| STATE                 | 0.481                                                         | 0.707 | 0.574                                          | 0.343                      | 0.657 | 14.40                 | 18.80 |

Source:-Working Group (HDR), GOK.

## 8. INCOME AND EMPLOYMENT

### (1) Income

| District           | Sectoral and overall growth rates of Net State Domestic Product<br>(at 1980-81 prices) 1980-81 to 1995-96 (% per annum) |                  |                 |            |
|--------------------|-------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|------------|
|                    | primary sector                                                                                                          | Secondary sector | tertiary sector | overall    |
|                    | 75                                                                                                                      | 76               | 77              | 78         |
| 1 Bangalore        | 4.9                                                                                                                     | 7.1              | 7.5             | 7.1        |
| 2 Bangalore rura   |                                                                                                                         |                  |                 |            |
| 3 Belgaum          | 3.8                                                                                                                     | 5.9              | 7.5             | 5.4        |
| 4 Bellary          | 2.4                                                                                                                     | 5.2              | 6.4             | 4.2        |
| 5 Bidar            | 3.9                                                                                                                     | 4.5              | 7.0             | 4.9        |
| 6 Bijapur          | 8.1                                                                                                                     | 5.1              | 7.3             | 7.3        |
| 7 Chickmagalur     | 2.4                                                                                                                     | 5.2              | 7.1             | 4.0        |
| 8 Chitradurga      | 2.7                                                                                                                     | 2.9              | 6.0             | 3.8        |
| 9 Dakshina Kannada | 2.0                                                                                                                     | 4.7              | 6.3             | 4.4        |
| 10 Dharwad         | 3.2                                                                                                                     | 7.0              | 6.7             | 5.3        |
| 11 Gulbarga        | 4.0                                                                                                                     | 8.0              | 7.3             | 5.9        |
| 12 Hassan          | 2.9                                                                                                                     | 4.1              | 6.3             | 4.1        |
| 13 Kodagu          | 0.6                                                                                                                     | 3.0              | 5.9             | 2.4        |
| 14 Kolar           | 5.7                                                                                                                     | 5.1              | 6.3             | 5.9        |
| 15 Mandya          | 2.6                                                                                                                     | 4.9              | 6.7             | 4.1        |
| 16 Mysore          | 3.9                                                                                                                     | 7.6              | 8.7             | 6.4        |
| 17 Raichur         | 2.7                                                                                                                     | 4.3              | 7.1             | 4.3        |
| 18 Shimoga         | 3.3                                                                                                                     | 4.3              | 6.2             | 4.4        |
| 19 Tumkur          | 4.4                                                                                                                     | 5.7              | 6.8             | 5.4        |
| 20 Uttara Kannada  | 0.2                                                                                                                     | 6.4              | 5.0             | 3.3        |
| <b>STATE</b>       | <b>3.5</b>                                                                                                              | <b>6.2</b>       | <b>7.0</b>      | <b>5.4</b> |

Source :- Directorate of Economics and Statistics, Government of Karnataka.

## 8. INCOME AND EMPLOYMENT

### (I) Income

Districts arranged in descending order based on NDP per worker

| Primary sector   |      |                  |      | Secondary sector |      |                  |       |
|------------------|------|------------------|------|------------------|------|------------------|-------|
| 1980-81          |      | 1990-91          |      | 1980-81          |      | 1990-91          |       |
| 79               | 80   | 81               | 82   | 83               | 84   | 85               | 86    |
| Kodagu           | 6368 | Kodagu           | 6819 | Bangalore        | 8438 | Gulbarga *       | 16667 |
| Chickamagalur    | 4059 | Dakshina Kannada | 4229 | Shimoga          | 8214 | Bangalore        | 12188 |
| Uttara Kannada   | 3731 | Chickamagalur    | 4111 | Mandya           | 6731 | Uttara Kannada   | 10856 |
| Mandya           | 3695 | Shimoga          | 3864 | Mysore           | 6470 | Belgaum          | 10208 |
| Shimoga          | 3460 | Mandya           | 3316 | Chitradurga      | 6333 | Mysore           | 9995  |
| Dakshina Kannada | 3436 | Hassan           | 3197 | Tumkur           | 6255 | Shimoga          | 9443  |
| Hassan           | 3057 | Belgaum          | 3160 | Bellary          | 6028 | Dharwad          | 9112  |
| Chitradurga      | 2996 | Uttara Kannada   | 2987 | Raichur          | 5568 | Chickamagalur    | 8481  |
| Mysore           | 2935 | Bidar            | 2956 | Hassan           | 5517 | Tumkur           | 8270  |
| Belgaum          | 2826 | Chitradurga      | 2913 | Uttara Kannada   | 5432 | Mandya           | 8199  |
| Bidar            | 2775 | Bijapur          | 2686 | Gulbarga         | 5403 | Bellary          | 7931  |
| Bellary          | 2657 | Bellary          | 2638 | Dharwad          | 5392 | Raichur          | 7601  |
| Raichur          | 2604 | Mysore           | 2454 | Bidar            | 5136 | Chitradurga      | 7516  |
| Gulbarga         | 2355 | Raichur          | 2322 | Belgaum          | 5054 | Bidar            | 7425  |
| Dharwad          | 2194 | Bangalore        | 2249 | Chickamagalur    | 5037 | Hassan           | 6954  |
| Tumkur           | 2148 | Tumkur           | 2143 | Kolar            | 4779 | Bijapur          | 6600  |
| Bangalore        | 2074 | Kolar            | 2029 | Kodagu           | 4343 | Kodagu           | 5845  |
| Bijapur          | 1658 | Gulbarga         | 1877 | Bijapur          | 4068 | Dakshina Kannada | 5179  |
| Kolar            | 1240 | Dharwad          | 1748 | Dakshina Kannada | 3460 | Kolar            | 4220  |
| STATE            | 2700 | STATE            | 2744 | STATE            | 5969 | STATE            | 9352  |

Source :• Census data of 1981 and 1991 (Economic Tables) and Directorate of Economics and Statistics.

## 8. INCOME AND EMPLOYMENT

### (I) Income

Districts arranged in descending order based on NDP per worker

| Tertiary sector  |      |                  |       | All sectors      |      |                  |      |
|------------------|------|------------------|-------|------------------|------|------------------|------|
| 980-81           |      | 1990-91          |       | 1980-81          |      | 1990-91          |      |
| 87               | 88   | 89               | 90    | 91               | 92   | 93               | 94   |
| Shimoga          | 1027 | Kodagu           | 13132 | Kodagu           | 6701 | Bangalore        | 9393 |
| Mandya           | 1020 | Chickamagalur    | 12643 | Bangalore        | 6511 | Kodagu           | 7996 |
| Kodagu           | 9321 | Belgaum          | 12418 | Shimoga          | 4956 | Dakshina Kannada | 5957 |
| Bangalore        | 9161 | Mandya           | 12400 | Uttara Kannada   | 4840 | Chickamagalur    | 5710 |
| Tumkur           | 8758 | Bangalore        | 12350 | Chickamagalur    | 4746 | Shimoga          | 5672 |
| Chickamagalur    | 8724 | Shimoga          | 11881 | Mandya           | 4635 | Uttara Kannada   | 5573 |
| Chitradurga      | 8576 | Bellary          | 11580 | Dakshina Kannada | 4207 | Belgaum          | 5500 |
| Raichur          | 8363 | Tumkur           | 11385 | Chitradurga      | 4133 | Mysore           | 4865 |
| Hassan           | 8169 | Gulbarga         | 10771 | Mysore           | 4106 | Mandya           | 4780 |
| Bellary          | 8154 | Bijapur          | 10660 | Hassan           | 3877 | Chitradurga      | 4629 |
| Belgaum          | 8020 | Mysore           | 10450 | Bellary          | 3834 | Bellary          | 4486 |
| Uttara Kannada   | 7816 | Uttara Kannada   | 10262 | Belgaum          | 3829 | Hassan           | 4418 |
| Dakshina Kannada | 7725 | Dharwad          | 10193 | Bidar            | 3571 | Gulbarga         | 4381 |
| Kolar            | 7629 | Dakshina Kannada | 9969  | Raichur          | 3484 | Bidar            | 4258 |
| Gulbarga         | 7539 | Chitradurga      | 9874  | Gulbarga         | 3390 | Bijapur          | 4174 |
| Mysore           | 7358 | Raichur          | 9854  | Dharwad          | 3341 | Dharwad          | 4123 |
| Bidar            | 7088 | Hassan           | 9779  | Tumkur           | 3205 | Tumkur           | 3907 |
| Bijapur          | 6913 | Kolar            | 9657  | Bijapur          | 2598 | Raichur          | 3637 |
| Dharwad          | 6708 | Bidar            | 8799  | Kolar            | 2336 | Kolar            | 3317 |
| STATE            | 8243 | STATE            | 11141 | STATE            | 4093 | STATE            | 5293 |

Source:- Census data of :1981 and 1991 (Economic Tables) and Directorate of Economics and Statistics.

## 8. INCOME AND EMPLOYMENT

### (II) Employment

| District           | Growth rates of NSDP per worker (at 1980-81 prices),<br>sectorwise 1980-81 to 1990-91 (% per annum) |                  |                 |         |
|--------------------|-----------------------------------------------------------------------------------------------------|------------------|-----------------|---------|
|                    | primary sector                                                                                      | secondary sector | tertiary sector | overall |
|                    | 95                                                                                                  | 96               | 97              | 98      |
| 1 Bangalore        | 0.85                                                                                                | 4.44             | 3.48            | 4.43    |
| 2 Bangalore rural  |                                                                                                     |                  |                 |         |
| 3 Belgaum          | 1.18                                                                                                | 10.20            | 5.48            | 4.36    |
| 4 Bellary          | -0.07                                                                                               | 3.16             | 4.20            | 1.70    |
| 5 Bidar            | 0.65                                                                                                | 4.46             | 2.41            | 1.92    |
| 6 Bijapur          | 6.21                                                                                                | 6.22             | 5.42            | 6.07    |
| 7 Chikmagalur      | 0.13                                                                                                | 6.84             | 4.49            | 2.03    |
| 8 Chitradurga      | -0.28                                                                                               | 1.87             | 1.51            | 1.20    |
| 9 Dakshina Kannada | 2.31                                                                                                | 4.97             | 2.91            | 4.16    |
| 10 Dharwad         | -2.03                                                                                               | 6.90             | 5.20            | 2.34    |
| 11 Gulbarga        | -2.03                                                                                               | 20.85            | 4.29            | 2.92    |
| 12 Hassan          | 0.46                                                                                                | 2.60             | 1.97            | 1.40    |
| 13 Kodagu          | 0.71                                                                                                | 3.46             | 4.09            | 1.93    |
| 14 Kolar           | 6.36                                                                                                | -1.17            | 2.66            | 4.20    |
| 15 Mandya          | -1.02                                                                                               | 2.18             | 2.15            | 0.31    |
| 16 Mysore          | -1.64                                                                                               | 5.45             | 4.20            | 1.85    |
| 17 Raichur         | -1.09                                                                                               | 3.65             | 1.78            | 0.44    |
| 18 Shimoga         | 1.17                                                                                                | 1.50             | 1.56            | 1.44    |
| 19 Tumkur          | -0.02                                                                                               | 3.22             | 3.00            | 2.19    |
| 20 Uttara Kannada  | -1.99                                                                                               | 9.99             | 3.13            | 1.51    |
| STATE              | 0.16                                                                                                | 5.67             | 3.52            | 2.93    |

Source :- Directorate of Economics and Statistics and census data of 1981 and 1991-(Economic Tables)



## 8. INCOME AND EMPLOYMENT

### (II) Employment

| District           | Employment elasticity (growth rate in employment / growth rate of real NSDP)<br>1981 to 1991 |                     |                    |                         |                                           |
|--------------------|----------------------------------------------------------------------------------------------|---------------------|--------------------|-------------------------|-------------------------------------------|
|                    | primary<br>sector                                                                            | secondary<br>sector | tertiary<br>sector | overall main<br>workers | based on<br>main +<br>marginal<br>workers |
|                    | 99                                                                                           | 100                 | 101                | 102                     | 103                                       |
| 1 Bangalore        | 0.66                                                                                         | 0.44                | 0.51               | 0.40                    | 0.40                                      |
| 2 Bangalore rural  |                                                                                              |                     |                    |                         |                                           |
| 3 Belgaum          | 0.61                                                                                         | 0.08                | 0.37               | 0.31                    | 0.29                                      |
| 4 Bellary          | 1.03                                                                                         | 0.17                | 0.41               | 0.60                    | 0.62                                      |
| 5 Bidar            | 0.75                                                                                         | 0.06                | 0.61               | 0.53                    | 0.47                                      |
| 6 Bijapur          | 0.25                                                                                         | -0.05               | 0.36               | 0.25                    | 0.22                                      |
| 7 Chickmagalur     | 0.91                                                                                         | 0.09                | 0.37               | 0.41                    | 0.31                                      |
| 8 Chitradurga      | 1.24                                                                                         | 0.40                | 0.71               | 0.60                    | 0.62                                      |
| 9 Dakshina Kannada | 0.03                                                                                         | 0.22                | 0.57               | 0.26                    | 0.26                                      |
| 10 Dharwad         | 4.11                                                                                         | 0.14                | 0.31               | 0.42                    | 0.41                                      |
| 11 Gulbarga        | *16.58                                                                                       | -0.14               | 0.42               | 0.40                    | 0.30                                      |
| 12 Hassan          | 0.79                                                                                         | 0.11                | 0.62               | 0.58                    | 0.65                                      |
| 13 Kodagu          | 0.32                                                                                         | -0.81               | 0.32               | 0.21                    | 0.21                                      |
| 14 Kolar           | 0.23                                                                                         | 2.05                | 0.57               | 0.34                    | 0.34                                      |
| 15 Mandya          | 1.79                                                                                         | 0.46                | 0.60               | 0.89                    | 1.12                                      |
| 16 Mysore          | 4.83                                                                                         | 0.30                | 0.42               | 0.55                    | 0.56                                      |
| 17 Raichur         | 1.77                                                                                         | -3.11               | 0.70               | 0.85                    | 0.81                                      |
| 18 Shimoga         | 0.60                                                                                         | 1.76                | 0.66               | 0.55                    | 0.62                                      |
| 19 Tumkur          | 1.01                                                                                         | 0.46                | 0.54               | 0.50                    | 0.62                                      |
| 20 Uttara Kannada  | 4.93                                                                                         | -0.04               | 0.39               | 0.50                    | 0.42                                      |
| STATE              | 0.92                                                                                         | 0.22                | 0.49               | 0.42                    | 0.41                                      |

Source :- Directorate of Economics and Statistics and census data of 1981 and 1991 (Economic Tables)

\* In this exercise, Gulbarga district has an abnormally high elasticity coefficient in primary sector as the decadal growth rate in work force is 27.54% and of real NSDP is 1.66%

## 8. INCOME AND EMPLOYMENT

### (II) Employment

| District              | 1981            |                     |                  | 1991            |                     |                  |
|-----------------------|-----------------|---------------------|------------------|-----------------|---------------------|------------------|
|                       | main<br>workers | marginal<br>workers | total<br>workers | main<br>workers | marginal<br>workers | total<br>workers |
|                       | 104             | 105                 | 106              | 107             | 108                 | 109              |
| 1 Bangalore           | 1579042         | 94278               | 1673320          | 2259030         | 118824              | 2377854          |
| 2 Bangalore rural     |                 |                     |                  |                 |                     |                  |
| 3 Belgaum             | 1077785         | 156785              | 1234570          | 1340802         | 176924              | 1517726          |
| 4 Bellary             | 607168          | 25932               | 633100           | 809989          | 43044               | 853033           |
| 5 Bidar               | 366547          | 35591               | 402138           | 466611          | 34033               | 500644           |
| 6 Bijapur             | 888769          | 110340              | 999109           | 1110288         | 108867              | 1219155          |
| 7 Chickmagalur        | 353903          | 52719               | 406622           | 412276          | 45182               | 457458           |
| 8 Chitradurga         | 690716          | 72756               | 763472           | 843861          | 94617               | 938478           |
| 9 Dakshina<br>Kannada | 950693          | 43745               | 994438           | 1112449         | 50465               | 1162914          |
| 10 Dharwad            | 1118666         | 110300              | 1228966          | 1349942         | 126121              | 1476063          |
| 11 Gulbarga           | 838543          | 103049              | 941592           | 1039922         | 72269               | 1112191          |
| 12 Hassan             | 477731          | 72188               | 549919           | 589529          | 105108              | 694637           |
| 13 Kodagu             | 208700          | 9647                | 218347           | 220248          | 9888                | 230136           |
| 14 Kolar              | 688028          | 64521               | 752549           | 881514          | 81070               | 962584           |
| 15 Mandya             | 482265          | 39841               | 522106           | 635593          | 96170               | 731763           |
| 16 Mysore             | 912757          | 67616               | 980373           | 1183225         | 89054               | 1272279          |
| 17 Raichur            | 732692          | 50277               | 782969           | 970995          | 55289               | 1026284          |
| 18 Shimoga            | 595438          | 34758               | 630196           | 720984          | 59868               | 780852           |
| 19 Tumkur             | 716334          | 101759              | 818093           | 916196          | 183394              | 1099590          |
| 20 Uttara Kannada     | 364681          | 47264               | 411945           | 428663          | 44494               | 473157           |
| STATE                 | 13650458        | 1293366             | 14943824         | 17292117        | 1594681             | 18886798         |

Source :- Census of India 1981 & 1991 (Karnataka - Economic Tables).

## 8. INCOME AND EMPLOYMENT

### (II) Employment

| District           | Growth rate 1981 to 1991 |                  |               | Shares of main and marginal workers in total workers (%) |                  |               |
|--------------------|--------------------------|------------------|---------------|----------------------------------------------------------|------------------|---------------|
|                    |                          |                  |               | 1981                                                     |                  |               |
|                    | main workers             | marginal workers | total workers | main workers                                             | marginal workers | total workers |
|                    | 110                      | 111              | 112           | 113                                                      | 114              | 115           |
| 1 Bangalore        | 4.3                      | 2.6              | 4.2           | 94.4                                                     | 5.6              | 100.0         |
| 2 Bangalore rural  |                          |                  |               |                                                          |                  |               |
| 3 Belgaum          | 2.4                      | 1.3              | 2.3           | 87.3                                                     | 12.7             | 100.0         |
| 4 Bellary          | 3.3                      | 6.6              | 3.5           | 95.9                                                     | 4.1              | 100.0         |
| 5 Bidar            | 2.7                      | -0.4             | 2.4           | 91.1                                                     | 8.9              | 100.0         |
| 6 Bijapur          | 2.5                      | -0.1             | 2.2           | 89.0                                                     | 11.0             | 100.0         |
| 7 Chickmagalur     | 1.6                      | -1.4             | 1.3           | 87.0                                                     | 13.0             | 100.0         |
| 8 Chitradurga      | 2.2                      | 3.0              | 2.3           | 90.5                                                     | 9.5              | 100.0         |
| 9 Dakshina Kannada | 1.7                      | 1.5              | 1.7           | 95.6                                                     | 4.4              | 100.0         |
| 10 Dharwad         | 2.1                      | 1.4              | 2.0           | 91.0                                                     | 9.0              | 100.0         |
| 11 Gulbarga        | 2.4                      | -3.0             | 1.8           | 89.1                                                     | 10.9             | 100.0         |
| 12 Hassan          | 2.3                      | 4.6              | 2.6           | 86.9                                                     | 13.1             | 100.0         |
| 13 Kodagu          | 0.6                      | 0.2              | 0.5           | 95.6                                                     | 4.4              | 100.0         |
| 14 Kolar           | 2.8                      | 2.6              | 2.8           | 91.4                                                     | 8.6              | 100.0         |
| 15 Mandya          | 3.2                      | 14.1             | 4.0           | 92.4                                                     | 7.6              | 100.0         |
| 16 Mysore          | 3.0                      | 3.2              | 3.0           | 93.1                                                     | 6.9              | 100.0         |
| 17 Raichur         | 3.3                      | 1.0              | 3.1           | 93.6                                                     | 6.4              | 100.0         |
| 18 Shimoga         | 2.1                      | 7.2              | 2.4           | 94.5                                                     | 5.5              | 100.0         |
| 19 Tumkur          | 2.8                      | 8.0              | 3.4           | 87.6                                                     | 12.4             | 100.0         |
| 20 Uttara Kannada  | 1.8                      | -0.6             | 1.5           | 88.5                                                     | 11.5             | 100.0         |
| STATE              | 2.7                      | 2.3              | 2.6           | 91.3                                                     | 8.7              | 100.0         |

Source :- Census of India 1981 & 1991 (Karnataka - Economic Tables).

## 8. INCOME AND EMPLOYMENT

### (II) Employment

| i  | District         | Shares of main and marginal workers in total workers (%) |                  |               | Occupational pattern of main workers 1981 (%) |                  |                 |
|----|------------------|----------------------------------------------------------|------------------|---------------|-----------------------------------------------|------------------|-----------------|
|    |                  | 1991                                                     |                  |               | primary sector                                | secondary sector | tertiary sector |
|    |                  | main workers                                             | marginal workers | total workers |                                               |                  |                 |
|    |                  | 116                                                      | 117              | 118           | 119                                           | 120              | 121             |
| 1  | Bangalore        | 95.0                                                     | 5.0              | 100.0         | 34.3                                          | 30.7             | 35.1            |
| 2  | Bangalore rural  |                                                          |                  |               |                                               |                  |                 |
| 3  | Belgaum          | 88.3                                                     | 11.7             | 100.0         | 73.0                                          | 13.5             | 13.5            |
| 4  | Bellary          | 95.0                                                     | 5.0              | 100.0         | 74.1                                          | 11.6             | 14.3            |
| 5  | Bidar            | 93.2                                                     | 6.8              | 100.0         | 77.8                                          | 8.3              | 13.9            |
| 6  | Bijapur          | 91.1                                                     | 8.9              | 100.0         | 75.3                                          | 12.6             | 12.1            |
| 7  | Chickmagalur     | 90.1                                                     | 9.9              | 100.0         | 79.8                                          | 7.0              | 13.2            |
| 8  | Chitradurga      | 89.9                                                     | 10.1             | 100.0         | 75.0                                          | 11.6             | 13.4            |
| 9  | Dakshina Kannada | 95.7                                                     | 4.3              | 100.0         | 49.4                                          | 32.8             | 17.8            |
| 10 | Dharwad          | 91.5                                                     | 8.5              | 100.0         | 71.1                                          | 11.9             | 17.0            |
| 11 | Gulbarga         | 93.5                                                     | 6.5              | 100.0         | 75.0                                          | 12.3             | 12.7            |
| 12 | Hassan           | 84.9                                                     | 15.1             | 100.0         | 80.3                                          | 7.1              | 12.6            |
| 13 | Kodagu           | 95.7                                                     | 4.3              | 100.0         | 75.4                                          | 7.9              | 16.7            |
| 14 | Kolar            | 91.6                                                     | 8.4              | 100.0         | 78.5                                          | 9.7              | 11.8            |
| 15 | Mandya           | 86.9                                                     | 13.1             | mo            | 81.8                                          | 7.1              | 11.1            |
| 16 | Mysore           | 93.0                                                     | 7.0              | 100.0         | 71.1                                          | 12.1             | 16.8            |
| 17 | Raichur          | 94.6                                                     | 5.4              | mo            | 80.5                                          | 8.7              | 10.8            |
| 18 | Shimoga          | 92.3                                                     | 7.7              | 100.0         | 74.4                                          | 12.0             | 13.6            |
| 19 | Tumkur           | 83.3                                                     | 16.7             | 100.0         | 81.0                                          | 8.0              | 11.0            |
| 20 | Uttara Kannada   | 90.6                                                     | 9.4              | 100.0         | 64.2                                          | 14.9             | 20.9            |
|    | STATE            | 91.6                                                     | 8.4              | 100.0         | 68.8                                          | 14.7             | 16.5            |

Source :• Census of India 1981 & 1991 (Karnataka - Economic Tables).

## 8. INCOME AND EMPLOYMENT

### (II) Employment

| District          | Occupational pattern of<br>main workers 1991 (%) |                     |                    | Growth rate of work force : 1991 over 1981 |                     |                    |                | i |
|-------------------|--------------------------------------------------|---------------------|--------------------|--------------------------------------------|---------------------|--------------------|----------------|---|
|                   | primary<br>sector                                | secondary<br>sector | tertiary<br>sector | primary<br>sector                          | secondary<br>sector | tertiary<br>sector | all<br>sectors |   |
|                   | 122                                              | 123                 | 124                | 125                                        | 126                 | 127                | 128            |   |
| 1 Bangalore       | 11.5                                             | 40.3                | 48.2               | 2.0                                        | 5.3                 | 5.7                | 4.3            |   |
| 2 Bangalore rural | 74.1                                             | 12.7                | 13.2               |                                            |                     |                    |                |   |
| 3 Belgaum         | 71.9                                             | 11.9                | 16.2               | 2.2                                        | 1.0                 | 4.9                | 2.4            |   |
| 4 Bellary         | 75.5                                             | 9.3                 | 15.2               | 3.6                                        | 0.7                 | 4.2                | 3.3            |   |
| 5 Bidar           | 76.2                                             | 6.3                 | 17.4               | 2.5                                        | -0.2                | 5.9                | 2.7            |   |
| 6 Bijapur         | 76.4                                             | 9.8                 | 13.9               | 2.7                                        | -0.3                | 4.3                | 2.5            |   |
| 7 Chickmagalur    | 78.1                                             | 6.4                 | 15.4               | 1.4                                        | 0.7                 | 3.6                | 1.6            |   |
| 8 Chitradurga     | 71.7                                             | 10.9                | 17.5               | 1.7                                        | 1.4                 | 5.9                | 2.2            |   |
| 9 Dakshina        |                                                  |                     |                    |                                            |                     |                    |                |   |
| Kannada           | 42.5                                             | 32.8                | 24.7               | 0.1                                        | 1.7                 | 6.2                | 1.7            |   |
| 10 Dharwad        | 70.5                                             | 11.1                | 18.5               | 2.0                                        | 1.2                 | 3.1                | 2.1            |   |
| 11 Gulbarga       | 77.1                                             | 7.9                 | 15.0               | 2.8                                        | -2.0                | 4.6                | 2.4            |   |
| 12 Hassan         | 78.9                                             | 6.0                 | 15.1               | 2.1                                        | 0.3                 | 4.8                | 2.3            |   |
| 13 Kodagu         | 73.9                                             | 6.5                 | 19.7               | 0.3                                        | -1.3                | 2.4                | 0.6            |   |
| 14 Kolar          | 76.1                                             | 9.8                 | 14.1               | 2.4                                        | 3.0                 | 5.3                | 2.8            |   |
| 15 Mandya         | 80.8                                             | 6.6                 | 12.6               | 3.0                                        | 2.3                 | 4.9                | 3.2            |   |
| 16 Mysore         | 69.2                                             | 12.2                | 18.7               | 2.6                                        | 3.0                 | 4.4                | 3.0            |   |
| 17 Raichur        | 81.0                                             | 5.1                 | 13.9               | 3.3                                        | -2.2                | 7.0                | 3.3            |   |
| 18 Shimoga        | 74.7                                             | 9.0                 | 16.3               | 2.2                                        | -0.9                | 4.5                | 2.1            |   |
| 19 Tumkur         | 78.0                                             | 8.7                 | 13.3               | 2.3                                        | 3.8                 | 5.5                | 2.8            |   |
| 20 Uttara Kannada | 65.5                                             | 12.2                | 22.4               | 2.0                                        | -0.4                | 2.6                | 1.8            |   |
| STATE             | 66.7                                             | 13.9                | 19.5               | 2.3                                        | 2.0                 | 5.0                | 2.7            |   |

Source:- Census Reports, 1981 and 1991 (Karnataka)-Economic Tables

Note :- Primary sector : Cultivators, agricultural labourers, livestock, forestry, Secondary sector: Mining & quarrying, household industry, manufacturing other than household, construction. Tertiary sector: Trade & commerce, transport, storage & communications & other services. In the 1981 census, mining & quarrying was included under livestock, forestry & allied activities.



## 8. INCOME AND EMPLOYMENT

### (II) Employment

| District              | Growth<br>rate of<br>workforce<br>1981-1991<br>main +<br>marginal<br>workers | Employment and unemployment : participation rates : 1991 |       |         |                  |       |         |
|-----------------------|------------------------------------------------------------------------------|----------------------------------------------------------|-------|---------|------------------|-------|---------|
|                       |                                                                              | Shares(%) of population in the 15-59 age group           |       |         |                  |       |         |
|                       |                                                                              | main workers                                             |       |         | marginal workers |       |         |
|                       |                                                                              | persons                                                  | males | females | persons          | males | females |
|                       | 129                                                                          | 130                                                      | 131   | 132     | 133              | 134   | 135     |
| 1 Bangalore           | 4.2                                                                          | 51.3                                                     | 79.1  | 19.1    | 0.6              | 0.3   | 1.1     |
| 2 Bangalore rural     |                                                                              | 58.6                                                     | 86.6  | 28.4    | 8.9              | 0.6   | 18.0    |
| 3 Belgaum             | 2.3                                                                          | 59.7                                                     | 85.0  | 32.6    | 7.6              | 0.6   | 15.0    |
| 4 Bellary             | 3.5                                                                          | 68.7                                                     | 85.9  | 50.6    | 3.3              | 0.5   | 6.1     |
| 5 Bidar               | 2.4                                                                          | 63.2                                                     | 81.2  | 43.9    | 4.6              | 0.2   | 9.1     |
| 6 Bijapur             | 2.2                                                                          | 62.8                                                     | 83.2  | 41.4    | 5.9              | 0.4   | 11.6    |
| 7 Chickmagalur        | 1.3                                                                          | 61.7                                                     | 86.1  | 36.9    | 6.5              | 0.8   | 12.4    |
| 8 Chitradurga         | 2.3                                                                          | 60.4                                                     | 83.0  | 36.3    | 6.5              | 0.8   | 12.6    |
| 9 Dakshina<br>Kannada | 1.7                                                                          | 64.1                                                     | 79.7  | 49.9    | 2.7              | 0.9   | 4.3     |
| 10 Dharwad            | 2.0                                                                          | 61.5                                                     | 83.8  | 37.2    | 5.4              | 0.6   | 10.5    |
| 11 Gulbarga           | 1.8                                                                          | 67.1                                                     | 84.2  | 49.2    | 4.4              | 0.3   | 8.8     |
| 12 Hassan             | 2.6                                                                          | 58.7                                                     | 86.2  | 31.1    | 10.1             | 0.8   | 19.4    |
| 13 Kodagu             | 0.5                                                                          | 68.0                                                     | 87.4  | 48.6    | 2.8              | 0.7   | 5.0     |
| 14 Kolar              | 2.8                                                                          | 61.7                                                     | 84.5  | 38.0    | 5.4              | 0.6   | 10.4    |
| 15 Mandya             | 4.0                                                                          | 59.1                                                     | 85.8  | 31.0    | 8.6              | 0.6   | 17.1    |
| 16 Mysore             | 3.0                                                                          | 57.2                                                     | 85.6  | 26.8    | 4.1              | 0.4   | 8.1     |
| 17 Raichur            | 3.1                                                                          | 69.4                                                     | 88.3  | 49.9    | 3.8              | 0.2   | 7.4     |
| 18 Shimoga            | 2.4                                                                          | 58.3                                                     | 84.2  | 31.3    | 4.8              | 0.5   | 9.2     |
| 19 Tumkur             | 3.4                                                                          | 61.6                                                     | 85.1  | 37.0    | 11.4             | 1.4   | 21.9    |
| 20 Uttara Kannada     | 1.5                                                                          | 55.2                                                     | 82.0  | 27.5    | 5.5              | 1.1   | 10.0    |
| STATE                 | 2.6                                                                          | 60.5                                                     | 83.8  | 35.9    | 5.3              | 0.6   | 10.3    |

Source:- Census Reports, 1981 and 1991 (Karnataka)-Economic Tables

### 3. GENDER RELATED DEVELOPMENT INDEX

| District           | Ratio of female agri. wage to male agri. wage | Average wage | Female wage to average wage | Male wage to average wage | Real GDP per capita (PPP\$ 1991) | Share of earned income |       |
|--------------------|-----------------------------------------------|--------------|-----------------------------|---------------------------|----------------------------------|------------------------|-------|
|                    |                                               |              |                             |                           |                                  | Female                 | Male  |
|                    | 24                                            | 25           | 26                          | 27                        | 28                               | 29                     | 30    |
| 1 Bangalore        | 0.826                                         | 0.968        | 0.853                       | 1.033                     | 1958                             | 0.156                  | 0.844 |
| 2 Bangalore        | 0.842                                         | 0.948        | 0.888                       | 1.055                     | 1015                             | 0.293                  | 0.707 |
| 3 Belgaum          | 0.704                                         | 0.899        | 0.783                       | 1.113                     | 1078                             | 0.268                  | 0.732 |
| 4 Bellary          | 0.825                                         | 0.931        | 0.886                       | 1.074                     | 1058                             | 0.349                  | 0.651 |
| 5 Bidar            | 0.857                                         | 0.947        | 0.905                       | 1.056                     | 753                              | 0.338                  | 0.662 |
| 6 Bijapur          | 0.648                                         | 0.867        | 0.747                       | 1.153                     | 886                              | 0.283                  | 0.717 |
| 7 Chikmagalur      | 0.776                                         | 0.921        | 0.842                       | 1.086                     | 1557                             | 0.297                  | 0.703 |
| 8 Chitradurga      | 0.729                                         | 0.904        | 0.807                       | 1.106                     | 961                              | 0.286                  | 0.714 |
| 9 Dakshina Kannada | 0.625                                         | 0.843        | 0.741                       | 1.187                     | 1353                             | 0.311                  | 0.689 |
| 10 Dharwad         | 0.749                                         | 0.913        | 0.821                       | 1.096                     | 881                              | 0.286                  | 0.714 |
| 11 Gulbarga        | 0.664                                         | 0.868        | 0.766                       | 1.152                     | 973                              | 0.302                  | 0.698 |
| 12 Hassan          | 0.880                                         | 0.956        | 0.920                       | 1.046                     | 909                              | 0.336                  | 0.664 |
| 13 Kodagu          | 0.926                                         | 0.973        | 0.952                       | 1.028                     | 2388                             | 0.352                  | 0.648 |
| 14 Kolar           | 0.750                                         | 0.911        | 0.823                       | 1.097                     | 802                              | 0.292                  | 0.708 |
| 15 Mandya          | 0.655                                         | 0.882        | 0.742                       | 1.134                     | 913                              | 0.254                  | 0.746 |
| 16 Mysore          | 0.693                                         | 0.916        | 0.757                       | 1.092                     | 1018                             | 0.207                  | 0.793 |
| 17 Raichur         | 0.696                                         | 0.882        | 0.790                       | 1.134                     | 830                              | 0.308                  | 0.692 |
| 18 Shimoga         | 0.936                                         | 0.980        | 0.955                       | 1.020                     | 1058                             | 0.297                  | 0.703 |
| 19 Tumkur          | 0.859                                         | 0.945        | 0.909                       | 1.058                     | 867                              | 0.356                  | 0.644 |
| 20 Uttara Kannada  | 0.756                                         | 0.927        | 0.815                       | 1.079                     | 1161                             | 0.245                  | 0.755 |
| STATE              | 0.766                                         | 0.920        | 0.833                       | 1.087                     | 1135                             | 0.286                  | .714  |

Source:- Working Group (HDR), GOK.

## 8. INCOME AND EMPLOYMENT

### (II) Employment

| District           | Employment and unemployment : participation rates : 1991 : rural |       |         |                                   |       |         |
|--------------------|------------------------------------------------------------------|-------|---------|-----------------------------------|-------|---------|
|                    | Shares(%) in population in the 15-59 age group                   |       |         | main + marginal workers + seekers |       |         |
|                    | seeking / available for work                                     |       |         |                                   |       |         |
|                    | persons                                                          | males | females | persons                           | males | females |
|                    | 136                                                              | 137   | 138     | 139                               | 140   | 141     |
| 1 Bangalore        | 1.6                                                              | 1.5   | 1.6     | 53.5                              | 80.9  | 21.8    |
| 2 Bangalore rural  | 0.5                                                              | 0.3   | 0.6     | 68.0                              | 87.5  | 47.0    |
| 3 Belgaum          | 0.4                                                              | 0.4   | 0.4     | 67.6                              | 86.0  | 47.9    |
| 4 Bellary          | 0.7                                                              | 0.8   | 0.5     | 72.6                              | 87.2  | 57.2    |
| 5 Bidar            | 0.8                                                              | 1.0   | 0.6     | 68.6                              | 82.5  | 53.7    |
| 6 Bijapur          | 0.7                                                              | 1.0   | 0.4     | 69.4                              | 84.6  | 53.4    |
| 7 Chickmagalur     | 0.4                                                              | 0.3   | 0.5     | 68.7                              | 87.2  | 49.7    |
| 8 Chitradurga      | 0.5                                                              | 0.5   | 0.5     | 67.4                              | 84.3  | 49.4    |
| 9 Dakshina Kannada | a 1.5                                                            | 1.7   | 1.3     | 68.3                              | 82.4  | 55.5    |
| 10 Dharwad         | 0.7                                                              | 0.9   | 0.5     | 67.5                              | 85.3  | 48.2    |
| 11 Gulbarga        | 0.4                                                              | 0.6   | 0.3     | 71.9                              | 85.0  | 58.2    |
| 12 Hassan          | 1.3                                                              | 1.3   | 1.3     | 70.1                              | 88.3  | 51.8    |
| 13 Kodagu          | 2.8                                                              | 2.2   | 3.3     | 73.6                              | 90.3  | 56.9    |
| 14 Kolar           | 1.0                                                              | 1.2   | 0.8     | 68.2                              | 86.4  | 49.1    |
| 15 Mandya          | 1.0                                                              | 1.2   | 0.8     | 68.8                              | 87.6  | 48.9    |
| 16 Mysore          | 0.9                                                              | 1.0   | 0.8     | 62.2                              | 87.0  | 35.8    |
| 17 Raichur         | 0.3                                                              | 0.3   | 0.4     | 73.5                              | 88.8  | 57.7    |
| 18 Shimoga         | 0.5                                                              | 0.5   | 0.4     | 63.6                              | 85.2  | 40.9    |
| 19 Tumkur          | 1.1                                                              | 1.1   | 1.1     | 74.7                              | 87.7  | 59.9    |
| 20 Uttara Kannada  | 0.9                                                              | 0.7   | 1.0     | 61.6                              | 83.8  | 38.5    |
| STATE              | 0.9                                                              | 0.9   | 0.8     | 66.7                              | 85.3  | 47.0    |

Source:- Census Report 1991 (Karnataka)-Economic Tables

## 8. INCOME AND EMPLOYMENT

### (II) Employment

| District           | Employment and unemployment : participation rates : 1991 : rural |       |         |                  |       |         |
|--------------------|------------------------------------------------------------------|-------|---------|------------------|-------|---------|
|                    | Shares(%) in population in the 15-59 age group                   |       |         |                  |       |         |
|                    | main workers                                                     |       |         | marginal workers |       |         |
|                    | persons                                                          | males | females | persons          | males | females |
|                    | 142                                                              | 143   | 144     | 145              | 146   | 147     |
| 1 Bangalore        | 61.4                                                             | 87.0  | 31.9    | 3.0              | 0.3   | 6.0     |
| 2 Bangalore rural  | 60.3                                                             | 87.5  | 30.9    | 10.6             | 0.6   | 21.4    |
| 3 Belgaum          | 63.6                                                             | 87.8  | 37.9    | 9.6              | 0.6   | 19.1    |
| 4 Bellary          | 76.7                                                             | 90.5  | 62.5    | 4.5              | 0.6   | 8.5     |
| 5 Bidar            | 68.3                                                             | 84.6  | 51.3    | 5.6              | 0.3   | 11.1    |
| 6 Bijapur          | 68.4                                                             | 86.3  | 49.8    | 7.3              | 0.5   | 14.4    |
| 7 Chickmagalur     | 64.2                                                             | 87.4  | 40.8    | 7.6              | 0.9   | 14.4    |
| 8 Chitradurga      | 65.9                                                             | 86.8  | 44.0    | 8.7              | 0.9   | 16.8    |
| 9 Dakshina Kannada | 66.7                                                             | 81.7  | 53.7    | 3.4              | 1.1   | 5.4     |
| 10 Dharwad         | 68.8                                                             | 88.2  | 47.7    | 7.6              | 0.7   | 15.1    |
| 11 Gulbarga        | 74.0                                                             | 88.4  | 59.2    | 5.6              | 0.3   | 11.1    |
| 12 Hassan          | 61.4                                                             | 88.7  | 34.5    | 12.0             | 0.8   | 23.0    |
| 13 Kodagu          | 70.7                                                             | 88.6  | 52.9    | 3.3              | 0.7   | 5.8     |
| 14 Kolar           | 67.4                                                             | 88.3  | 45.7    | 6.9              | 0.7   | 13.3    |
| 15 Mandya          | 61.0                                                             | 87.5  | 33.2    | 10.2             | 0.7   | 20.1    |
| 16 Mysore          | 61.9                                                             | 90.4  | 31.6    | 5.6              | 0.4   | 11.2    |
| 17 Raichur         | 74.6                                                             | 91.2  | 57.6    | 4.6              | 0.3   | 9.2     |
| 18 Shimoga         | 63.0                                                             | 87.7  | 37.5    | 6.3              | 0.6   | 12.1    |
| 19 Tumkur          | 64.3                                                             | 87.9  | 40.3    | 13.3             | 1.6   | 25.3    |
| 20 Uttara Kannada  | 58.8                                                             | 84.8  | 32.0    | 6.9              | 1.2   | 12.8    |
| STATE              | 66.2                                                             | 87.7  | 44.0    | 7.4              | 0.7   | 14.4    |

Source:- Census Report 1991 (Karnataka)-Economic Tables

## 8. INCOME AND EMPLOYMENT

### (II) Employment

| District           | Employment and unemployment : participation rates : 1991 : rural |       |         |                                 |       |         |
|--------------------|------------------------------------------------------------------|-------|---------|---------------------------------|-------|---------|
|                    | Seeking / available for work                                     |       |         | main + marginal workers+seekers |       |         |
|                    | persons                                                          | males | females | persons                         | males | females |
|                    | 148                                                              | 149   | 150     | 151                             | 152   | 153     |
| 1 Bangalore        | 1.7                                                              | 1.6   | 1.8     | 66.0                            | 88.9  | 39.7    |
| 2 Bangalore rural  | 0.4                                                              | 0.3   | 0.5     | 71.3                            | 88.5  | 52.9    |
| 3 Belgaum          | 0.3                                                              | 0.3   | 0.3     | 73.4                            | 88.7  | 57.2    |
| 4 Bellary          | 0.3                                                              | 0.5   | 0.1     | 81.6                            | 91.6  | 71.1    |
| 5 Bidar            | 0.6                                                              | 0.9   | 0.4     | 74.5                            | 85.8  | 62.7    |
| 6 Bijapur          | 0.6                                                              | 0.9   | 0.3     | 76.3                            | 87.7  | 64.5    |
| 7 Chickmagalur     | 0.3                                                              | 0.2   | 0.4     | 72.1                            | 88.6  | 55.6    |
| 8 Chitradurga      | 0.5                                                              | 0.5   | 0.4     | 75.0                            | 88.1  | 61.3    |
| 9 Dakshina Kannada | 1.0                                                              | 1.1   | 0.9     | 71.1                            | 84.0  | 60.0    |
| 10 Dharwad         | 0.4                                                              | 0.6   | 0.3     | 76.8                            | 89.5  | 63.0    |
| 11 Gulbarga        | 0.3                                                              | 0.4   | 0.1     | 79.9                            | 89.1  | 70.4    |
| 12 Hassan          | 0.8                                                              | 0.9   | 0.8     | 74.2                            | 90.4  | 58.2    |
| 13 Kodagu          | 2.5                                                              | 1.9   | 3.0     | 76.4                            | 91.3  | 61.7    |
| 14 Kolar           | 0.4                                                              | 0.5   | 0.2     | 74.6                            | 89.5  | 59.2    |
| 15 Mandya          | 0.7                                                              | 0.9   | 0.6     | 71.9                            | 89.1  | 53.9    |
| 16 Mysore          | 0.2                                                              | 0.2   | 0.1     | 67.7                            | 90.9  | 42.9    |
| 17 Raichur         | 0.3                                                              | 0.2   | 0.3     | 79.5                            | 91.6  | 67.1    |
| 18 Shimoga         | 0.3                                                              | 0.3   | 0.2     | 69.5                            | 88.7  | 49.8    |
| 19 Tumkur          | 1.0                                                              | 1.0   | 1.0     | 78.6                            | 90.5  | 66.5    |
| 20 Uttara Kannada  | 0.8                                                              | 0.7   | 0.9     | 66.5                            | 86.7  | 45.7    |
| STATE              | 0.6                                                              | 0.6   | 0.5     | 74.2                            | 89.0  | 58.9    |

Source:- Census Report 1991 (Karnataka)-Economic Tables



## 8. INCOME AND EMPLOYMENT

### (II) Employment

| District           | Employment and unemployment : participation rates : 1991 : urban |       |         |                                                                 |       |         |
|--------------------|------------------------------------------------------------------|-------|---------|-----------------------------------------------------------------|-------|---------|
|                    | main workers                                                     |       |         | Shares(%) in population in the 15-59 age group marginal workers |       |         |
|                    | persons                                                          | males | females | persons                                                         | males | females |
|                    | 154                                                              | 755   | 156     | 757                                                             | 758   | 159     |
| 1 Bangalore        | 49.8                                                             | 78.0  | 17.2    | 0.3                                                             | 0.3   | 0.4     |
| 2 Bangalore rural  | 51.5                                                             | 82.4  | 17.4    | 1.5                                                             | 0.3   | 2.8     |
| 3 Belgaum          | 47.8                                                             | 76.8  | 16.2    | 1.4                                                             | 0.5   | 2.5     |
| 4 Bellary          | 51.8                                                             | 76.4  | 25.2    | 0.6                                                             | 0.3   | 1.1     |
| 5 Bidar            | 43.5                                                             | 68.8  | 13.8    | 0.6                                                             | 0.1   | 1.3     |
| 6 Bijapur          | 45.7                                                             | 74.0  | 15.5    | 1.6                                                             | 0.3   | 3.0     |
| 7 Chickmagalur     | 49.8                                                             | 79.9  | 16.9    | 1.2                                                             | 0.4   | 2.1     |
| 8 Chitradurga      | 46.6                                                             | 73.7  | 15.7    | 1.0                                                             | 0.5   | 1.5     |
| 9 Dakshina Kannada | a 58.0                                                           | 75.3  | 40.4    | 1.2                                                             | 0.6   | 1.8     |
| 10 Dharwad         | 48.8                                                             | 76.1  | 18.9    | 1.5                                                             | 0.5   | 2.6     |
| 11 Gulbarga        | 45.8                                                             | 71.8  | 16.7    | 0.7                                                             | 0.1   | 1.3     |
| 12 Hassan          | 46.5                                                             | 75.4  | 14.8    | 1.3                                                             | 0.7   | 2.0     |
| 13 Kodagu          | 54.5                                                             | 81.3  | 24.6    | 0.6                                                             | 0.5   | 0.7     |
| 14 Kolar           | 44.4                                                             | 73.1  | 13.7    | 0.8                                                             | 0.4   | 1.2     |
| 15 Mandya          | 49.7                                                             | 77.1  | 19.5    | 1.1                                                             | 0.5   | 1.8     |
| 16 Mysore          | 46.8                                                             | 75.2  | 16.2    | 0.8                                                             | 0.4   | 1.2     |
| 17 Raichur         | 50.9                                                             | 78.3  | 21.6    | 0.7                                                             | 0.2   | 1.2     |
| 18 Shimoga         | 46.1                                                             | 75.1  | 14.4    | 0.8                                                             | 0.4   | 1.3     |
| 19 Tumkur          | 48.8                                                             | 72.9  | 20.3    | 2.6                                                             | 0.9   | 4.6     |
| 20 Uttara Kannada  | 44.3                                                             | 73.4  | 13.8    | 1.2                                                             | 0.8   | 1.6     |
| STATE              | 48.9                                                             | 76.2  | 18.7    | 0.9                                                             | 0.4   | 1.4     |

Source:- Census Report 1991 (Karnataka)-Economic Tables

## 8. INCOME AND EMPLOYMENT

### (II) Employment

| District              | Employment and unemployment : participation rates : 1991 : urban |       |         |                                 |       |         |
|-----------------------|------------------------------------------------------------------|-------|---------|---------------------------------|-------|---------|
|                       | Shares(%) in population in the 15-59 age group                   |       |         |                                 |       |         |
|                       | Seeking / available for work                                     |       |         | main + marginal workers+seekers |       |         |
|                       | persons                                                          | males | females | persons                         | males | females |
|                       | 160                                                              | 161   | 162     | 163                             | 164   | 165     |
| 1 Bangalore           | 1.6                                                              | 1.5   | 1.6     | 51.7                            | 79.7  | 19.2    |
| 2 Bangalore rural     | 0.7                                                              | 0.5   | 1.0     | 53.7                            | 83.2  | 21.2    |
| 3 Belgaum             | 0.7                                                              | 0.8   | 0.7     | 50.0                            | 78.1  | 19.3    |
| 4 Bellary             | 1.4                                                              | 1.4   | 1.4     | 53.8                            | 78.1  | 27.6    |
| 5 Bidar               | 1.5                                                              | 1.4   | 1.6     | 45.7                            | 70.4  | 16.7    |
| 6 Bijapur             | 0.9                                                              | 1.1   | 0.6     | 48.2                            | 75.4  | 19.1    |
| 7 Chickmagalur        | 0.9                                                              | 0.8   | 1.0     | 51.9                            | 81.1  | 20.0    |
| 8 Chitradurga         | 0.5                                                              | 0.5   | 0.6     | 48.1                            | 74.8  | 17.7    |
| 9 Dakshina<br>Kannada | 2.7                                                              | 3.0   | 2.4     | 61.9                            | 78.9  | 44.5    |
| 10 Dharwad            | 1.1                                                              | 1.4   | 0.8     | 51.4                            | 78.1  | 22.3    |
| 11 Gulbarga           | 0.9                                                              | 1.0   | 0.7     | 47.4                            | 72.9  | 18.7    |
| 12 Hassan             | 3.4                                                              | 3.0   | 3.9     | 51.3                            | 79.1  | 20.7    |
| 13 Kodagu             | 4.4                                                              | 3.5   | 5.4     | 59.5                            | 85.3  | 30.6    |
| 14 Kolar              | 3.0                                                              | 3.5   | 2.4     | 48.1                            | 76.9  | 17.3    |
| 15 Mandya             | 2.4                                                              | 2.8   | 2.0     | 53.2                            | 80.4  | 23.3    |
| 16 Mysore             | 2.6                                                              | 2.7   | 2.4     | 50.2                            | 78.3  | 19.8    |
| 17 Raichur            | 0.5                                                              | 0.5   | 0.5     | 52.1                            | 78.9  | 23.3    |
| 18 Shimoga            | 1.0                                                              | 1.0   | 0.9     | 47.9                            | 76.5  | 16.6    |
| 19 Tumkur             | 1.7                                                              | 1.7   | 1.8     | 53.1                            | 75.5  | 26.7    |
| 20 Uttara Kannada     | 1.0                                                              | 0.8   | 1.2     | 46.5                            | 75.0  | 16.5    |
| STATE                 | 1.5                                                              | 1.6   | 1.5     | 51.3                            | 78.1  | 21.6    |

Source:- Census Report 1991 (Karnataka)-Economic Tables

## 8. INCOME AND EMPLOYMENT

### (II) Employment

| District              | Shares of males & females in main workers 1991 |       |         |                    |         |
|-----------------------|------------------------------------------------|-------|---------|--------------------|---------|
|                       | main workers ('000)                            |       |         | share (%) in total |         |
|                       | persons                                        | males | females | males              | females |
|                       | 166                                            | 167   | 168     | 169                | 170     |
| 1 Bangalore           | 1636                                           | 1350  | 286     | 82.5               | 17.5    |
| 2 Bangalore rural     | 623                                            | 478   | 145     | 76.7               | 23.3    |
| 3 Belgaum             | 1341                                           | 988   | 353     | 73.7               | 26.3    |
| 4 Bellary             | 810                                            | 512   | 298     | 63.2               | 36.8    |
| 5 Bidar               | 467                                            | 313   | 154     | 67.0               | 33.0    |
| 6 Bijapur             | 1110                                           | 753   | 358     | 67.8               | 32.2    |
| 7 Chikmagalur         | 412                                            | 292   | 120     | 70.8               | 29.2    |
| 8 Chitradurga         | 844                                            | 597   | 247     | 70.7               | 29.3    |
| 9 Dakshina<br>Kannada | 1112                                           | 666   | 447     | 59.8               | 40.2    |
| 10 Dharwad            | 1350                                           | 952   | 398     | 70.5               | 29.5    |
| 11 Gulbarga           | 1040                                           | 670   | 369     | 64.5               | 35.5    |
| 12 Hassan             | 590                                            | 434   | 155     | 73.7               | 26.3    |
| 13 Kodagu             | 220                                            | 143   | 77      | 65.1               | 34.9    |
| 14 Kolar              | 882                                            | 614   | 268     | 69.6               | 30.4    |
| 15 Mandya             | 636                                            | 476   | 160     | 74.9               | 25.1    |
| 16 Mysore             | 1183                                           | 917   | 267     | 77.5               | 22.5    |
| 17 Raichur            | 971                                            | 623   | 348     | 64.2               | 35.8    |
| 18 Shimoga            | 721                                            | 533   | 188     | 74.0               | 26.0    |
| 19 Tumkur             | 916                                            | 651   | 266     | 71.0               | 29.0    |
| 20 Uttara Kannada     | 429                                            | 325   | 103     | 75.9               | 24.1    |
| STATE                 | 17292                                          | 12285 | 5007    | 71.0               | 29.0    |

Source :- Census Report 1991 (Karnataka)-Economic Tables

## 8. INCOME AND EMPLOYMENT

### (II) Employment

| District           | Shares of males & females in main workers 1991 : rural |       |         |                    |         |
|--------------------|--------------------------------------------------------|-------|---------|--------------------|---------|
|                    | main workers ('000)                                    |       |         | share (%) in total |         |
|                    | persons                                                | males | females | males              | females |
|                    | 171                                                    | 172   | 173     | 174                | 175     |
| 1 Bangalore        | 261                                                    | 198   | 63      | 75.7               | 24.3    |
| 2 Bangalore rural  | 523                                                    | 395   | 128     | 75.4               | 24.6    |
| 3 Belgaum          | 1083                                                   | 773   | 311     | 71.3               | 28.7    |
| 4 Bellary          | 622                                                    | 369   | 253     | 59.4               | 40.6    |
| 5 Bidar            | 404                                                    | 260   | 145     | 64.2               | 35.8    |
| 6 Bijapur          | 918                                                    | 592   | 326     | 64.5               | 35.5    |
| 7 Chickmagalur     | 357                                                    | 246   | 111     | 68.8               | 31.2    |
| 8 Chitradurga      | 669                                                    | 450   | 219     | 67.3               | 32.7    |
| 9 Dakshina Kannada | 817                                                    | 471   | 345     | 57.7               | 42.3    |
| 10 Dharwad         | 975                                                    | 648   | 327     | 66.5               | 33.5    |
| 11 Gulbarga        | 876                                                    | 535   | 342     | 61.0               | 39.0    |
| 12 Hassan          | 508                                                    | 366   | 143     | 71.9               | 28.1    |
| 13 Kodagu          | 192                                                    | 122   | 71      | 63.2               | 36.8    |
| 14 Kolar           | 736                                                    | 491   | 245     | 66.7               | 33.3    |
| 15 Mandya          | 550                                                    | 406   | 144     | 73.9               | 26.1    |
| 16 Mysore          | 895                                                    | 676   | 219     | 75.6               | 24.4    |
| 17 Raichur         | 823                                                    | 506   | 317     | 61.5               | 38.5    |
| 18 Shimoga         | 569                                                    | 404   | 165     | 71.0               | 29.0    |
| 19 Tumkur          | 795                                                    | 553   | 242     | 69.5               | 30.5    |
| 20 Uttara Kannada  | 346                                                    | 255   | 91      | 73.8               | 26.2    |
| STATE              | 12920                                                  | 8714  | 4205    | 67.5               | 32.5    |

Source:- Census Report 1991 (Karnataka)-Economic Tables

## 8. INCOME AND EMPLOYMENT

### (II) Employment

| District          | Shares of males & females in main workers 1991 urban |       |         |                   |         |
|-------------------|------------------------------------------------------|-------|---------|-------------------|---------|
|                   | main workers ('000)                                  |       |         | share (%) in tota |         |
|                   | persons                                              | males | females | males             | females |
|                   | 176                                                  | 177   | 178     | 179               | 180     |
| 1 Bangalore       | 1375                                                 | 1152  | 223     | 83.8              | 16.2    |
| 2 Bangalore rural | 100                                                  | 83    | 17      | 83.0              | 17.0    |
| 3 Belgaum         | 257                                                  | 215   | 42      | 83.6              | 16.4    |
| 4 Bellary         | 188                                                  | 142   | 46      | 75.7              | 24.3    |
| 5 Bidar           | 62                                                   | 53    | 9       | 85.5              | 14.5    |
| 6 Bijapur         | 192                                                  | 160   | 32      | 83.5              | 16.5    |
| 7 Chikamagalore   | 55                                                   | 46    | 9       | 83.6              | 16.4    |
| 8 Chitradurga     | 175                                                  | 147   | 28      | 83.8              | 16.2    |
| 9 Dakshina        | a 296                                                | 194   | 102     | 65.7              | 34.3    |
| 10 Dharwad        | 375                                                  | 303   | 71      | 81.0              | 19.0    |
| 11 Gulbarga       | 164                                                  | 136   | 28      | 82.9              | 17.1    |
| 12 Hassan         | 81                                                   | 69    | 13      | 84.6              | 15.4    |
| 13 Kodagu         | 28                                                   | 22    | 6       | 78.3              | 21.7    |
| 14 Kolar          | 145                                                  | 123   | 22      | 84.7              | 15.3    |
| 15 Mandya         | 86                                                   | 70    | 16      | 81.3              | 18.7    |
| 16 Mysore         | 288                                                  | 240   | 48      | 83.3              | 16.7    |
| 17 Raichur        | 148                                                  | 117   | 31      | 79.1              | 20.9    |
| 18 Shimoga        | 152                                                  | 129   | 23      | 85.0              | 15.0    |
| 19 Tumkur         | 121                                                  | 98    | 23      | 80.7              | 19.3    |
| 20 Uttara Kannada | 83                                                   | 70    | 13      | 84.7              | 15.3    |
| STATE             | 4372                                                 | 3571  | 801     | 81.7              | 18.3    |

Source:- Census Report 1991 (Karnataka)-Economic Tables



## 8. INCOME AND EMPLOYMENT

### (III) Sen's Welfare Index

| District           | **Gini co-efficient (p) |        | "monthly per capita expenditure (n) |        |
|--------------------|-------------------------|--------|-------------------------------------|--------|
|                    | rural                   | urban  | rural                               | urban  |
|                    | 181                     | 182    | 183                                 | 184    |
| 1 Bangalore        | 0.3139                  | 0.2994 | 425.82                              | 439.28 |
| 2 Bangalore Rural  | 0.2707                  | 0.1949 | 277.21                              | 397.59 |
| 3 Belgaum          | 0.2530                  | 0.3054 | 295.50                              | 394.44 |
| 4 Bellary          | 0.2793                  | 0.2939 | 269.90                              | 345.17 |
| 5 Bidar            | 0.2663                  | 0.2816 | 235.53                              | 357.17 |
| 6 Bijapur          | 0.2329                  | 0.2875 | 315.04                              | 360.52 |
| 8 Chitradurga      | 0.4046                  | 0.4073 | 354.87                              | 502.45 |
| 9 Dakshina Kannada | 0.3307                  | 0.3016 | 483.99                              | 541.75 |
| 10 Dharwad         | 0.2499                  | 0.3326 | 256.56                              | 358.67 |
| 11 Gulbarga        | 0.2303                  | 0.3142 | 245.49                              | 367.15 |
| 12 Hassan          | 0.2321                  | 0.3137 | 318.34                              | 436.28 |
| 13 Kodagu          | 0.2884                  | 0.3782 | 443.80                              | 473.98 |
| 14 Kolar           | 0.2568                  | 0.2963 | 241.77                              | 346.41 |
| 15 Mandya          | 0.2863                  | 0.3350 | 325.98                              | 309.68 |
| 16 Mysore          | 0.2258                  | 0.2580 | 271.91                              | 393.55 |
| 17 Raichur         | 0.2081                  | 0.2339 | 293.00                              | 333.69 |
| 18 Shimoga         | 0.3132                  | 0.2588 | 362.07                              | 336.52 |
| 19 Tumkur          | 0.2981                  | 0.2899 | 297.63                              | 421.57 |
| 20 Uttara Kannada  | 0.2631                  | 0.3155 | 318.23                              | 428.33 |
| STATE              | 0.2992                  | 0.3067 | 309.92                              | 407.17 |

**Source:-** Working Group (HDR), GOK

\* monthly per capita expenditure based on NSS 50th round pooled data (state + central samples)

\*\* Gini co-efficients for rural and urban areas have been worked out based on **NSS** pooled data on expenditure. Combined Gini co-efficients (rural + urban) have been arrived at by taking rural and urban population as weights.

## 8. INCOME AND EMPLOYMENT

### (III) Sen's Welfare Index

| District           | Sen's Welfare Index (per capita expenditure) 1993-94 |      |       |      |          |      |                                     |
|--------------------|------------------------------------------------------|------|-------|------|----------|------|-------------------------------------|
|                    | Sen's Welfare Index (SWI) (per capita expenditure)   |      |       |      |          |      | SWI rank based on per capita income |
|                    | rural                                                | rank | urban | rank | combined | rank |                                     |
|                    | 185                                                  | 186  | 187   | 188  | 189      | 190  | 191                                 |
| 1 Bangalore        | 292                                                  | 3    | 308   | 4    | 306      | 3    | 2                                   |
| 2 Bangalore Rural  | 202                                                  | 15   | 320   | 3    | 231      | 13   | 4                                   |
| 3 Belgaum          | 221                                                  | 11   | 274   | 11   | 232      | 12   | 8                                   |
| 4 Bellary          | 195                                                  | 16   | 244   | 18   | 209      | 17   | 10                                  |
| 5 Bidar            | 173                                                  | 20   | 257   | 13   | 187      | 20   | 20                                  |
| 6 Bijapur          | 242                                                  | 7    | 257   | 12   | 246      | 8    | 14                                  |
| 7 Chikmagalur      | 246                                                  | 5    | 359   | 2    | 277      | 4    | 3                                   |
| 8 Chitradurga      | 211                                                  | 12   | 298   | 7    | 237      | 9    | 18                                  |
| 9 Dakshina Kannada | 324                                                  | 1    | 378   | 1    | 338      | 1    | .6                                  |
| 10 Dharwad         | 192                                                  | 17   | 239   | 19   | 211      | 16   | 15                                  |
| 11 Gulbarga        | 189                                                  | 18   | 252   | 15   | 205      | 18   | 11                                  |
| 12 Hassan          | 244                                                  | 6    | 299   | 5    | 255      | 5    | 13                                  |
| 13 Kodagu          | 316                                                  | 2    | 295   | 8    | 311      | 2    | 1                                   |
| 14 Kolar           | 180                                                  | 19   | 244   | 17   | 201      | 19   | 19                                  |
| 15 Mandya          | 233                                                  | 9    | 206   | 20   | 228      | 15   | 12                                  |
| 16 Mysore          | 211                                                  | 13   | 292   | 10   | 237      | 11   | 5                                   |
| 17 Raichur         | 232                                                  | 10   | 256   | 14   | 237      | 10   | 16                                  |
| 18 Shimoga         | 249                                                  | 4    | 249   | 16   | 249      | 7    | 7                                   |
| 19 Tumkur          | 209                                                  | 14   | 299   | 6    | 229      | 14   | 17                                  |
| 20 Uttara Kannada  | 235                                                  | 8    | 293   | 9    | 250      | 6    | 9                                   |
| STATE              | 217                                                  |      | 282   |      | 238      |      |                                     |

Source:- Working Group (HDR), GOK

Note:- Sen's Welfare Index  $W = p(1-\mu)$  where  $\mu$  is monthly per capita expenditure and  $p$  is Gini-coefficient for inequality in per capita expenditure

### 3. GENDER RELATED DEVELOPMENT INDEX

| District           | Proportional shares |       | Equally distributed income index | G.D.I | Ranking |     | HDI rank minus GDI rank |
|--------------------|---------------------|-------|----------------------------------|-------|---------|-----|-------------------------|
|                    | Female              | Male  |                                  |       | GDI     | HDI |                         |
|                    | 31                  | 32    | 33                               | 34    | 35      | 36  | 37                      |
| 1 Bangalore        | 0.329               | 1.604 | 0.191                            | 0.546 | 3       | 2   | -1                      |
| 2 Bangalore Rural  | 0.603               | 1.375 | 0.144                            | 0.454 | 8       | 8   | 0                       |
| Belgaum            | 0.549               | 1.430 | 0.145                            | 0.447 | 10      | 9   | -1                      |
| 4 Bellary          | 0.711               | 1.279 | 0.165                            | 0.409 | 17      | 17  | 0                       |
| 5 Bidar            | 0.692               | 1.293 | 0.111                            | 0.403 | 18      | 18  | 0                       |
| 6 Bijapur          | 0.575               | 1.410 | 0.119                            | 0.420 | 15      | 14  | -1                      |
| 7 Chikmagalur      | 0.602               | 1.389 | 0.230                            | 0.505 | 5       | 5   | 0                       |
| 8 Chitradurga      | 0.589               | 1.388 | 0.133                            | 0.448 | 9       | 10  | 1                       |
| 9 Dakshina Kannada | 0.603               | 1.422 | 0.195                            | 0.588 | 2       | 3   | 1                       |
| 10 Dharwad         | 0.589               | 1.387 | 0.121                            | 0.442 | 11      | 11  | 0                       |
| 11 Gulbarga        | 0.616               | 1.369 | 0.139                            | 0.388 | 19      | 19  | 0                       |
| 12 Hassan          | 0.672               | 1.328 | 0.134                            | 0.460 | 7       | 7   | 0                       |
| 13 Kodagu          | 0.712               | 1.283 | 0.396                            | 0.615 | 1       | 1   | 0                       |
| 14 Kolar           | 0.595               | 1.390 | 0.109                            | 0.426 | 13      | 15  | 2                       |
| 15 Mandya          | 0.517               | 1.466 | 0.114                            | 0.423 | 14      | 13  | -1                      |
| 16 Mysore          | 0.425               | 1.548 | 0.111                            | 0.414 | 16      | 16  | 0                       |
| 17 Raichur         | 0.622               | 1.370 | 0.116                            | 0.376 | 20      | 20  | 0                       |
| 18 Shimoga         | 0.606               | 1.378 | 0.151                            | 0.468 | 6       | 6   | 0                       |
| 19 Tumkur          | 0.727               | 1.261 | 0.133                            | 0.435 | 12      | 12  | 0                       |
| 20 Uttara Kannada  | 0.498               | 1.484 | 0.146                            | 0.511 | 4       | 4   | 0                       |
| STATE              | 0.583               | 1.401 | 0.159                            | 0.451 |         |     |                         |

Maximum:-  
Minimum:-

5385  
100

**Source:-** Working Group (HDR), GOK.

## 8. INCOME AND EMPLOYMENT

### (III) Poverty

| District           | Population below poverty line in the districts of Karnataka 1993-94 |      |                      |      |                      |      |
|--------------------|---------------------------------------------------------------------|------|----------------------|------|----------------------|------|
|                    | Rural                                                               |      | Urban                |      | Total                |      |
|                    | % below poverty line                                                | Rank | % below poverty line | Rank | % below poverty line | Rank |
|                    | 192                                                                 | 193  | 194                  | 195  | 196                  | 197  |
| 1 Bangalore        | 12.40                                                               | 4    | 32.51                | 4    | 31.42                | 12   |
| 2 Bangalore Rural  | 42.20                                                               | 15   | 26.69                | 2    | 38.17                | 13   |
| 3 Belgaum          | 27.17                                                               | 12   | 41.98                | 11   | 29.86                | 10   |
| 4 Bellary          | 43.75                                                               | 16   | 46.86                | 13   | 44.50                | 16   |
| 5 Bidar            | 57.00                                                               | 20   | 56.35                | 19   | 56.06                | 20   |
| 6 Bijapur *        | 19.31                                                               | 8    | 55.40                | 18   | 28.98                | 9    |
| 7 Chikmagalur      | 11.11                                                               | 3    | 27.80                | 3    | 15.61                | 3    |
| 8 Chitradurga      | 40.11                                                               | 13   | 36.64                | 7    | 39.00                | 14   |
| 9 Dakshina Kannada | 6.68                                                                | 1    | 15.71                | 1    | 8.91                 | 1    |
| 10 Dharwad         | 47.46                                                               | 18   | 52.22                | 17   | 49.75                | 19   |
| 11 Gulbarga        | 45.81                                                               | 17   | 45.94                | 12   | 45.74                | 17   |
| 12 Hassan          | 9.50                                                                | 2    | 35.08                | 6    | 14.44                | 2    |
| 13 Kodagu          | 15.24                                                               | 5    | 40.38                | 10   | 20.73                | 4    |
| 14 Kolar           | 47.93                                                               | 19   | 50.71                | 16   | 48.45                | 18   |
| 15 Mandya          | 23.89                                                               | 10   | 65.72                | 20   | 30.16                | 11   |
| 16 Mysore          | 26.64                                                               | 11   | 33.82                | 5    | 28.94                | 8    |
| 17 Raichur         | 18.72                                                               | 7    | 50.00                | 14   | 25.11                | 6    |
| 18 Shimoga         | 16.06                                                               | 6    | 50.66                | 15   | 25.56                | 7    |
| 19 Tumkur          | 42.18                                                               | 14   | 36.98                | 8    | 40.64                | 15   |
| 20 Uttara Kannada  | 20.10                                                               | 9    | 38.70                | 9    | 24.97                | 5    |
| STATE              | 29.88                                                               |      | 40.15                |      | 33.16                |      |

\* In the case of Bijapur district, due to data problems in the state sample, data of Central samples alone has been considered.

**Source:-** Directorate of Economics and Statistics, GOK.

## 9. GENDER DISPARITIES PROFILE

| District              | Female population<br>(in lakhs) |        | Female population<br>as % of male |       | Sex ratio-females per<br>1000 males |      |      |
|-----------------------|---------------------------------|--------|-----------------------------------|-------|-------------------------------------|------|------|
|                       | 1961                            | 1991   | 1961                              | 1991  | 1961                                | 1981 | 1991 |
| 1                     | 2                               | 3      | 4                                 | 5     | 6                                   | 7    | 8    |
| 1 Bangalore (U)       | 11.98                           | 22.96  | 91.7                              | 90.3  | 917                                 | 916  | 903  |
| 2 Bangalore (R)       |                                 | 8.13   |                                   | 94.5  |                                     |      | 945  |
| 3 Belgaum             | 9.67                            | 17.50  | 95.1                              | 95.4  | 951                                 | 957  | 954  |
| 4 Bellary             | 4.48                            | 9.28   | 91.7                              | 96.5  | 917                                 | 973  | 965  |
| 5 Bidar               | 3.27                            | 6.13   | 97.1                              | 95.2  | 971                                 | 968  | 952  |
| 6 Bijapur             | 8.20                            | 14.37  | 97.6                              | 96.4  | 976                                 | 982  | 964  |
| 7 Chikmagalur         | 2.83                            | 5.03   | 90.4                              | 97.7  | 904                                 | 953  | 977  |
| 8 Chitradurga         | 5.30                            | 10.59  | 94.0                              | 94.4  | 940                                 | 944  | 944  |
| 9 Dakshina<br>Kannada | 8.13                            | 13.88  | 108.2                             | 106.3 | 1082                                | 1059 | 1063 |
| 10 Dharwad            | 9.50                            | 17.01  | 95.1                              | 94.4  | 951                                 | 948  | 944  |
| 11 Gulbarga           | 6.96                            | 12.66  | 98.9                              | 96.2  | 989                                 | 981  | 962  |
| 12 Hassan             | 4.41                            | 7.84   | 96.9                              | 99.9  | 969                                 | 987  | 999  |
| 13 Kodagu             | 1.49                            | 2.41   | 86.3                              | 97.9  | 863                                 | 933  | 979  |
| 14 Kolar              | 6.34                            | 10.88  | 96.8                              | 96.5  | 968                                 | 971  | 965  |
| 15 Mandya             | 4.42                            | 8.07   | 96.7                              | 96.3  | 967                                 | 960  | 963  |
| 16 Mysore             | 8.14                            | 15.44  | 95.1                              | 95.3  | 951                                 | 951  | 953  |
| 17 Raichur            | 5.46                            | 11.43  | 98.5                              | 97.9  | 985                                 | 988  | 979  |
| 18 Shimoga            | 4.81                            | 9.35   | 89.8                              | 96.0  | 898                                 | 947  | 960  |
| 19 Tumkur             | 6.68                            | 11.28  | 95.6                              | 95.9  | 956                                 | 961  | 959  |
| 20 Uttara Kannada     | 3.35                            | 5.99   | 94.6                              | 96.6  | 946                                 | 958  | 966  |
| STATE                 | 115.46                          | 220.25 | 95.9                              | 96.0  | 959                                 | 963  | 960  |

**Source :-** Cols.2 to 8 :- General Population Tables, Census of 1961, 1981 and 1991.



## 9. GENDER DISPARITIES PROFILE

| District           | Female literacy 1991 |       |       | Gap in male and female literacy 1991 |       |       | Ratio of male to female literacy 1991 |
|--------------------|----------------------|-------|-------|--------------------------------------|-------|-------|---------------------------------------|
|                    | Total                | Rural | Urban | Total                                | Rural | Urban |                                       |
|                    | 9                    | 10    | 11    | 12                                   | 13    | 14    | 15                                    |
| 1 Bangalore (U)    | 68.81                | 44.09 | 72.68 | 14.13                                | 23.88 | 12.60 | 1.21                                  |
| 2 Bangalore (R)    | 38.15                | 33.43 | 59.68 | 23.36                                | 25.18 | 14.88 | 1.61                                  |
| 3 Belgaum          | 38.69                | 31.07 | 62.99 | 27.96                                | 30.16 | 20.55 | 1.72                                  |
| 4 Bellary          | 31.97                | 24.34 | 49.32 | 26.74                                | 28.39 | 22.61 | 1.84                                  |
| 5 Bidar            | 30.53                | 24.51 | 55.91 | 28.44                                | 29.34 | 22.85 | 1.93                                  |
| 6 Bijapur          | 40.06                | 35.29 | 55.27 | 29.63                                | 30.80 | 25.61 | 1.74                                  |
| 7 Chikmagalur      | 51.31                | 47.19 | 72.03 | 19.25                                | 20.40 | 12.70 | 1.38                                  |
| 8 Chitradurga      | 43.36                | 31.42 | 65.05 | 23.52                                | 29.94 | 16.15 | 1.54                                  |
| 9 Dakshina Kannada | 67.96                | 64.00 | 78.21 | 16.44                                | 17.65 | 12.66 | 1.24                                  |
| 10Dharwad          | 45.20                | 37.13 | 59.93 | 26.17                                | 29.57 | 19.89 | 1.58                                  |
| 11 Gulbarga        | 24.49                | 16.06 | 51.87 | 27.59                                | 28.26 | 23.99 | 2.13                                  |
| 12 Hassan          | 44.90                | 39.56 | 71.08 | 23.67                                | 25.95 | 12.94 | 1.53                                  |
| 13 Kodagu          | 61.22                | 58.16 | 77.76 | 14.13                                | 14.63 | 10.67 | 1.23                                  |
| 14Kolar            | 37.75                | 29.06 | 66.15 | 24.94                                | 27.73 | 15.48 | 1.66                                  |
| 15 Mandya          | 36.70                | 32.12 | 60.66 | 22.48                                | 23.77 | 15.09 | 1.61                                  |
| 16 Mysore          | 37.95                | 25.53 | 66.91 | 18.28                                | 20.48 | 12.78 | 1.48                                  |
| 17Raichur          | 22.15                | 16.48 | 43.59 | 27.38                                | 27.78 | 24.94 | 2.24                                  |
| 18Shimoga          | 51.42                | 44.24 | 71.35 | 19.82                                | 22.14 | 12.88 | 1.39                                  |
| 19Tumkur           | 41.93                | 36.98 | 67.79 | 24.56                                | 26.02 | 14.72 | 1.59                                  |
| 20 Uttara Kannada  | 56.77                | 51.31 | 73.79 | 19.62                                | 21.27 | 14.33 | 1.36                                  |
| STATE              | 44.34                | 34.76 | 65.74 | 22.92                                | 25.54 | 16.30 | 1.52                                  |

Source :- Cols.9to11 :-

C series tables of 1991 census (Karnataka) (C3.wk1)

## 9. GENDER DISPARITIES PROFILE

| District              | Female literacy as % of male |       | Adult female literacy |       | Annual growth rate of adult literacy (1961-1991) |        | Adult female literacy as % of male |       |
|-----------------------|------------------------------|-------|-----------------------|-------|--------------------------------------------------|--------|------------------------------------|-------|
|                       | 1961                         | 1991  | 1961                  | 1991  | Male                                             | Female | 1961                               | 1991  |
|                       | 16                           | 17    | 18                    | 19    | 20                                               | 21     | 22                                 | 23    |
| 1 Bangalore (U)       | 52.49                        | 82.96 | 24.64                 | 29.89 | 1.37                                             | 4.13   |                                    | 68.56 |
| 2 Bangalore (R)       |                              | 62.02 |                       | 13.51 |                                                  |        | 39.89                              | 46.80 |
| 3 Belgaum             | 35.75                        | 58.05 | 12.18                 | 30.67 | 1.33                                             | 5.06   | 25.61                              | 46.26 |
| 4 Bellary             | 28.57                        | 54.45 | 10.06                 | 25.94 | 1.29                                             | 5.26   | 23.99                              | 44.98 |
| 5 Bidar               | 19.44                        | 51.77 | 4.03                  | 21.66 | 3.10                                             | 14.60  | 13.96                              | 37.99 |
| 6 Bijapur             | 27.65                        | 57.48 | 8.83                  | 31.47 | 1.44                                             | 8.54   | 18.89                              | 46.81 |
| 7 Chikmagalur         | 43.45                        | 72.72 | 15.37                 | 44.28 | 1.62                                             | 6.27   | 28.49                              | 64.52 |
| 8 Chitradurga         | 34.17                        | 64.83 | 11.79                 | 36.23 | 1.36                                             | 6.91   | 23.52                              | 53.66 |
| 9 Dakshina<br>Kannada | 57.97                        | 80.52 | 24.50                 | 61.89 | 1.97                                             | 5.09   | 55.68                              | 83.53 |
| 10 Dharwad            | 39.11                        | 63.33 | 17.77                 | 37.64 | 0.52                                             | 3.73   | 27.82                              | 51.14 |
| 11 Gulbarga           | 21.53                        | 47.02 | 4.68                  | 18.53 | 2.44                                             | 9.86   | 16.61                              | 36.82 |
| 12 Hassan             | 35.97                        | 65.19 | 11.79                 | 36.76 | 1.65                                             | 7.06   | 25.60                              | 56.91 |
| 13 Kodagu             | 64.13                        | 81.25 | 29.67                 | 56.06 | 1.33                                             | 2.96   | 44.84                              | 75.79 |
| 14 Kolar              | 36.63                        | 60.22 | 10.89                 | 29.15 | 1.97                                             | 5.59   | 28.55                              | 48.48 |
| 15 Mandya             | 29.72                        | 62.01 | 7.20                  | 26.93 | 2.30                                             | 9.14   | 21.68                              | 48.48 |
| 16 Mysore             | 42.95                        | 67.49 | 13.18                 | 31.29 | 1.48                                             | 4.58   | 33.58                              | 56.50 |
| 17 Raichur            | 20.07                        | 44.72 | 4.90                  | 17.52 | 1.59                                             | 8.58   | 15.15                              | 36.28 |
| 18 Shimoga            | 43.31                        | 72.18 | 16.27                 | 44.57 | 1.54                                             | 5.80   | 28.99                              | 62.48 |
| 19 Tumkur             | 31.69                        | 63.06 | 9.79                  | 32.91 | 1.83                                             | 7.87   | 22.42                              | 50.52 |
| 20 Uttara Kannada     | 52.82                        | 74.32 | 26.14                 | 50.62 | 1.44                                             | 3.12   | 48.87                              | 66.51 |
| STATE                 | 39.25                        | 65.92 | 13.80                 | 37.46 | 1.55                                             | 5.71   | 29.71                              | 55.92 |

Source :- Col.18:- Census of India 1961 - Mysore, Social and Cultural Tables Part II - C(I).

Col. 19:- C series tables of 1991 census (Karnataka) (C2.wk1).

## 9. GENDER DISPARITIES PROFILE

| District              | Enrolment of girls in primary school as % of enrolment of boys |         |         | Enrolment of girls in high school as % of enrolment of boys |         |         | Married women between 15 & 44 per 1000 persons |       |
|-----------------------|----------------------------------------------------------------|---------|---------|-------------------------------------------------------------|---------|---------|------------------------------------------------|-------|
|                       | 1980-81                                                        | 1990-91 | 1997-98 | 1981-82                                                     | 1990-91 | 1997-98 | 1981                                           | 1991  |
|                       | 24                                                             | 25      | 26      | 27                                                          | 28      | 29      | 30                                             | 31    |
| 1 Bangalore (U)       | 88.46                                                          | 95.68   | 96.53   | 83.85                                                       | 95.48   | 102.50  | 162.0                                          | 175.6 |
| 2 Bangalore (R)       |                                                                | 84.86   | 95.92   |                                                             | 56.72   | 90.93   |                                                | 168.6 |
| 3 Belgaum             | 74.92                                                          | 86.07   | 91.29   | 48.81                                                       | 51.75   | 84.14   | 167.0                                          | 177.1 |
| 4 Bellary             | 72.18                                                          | 71.62   | 86.37   | 45.01                                                       | 37.21   | 61.12   | 170.8                                          | 171.6 |
| 5 Bidar               | 69.04                                                          | 84.03   | 94.58   | 38.88                                                       | 43.53   | 74.82   | 171.0                                          | 160.7 |
| 6 Bijapur             | 71.26                                                          | 73.25   | 73.06   | 37.14                                                       | 49.61   | 56.26 • | 172.3                                          | 173.8 |
| 7 Chikmagalur         | 82.10                                                          | 93.61   | 91.75   | 72.67                                                       | 81.84   | 78.46   | 154.7                                          | 170.0 |
| 8 Chitradurga         | 75.46                                                          | 86.28   | 86.01   | 51.01                                                       | 56.36   | 83.29   | 165.1                                          | 168.1 |
| 9 Dakshina<br>Kannada | 76.61                                                          | 80.61   | 98.66   | 73.06                                                       | 72.33   | 83.89   | 139.6                                          | 147.1 |
| 10 Dharwad            | 74.76                                                          | 86.79   | 93.85   | 49.82                                                       | 40.11   | 64.18   | 157.3                                          | 162.7 |
| 11 Gulbarga           | 69.03                                                          | 66.39   | 81.04   | 35.67                                                       | 40.91   | 47.48   | 172.7                                          | 166.7 |
| 12 Hassan             | 75.95                                                          | 89.98   | 98.47   | 54.55                                                       | 70.14   | 77.15   | 156.3                                          | 166.7 |
| 13 Kodagu             | 81.02                                                          | 86.84   | 90.46   | 83.87                                                       | 89.04   | 99.34   | 147.3                                          | 170.3 |
| 14 Kolar              | 76.15                                                          | 84.32   | 93.70   | 53.62                                                       | 74.50   | 69.34   | 159.8                                          | 170.4 |
| 15 Mandya             | 74.62                                                          | 86.19   | 92.64   | 52.67                                                       | 59.55   | 73.82   | 161.3                                          | 175.8 |
| 16 Mysore             | 76.95                                                          | 83.38   | 91.82   | 57.28                                                       | 66.13   | 64.52   | 164.1                                          | 173.7 |
| 17 Raichur            | 69.40                                                          | 67.67   | 77.14   | 39.79                                                       | 42.15   | 47.49   | 175.6                                          | 174.3 |
| 18 Shimoga            | 77.36                                                          | 86.62   | 99.52   | 57.27                                                       | 72.81   | 100.33  | 149.0                                          | 164.7 |
| 19 Tumkur             | 73.12                                                          | 86.38   | 94.42   | 41.63                                                       | 60.09   | 78.64   | 166.3                                          | 171.3 |
| 20 Uttara Kannada     | 79.12                                                          | 88.43   | 91.81   | 87.24                                                       | 79.47   | 89.85   | 146.3                                          | 151.4 |
| STATE                 | 75.74                                                          | 84.27   | 90.28   | 56.88                                                       | 62.35   | 75.90   | 161.9                                          | 168.9 |

**Source :-** Cols.24 to 29 :- Commissioner of Public Instruction, Government of Karnataka.

Col. 30 :- Census of India 1981 series 9 (Karnataka), Social and Cultural Tables Part-IV.

Col. 31 :- Census of 1991 (Karnataka) C1 series-tables on age, sex and marital status

## 9. GENDER DISPARITIES PROFILE

| District |                     | Mean age at marriage |         |       |         | Gender difference in mean age at marriage |      | % of married females in age group 15-19 years |       |
|----------|---------------------|----------------------|---------|-------|---------|-------------------------------------------|------|-----------------------------------------------|-------|
|          |                     | 1981                 |         | 1991  |         | 1981                                      | 1991 | 1981                                          | 1991  |
|          |                     | Males                | Females | Males | Females |                                           |      |                                               |       |
|          |                     | 32                   | 33      | 34    | 35      | 36                                        | 37   | 38                                            | 39    |
| 1        | Bangalore (U)       | 27.10                | 20.18   | 27.30 | 20.80   | 6.92                                      | 6.41 | 29.57                                         | 19.50 |
| 2        | Bangalore (R)       |                      |         | 26.71 | 19.69   |                                           | 7.02 |                                               | 25.87 |
| 3        | Belgaum             | 24.73                | 18.35   | 24.79 | 18.75   | 6.38                                      | 6.04 | 48.56                                         | 42.46 |
| 4        | Bellary             | 24.72                | 18.11   | 24.80 | 19.06   | 6.61                                      | 5.74 | 50.72                                         | 38.58 |
| 5        | Bidar               | 24.02                | 17.65   | 24.63 | 18.78   | 6.37                                      | 5.85 | 53.29                                         | 36.78 |
| 6        | Bijapur             | 23.68                | 17.32   | 24.09 | 18.27   | 6.36                                      | 5.82 | 62.06                                         | 48.24 |
| 7        | Chikmagalur         | 25.77                | 20.82   | 27.07 | 21.54   | 4.95                                      | 5.53 | 18.09                                         | 14.26 |
| 8        | Chitradurga         | 26.10                | 19.17   | 26.59 | 20.15   | 6.93                                      | 6.44 | 34.99                                         | 24.61 |
| 9        | Dakshina<br>Kannada | 28.28                | 22.43   | 28.95 | 23.40   | 5.83                                      | 5.55 | 10.01                                         | 6.16  |
| 10       | Dharwad             | 25.99                | 19.25   | 26.39 | 20.02   | 6.74                                      | 6.37 | 36.94                                         | 27.03 |
| 11       | Gulbarga            | 24.05                | 17.50   | 24.37 | 18.64   | 6.55                                      | 5.73 | 58.44                                         | 41.06 |
| 12       | Hassan              | 25.84                | 20.24   | 26.31 | 21.00   | 5.60                                      | 5.31 | 21.05                                         | 13.26 |
| 13       | Kodagu              | 27.09                | 21.75   | 27.02 | 21.94   | 5.34                                      | 5.08 | 15.77                                         | 14.44 |
| 14       | Kolar               | 28.44                | 19.10   | 26.15 | 19.90   | 9.34                                      | 6.25 | 36.10                                         | 24.67 |
| 15       | Mandya              | 26.07                | 18.47   | 26.67 | 19.60   | 7.60                                      | 7.07 | 45.42                                         | 30.77 |
| 16       | Mysore              | 26.29                | 19.27   | 26.48 | 19.88   | 7.02                                      | 6.60 | 41.56                                         | 33.06 |
| 17       | Raichur             | 23.65                | 18.61   | 23.79 | 18.20   | 5.04                                      | 5.59 | 59.31                                         | 47.22 |
| 18       | Shimoga             | 26.82                | 20.53   | 27.28 | 21.29   | 6.29                                      | 5.99 | 21.77                                         | 15.81 |
| 19       | Tumkur              | 26.50                | 19.22   | 26.72 | 20.05   | 7.28                                      | 6.67 | 33.80                                         | 22.47 |
| 20       | Uttara Kannada      | 27.00                | 21.23   | 27.79 | 22.35   | 5.77                                      | 5.44 | 17.23                                         | 10.39 |
| STATE    |                     | 25.90                | 19.41   | 26.21 | 20.14   | 6.49                                      | 6.07 | 36.24                                         | 27.13 |

**Source :-** Cols.32 to 35 :- Population Centre, Government of Karnataka, Bangalore.

Col.38 :- Census of India 1981- Karnataka, Social and Cultural Tables Part I - IV

Col.49 :- Census 1991 (Karnataka) - C1 Tables-age, sex and marital status (C1 ,wk1)

## 9. GENDER DISPARITIES PROFILE

| District           | % of widows in female population |      | Total fertility rate(TFR) |      | Female infant mortality rate |      | Female infant mortality rate as % of male |        |
|--------------------|----------------------------------|------|---------------------------|------|------------------------------|------|-------------------------------------------|--------|
|                    | 1981                             | 1991 | 1981                      | 1991 | 1981                         | 1991 | 1981                                      | 1991   |
|                    | 40                               | 41   | 42                        | 43   | 44                           | 45   | 46                                        | 47     |
| 1 Bangalore (U)    | 7.6                              | 6.1  | 4.10                      | 3.52 | 55                           | 49   | 84.61                                     | 96.08  |
| 2 Bangalore (R)    |                                  | 7.4  | 4.10                      | 3.76 | 55                           | 49   | 84.61                                     | 96.08  |
| 3 Belgaum          | 10.2                             | 8.9  | 4.40                      | 3.57 | 63                           | 54   | 87.50                                     | 112.50 |
| 4 Bellary          | 9.9                              | 8.3  | 5.00                      | 4.85 | 82                           | 73   | 82.00                                     | 86.90  |
| 5 Bidar            | 8.8                              | 7.6  | 5.10                      | 4.82 | 75                           | 73   | 87.21                                     | 108.95 |
| 6 Bijapur          | 11.3                             | 9.3  | 5.00                      | 4.27 | 95                           | 69   | 91.35                                     | 86.25  |
| 7 Chikmagalur      | 7.9                              | 7.5  | 4.60                      | 3.13 | 69                           | 55   | 82.14                                     | 98.21  |
| 8 Chitradurga      | 8.7                              | 7.9  | 4.90                      | 3.60 | 64                           | 52   | 81.01                                     | 101.96 |
| 9 Dakshina Kannada | 9.5                              | 8.9  | 4.80                      | 3.61 | 40                           | 30   | 57.97                                     | 150.00 |
| 10 Dharwad         | 10.7                             | 9.3  | 5.00                      | 3.94 | 86                           | 75   | 102.38                                    | 101.35 |
| 11 Gulbarga        | 11.1                             | 8.7  | 4.80                      | 4.75 | 73                           | 59   | 83.91                                     | 100.00 |
| 12 Hassan          | 8.9                              | 7.1  | 4.60                      | 2.90 | 55                           | 44   | 61.79                                     | 60.27  |
| 13 Kodagu          | 8.4                              | 8.3  | 3.80                      | 2.77 | 57                           | 42   | 100.00                                    | 97.67  |
| 14 Kolar           | 8.8                              | 7.9  | 4.60                      | 3.89 | 66                           | 57   | 92.96                                     | 105.55 |
| 15 Mandya          | 9.5                              | 9.0  | 4.50                      | 3.11 | 75                           | 59   | 80.64                                     | 77.63  |
| 16 Mysore          | 9.7                              | 8.5  | 4.40                      | 3.56 | 74                           | 58   | 92.50                                     | 101.75 |
| 17 Raichur         | 11.7                             | 9.2  | 5.20                      | 4.65 | 62                           | 52   | 84.93                                     | 89.65  |
| 18 Shimoga         | 8.1                              | 7.8  | 4.80                      | 3.72 | 76                           | 73   | 81.72                                     | 90.12  |
| 19 Tumkur          | 9.4                              | 8.4  | 4.50                      | 3.46 | 92                           | 60   | 127.78                                    | 90.91  |
| 20 Uttara Kannada  | 9.7                              | 8.8  | 4.90                      | 3.66 | 73                           | 49   | 90.12                                     | 98.00  |
| STATE              | 9.5                              | 8.3  | 4.70                      | 3.87 | 74                           | 72   | 85.06                                     | 97.30  |

Source :- Col.40 :- Census of India 1981- Karnataka, Social and Cultural Tables Parts I - IV

Col.41 :- Census 1991 (Karnataka) - C1 Tables-age, sex and marital status (C1 .wk1

Cols.42 and 43 :- Office of the Registrar General India.

Col.44 :- Child Mortality Estimates - Occasional Paper No.5 of 1988, Office of the Registrar General India.

Col.45:- District level Estimates of Fertility and Mortality - Occasional Paper No.1 of 1997, Office of the Registrar General India.



## 9. GENDER DISPARITIES PROFILE

| District           | Proportion of female workers to male workers (%) |       | % of female (main) agricultural workers |       |       | Women employees in organised sector 31-03-97 |        |                                |
|--------------------|--------------------------------------------------|-------|-----------------------------------------|-------|-------|----------------------------------------------|--------|--------------------------------|
|                    | 1981                                             | 1991  | Total                                   | Rural | Urban | Total                                        | Women  | % of women in organised sector |
|                    | 48                                               | 49    | 50                                      | 51    | 52    | 53                                           | 54     | 55                             |
| 1 Bangalore (U)    | 24.47                                            | 22.38 | 10.21                                   | 41.40 | 1.34  | 537376                                       | 128191 | 23.85                          |
| 2 Bangalore (R)    |                                                  | 49.22 | 38.06                                   | 41.22 | 14.10 |                                              |        |                                |
| 3 Belgaum          | 44.10                                            | 52.09 | 52.92                                   | 56.06 | 29.78 | 96882                                        | 13881  | 14.33                          |
| 4 Bellary          | 53.64                                            | 64.95 | 62.59                                   | 65.49 | 46.53 | 52981                                        | 9717   | 18.34                          |
| 5 Bidar            | 49.15                                            | 59.43 | 71.32                                   | 73.65 | 34.11 | 29582                                        | 5371   | 18.16                          |
| 6 Bijapur          | 51.48                                            | 60.69 | 69.47                                   | 72.93 | 33.82 | 56321                                        | 10387  | 18.44                          |
| 7 Chikmagalur      | 52.45                                            | 54.52 | 40.23                                   | 41.02 | 30.42 | 35228                                        | 11303  | 32.09                          |
| 8 Chitradurga      | 51.03                                            | 55.13 | 56.89                                   | 61.70 | 19.86 | 56664                                        | 11865  | 20.94                          |
| 9 Dakshina Kannada | 73.81                                            | 72.19 | 17.80                                   | 21.05 | 6.75  | 279506                                       | 180105 | 64.44                          |
| 10 Dharwad         | 47.56                                            | 52.32 | 65.15                                   | 70.93 | 38.68 | 125512                                       | 9076   | 7.23                           |
| 11 Gulbarga        | 61.95                                            | 64.99 | 71.11                                   | 74.35 | 31.58 | 63166                                        | 12130  | 19.20                          |
| 12 Hassan          | 44.77                                            | 57.62 | 26.52                                   | 27.57 | 14.54 | 41963                                        | 18145  | 43.24                          |
| 13 Kodagu          | 53.39                                            | 58.78 | 18.85                                   | 19.92 | 6.30  | 22715                                        | 8961   | 39.45                          |
| 14 Kolar           | 43.41                                            | 54.98 | 41.07                                   | 43.04 | 19.42 | 59502                                        | 9975   | 16.76                          |
| 15 Mandya          | 29.15                                            | 52.00 | 44.24                                   | 45.79 | 30.46 | 38825                                        | 8882   | 22.88                          |
| 16 Mysore          | 30.44                                            | 37.84 | 51.57                                   | 60.67 | 10.28 | 121277                                       | 25786  | 21.26                          |
| 17 Raichur         | 53.41                                            | 64.01 | 73.90                                   | 76.17 | 50.58 | 46265                                        | 9138   | 19.75                          |
| 18 Shimoga         | 36.68                                            | 45.23 | 61.51                                   | 65.44 | 32.91 | 53089                                        | 10136  | 19.09                          |
| 19 Tumkur          | 45.69                                            | 64.11 | 37.01                                   | 39.25 | 13.95 | 50124                                        | 11583  | 23.11                          |
| 20 Uttara Kannada  | 40.03                                            | 42.90 | 35.07                                   | 38.68 | 9.42  | 48605                                        | 11652  | 23.97                          |
| STATE              | 44.65                                            | 52.14 | 49.69                                   | 55.62 | 18.54 | 1270052                                      | 379896 | 29.91                          |

**Source:-** Col.48 :- Census 1981 (Karnataka), General Economic Tables.

Cols. 49 to 52 :- Census 1991 (Karnataka), B series Tables on workers, nonworkers and those seeking employment.

Cols.53 and 54 :- Directorate of Employment and Training, GOK.

## 9. GENDER DISPARITIES PROFILE

| District          | Percentage of households using polluted fuel (wood, cowdung, kerosene & coal) for cooking 1991 |           |           | Percentage of households without access to safe drinking water 1991 |           |           |
|-------------------|------------------------------------------------------------------------------------------------|-----------|-----------|---------------------------------------------------------------------|-----------|-----------|
|                   | Rural                                                                                          | Urban     | Total     | Total                                                               | Rural     | Urban     |
|                   | 56                                                                                             | 57        | 58        | 59                                                                  | 60        | 61        |
| 1 Bangalore (U)   | 98                                                                                             | 80        | 69        | 18                                                                  | 11        | 19        |
| 2 Bangalore (R)   | 99                                                                                             | 70        | 96        | 13                                                                  | 14        | 11        |
| 3 Belgaum         | 94                                                                                             | 74        | 85        | 36                                                                  | 39        | 24        |
| 4 Bellary         | 99                                                                                             | 84        | 94        | 16                                                                  | 18        | 11        |
| 5 Bidar           | 99                                                                                             | 73        | 97        | 40                                                                  | 40        | 36        |
| 6 Bijapur         | 99                                                                                             | 65        | 95        | 27                                                                  | 31        | 13        |
| 7 Chikmagalur     | 97                                                                                             | 85        | 93        | 31                                                                  | 35        | 7         |
| 8 Chitradurga     | 95                                                                                             | 87        | 93        | 12                                                                  | 14        | 7         |
| 9 Dakshina        | 99                                                                                             | 82        | 88        | 80                                                                  | 88        | 59        |
| 10 Dharwad        | 91                                                                                             | 87        | 89        | 18                                                                  | 22        | 12        |
| 11 Gulbarga       | 99                                                                                             | 66        | 94        | 37                                                                  | 43        | 15        |
| 12 Hassan         | 99                                                                                             | 89        | 95        | 20                                                                  | 23        | 8         |
| 13 Kodagu         | 97                                                                                             | 81        | 91        | 55                                                                  | 62        | 16        |
| 14 Kolar          | 99                                                                                             | 87        | 95        | 10                                                                  | 10        | 12        |
| 15 Mandya         | 95                                                                                             | 80        | 96        | 29                                                                  | 30        | 21        |
| 16 Mysore         | 98                                                                                             | 69        | 91        | 17                                                                  | 20        | 10        |
| 17 Raichur        | 99                                                                                             | 70        | 96        | 35                                                                  | 39        | 16        |
| 18 Shimoga        | 96                                                                                             | 73        | 69        | 34                                                                  | 41        | 14        |
| 19 Tumkur         | 99                                                                                             | 70        | 96        | 19                                                                  | 20        | 13        |
| 20 Uttara Kannada | 99                                                                                             | 79        | 88        | 70                                                                  | 76        | 51        |
| <b>STATE</b>      | <b>98</b>                                                                                      | <b>84</b> | <b>90</b> | <b>28</b>                                                           | <b>33</b> | <b>19</b> |

Source :- Cols.56 to 58 :- Worked out districtwise from census data 1991 - H6 series Tables (H6.wk1 floppy from the Director, Census Operations Karnataka)

Cols.59 to 61 :- Worked out districtwise from census data 1991 - H5 series Tables (H5T-wk1 floppy from the Director, Census Operations, Karnataka)

## 9. GENDER DISPARITIES PROFILE

| District           | Percentage of households without access to toilet 1991 |       |       | Molestation & rape per lakh female , population |        | Dowry deaths per lakh female population |       |
|--------------------|--------------------------------------------------------|-------|-------|-------------------------------------------------|--------|-----------------------------------------|-------|
|                    | Total                                                  | Rural | Urban | 1991                                            | 1996   | 1991                                    | 1996  |
|                    | 62                                                     | 63    | 64    | 65                                              | 66     | 67                                      | 68    |
| 1 Bangalore (U)    | 27                                                     | 81    | 19    | 11.856                                          | 10.664 | 4.234                                   | 2.711 |
| 2 Bangalore (R)    | 83                                                     | 94    | 34    |                                                 |        |                                         |       |
| 3 Belgaum          | 86                                                     | 96    | 52    | 17.875                                          | 13.328 | 2.681                                   | 0.375 |
| 4 Bellary          | 87                                                     | 97    | 65    | 10.070                                          | 5.829  | 1.060                                   | 0.351 |
| 5 Bidar            | 90                                                     | 97    | 52    | 5.472                                           | 3.292  | 1.368                                   | 0.235 |
| 6 Bijapur          | 93                                                     | 99    | 74    | 14.932                                          | 7.649  | 1.493                                   | 0.336 |
| 7 Chikmagalur      | 77                                                     | 86    | 33    | 1.326                                           | 8.021  | 0.000                                   | 0.573 |
| 8 Chitradurga      | 83                                                     | 96    | 48    | 6.030                                           | 4.907  | 0.540                                   | 0.209 |
| 9 Dakshina Kannada | 66                                                     | 80    | 31    | 1.788                                           | 2.381  | 0.298                                   | 0.116 |
| 10 Dharwad         | 78                                                     | 92    | 53    | 5.478                                           | 4.359  | 0.527                                   | 0.604 |
| 11 Gulbarga        | 88                                                     | 98    | 53    | 22.481                                          | 31.636 | 6.076                                   | 2.839 |
| 12 Hassan          | 84                                                     | 94    | 35    | 6.638                                           | 3.935  | 0.000                                   | 0.454 |
| 13 Kodagu          | 68                                                     | 75    | 28    | 3.618                                           | 2.677  | 0.164                                   | 0.000 |
| 14 Kolar           | 80                                                     | 93    | 37    | 14.670                                          | 10.796 | 1.811                                   | 1.784 |
| 15 Mandya          | 86                                                     | 94    | 45    | 1.495                                           | 3.658  | 1.359                                   | 0.488 |
| 16 Mysore          | 75                                                     | 95    | 27    | 18.555                                          | 28.540 | 1.779                                   | 1.871 |
| 17 Raichur         | 93                                                     | 98    | 72    | 10.819                                          | 4.917  | 0.000                                   | 0.593 |
| 18 Shimoga         | 74                                                     | 90    | 34    | 15.365                                          | 12.205 | 2.235                                   | 1.149 |
| 19 Tumkur          | 86                                                     | 96    | 36    | 1.371                                           | 1.376  | 0.228                                   | 0.375 |
| 20 Uttara Kannada  | 77                                                     | 88    | 44    | 2.362                                           | 1.553  | 0.094                                   | 0.107 |
| STATE              | 76                                                     | 93    | 37    | 7.310                                           | 6.251  | 1.154                                   | 0.738 |

**Source :-** Cols. 62 to 64 :- Worked out districtwise from census data 1991, H5-Tables (H5T-wk1)

Cols. 65 to 68 :- Crime Review Reports - State Crime Records Bureau, Office of the IGP (TS), Government of Karnataka.

### 3(b). GENDER RELATED HEALTH INDEX (GHI) 1991

| District           | Index of Life expectancy at birth |       | Educational attainment |       | Proportion of population |       | Equally distributed index of LEB |
|--------------------|-----------------------------------|-------|------------------------|-------|--------------------------|-------|----------------------------------|
|                    | Female                            | Male  | Female                 | Male  | Female                   | Male  |                                  |
| 1                  | 2                                 | 3     | 4                      | 5     | 6                        | 7     | 8                                |
| 1 Bangalore        | 0.643                             | 0.716 | 0.707                  | 0.830 | 0.474                    | 0.526 | 0.680                            |
| 2 Bangalore Run    | 0.693                             | 0.698 | 0.424                  | 0.665 | 0.486                    | 0.514 | 0.696                            |
| 3 Belgaum          | 0.644                             | 0.693 | 0.427                  | 0.687 | 0.488                    | 0.512 | 0.668                            |
| 4 Bellary          | 0.594                             | 0.577 | 0.372                  | 0.654 | 0.491                    | 0.509 | 0.585                            |
| 5 Bidar            | 0.648                             | 0.646 | 0.354                  | 0.616 | 0.488                    | 0.512 | 0.647                            |
| 6 Bijapur          | 0.648                             | 0.614 | 0.402                  | 0.697 | 0.491                    | 0.509 | 0.630                            |
| 7 Chikmagalur      | 0.656                             | 0.666 | 0.548                  | 0.721 | 0.494                    | 0.506 | 0.661                            |
| 8 Chitradurga      | 0.616                             | 0.615 | 0.497                  | 0.734 | 0.486                    | 0.514 | 0.616                            |
| 9 Dakshina Kannada | 0.750                             | 0.714 | 0.743                  | 0.970 | 0.515                    | 0.485 | 0.732                            |
| 10 Dharwad         | 0.634                             | 0.627 | 0.475                  | 0.719 | 0.485                    | 0.515 | 0.631                            |
| 11 Gulbarga        | 0.656                             | 0.646 | 0.279                  | 0.557 | 0.490                    | 0.510 | 0.651                            |
| 12 Hassan          | 0.708                             | 0.642 | 0.480                  | 0.707 | 0.500                    | 0.500 | 0.674                            |
| 13 Kodagu          | 0.740                             | 0.699 | 0.663                  | 0.812 | 0.495                    | 0.505 | 0.718                            |
| 14 Kolar           | 0.665                             | 0.601 | 0.444                  | 0.679 | 0.491                    | 0.509 | 0.631                            |
| 15 Mandya          | 0.676                             | 0.627 | 0.413                  | 0.643 | 0.491                    | 0.509 | 0.650                            |
| 16 Mysore          | 0.670                             | 0.609 | 0.415                  | 0.599 | 0.488                    | 0.512 | 0.637                            |
| 17 Raichur         | 0.701                             | 0.654 | 0.248                  | 0.516 | 0.495                    | 0.505 | 0.676                            |
| 18 Shimoga         | 0.625                             | 0.614 | 0.547                  | 0.746 | 0.490                    | 0.510 | 0.619                            |
| 19 Tumkur          | 0.592                             | 0.598 | 0.477                  | 0.722 | 0.489                    | 0.511 | 0.595                            |
| 20 Uttara Kannada  | 0.708                             | 0.693 | 0.604                  | 0.790 | 0.491                    | 0.509 | 0.700                            |
| STATE              | 0.602                             | 0.635 | 0.481                  | 0.707 | 0.490                    | 0.510 | 0.618                            |

**Source:-** Working Group (HDR), GOK.

**Note:** Refer Technical Note (Appendix 1)

## 9. GENDER DISPARITIES PROFILE

| District           | Suicides per lakh population |         |        |        | Female suicides as % of male |        |
|--------------------|------------------------------|---------|--------|--------|------------------------------|--------|
|                    | 1991                         |         | 1996   |        | 1991                         | 1996   |
|                    | Male                         | Female  | Male   | Female | 1991                         | 1996   |
|                    | 69                           | 70      | 71     | 72     | 73                           | 74     |
| 1 Bangalore (U)    | 37.393                       | 23.973  | 24.978 | 21.363 | 64.11                        | 85.53  |
| 2 Bangalore (R)    |                              |         |        |        |                              |        |
| 3 Belgaum          | 112.314                      | 66.137  | 64.198 | 26.843 | 58.89                        | 41.81  |
| 4 Bellary          | 9.540                        | 13.515  | 11.096 | 9.411  | 141.67                       | 84.81  |
| 5 Bidar            | 27.944                       | 18.369  | 7.054  | 2.939  | 65.73                        | 41.67  |
| 6 Bijapur          | 43.004                       | 29.864  | 28.578 | 16.475 | 69.44                        | 57.65  |
| 7 Chikmagalur      | 12.692                       | 5.115   | 23.948 | 11.802 | 40.30                        | 49.28  |
| 8 Chitradurga      | 52.023                       | 43.113  | 26.046 | 19.470 | 82.87                        | 74.75  |
| 9 Dakshina Kannada | 42.309                       | 22.346  | 24.274 | 8.943  | 52.82                        | 36.84  |
| 10 Dharwad         | 29.706                       | 19.383  | 22.331 | 14.552 | 65.25                        | 65.17  |
| 11 Gulbarga        | 136.099                      | 118.479 | 35.692 | 35.692 | 87.05                        | 100.00 |
| 12 Hassan          | 33.631                       | 21.683  | 15.212 | 6.433  | 64.47                        | 42.29  |
| 13 Kodagu          | 40.457                       | 19.406  | 25.285 | 9.123  | 47.97                        | 36.08  |
| 14 Kolar           | 37.853                       | 26.624  | 15.396 | 13.707 | 70.33                        | 89.02  |
| 15 Mandya          | 11.554                       | 4.078   | 11.949 | 4.877  | 35.29                        | 40.82  |
| 16 Mysore          | 83.623                       | 57.189  | 79.380 | 36.493 | 68.39                        | 45.97  |
| 17 Raichur         | 11.685                       | 9.809   | 18.057 | 8.393  | 83.95                        | 46.48  |
| 18 Shimoga         | 134.928                      | 82.410  | 57.865 | 27.569 | 61.08                        | 47.64  |
| 19 Tumkur          | 13.595                       | 11.767  | 14.950 | 8.570  | 86.55                        | 57.32  |
| 20 Uttara Kannada  | 13.416                       | 7.558   | 4.767  | 1.767  | 56.34                        | 37.08  |
| STATE              | 35.289                       | 23.576  | 21.861 | 12.656 | 66.81                        | 57.89  |

Source :- Cols. 69 to 72 :- Crime Review Reports -State Crime Records Bureau, Office of the IGP(TS), Government of Karnataka.



## 9. GENDER DISPARITIES PROFILE

| District           | Village Panchayats |                                                       |                                         |                                 |                            |                                      |                                   |
|--------------------|--------------------|-------------------------------------------------------|-----------------------------------------|---------------------------------|----------------------------|--------------------------------------|-----------------------------------|
|                    | No.of<br>seats     | No.of<br>seats<br>reserved<br>for women<br>candidates | No.of<br>women<br>candidates<br>elected | %of<br>seats<br>won by<br>women | , No.of<br>votes<br>polled | No.of<br>votes<br>polled by<br>women | %of<br>women's<br>votes<br>polled |
|                    | 75                 | 76                                                    | 77                                      | 78                              | 79                         | 80                                   | 81                                |
| 1 Bangalore (U)    | 1713               | 765                                                   | 765                                     | 44.66                           | 451036                     | 208586                               | 46.25                             |
| 2 Bangalore (R)    | 3533               | 1527                                                  | 1527                                    | 43.22                           | 947469                     | 459659                               | 48.51                             |
| 3 Belgaum          | 7206               | 3147                                                  | 3135                                    | 43.51                           | 1778196                    | 883197                               | 49.67                             |
| 4 Bellary          | 3374               | 1435                                                  | 1430                                    | 42.38                           | 830811                     | 417502                               | 50.25                             |
| 5 Bidar            | 2629               | 1124                                                  | 1120                                    | 42.60                           | 688139                     | 340616                               | 49.50                             |
| 6 Bijapur          | 5709               | 2467                                                  | 2440                                    | 42.74                           | 1455229                    | 724728                               | 49.80                             |
| 7 Chikmagalur      | 2225               | 1096                                                  | 1090                                    | 48.99                           | 584135                     | 290576                               | 49.74                             |
| 8 Chitradurga      | 4173               | 1738                                                  | 1735                                    | 41.58                           | 1153643                    | 569569                               | 49.37                             |
| 9 Dakshina Kannada | 5182               | 2260                                                  | 2255                                    | 43.52                           | 1313526                    | 669753                               | 50.99                             |
| 10 Dharwad         | 5832               | 2562                                                  | 2545                                    | 43.64                           | 1413674                    | 688340                               | 48.69                             |
| 11 Gulbarga        | 5095               | 2256                                                  | 2252                                    | 44.20                           | 1318750                    | 657414                               | 49.85                             |
| 12 Hassan          | 3472               | 1557                                                  | 1550                                    | 44.64                           | 922677                     | 466158                               | 50.52                             |
| 13 Kodagu          | 1143               | 530                                                   | 514                                     | 44.97                           | 289701                     | 147655                               | 50.97                             |
| 14 Kolar           | 4402               | 1958                                                  | 1948                                    | 44.25                           | 1124849                    | 554655                               | 49.31                             |
| 15 Mandya          | 3600               | 1521                                                  | 1520                                    | 42.22                           | 970479                     | 476583                               | 49.11                             |
| 16 Mysore          | 5914               | 2496                                                  | 2489                                    | 42.09                           | 1439740                    | 703497                               | 48.86                             |
| 17 Raichur         | 4781               | 2002                                                  | 2002                                    | 41.87                           | 1149812                    | 582559                               | 50.67                             |
| 18 Shimoga         | 3631               | 1766                                                  | 1750                                    | 48.20                           | 930054                     | 457903                               | 49.23                             |
| 19 Tumkur          | 4955               | 2102                                                  | 2100                                    | 42.38                           | 1333578                    | 655038                               | 49.12                             |
| 20 Uttara Kannada  | 2402               | 1135                                                  | 1130                                    | 47.04                           | 584837                     | 285190                               | 48.76                             |
| <b>STATE</b>       | <b>80971</b>       | <b>35444</b>                                          | <b>35297</b>                            | <b>43.59</b>                    | <b>20680335</b>            | <b>10239178</b>                      | <b>49.51</b>                      |

Source :- Cols. 75 to 81 :-State Election Commissioner, Government of Karnataka, Bangalore.

## 9. GENDER DISPARITIES PROFILE

| District              | Taluk Panchayats |                                            |                                        |                           |                                  |                          |                                      |                                    |
|-----------------------|------------------|--------------------------------------------|----------------------------------------|---------------------------|----------------------------------|--------------------------|--------------------------------------|------------------------------------|
|                       | No.of<br>seats   | No.of<br>seats<br>reserved<br>for<br>women | No.of<br>con-<br>te-<br>sting<br>women | No.of<br>women<br>elected | % of<br>seats<br>won by<br>women | No.of<br>votes<br>polled | No.of<br>votes<br>polled by<br>women | % of<br>women's<br>votes<br>polled |
|                       | 82               | 83                                         | 84                                     | 85                        | 86                               | 87                       | 88                                   | 89                                 |
| 1 Bangalore (U)       | 69               | 27                                         | 110                                    | 27                        | 39.13                            | 437095                   | 205143                               | 46.93                              |
| 2 Bangalore (R)       | 143              | 57                                         | 165                                    | 57                        | 39.86                            | 1010548                  | 492643                               | 48.75                              |
| 3 Belgaum             | 287              | 107                                        | 254                                    | 107                       | 37.28                            | 1804811                  | 890479                               | 49.34                              |
| 4 Bellary             | 137              | 55                                         | 110                                    | 55                        | 40.15                            | 870040                   | 436973                               | 50.22                              |
| 5 Bidar               | 107              | 43                                         | 165                                    | 43                        | 40.19                            | 749742                   | 367134                               | 48.97                              |
| 6 Bijapur             | 226              | 84                                         | 232                                    | 84                        | 37.17                            | 1473895                  | 727493                               | 49.36                              |
| 7 Chikmagalur         | 105              | 46                                         | 151                                    | 46                        | 43.81                            | 604835                   | 295741                               | 48.90                              |
| 8 Chitradurga         | 172              | 70                                         | 234                                    | 70                        | 40.70                            | 1184274                  | 581278                               | 49.08                              |
| 9 Dakshina<br>Kannada | 206              | 82                                         | 252                                    | 82                        | 39.81                            | 1353007                  | 692753                               | 51.20                              |
| 10 Dharwad            | 248              | 106                                        | 303                                    | 106                       | 42.74                            | 1473618                  | 710360                               | 48.21                              |
| 11 Gulbarga           | 204              | 81                                         | 219                                    | 81                        | 39.71                            | 1373574                  | 687377                               | 50.04                              |
| 12 Hassan             | 143              | 56                                         | 159                                    | 56                        | 39.16                            | 950074                   | 474684                               | 49.96                              |
| 13 Kodagu             | 48               | 19                                         | 57                                     | 19                        | 39.58                            | 323416                   | 157363                               | 48.66                              |
| 14 Kolar              | 186              | 80                                         | 230                                    | 80                        | 43.01                            | 1236049                  | 610454                               | 49.39                              |
| 15 Mandya             | 147              | 56                                         | 250                                    | 56                        | 38.10                            | 980347                   | 478644                               | 48.82                              |
| 16 Mysore             | 243              | 94                                         | 256                                    | 94                        | 38.68                            | 1569132                  | 765339                               | 48.77                              |
| 17 Raichur            | 195              | 81                                         | 229                                    | 81                        | 41.54                            | 1224505                  | 618457                               | 50.51                              |
| 18 Shimoga            | 148              | 62                                         | 228                                    | 62                        | 41.89                            | 963715                   | 470438                               | 48.82                              |
| 19 Tumkur             | 203              | 80                                         | 79                                     | 80                        | 39.41                            | 1416121                  | 691085                               | 48.80                              |
| 20 Uttara Kannada     | 123              | 57                                         | 173                                    | 57                        | 46.34                            | 614223                   | 299081                               | 48.69                              |
| <b>STATE</b>          | <b>3340</b>      | <b>1343</b>                                | <b>3856</b>                            | <b>1343</b>               | <b>40.21</b>                     | <b>21613021</b>          | <b>10652919</b>                      | <b>49.29</b>                       |

Source :- Cols. 82 to 89 :- State Election Commissioner, Government of Karnataka, Bangalore.

## 9. GENDER DISPARITIES PROFILE

| District              | Zilla Panchayats |                            |                                   |                           |                                 |                          |                                     |                                   |
|-----------------------|------------------|----------------------------|-----------------------------------|---------------------------|---------------------------------|--------------------------|-------------------------------------|-----------------------------------|
|                       | No.of<br>seats   | No.of<br>seats<br>reserved | No.of<br>women<br>contes-<br>ting | No.of<br>women<br>elected | %of<br>seats<br>won by<br>women | No.of<br>votes<br>polled | No.of<br>women's<br>votes<br>polled | %of<br>women's<br>votes<br>polled |
|                       | 90               | 91                         | 92                                | 93                        | 94                              | 95                       | 96                                  | 97                                |
| 1 Bangalore (U)       | 18               | 7                          | 36                                | 7                         | 38.89                           | 437095                   | 205143                              | 46.93                             |
| 2 Bangalore (R)       | 38               | 15                         | 43                                | 15                        | 39.47                           | 1010548                  | 492643                              | 48.75                             |
| 3 Belgaum             | 76               | 27                         | 71                                | 27                        | 35.53                           | 1804811                  | 890479                              | 49.34                             |
| 4 Bellary             | 38               | 15                         | 40                                | 15                        | 39.47                           | 870040                   | 436973                              | 50.22                             |
| 5 Bidar               | 29               | 11                         | 45                                | 11                        | 37.93                           | 749742                   | 367134                              | 48.97                             |
| 6 Bijapur             | 60               | 22                         | 74                                | 22                        | 36.67                           | 1473895                  | 727493                              | 49.36                             |
| 7 Chikmagalur         | 33               | 13                         | 44                                | 13                        | 39.39                           | 604835                   | 295741                              | 48.90                             |
| 8 Chitradurga         | 46               | 17                         | 60                                | 17                        | 36.96                           | 1184274                  | 581278                              | 49.08                             |
| 9 Dakshina<br>Kannada | 55               | 19                         | 59                                | 19                        | 34.55                           | 1353007                  | 692753                              | 51.20                             |
| 10 Dharwad            | 67               | 24                         | 73                                | 24                        | 35.82                           | 1473618                  | 710360                              | 48.21                             |
| 11 Gulbarga           | 55               | 19                         | 66                                | 19                        | 34.55                           | 1373574                  | 687377                              | 50.04                             |
| 12 Hassan             | 37               | 13                         | 40                                | 13                        | 35.14                           | 950074                   | 474684                              | 49.96                             |
| 13 Kodagu             | 27               | 10                         | 34                                | 10                        | 37.04                           | 323416                   | 157363                              | 48.66                             |
| 14 Kolar              | 50               | 19                         | 62                                | 19                        | 38.00                           | 1236049                  | 610454                              | 49.39                             |
| 15 Mandya             | 39               | 14                         | 58                                | 14                        | 35.90                           | 980347                   | 478644                              | 48.82                             |
| 16 Mysore             | 64               | 22                         | 75                                | 22                        | 34.38                           | 1569132                  | 765339                              | 48.77                             |
| 17 Raichur            | 54               | 19                         | 59                                | 19                        | 35.19                           | 1224505                  | 618457                              | 50.51                             |
| 18 Shimoga            | 41               | 15                         | 63                                | 15                        | 36.59                           | 963715                   | 470438                              | 48.82                             |
| 19 Tumkur             | 54               | 20                         | 78                                | 20                        | 37.04                           | 1416121                  | 691085                              | 48.80                             |
| 20 Uttara Kannada     | 38               | 14                         | 42                                | 14                        | 36.84                           | 614223                   | 299081                              | 48.69                             |
| STATE                 | 919              | 335                        | 1122                              | 335                       | 36.45                           | 21613021                 | 10652919                            | 49.29                             |

**Source :-** Cols. 90 to 97 :- State Election Commissioner, Government of Karnataka, Bangalore.

## 10. CHILD SURVIVAL & DEVELOPMENT PROFILE

| District              | Population of children<br>(under 15 yrs) in lakhs |        |        | Children as % of total population |       |       |
|-----------------------|---------------------------------------------------|--------|--------|-----------------------------------|-------|-------|
|                       | 1961                                              | 1981   | 1991   | 1961                              | 1981  | 1991  |
| 1                     | 2                                                 | 3      | 4      | 5                                 | 6     | 7     |
| 1 Bangalore (U)       | 10.39                                             | 18.37  | 15.36  | 41.51                             | 37.13 | 31.74 |
| 2 Bangalore (R)       |                                                   |        | 5.97   |                                   |       | 35.69 |
| 3 Belgaum             | 8.52                                              | 11.77  | 12.99  | 42.95                             | 39.51 | 36.27 |
| 4 Bellary             | 3.74                                              | 6.18   | 7.65   | 40.87                             | 41.50 | 40.49 |
| 5 Bidar               | 2.79                                              | 4.19   | 5.18   | 42.15                             | 42.08 | 41.25 |
| 6 Bijapur             | 6.98                                              | 9.93   | 11.50  | 42.07                             | 41.36 | 39.30 |
| 7 Chikmagalur         | 2.54                                              | 3.50   | 3.36   | 42.60                             | 38.35 | 33.0  |
| 8 Chitradurga         | 4.69                                              | 7.15   | 7.93   | 42.89                             | 40.23 | 36.37 |
| 9 Dakshina<br>Kannada | 6.83                                              | 9.01   | 8.82   | 43.71                             | 37.91 | 32.73 |
| 10 Dharwad            | 8.43                                              | 11.86  | 13.13  | 43.24                             | 40.26 | 37.47 |
| 11 Gulbarga           | 5.75                                              | 8.69   | 10.46  | 41.07                             | 41.77 | 40.52 |
| 12 Hassan             | 3.88                                              | 5.36   | 5.44   | 43.31                             | 39.50 | 34.67 |
| 13 Kodagu             | 1.36                                              | 1.63   | 1.57   | 42.00                             | 35.51 | 32.13 |
| 14 Kolar              | 5.26                                              | 7.56   | 7.96   | 40.82                             | 39.70 | 35.93 |
| 15 Mandya             | 3.78                                              | 5.74   | 5.60   | 42.10                             | 40.46 | 34.04 |
| 16 Mysore             | 6.87                                              | 9.98   | 10.84  | 41.10                             | 38.46 | 34.25 |
| 17 Raichur            | 4.50                                              | 7.41   | 9.43   | 40.89                             | 41.56 | 40.83 |
| 18 Shimoga            | 4.37                                              | 6.67   | 6.63   | 42.94                             | 40.26 | 34.71 |
| 19 Tumkur             | 5.75                                              | 7.64   | 7.94   | 42.05                             | 38.63 | 34.42 |
| 20 Uttara Kannada     | 2.92                                              | 4.11   | 4.21   | 42.37                             | 38.39 | 34.53 |
| STATE                 | 99.39                                             | 146.79 | 161.99 | 42.13                             | 39.53 | 36.02 |

Tables of 1961, 1981 & 1991.

## 10. CHILD SURVIVAL & DEVELOPMENT PROFILE

| District           | Children (under 15 yrs)<br>as % of respective<br>population 1991 |        | Female as<br>% of male<br>children<br>1991 | Sex ratio<br>0-6 age<br>group<br>1991 |
|--------------------|------------------------------------------------------------------|--------|--------------------------------------------|---------------------------------------|
|                    | Male                                                             | Female |                                            |                                       |
|                    | 8                                                                | 9      | 10                                         | 11                                    |
| 1 Bangalore (U)    | 30.46                                                            | 33.15  | 98.20                                      | 950                                   |
| 2 Bangalore (R)    | 34.97                                                            | 36.44  | 98.48                                      | 957                                   |
| 3 Belgaum          | 36.04                                                            | 36.50  | 96.60                                      | 955                                   |
| 4 Bellary          | 40.48                                                            | 40.51  | 96.56                                      | 957                                   |
| 5 Bidar            | 40.96                                                            | 41.57  | 96.66                                      | 962                                   |
| 6 Bijapur          | 39.30                                                            | 39.09  | 95.37                                      | 956                                   |
| 7 Chikmagalur      | 32.92                                                            | 33.23  | 98.65                                      | 978                                   |
| 8 Chitradurga      | 36.01                                                            | 36.75  | 96.32                                      | 960                                   |
| 9 Dakshina Kannada | 33.92                                                            | 31.61  | 99.02                                      | 966                                   |
| 10 Dharwad         | 37.19                                                            | 37.77  | 95.82                                      | 952                                   |
| 11 Gulbarga        | 40.65                                                            | 40.39  | 95.39                                      | 959                                   |
| 12 Hassan          | 34.56                                                            | 34.77  | 100.53                                     | 967                                   |
| 13 Kodagu          | 32.39                                                            | 31.87  | 96.31                                      | 957                                   |
| 14 Kolar           | 35.55                                                            | 36.32  | 98.56                                      | 971                                   |
| 15 Mandya          | 33.53                                                            | 34.57  | 99.30                                      | 959                                   |
| 16 Mysore          | 33.72                                                            | 34.80  | 98.37                                      | 966                                   |
| 17 Raichur         | 40.97                                                            | 40.68  | 97.27                                      | 965                                   |
| 18 Shimoga         | 34.42                                                            | 35.00  | 97.65                                      | 961                                   |
| 19 Tumkur          | 34.04                                                            | 34.81  | 98.05                                      | 970                                   |
| 20 Uttara Kannada  | 36.67                                                            | 34.38  | 95.79                                      | 949                                   |
| STATE              | 35.77                                                            | 36.27  | 97.33                                      | 960                                   |

**Note :-**

Col.8:-  $\frac{\text{Population of male children (under 15 years)}}{\text{Male population}} \times 100$

Col.9:-  $\frac{\text{Population of female children (under 15 years)}}{\text{Female population}} \times 100$

Col. 11:- Census 1991 (Karnataka)-C1 series Tables (C1.wk1)



## 10. CHILD SURVIVAL & DEVELOPMENT PROFILE

| District              | Estimates of infant mortality rate |      |        |      |       |      |
|-----------------------|------------------------------------|------|--------|------|-------|------|
|                       | Male                               |      | Female |      | Total |      |
|                       | 1981                               | 1991 | 1981   | 1991 | 1981  | 1991 |
|                       | 12                                 | 13   | 14     | 75   | 16    | 17   |
| 1 Bangalore (U)       | 65                                 | 51   | 55     | 49   | 60    | 50   |
| 2 Bangalore (R)       | 65                                 | 51   | 55     | 49   | 60    | 50   |
| 3 Belgaum             | 72                                 | 48   | 63     | 54   | 67    | 50   |
| 4 Bellary             | 100                                | 84   | 82     | 73   | 92    | 79   |
| 5 Bidar               | 86                                 | 67   | 75     | 73   | 81    | 66   |
| 6 Bijapur             | 104                                | 80   | 95     | 69   | 100   | 75   |
| 7 Chikmagalur         | 84                                 | 56   | 69     | 55   | 77    | 55   |
| 8 Chitradurga         | 79                                 | 51   | 64     | 52   | 71    | 51   |
| 9 Dakshina<br>Kannada | 69                                 | 20   | 40     | 30   | 55    | 29   |
| 10 Dharwad            | 84                                 | 74   | 86     | 75   | 85    | 74   |
| 11 Gulbarga           | 87                                 | 59   | 73     | 59   | 80    | 59   |
| 12 Hassan             | 89                                 | 73   | 55     | 44   | 83    | 61   |
| 13 Kodagu             | 57                                 | 43   | 57     | 42   | 57    | 41   |
| 14 Kolar              | 71                                 | 54   | 66     | 57   | 69    | 56   |
| 15 Mandya             | 93                                 | 76   | 75     | 59   | 84    | 67   |
| 16 Mysore             | 80                                 | 57   | 74     | 58   | 77    | 57   |
| 17 Raichur            | 73                                 | 58   | 62     | 52   | 67    | 59   |
| 18 Shimoga            | 93                                 | 81   | 76     | 73   | 90    | 69   |
| 19 Tumkur             | 72                                 | 66   | 92     | 60   | 83    | 64   |
| 20 Uttara Kannada     | 81                                 | 50   | 73     | 49   | 77    | 49   |
| STATE                 | 87                                 | 74   | 74     | 72   | 81    | 74   |

Source :- Cols.12, 14, and 16:- Child Mortality Estimates of India, Occasional Paper No.5 of 1988"  
Office of the Registrar General India.

Cols.13, 15, and 17> District level Estimates of Fertility and Child Mortality 1991",  
Occasional Paper No. 1 of 1997, Office of the Registrar General India.

## 10. CHILD SURVIVAL & DEVELOPMENT PROFILE

| District           | Estimates of under 5 child mortality |      |        |      |       |      |
|--------------------|--------------------------------------|------|--------|------|-------|------|
|                    | Male                                 |      | Female |      | Total |      |
|                    | 1981                                 | 1991 | 1981   | 1991 | 1981  | 1991 |
|                    | 18                                   | 19   | 20     | 21   | 22    | 23   |
| 1 Bangalore (U)    | 109                                  | 66   | 100    | 69   | 105   | 67   |
| 2 Bangalore (R)    | 109                                  | 66   | 100    | 69   | 105   | 67   |
| 3 Belgaum          | 135                                  | 67   | 141    | 70   | 138   | 69   |
| 4 Bellary          | 179                                  | 118  | 183    | 121  | 181   | 119  |
| 5 Bidar            | 144                                  | 84   | 144    | 86   | 144   | 85   |
| 6 Bijapur          | 164                                  | 88   | 166    | 89   | 165   | 88   |
| 7 Chikmagalur      | 152                                  | 77   | 136    | 73   | 144   | 75   |
| 8 Chitradurga      | 160                                  | 102  | 162    | 108  | 161   | 104  |
| 9 Dakshina Kannada | 90                                   | 45   | 83     | 47   | 86    | 46   |
| 10 Dharwad         | 166                                  | 94   | 170    | 97   | 168   | 95   |
| 11 Gulbarga        | 158                                  | 81   | 168    | 91   | 163   | 86   |
| 12 Hassan          | 144                                  | 80   | 122    | 76   | 133   | 78   |
| 13 Kodagu          | 134                                  | 72   | 128    | 59   | 131   | 66   |
| 14 Kolar           | 139                                  | 101  | 129    | 99   | 134   | 100  |
| 15 Mandya          | 132                                  | 86   | 126    | 85   | 129   | 84   |
| 16 Mysore          | 138                                  | 97   | 132    | 86   | 135   | 89   |
| 17 Raichur         | 183                                  | 79   | 184    | 84   | 184   | 80   |
| 18 Shimoga         | 147                                  | 93   | 133    | 85   | 140   | 88   |
| 19 Tumkur          | 142                                  | 99   | 148    | 108  | 145   | 102  |
| 20 Uttara Kannada  | 120                                  | 70   | 113    | 69   | 117   | 69   |
| STATE              | 143                                  | 91   | 140    | 88   | 142   | 90   |

**Source :-** Cols. 18, 20 and 22:- Child Mortality Estimates of India, Occasional Paper No.5 of 1988"  
Office of the Registrar General India.

Cols. 19, 21 and 23:- "District level Estimates of Fertility and Child Mortality 1991",  
Occasional Paper No. 1 of 1997, Office of the Registrar General India.

## 10. CHILD SURVIVAL & DEVELOPMENT PROFILE

| District              | One year olds fully immunised against (in lakhs) |         |         |         |         |         |         |
|-----------------------|--------------------------------------------------|---------|---------|---------|---------|---------|---------|
|                       | Tuberculosis (BCG)                               |         | DPT     |         | Polio   |         | Measles |
|                       | 1985-86                                          | 1996-97 | 1985-86 | 1996-97 | 1985-86 | 1996-97 | 1996-97 |
|                       | 24                                               | 25      | 26      | 27      | 28      | 29      | 30      |
| 1 Bangalore (U)       | 0.38                                             | 1.54    | 0.80    | 1.52    | 0.80    | 1.52    | 1.42    |
| 2 Bangalore (R)       | 0.43                                             | 0.43    | 0.50    | 0.41    | 0.50    | 0.41    | 0.37    |
| 3 Belgaum             | 0.65                                             | 1.11    | 0.72    | 1.06    | 0.66    | 1.06    | 1.01    |
| 4 Bellary             | 0.32                                             | 0.53    | 0.36    | 0.48    | 0.35    | 0.48    | 0.45    |
| 5 Bidar               | 0.29                                             | 0.42    | 0.25    | 0.41    | 0.25    | 0.40    | 0.41    |
| 6 Bijapur             | 0.56                                             | 0.88    | 0.54    | 0.81    | 0.65    | 0.82    | 0.74    |
| 7 Chikmagalur         | 0.17                                             | 0.21    | 0.27    | 0.20    | 0.27    | 0.20    | 0.19    |
| 8 Chitradurga         | 0.32                                             | 0.64    | 0.29    | 0.52    | 0.27    | 0.52    | 0.36    |
| 9 Dakshina<br>Kannada | 0.40                                             | 0.65    | 0.60    | 0.57    | 0.47    | 0.57    | 0.52    |
| 10 Dharwad            | 0.49                                             | 0.96    | 0.65    | 0.90    | 0.76    | 0.91    | 0.85    |
| 11 Gulbarga           | 0.56                                             | 0.75    | 0.52    | 0.70    | 0.50    | 0.70    | 0.68    |
| 12 Hassan             | 0.52                                             | 0.34    | 0.45    | 0.35    | 0.46    | 0.35    | 0.33    |
| 13 Kodagu             | 0.21                                             | 0.12    | 0.15    | 0.11    | 0.14    | 0.11    | 0.10    |
| 14 Kolar              | 0.97                                             | 0.60    | 0.54    | 0.56    | 0.54    | 0.56    | 0.52    |
| 15 Mandya             | 0.38                                             | 0.38    | 0.38    | 0.38    | 0.36    | 0.38    | 0.35    |
| 16 Mysore             | 0.58                                             | 0.72    | 0.65    | 0.67    | 0.65    | 0.67    | 0.62    |
| 17 Raichur            | 0.40                                             | 0.65    | 0.46    | 0.61    | 0.44    | 0.61    | 0.58    |
| 18 Shimoga            | 0.35                                             | 0.44    | 0.40    | 0.45    | 0.40    | 0.45    | 0.43    |
| 19 Tumkur             | 0.42                                             | 0.58    | 0.52    | 0.56    | 0.49    | 0.56    | 0.52    |
| 20 Uttara Kannada     | 0.43                                             | 0.22    | 0.32    | 0.22    | 0.31    | 0.22    | 0.21    |
| STATE                 | 8.88                                             | 12.17   | 9.41    | 11.51   | 9.28    | 11.52   | 10.67   |

Source :- Cols.24 to 30 :-

Directorate of Health and Family Welfare Services, Government of Karnataka.

## 10. CHILD SURVIVAL & DEVELOPMENT PROFILE

| District              | Institutional deliveries (%) 1996-97 | Deliveries attended by trained dais and health personnel (%) 1996-97 | Deliveries by untrained dais (%) 1996-97 | Children out of school in 6-14 age group, 1996-97 |          |         |
|-----------------------|--------------------------------------|----------------------------------------------------------------------|------------------------------------------|---------------------------------------------------|----------|---------|
|                       |                                      |                                                                      |                                          | Male                                              | Female   | Total   |
|                       | 31                                   | 32                                                                   | 33                                       | 34                                                | 35       | 36      |
| 1 Bangalore (U)       | 89.3                                 | 10.0                                                                 | 0.6                                      | 50214                                             | 65292    | 115506  |
| 2 Bangalore (R)       | 48.9                                 | 48.3<br>55.1                                                         | 2.8                                      | 49380                                             | 69749    | 119129  |
| 3 Belgaum             | 40.8                                 |                                                                      | 4.1                                      | 105918                                            | 127654   | 233572  |
| 4 Bellary             | 27.5                                 | 59.4                                                                 | 13.1                                     | 47289                                             | 83975    | 131264  |
| 5 Bidar               | 11.4                                 | 85.1                                                                 | 4.5                                      | 20557                                             | 33768    | 54325   |
| 6 Bijapur             | 22.2                                 | 74.0                                                                 | 3.8                                      | 61597                                             | 110307   | 171904  |
| 7 Chikmagalur         | 53.7                                 | 40.8                                                                 | 4.5                                      | 22510                                             | 29809    | 52319   |
| 8 Chitradurga         | 37.5                                 | 58.1                                                                 | 4.4                                      | 47421                                             | 72535    | 119956  |
| 9 Dakshina<br>Kannada | 77.0                                 | 22.3                                                                 | 0.7                                      | 40102                                             | 54939    | 95041   |
| 10 Dharwad            | 39.8                                 | 58.3                                                                 | 1.9                                      | 104567                                            | 138213   | 242780  |
| 11 Gulbarga           | 12.7                                 | 74.0                                                                 | 13.3                                     | 67668                                             | 100945   | 168613  |
| 12 Hassan             | 45.6                                 | 50.7                                                                 | 3.7                                      | 42376                                             | 52845    | 95221   |
| 13 Kodagu             | 76.0                                 | 22.1                                                                 | 1.9                                      | 9002                                              | 12219    | 21221   |
| 14 Kolar              | 36.1                                 | 58.8                                                                 | 5.1                                      | 52759                                             | 76843    | 129602  |
| 15 Mandya             | 48.8                                 | 44.9                                                                 | 6.3                                      | 39201                                             | 59123    | 98324   |
| 16 Mysore             | 51.4                                 | 45.7                                                                 | 2.9                                      | 98223                                             | 130951   | 229174  |
| 17 Raichur            | 11.9                                 | 78.3                                                                 | 7.8                                      | 89241                                             | 144480   | 233721  |
| 18 Shimoga            | 45.0                                 | 51.9                                                                 | 3.1                                      | 51318                                             | 58553    | 109871  |
| 19 Tumkur             | 41.1                                 | 53.6                                                                 | 4.6                                      | 46949                                             | 72847    | 119796  |
| 20 Uttara Kannada     | 72.2                                 | 21.1                                                                 | 6.7                                      | 27532                                             | 36386    | 63918   |
| STATE                 | 41.8                                 | 52.9                                                                 | 5.3                                      | 1073824                                           | 15131433 | 2605257 |

Source :- Cols.31 to 331> Directorate of Health and Family Welfare Services,  
Government of Karnataka.  
Cols.34 to 36!:- Commissioner of Public Instruction, Government of  
Karnataka.

### 3(b). GENDER RELATED HEALTH INDEX (GHI) 1991

| District           | Equally distributed index of edu attainment | Infant mortality rate |      | Index of IMR |       | Equally distributed IMR index | GHI   |
|--------------------|---------------------------------------------|-----------------------|------|--------------|-------|-------------------------------|-------|
|                    |                                             | Female                | Male | Female       | Male  |                               |       |
|                    | 9                                           | 10                    | 11   | 12           | 13    | 14                            | 15    |
| 1 Bangalore (U)    | 0.767                                       | 49                    | 51   | 0.650        | 0.632 | 0.640                         | 0.696 |
| 2 Bangalore (R)    | 0.521                                       | 49                    | 51   | 0.650        | 0.632 | 0.641                         | 0.619 |
| 3 Belgaum          | 0.529                                       | 54                    | 48   | 0.607        | 0.658 | 0.632                         | 0.610 |
| 4 Bellary          | 0.477                                       | 73                    | 84   | 0.444        | 0.350 | 0.391                         | 0.484 |
| 5 Bidar            | 0.453                                       | 73                    | 67   | 0.444        | 0.496 | 0.469                         | 0.523 |
| 6 Bijapur          | 0.512                                       | 69                    | 80   | 0.479        | 0.385 | 0.426                         | 0.523 |
| 7 Chikmagalur      | 0.624                                       | 55                    | 56   | 0.598        | 0.590 | 0.594                         | 0.626 |
| 8 Chitradurga      | 0.596                                       | 52                    | 51   | 0.624        | 0.632 | 0.628                         | 0.613 |
| 9 Dakshina Kannada | 0.838                                       | 30                    | 20   | 0.812        | 0.897 | 0.851                         | 0.807 |
| 10 Dharwad         | 0.576                                       | 75                    | 74   | 0.427        | 0.436 | 0.432                         | 0.546 |
| 11 Gulbarga        | 0.374                                       | 59                    | 59   | 0.564        | 0.564 | 0.564                         | 0.530 |
| 12 Hassan          | 0.572                                       | 44                    | 73   | 0.692        | 0.444 | 0.541                         | 0.596 |
| 13 Kodagu          | 0.731                                       | 42                    | 43   | 0.709        | 0.701 | 0.705                         | 0.718 |



|            |                             |       |    |    |       |       |       |       |
|------------|-----------------------------|-------|----|----|-------|-------|-------|-------|
| 14 Kolar   | 18 Shimoga                  | 0.633 | 73 | 81 | 0.444 | 0.376 | 0.407 | 0.553 |
| 15 Mandya  | 19 Tumkur                   | 0.577 | 60 | 66 | 0.556 | 0.504 | 0.528 | 0.567 |
| 16 Mysore  | 20 Uttara                   | 0.686 | 49 | 50 | 0.650 | 0.641 | 0.645 | 0.677 |
| 17 Raichur | <del>Kannada</del><br>STATE | 0.574 | 72 | 74 | 0.453 | 0.436 | 0.444 | 0.546 |

**Source:-** Working Group (HDR), GOK.

## 10. CHILD SURVIVAL & DEVELOPMENT PROFILE

| District           | % of children out of school in 6-14 age group 1996-97 |        |       |
|--------------------|-------------------------------------------------------|--------|-------|
|                    | Male                                                  | Female | Total |
|                    | 37                                                    | 38     | 39    |
| 1 Bangalore (U)    | 11.07                                                 | 14.35  | 12.71 |
| 2 Bangalore (R)    | 27.87                                                 | 38.67  | 33.31 |
| 3 Belgaum          | 28.13                                                 | 34.32  | 31.21 |
| 4 Bellary          | 21.41                                                 | 38.78  | 30.00 |
| 5 Bidar            | 14.23                                                 | 23.91  | 19.01 |
| 6 Bijapur          | 18.40                                                 | 34.09  | 26.11 |
| 7 Chikmagalur      | 23.39                                                 | 31.05  | 27.22 |
| 8 Chitradurga      | 20.36                                                 | 32.02  | 26.11 |
| 9 Dakshina Kannada | 15.31                                                 | 20.86  | 18.09 |
| 10 Dharwad         | 26.69                                                 | 36.31  | 31.43 |
| 11 Gulbarga        | 22.64                                                 | 35.01  | 28.71 |
| 12 Hassan          | 27.21                                                 | 33.44  | 30.34 |
| 13 Kodagu          | 20.53                                                 | 28.68  | 24.55 |
| 14 Kolar           | 22.24                                                 | 32.19  | 27.23 |
| 15 Mandya          | 24.42                                                 | 35.82  | 30.20 |
| 16 Mysore          | 30.49                                                 | 40.45  | 35.48 |
| 17 Raichur         | 33.24                                                 | 54.43  | 43.77 |
| 18 Shimoga         | 26.81                                                 | 30.89  | 28.84 |
| 19 Tumkur          | 20.15                                                 | 31.32  | 25.73 |
| 20 Uttara Kannada  | 22.72                                                 | 31.08  | 26.83 |
| STATE              | 22.74                                                 | 32.74  | 27.72 |

**Source :-** Cols.37 to 39 :- j Children not in primary school from office of the Commissioner of Public Instruction, Government of Karnataka and projected children population of 1997

## 10. CHILD SURVIVAL & DEVELOPMENT PROFILE

| District              | Child labour 5-14 age group (in lakhs) |      |        |      |       |      |
|-----------------------|----------------------------------------|------|--------|------|-------|------|
|                       | Male                                   |      | Female |      | Total |      |
|                       | 1981                                   | 1991 | 1981   | 1991 | 1981  | 1991 |
|                       | 40                                     | 41   | 42     | 43   | 44    | 45   |
| 1 Bangalore (U)       | 0.50                                   | 0.26 | 0.29   | 0.13 | 0.79  | 0.39 |
| 2 Bangalore (R)       |                                        | 0.18 |        | 0.17 |       | 0.35 |
| 3 Belgaum             | 0.56                                   | 0.37 | 0.39   | 0.36 | 0.95  | 0.73 |
| 4 Bellary             | 0.33                                   | 0.39 | 0.29   | 0.43 | 0.62  | 0.82 |
| 5 Bidar               | 0.20                                   | 0.13 | 0.11   | 0.11 | 0.31  | 0.24 |
| 6 Bijapur             | 0.52                                   | 0.36 | 0.37   | 0.37 | 0.89  | 0.73 |
| 7 Chikmagalur         | 0.14                                   | 0.08 | 0.14   | 0.08 | 0.28  | 0.16 |
| 8 Chitradurga         | 0.35                                   | 0.27 | 0.32   | 0.28 | 0.67  | 0.55 |
| 9 Dakshina<br>Kannada | 0.16                                   | 0.09 | 0.34   | 0.19 | 0.50  | 0.28 |
| 10 Dharwad            | 0.64                                   | 0.48 | 0.50   | 0.47 | 1.14  | 0.95 |
| 11 Gulbarga           | 0.58                                   | 0.41 | 0.44   | 0.36 | 1.02  | 0.77 |
| 12 Hassan             | 0.23                                   | 0.15 | 0.17   | 0.16 | 0.40  | 0.31 |
| 13 Kodagu             | 0.06                                   | 0.03 | 0.05   | 0.03 | 0.11  | 0.06 |
| 14 Kolar              | 0.32                                   | 0.27 | 0.28   | 0.31 | 0.60  | 0.58 |
| 15 Mandya             | 0.25                                   | 0.19 | 0.10   | 0.15 | 0.35  | 0.34 |
| 16 Mysore             | 0.48                                   | 0.37 | 0.22   | 0.20 | 0.70  | 0.57 |
| 17 Raichur            | 0.45                                   | 0.42 | 0.34   | 0.44 | 0.79  | 0.86 |
| 18 Shimoga            | 0.26                                   | 0.17 | 0.18   | 0.14 | 0.44  | 0.31 |
| 19 Tumkur             | 0.28                                   | 0.28 | 0.28   | 0.31 | 0.53  | 0.59 |
| 20 Uttara Kannada     | 0.11                                   | 0.07 | 0.08   | 0.07 | 0.19  | 0.14 |
| STATE                 | 6.45                                   | 4.98 | 4.86   | 4.78 | 11.31 | 9.76 |

Source:- Cols.40, 42 and 44 :- Census Of India Part III General Economic Tables 1981.  
Cols.41,43and45 :- Census of 1991 - (Karnataka) B series Tables (B1S.wk1)

## 10. CHILD SURVIVAL & DEVELOPMENT PROFILE

| District              | % of child labour to child population (0-14) |       |        |       |       |       |
|-----------------------|----------------------------------------------|-------|--------|-------|-------|-------|
|                       | Male                                         |       | Female |       | Total |       |
|                       | 1981                                         | 1991  | 1981   | 1991  | 1981  | 1991  |
|                       | 46                                           | 47    | 48     | 49    | 50    | 51    |
| 1 Bangalore (U)       | 5.43                                         | 3.31  | 3.16   | 1.75  | 4.30  | 2.54  |
| 2 Bangalore (R)       |                                              | 6.03  |        | 5.93  |       | 5.98  |
| 3 Belgaum             | 9.41                                         | 5.56  | 6.70   | 5.62  | 8.07  | 5.59  |
| 4 Bellary             | 10.54                                        | 10.09 | 9.51   | 11.46 | 10.03 | 10.76 |
| 5 Bidar               | 9.30                                         | 4.93  | 5.39   | 4.22  | 7.40  | 4.58  |
| 6 Bijapur             | 10.38                                        | 6.12  | 7.52   | 6.57  | 8.96  | 6.34  |
| 7 Chikmagalur         | 8.04                                         | 4.95  | 7.95   | 4.84  | 8.00  | 4.89  |
| 8 Chitradurga         | 9.80                                         | 6.64  | 8.94   | 7.13  | 9.37  | 6.88  |
| 9 Dakshina<br>Kannada | 3.52                                         | 2.13  | 7.61   | 4.39  | 5.55  | 3.25  |
| 10 Dharwad            | 10.63                                        | 7.11  | 8.56   | 7.42  | 9.61  | 7.26  |
| 11 Gulbarga           | 13.09                                        | 7.69  | 10.33  | 7.04  | 11.74 | 7.38  |
| 12 Hassan             | 8.68                                         | 5.58  | 6.27   | 5.98  | 7.46  | 5.78  |
| 13 Kodagu             | 7.23                                         | 3.83  | 6.25   | 4.12  | 6.75  | 3.97  |
| 14 Kolar              | 8.45                                         | 6.78  | 7.39   | 7.86  | 7.94  | 7.32  |
| 15 Mandya             | 8.80                                         | 6.81  | 3.45   | 5.40  | 6.10  | 6.11  |
| 16 Mysore             | 9.58                                         | 6.81  | 4.43   | 3.72  | 7.01  | 5.28  |
| 17 Raichur            | 12.00                                        | 8.84  | 9.29   | 9.40  | 10.66 | 9.12  |
| 18 Shimoga            | 7.83                                         | 4.94  | 5.37   | 4.35  | 6.60  | 4.64  |
| 19 Tumkur             | 7.31                                         | 7.03  | 6.56   | 7.93  | 6.94  | 7.47  |
| 20 Uttara Kannada     | 5.24                                         | 3.53  | 3.98   | 3.21  | 4.62  | 3.37  |
| STATE                 | 8.73                                         | 6.07  | 6.66   | 5.98  | 7.70  | 6.03  |

Source:- Cols.46, 48 and 50 :- Census of India-PartIII General Economic Tables 1981.

Cols.47, 59 and 51 :- Census of 1991 (Karnataka) B series Table (B1S.wk1).

## 10. CHILD SURVIVAL & DEVELOPMENT PROFILE

| District              | % of child labour to child population (5-14) |       |        |       |       |       |
|-----------------------|----------------------------------------------|-------|--------|-------|-------|-------|
|                       | Male                                         |       | Female |       | Total |       |
|                       | 1981                                         | 1991  | 1981   | 1991  | 1981  | 1991  |
|                       | 52                                           | 53    | 54     | 55    | 56    | 57    |
| 1 Bangalore (U)       | 7.98                                         | 4.77  | 4.66   | 2.51  | 6.33  | 3.65  |
| 2 Bangalore (R)       |                                              | 8.71  |        | 8.46  |       | 8.58  |
| 3 Belgaum             | 13.68                                        | 8.39  | 9.74   | 8.39  | 11.73 | 8.39  |
| 4 Bellary             | 15.41                                        | 14.83 | 13.94  | 16.83 | 14.69 | 15.81 |
| 5 Bidar               | 13.57                                        | 7.41  | 7.82   | 6.37  | 10.76 | 6.90  |
| 6 Bijapur             | 15.33                                        | 9.20  | 11.06  | 9.86  | 13.21 | 9.52  |
| 7 Chikmagalur         | 11.63                                        | 7.14  | 11.34  | 6.95  | 11.48 | 7.04  |
| 8 Chitradurga         | 14.25                                        | 9.62  | 12.87  | 10.33 | 13.55 | 9.97  |
| 9 Dakshina<br>Kannada | 5.07                                         | 3.04  | 10.85  | 6.20  | 7.95  | 4.62  |
| 10 Dharwad            | 15.70                                        | 10.42 | 12.55  | 10.82 | 14.14 | 10.61 |
| 11 Gulbarga           | 19.20                                        | 11.75 | 15.27  | 10.76 | 17.28 | 11.26 |
| 12 Hassan             | 12.60                                        | 8.06  | 9.03   | 8.53  | 10.79 | 8.30  |
| 13 Kodagu             | 10.78                                        | 5.65  | 9.21   | 5.97  | 10.00 | 5.81  |
| 14 Kolar              | 12.37                                        | 9.67  | 10.74  | 11.21 | 11.55 | 10.44 |
| 15 Mandya             | 12.70                                        | 9.84  | 4.97   | 7.65  | 8.79  | 8.74  |
| 16 Mysore             | 14.11                                        | 9.83  | 6.45   | 5.35  | 10.28 | 7.60  |
| 17 Raichur            | 17.51                                        | 13.40 | 13.26  | 14.24 | 15.38 | 13.81 |
| 18 Shimoga            | 11.21                                        | 7.14  | 7.60   | 6.26  | 9.38  | 6.70  |
| 19 Tumkur             | 10.74                                        | 10.09 | 9.47   | 11.32 | 10.10 | 10.70 |
| 20 Uttara Kannada     | 7.68                                         | 5.11  | 5.81   | 4.59  | 6.76  | 4.86  |
| STATE                 | 12.70                                        | 8.90  | 9.68   | 8.71  | 11.20 | 8.81  |

Source:- Cols.52, 54 and 56 :- Census of India-Part III General Economic Tables 1981.

Cols.53, 55 and 57 :- Census of 1991 (Karnataka) B series Table (B1S.wk1).

## 10. CHILD SURVIVAL & DEVELOPMENT PROFILE

| District              | Proportion of working children (5-14 yrs) in rural & urban areas - 1991 |       |       |       |        |       |
|-----------------------|-------------------------------------------------------------------------|-------|-------|-------|--------|-------|
|                       | Total                                                                   |       | Male  |       | Female |       |
|                       | Rural                                                                   | Urban | Rural | Urban | Rural  | Urban |
|                       | 58                                                                      | 59    | 60    | 61    | 62     | 63    |
| 1 Bangalore (U)       | 27.25                                                                   | 72.75 | 22.32 | 77.68 | 36.75  | 63.25 |
| 2 Bangalore (R)       | 85.21                                                                   | 14.79 | 81.14 | 18.86 | 89.42  | 10.58 |
| 3 Belgaum             | 93.29                                                                   | 6.71  | 91.05 | 8.95  | 95.57  | 4.43  |
| 4 Bellary             | 88.39                                                                   | 11.61 | 86.23 | 13.77 | 90.37  | 9.63  |
| 5 Bidar               | 94.57                                                                   | 5.43  | 91.83 | 8.17  | 97.88  | 2.12  |
| 6 Bijapur             | 92.50                                                                   | 7.50  | 89.09 | 10.91 | 95.83  | 4.17  |
| 7 Chikmagalur         | 92.95                                                                   | 7.05  | 90.93 | 9.07  | 95.05  | 4.95  |
| 8 Chitradurga         | 89.57                                                                   | 10.43 | 84.83 | 15.17 | 94.14  | 5.86  |
| 9 Dakshina<br>Kannada | 81.85                                                                   | 18.15 | 78.03 | 21.97 | 83.72  | 16.28 |
| 10 Dharwad            | 86.49                                                                   | 13.51 | 82.50 | 17.50 | 90.49  | 9.51  |
| 11 Gulbarga           | 94.91                                                                   | 5.09  | 92.93 | 7.07  | 97.17  | 2.83  |
| 12 Hassan             | 93.72                                                                   | 6.28  | 90.89 | 9.11  | 96.35  | 3.65  |
| 13 Kodagu             | 91.03                                                                   | 8.97  | 90.55 | 9.45  | 91.48  | 8.52  |
| 14 Kolar              | 92.21                                                                   | 7.79  | 89.25 | 10.75 | 94.80  | 5.20  |
| 15 Mandya             | 93.10                                                                   | 6.90  | 91.43 | 8.57  | 95.22  | 4.78  |
| 16 Mysore             | 88.92                                                                   | 11.08 | 90.99 | 9.01  | 95.01  | 4.99  |
| 17 Raichur            | 93.03                                                                   | 6.97  | 84.41 | 15.59 | 94.52  | 5.48  |
| 18 Shimoga            | 89.08                                                                   | 10.92 | 84.41 | 15.59 | 94.52  | 5.48  |
| 19 Tumkur             | 93.73                                                                   | 6.27  | 91.48 | 8.52  | 95.76  | 4.24  |
| 20 Uttara Kannada     | 89.23                                                                   | 10.77 | 88.55 | 11.45 | 90.02  | 9.98  |
| STATE                 | 88.32                                                                   | 11.68 | 84.79 | 15.21 | 92.01  | 7.99  |

Source :- Census1991 (Karnataka)-B series tables (B1wk1)



## 10. CHILD SURVIVAL & DEVELOPMENT PROFILE

| District           | Malnutrition in pre-school children (1-5) by Gomez grades - (rural) 1975 - 82 |        |       |          |        |
|--------------------|-------------------------------------------------------------------------------|--------|-------|----------|--------|
|                    | No. of children                                                               | Normal | Mild  | Moderate | Severe |
|                    | 64                                                                            | 65     | 66    | 67       | 68     |
| 1 Bangalore (U)    | 277                                                                           | 8.66   | 44.77 | 39.71    | 6.86   |
| 2 Bangalore (R)    |                                                                               |        |       |          |        |
| 3 Belgaum          | 284                                                                           | 9.86   | 45.78 | 38.73    | 5.63   |
| 4 Bellary          | 128                                                                           | 3.92   | 44.53 | 40.63    | 10.94  |
| 5 Bidar            | 283                                                                           | 11.66  | 37.10 | 44.17    | 7.07   |
| 6 Bijapur          | 100                                                                           | 20.00  | 35.00 | 38.90    | 7.00   |
| 7 Chikmagalur      | 276                                                                           | 12.32  | 47.83 | 35.87    | 3.99   |
| 8 Chitradurga      | 159                                                                           | 9.44   | 33.96 | 46.54    | 10.06  |
| 9 Dakshina Kannada | 62                                                                            | 16.13  | 40.32 | 37.10    | 6.45   |
| 10 Dharwad         | 211                                                                           | 17.06  | 44.08 | 35.54    | 3.32   |
| 11 Gulbarga        | 343                                                                           | 13.12  | 39.07 | 39.36    | 8.45   |
| 12 Hassan          | 307                                                                           | 6.51   | 38.76 | 42.02    | 12.70  |
| 13 Kodagu          | 289                                                                           | 15.22  | 48.10 | 33.22    | 3.46   |
| 14 Kolar           | 97                                                                            | 9.28   | 55.67 | 27.83    | 7.22   |
| 15 Mandya          | 171                                                                           | 15.79  | 52.63 | 27.49    | 4.09   |
| 16 Mysore          | 279                                                                           | 13.62  | 45.52 | 36.56    | 4.30   |
| 17 Raichur         | 105                                                                           | 8.57   | 41.90 | 42.86    | 6.67   |
| 18 Shimoga         | 144                                                                           | 9.72   | 48.61 | 36.11    | 5.56   |
| 19 Tumkur          | 320                                                                           | 7.19   | 49.06 | 36.25    | 7.50   |
| 20 Uttara Kannada  | 126                                                                           | 14.28  | 42.86 | 38.10    | 4.76   |
| STATE              | 3961                                                                          | 11.40  | 44.00 | 37.90    | 6.60   |

- Report of National Nutrition Monitoring Bureau (NNMB)

## 11. HOUSING PROFILE

| District<br>1      | Distribution of census houses according to type, 1991 (percentage) |            |        |            |       |       |        |            |
|--------------------|--------------------------------------------------------------------|------------|--------|------------|-------|-------|--------|------------|
|                    | All areas                                                          |            |        |            | Rural |       |        |            |
|                    | Pucca                                                              | Semi pucca | Katcha | Not stated | Pucca | Semi  | Katcha | Not stated |
|                    | 2                                                                  | 3          | 4      | 5          | 6     | 7     | 8      | 9          |
| 1 Bangalore        | 82.79                                                              | 10.66      | 3.44   | 3.10       | 55.86 | 34.32 | 6.90   | 2.92       |
| 2 Bangalore Rural  | 42.52                                                              | 34.12      | 19.62  | 3.74       | 36.57 | 37.89 | 21.76  | 3.78       |
| 3 Belgaum          | 48.35                                                              | 39.46      | 9.11   | 3.09       | 44.51 | 41.96 | 10.87  | 2.65       |
| 4 Bellary          | 34.48                                                              | 38.25      | 25.42  | 1.85       | 27.68 | 44.55 | 26.23  | 1.53       |
| 5 Bidar            | 68.69                                                              | 21.79      | 5.18   | 4.34       | 66.49 | 22.97 | 6.01   | 4.52       |
| 6 Bijapur          | 23.06                                                              | 66.29      | 8.62   | 2.03       | 14.17 | 73.99 | 10.14  | 1.70       |
| 7 Chickmagalur     | 36.00                                                              | 43.19      | 16.48  | 4.34       | 30.09 | 47.09 | 18.92  | 3.90       |
| 8 Chitradurga      | 48.75                                                              | 33.44      | 13.64  | 4.17       | 40.95 | 40.49 | 16.00  | 2.57       |
| 9 Dakshina Kannada | 33.18                                                              | 41.43      | 23.22  | 2.17       | 24.78 | 43.17 | 29.96  | 2.08       |
| 10 Dharwad         | 33.74                                                              | 39.75      | 21.54  | 4.97       | 22.79 | 46.31 | 26.95  | 3.95       |
| 11 Gulbarga        | 56.61                                                              | 34.63      | 5.45   | 3.11       | 48.78 | 41.81 | 6.65   | 2.76       |
| 12 Hassan          | 23.34                                                              | 67.58      | 6.98   | 2.09       | 14.08 | 76.05 | 7.78   | 2.08       |
| 13 Kodagu          | 38.82                                                              | 43.99      | 13.47  | 3.72       | 33.28 | 47.70 | 15.26  | 3.76       |
| 14 Kolar           | 58.23                                                              | 22.00      | 16.19  | 3.59       | 52.49 | 24.44 | 19.37  | 3.71       |
| 15 Mandya          | 45.76                                                              | 36.18      | 14.37  | 3.70       | 41.11 | 40.79 | 14.15  | 3.95       |
| 16 Mysore          | 39.71                                                              | 43.83      | 12.28  | 4.19       | 25.67 | 54.86 | 15.44  | 4.03       |
| 17 Raichur         | 20.80                                                              | 40.56      | 36.44  | 2.20       | 14.24 | 45.69 | 38.26  | 1.81       |
| 18 Shimoga         | 37.84                                                              | 35.81      | 21.08  | 5.26       | 26.70 | 41.06 | 27.78  | 4.45       |
| 19 Tumkur          | 47.66                                                              | 28.82      | 19.69  | 3.83       | 41.56 | 32.07 | 22.47  | 3.89       |
| 20 Uttara Kannada  | 38.11                                                              | 33.01      | 21.84  | 7.04       | 29.26 | 36.20 | 27.64  | 6.90       |
| STATE              | 45.15                                                              | 36.40      | 14.97  | 3.49       | 33.32 | 44.61 | 18.86  | 3.20       |

**Source :-** Census 1991 data on housing (H2.wk1 on floppy) from the Office of the Director of Census Operations, Karnataka, Bangalore.

## 11. HOUSING PROFILE

| District           | Distribution of census houses according to type, 1991 (percentage) |            |        |            |
|--------------------|--------------------------------------------------------------------|------------|--------|------------|
|                    | Urban houses                                                       |            |        |            |
|                    | Pucca                                                              | Semi pucca | Katcha | Not stated |
|                    | 10                                                                 | 11         | 12     | 13         |
| 1 Bangalore        | 87.04                                                              | 6.93       | 2.90   | 3.13       |
| 2 Bangalore Rural  | 67.80                                                              | 18.08      | 10.53  | 3.59       |
| 3 Belgaum          | 61.14                                                              | 31.11      | 3.20   | 4.54       |
| 4 Bellary          | 49.74                                                              | 24.08      | 23.60  | 2.58       |
| 5 Bidar            | 78.26                                                              | 16.62      | 1.54   | 3.59       |
| 6 Bijapur          | 50.42                                                              | 42.62      | 3.95   | 3.02       |
| 7 Chickmagalur     | 66.96                                                              | 22.74      | 3.67   | 6.62       |
| 8 Chitradurga      | 69.36                                                              | 14.82      | 7.42   | 8.40       |
| 9 Dakshina Kannada | 56.09                                                              | 36.68      | 4.84   | 2.39       |
| 10 Dharwad         | 52.79                                                              | 28.35      | 12.12  | 6.75       |
| 11 Gulbarga        | 82.88                                                              | 11.34      | 1.54   | 4.24       |
| 12 Hassan          | 68.02                                                              | 26.70      | 3.14   | 2.14       |
| 13 Kodagu          | 71.31                                                              | 22.25      | 2.93   | 3.51       |
| 14 Kolar           | 78.39                                                              | 13.41      | 5.01   | 3.18       |
| 15 Mandya          | 67.14                                                              | 14.94      | 15.38  | 2.54       |
| 16 Mysore          | 72.79                                                              | 17.83      | 4.81   | 4.56       |
| 17 Raichur         | 44.35                                                              | 22.12      | 29.90  | 3.62       |
| 18 Shimoga         | 66.59                                                              | 22.26      | 3.79   | 7.37       |
| 19 Tumkur          | 77.35                                                              | 12.99      | 6.12   | 3.54       |
| 20 Uttara Kannada  | 64.36                                                              | 23.54      | 4.63   | 7.48       |
| STATE              | 70.99                                                              | 18.45      | 6.45   | 4.11       |

**Source :-** Census 1991 data on housing (H2.wk1 on floppy) from the Office of the Director of Census Operations, Karnataka, Bangalore.

## 11. HOUSING PROFILE

| District           | Distribution of households by no.of rooms occupied 1991 |           |             |                    |                   |                  |
|--------------------|---------------------------------------------------------|-----------|-------------|--------------------|-------------------|------------------|
|                    | Number of households occupying                          |           |             |                    |                   |                  |
|                    | One room                                                | Two rooms | Three rooms | Four rooms & above | Unspecified rooms | No.of households |
|                    | 14                                                      | 15        | 16          | 17                 | 18                | 19               |
| 1 Bangalore        | 365845                                                  | 292990    | 134225      | 110835             | 23530             | 927425           |
| 2 Bangalore Rural  | 112775                                                  | 110615    | 39725       | 25130              | 20305             | 308550           |
| 3 Belgaum          | 234925                                                  | 234685    | 79000       | 47385              | 18615             | 614610           |
| 4 Bellary          | 139130                                                  | 123095    | 32440       | 20890              | 8960              | 324515           |
| 5 Bidar            | 93130                                                   | 65445     | 19945       | 19745              | 2305              | 200570           |
| 6 Bijapur          | 204330                                                  | 191400    | 56350       | 37195              | 2650              | 491925           |
| 7 Chickmagalur     | 35020                                                   | 74320     | 39705       | 40210              | 3740              | 192995           |
| 8 Chitradurga      | 155750                                                  | 135330    | 46420       | 30790              | 14145             | 382435           |
| 9 Dakshina Kannada | 87685                                                   | 134795    | 96805       | 129575             | 4040              | 452900           |
| 10 Dharwad         | 206380                                                  | 229360    | 76725       | 54610              | 19050             | 586125           |
| 11 Gulbarga        | 184325                                                  | 157105    | 50340       | 48665              | 2320              | 442755           |
| 12 Hassan          | 77475                                                   | 109585    | 46435       | 32620              | 25490             | 291605           |
| 13 Kodagu          | 9895                                                    | 30055     | 22325       | 43090              | 265               | 105630           |
| 14 Kolar           | 162510                                                  | 109220    | 39640       | 35105              | 50280             | 396755           |
| 15 Mandya          | 108330                                                  | 99545     | 37495       | 26370              | 30935             | 302675           |
| 16 Mysore          | 240240                                                  | 183270    | 59710       | 41225              | 60945             | 585390           |
| 17 Raichur         | 201260                                                  | 136970    | 37435       | 22655              | 8175              | 406495           |
| 18 Shimoga         | 42095                                                   | 131475    | 83900       | 84180              | 3035              | 344685           |
| 19 Tumkur          | 166580                                                  | 154665    | 55025       | 35190              | 30415             | 441875           |
| 20 Uttara Kannada  | 34440                                                   | 86305     | 47475       | 49440              | 875               | 218535           |
| 21 Karnataka       | 2862120                                                 | 2790230   | 1101120     | 934905             | 330075            | 8018450          |
| 22 Karnataka (SCs) | 626815                                                  | 432750    | 99480       | 53050              | 72125             | 1284220          |
| 23 Karnataka (STs) | 116410                                                  | 83590     | 22005       | 11000              | 15215             | 248220           |

Source:- Census 1991 data on housing (H3.wk1 on floppy) from the Office of the Director of Census Operations, Karnataka, Bangalore.

## 11. HOUSING PROFILE

| District           | Distribution of households by no.of rooms occupied 1991 (rural) |           |             |                    |                   |                  |
|--------------------|-----------------------------------------------------------------|-----------|-------------|--------------------|-------------------|------------------|
|                    | Number of households occupying                                  |           |             |                    |                   | No.of households |
|                    | One room                                                        | Two rooms | Three rooms | Four rooms & above | Unspecified rooms |                  |
|                    | 20                                                              | 21        | 22          | 23                 | 24                | 25               |
| 1 Bangalore        | 54375                                                           | 42485     | 141390      | 7230               | 8540              | 127020           |
| 2 Bangalore Rural  | 94185                                                           | 91665     | 31980       | 17815              | 17800             | 253445           |
| 3 Belgaum          | 187675                                                          | 187155    | 55365       | 25585              | 16155             | 471935           |
| 4 Bellary          | 108470                                                          | 81120     | 19140       | 9680               | 7915              | 226325           |
| 5 Bidar            | 84270                                                           | 53810     | 14670       | 12130              | 2230              | 167110           |
| 6 Bijapur          | 170940                                                          | 146935    | 38900       | 19575              | 2235              | 378585           |
| 7 Chickmagalur     | 29050                                                           | 62935     | 32900       | 32060              | 3545              | 160490           |
| 8 Chitradurga      | 130280                                                          | 95390     | 28050       | 14760              | 12900             | 281380           |
| 9 Dakshina Kannada | 65930                                                           | 100110    | 68780       | 87235              | 2980              | 325035           |
| 10 Dharwad         | 152180                                                          | 147565    | 43375       | 24630              | 16300             | 384050           |
| 11 Gulbarga        | 154935                                                          | 121860    | 35400       | 29070              | 2060              | 343325           |
| 12 Hassan          | 64355                                                           | 92970     | 37640       | 23995              | 22005             | 240965           |
| 13 Kodagu          | 8315                                                            | 26685     | 19085       | 35110              | 240               | 89435            |
| 14 Kolar           | 138870                                                          | 80745     | 24^65       | 16825              | 44845             | 305850           |
| 15 Mandya          | 90145                                                           | 83095     | 30750       | 20710              | 27905             | 252605           |
| 16 Mysore          | 178535                                                          | 131800    | 37635       | 20350              | 47835             | 416155           |
| 17 Raichur         | 168605                                                          | 105100    | 26165       | 14065              | 7900              | 321835           |
| 18 Shimoga         | 32710                                                           | 98760     | 61250       | 54205              | 2580              | 249505           |
| 19 Tumkur          | 144165                                                          | 131600    | 44790       | 24200              | 25445             | 370200           |
| 20 Uttara Kannada  | 28920                                                           | 69340     | 33555       | 32010              | 665               | 164490           |
| 21 Karnataka       | 2086910                                                         | 1951125   | 698385      | 521240             | 272080            | 5529740          |
| 22 Karnataka (SCs) | 510940                                                          | 342915    | 70225       | 30275              | 64570             | 1018925          |
| 23 Karnataka (STs) | 99480                                                           | 69225     | 17540       | 7745               | 13590             | 207580           |

**Source:-** Census 1991 data on housing (H3.wk1 on floppy) from the Office of the Director of Census Operations, Karnataka, Bangalore.

#### 4. DEMOGRAPHIC PROFILE

| District<br>1         | Area<br>(in sq. kms.) | Popu-<br>lation<br>1991 | Density<br>1991 | Decadal population growth (%) |                 |                 |                 |
|-----------------------|-----------------------|-------------------------|-----------------|-------------------------------|-----------------|-----------------|-----------------|
|                       |                       |                         |                 | 1951 to<br>1961               | 1961 to<br>1971 | 1971 to<br>1981 | 1981 to<br>1991 |
|                       | 2                     | 3                       | 4               | 5                             | 6               | 7               | 8               |
| 1 Bangalore           | 2190                  | 4839162                 | 2210            | 17.75                         | 34.38           | 47.01           | 38.44           |
| 2 Bangalore           | 5815                  | 1673194                 | 288             |                               |                 |                 | 15.23           |
| 3 Belgaum             | 13415                 | 3583606                 | 267             | 20.52                         | 22.16           | 22.99           | 20.24           |
| 4 Bellary             | 9885                  | 1890092                 | 191             | 18.25                         | 22.66           | 32.65           | 26.92           |
| 5 Bidar               | 5448                  | 1255799                 | 231             | 20.36                         | 24.26           | 20.83           | 26.12           |
| 6 Bijapur             | 17069                 | 2927990                 | 172             | 18.84                         | 19.60           | 20.96           | 21.91           |
| 7 Chikmagalur         | 7201                  | 1017283                 | 141             | 43.24                         | 23.33           | 23.77           | 11.57           |
| 8 Chitradurga         | 10852                 | 2180443                 | 201             | 26.07                         | 27.71           | 27.20           | 22.67           |
| 9 Dakshina<br>Kannada | 8441                  | 2694264                 | 319             | 17.49                         | 24.01           | 22.55           | 13.36           |
| 10 Dharwad            | 13738                 | 3503150                 | 255             | 23.83                         | 20.09           | 25.76           | 18.93           |
| 11 Gulbarga           | 16224                 | 2582169                 | 159             | 15.37                         | 24.28           | 19.63           | 24.10           |
| 12 Hassan             | 6814                  | 1569684                 | 230             | 25.29                         | 23.05           | 23.10           | 15.67           |
| 13 Kodagu             | 4102                  | 488455                  | 119             | 40.97                         | 17.18           | 22.10           | 5.75            |
| 14 Kolar              | 8223                  | 2216889                 | 270             | 14.17                         | 17.56           | 25.64           | 16.34           |
| 15 Mandya             | 4961                  | 1644374                 | 331             | 25.59                         | 28.38           | 22.85           | 15.96           |
| 16 Mysore             | 11954                 | 3165018                 | 265             | 17.37                         | 24.28           | 24.97           | 21.92           |
| 17 Raichur            | 14017                 | 2309887                 | 165             | 13.26                         | 28.60           | 26.00           | 29.49           |
| 18 Shimoga            | 10553                 | 1909663                 | 181             | 54.15                         | 27.93           | 27.30           | 15.27           |
| 19 Tumkur             | 10598                 | 2305819                 | 218             | 18.80                         | 19.04           | 21.51           | 16.58           |
| 20 Uttara<br>Kannada  | 10291                 | 1220260                 | 119             | 33.12                         | 23.14           | 26.25           | 13.83           |
| STATE                 | 191791                | 44977201                | 235             | 21.57                         | 24.22           | 26.75           | 21.12           |

Source :-Reports of Census of India, General Population Tables of Karnataka -1961, 1971, 1981 and 1991.



## 11. HOUSING PROFILE

| District           | Distribution of households by no.of rooms occupied 1991 (urban) |           |             |                    |                    |                  |
|--------------------|-----------------------------------------------------------------|-----------|-------------|--------------------|--------------------|------------------|
|                    | Number of households occupying                                  |           |             |                    |                    | No.of households |
|                    | One room                                                        | Two rooms | Three rooms | Four rooms & above | Unspeci-fied rooms |                  |
|                    | 26                                                              | 27        | 28          | 29                 | 30                 | 31               |
| 1 Bangalore        | 311470                                                          | 250505    | 119835      | 103605             | 14990              | 800405           |
| 2 Bangalore Rural  | 18590                                                           | 18950     | 7745        | 7315               | 2505               | 55105            |
| 3 Belgaum          | 47250                                                           | 47530     | 23635       | 21800              | 2460               | 142675           |
| 4 Bellary          | 30660                                                           | 41975     | 13300       | 11210              | 1045               | 98190            |
| 5 Bidar            | 8860                                                            | 11635     | 5275        | 7615               | 75                 | 33460            |
| 6 Bijapur          | 33390                                                           | 44465     | 17450       | 17620              | 415                | 113340           |
| 7 Chickmagalur     | 5970                                                            | 11385     | 6805        | 8150               | 195                | 32505            |
| 8 Chitradurga      | 25470                                                           | 39940     | 18370       | 16030              | 1245               | 101055           |
| 9 Dakshina Kannada | 21755                                                           | 34685     | 28025       | 42340              | 1060               | 127865           |
| 10 Dharwad         | 54200                                                           | 81795     | 33350       | 29980              | 2750               | 202075           |
| 11 Gulbarga        | 29390                                                           | 35245     | 14940       | 19595              | 260                | 99430            |
| 12 Hassan          | 13120                                                           | 16615     | 8795        | 8625               | 3485               | 50640            |
| 13 Kodagu          | 1580                                                            | 3370      | 3240        | 7980               | 25                 | 16195            |
| 14 Kolar           | 23640                                                           | 28475     | 15075       | 18280              | 5435               | 90905            |
| 15 Mandya          | 18185                                                           | 16450     | 6745        | 5660               | 3030               | 50070            |
| 16 Mysore          | 61705                                                           | 51470     | 22075       | 20875              | 13110              | 169235           |
| 17 Raichur         | 32655                                                           | 31870     | 11270       | 8590               | 275'               | 84660            |
| 18 Shimoga         | 9385                                                            | 32715     | 22650       | 29975              | 455                | 95180            |
| 19 Tumkur          | 22415                                                           | 23065     | 10235       | 10990              | 4970               | 71675            |
| 20 Uttara Kannada  | 5520                                                            | 16965     | 13920       | 17430              | 210                | 54045            |
| 21 Karnataka       | 775210                                                          | 839105    | 402735      | 413665             | 57995              | 2488710          |
| 22 Karnataka (SCs) | 115875                                                          | 89835     | 29255       | 22775              | 7555               | 265295           |
| 23 Karnataka (STs) | 16930                                                           | 14365     | 4465        | 3255               | 1625               | 40640            |

**Source:-** Census 1991 data on housing (H3.wk1 on floppy) from the Office of the Director of Census Operations. Karnataka, Bangalore.

## 11. HOUSING PROFILE

| District           | Distribution of households by no. of rooms occupied 1991 (percentage) |           |             |                    |                   |
|--------------------|-----------------------------------------------------------------------|-----------|-------------|--------------------|-------------------|
|                    | Number of households occupying                                        |           |             |                    |                   |
|                    | One room                                                              | Two rooms | Three rooms | Four rooms & above | Unspecified rooms |
|                    | 32                                                                    | 33        | 34          | 35                 | 36                |
| 1 Bangalore        | 39.45                                                                 | 31.59     | 14.47       | 11.95              | 2.54              |
| 2 Bangalore Rural  | 36.55                                                                 | 35.85     | 12.87       | 8.14               | 6.58              |
| 3 Belgaum          | 38.22                                                                 | 38.18     | 12.85       | 7.71               | 3.03              |
| 4 Bellary          | 42.87                                                                 | 37.93     | 10.00       | 6.44               | 2.76              |
| 5 Bidar            | 46.43                                                                 | 32.63     | 9.94        | 9.84               | 1.15              |
| 6 Bijapur          | 41.54                                                                 | 38.91     | 11.45       | 7.56               | 0.54              |
| 7 Chickmagalur     | 18.15                                                                 | 38.51     | 20.57       | 20.83              | 1.94              |
| 8 Chitradurga      | 40.73                                                                 | 35.39     | 12.14       | 8.05               | 3.70              |
| 9 Dakshina Kannada | 19.36                                                                 | 29.76     | 21.37       | 28.61              | 0.89              |
| 10 Dharwad         | 35.21                                                                 | 39.13     | 13.09       | 9.32               | 3.25              |
| 11 Gulbarga        | 41.63                                                                 | 35.48     | 11.37       | 10.99              | 0.52              |
| 12 Hassan          | 26.57                                                                 | 37.58     | 15.92       | 11.19              | 8.74              |
| 13 Kodagu          | 9.37                                                                  | 28.45     | 21.14       | 40.79              | 0.25              |
| 14 Kolar           | 40.96                                                                 | 27.53     | 9.99        | 8.85               | 12.67             |
| 15 Mandya          | 35.79                                                                 | 32.89     | 12.39       | 8.71               | 10.22             |
| 16 Mysore          | 41.04                                                                 | 31.31     | 10.20       | 7.04               | 10.41             |
| 17 Raichur         | 49.51                                                                 | 33.70     | 9.21        | 5.57               | 2.01              |
| 18 Shimoga         | 12.21                                                                 | 38.14     | 24.34       | 24.42              | 0.88              |
| 19 Tumkur          | 37.70                                                                 | 35.00     | 12.45       | 7.96               | 6.88              |
| 20 Uttara Kannada  | 15.76                                                                 | 39.49     | 21.72       | 22.62              | 0.40              |
| 21 Karnataka       | 35.69                                                                 | 34.80     | 13.73       | 11.66              | 4.12              |
| 22 Karnataka (SCs) | 48.81                                                                 | 33.70     | 7.75        | 4.13               | 5.62              |
| 23 Karnataka (STs) | 46.90                                                                 | 33.68     | 8.87        | 4.43               | 6.13              |

**Source :-** Census 1991 data on housing (H3.wk1 on floppy) from the Office of the Director of Census Operations Karnataka, Bangalore.

## 11. HOUSING PROFILE

| District           | [ ]istribution of households by no. of rooms occupied 1991 (rural) (percentage) |                                |                     |            |                   |
|--------------------|---------------------------------------------------------------------------------|--------------------------------|---------------------|------------|-------------------|
|                    | One room                                                                        | Number of households occupying |                     |            | Unspecified rooms |
|                    |                                                                                 | Two rooms                      | Three rooms & above | Four rooms |                   |
|                    | 37                                                                              | 38                             | 39                  | 40         | 41                |
| 1 Bangalore        | 42.81                                                                           | 33.45                          | 11.33               | 5.69       | 6.72              |
| 2 Bangalore Rural  | 37.16                                                                           | 36.17                          | 12.62               | 7.03       | 7.02              |
| 3 Belgaum          | 39.77                                                                           | 39.66                          | 11.73               | 5.42       | 3.42              |
| 4 Bellary          | 47.93                                                                           | 35.84                          | 8.46                | 4.28       | 3.50              |
| 5 Bidar            | 50.43                                                                           | 32.20                          | 8.78                | 7.26       | 1.33              |
| 6 Bijapur          | 45.15                                                                           | 38.81                          | 10.28               | 5.17       | 0.59              |
| 7 Chickmagalur     | 18.10                                                                           | 39.21                          | 20.50               | 19.98      | 2.21              |
| 8 Chitradurga      | 46.30                                                                           | 33.90                          | 9.97                | 5.25       | 4.58              |
| 9 Dakshina Kannada | 20.28                                                                           | 30.80                          | 21.16               | 26.84      | 0.92              |
| 10 Dharwad         | 39.63                                                                           | 38.42                          | 11.29               | 6.41       | 4.24              |
| 11 Gulbarga        | 45.13                                                                           | 35.49                          | 10.31               | 8.47       | 0.60              |
| 12 Hassan          | 26.71                                                                           | 38.58                          | 15.62               | 9.96       | 9.13              |
| 13 Kodagu          | 9.30                                                                            | 29.84                          | 21.34               | 39.26      | 0.27              |
| 14 Kolar           | 45.40                                                                           | 26.40                          | 8.03                | 5.50       | 14.66             |
| 15 Mandya          | 35.69                                                                           | 32.90                          | 12.17               | 8.20       | 11.05             |
| 16 Mysore          | 42.90                                                                           | 31.67                          | 9.04                | 4.89       | 11.49             |
| 17 Raichur         | 52.39                                                                           | 32.66                          | 8.13                | 4.37       | 2.45              |
| 18 Shimoga         | 13.11                                                                           | 39.58                          | 24.55               | 21.73      | 1.03              |
| 19 Tumkur          | 38.94                                                                           | 35.55                          | 12.10               | 6.54       | 6.87              |
| 20 Uttara Kannada  | 17.58                                                                           | 42.15                          | 20.40               | 19.46      | 0.40              |
| 21 Karnataka       | 37.74                                                                           | 35.28                          | 12.63               | 9.43       | 4.92              |
| 22 Karnataka (SCs) | 50.15                                                                           | 33.65                          | 6.89                | 2.97       | 6.34              |
| 23 Karnataka (STs) | 47.92                                                                           | 33.35                          | 8.45                | 3.73       | 6.55              |

**Source :** Census 1991 data on housing (H3.wk1 on floppy) from the Office of the Director of Census Operations Karnataka, Bangalore.

## 11. HOUSING PROFILE

| District           | Distribution of households by no. of rooms occupied 1991 (urban) (percentage) |           |             |                    |                   |
|--------------------|-------------------------------------------------------------------------------|-----------|-------------|--------------------|-------------------|
|                    | Number of households occupying                                                |           |             |                    |                   |
|                    | One room                                                                      | Two rooms | Three rooms | Four rooms & above | Jnspecified rooms |
|                    | 42                                                                            | 43        | 44          | 45                 | 46                |
| 1 Bangalore        | 38.91                                                                         | 31.30     | 14.97       | 12.94              | 1.87              |
| 2 Bangalore Rural  | 33.74                                                                         | 34.39     | 14.05       | 13.27              | 4.55              |
| 3 Belgaum          | 33.12                                                                         | 33.31     | 16.57       | 15.28              | 1.72              |
| 4 Bellary          | 31.23                                                                         | 42.75     | 13.55       | 11.42              | 1.06              |
| 5 Bidar            | 26.48                                                                         | 34.77     | 15.77       | 22.76              | 0.22              |
| 6 Bijapur          | 29.46                                                                         | 39.23     | 15.40       | 15.55              | 0.37              |
| 7 Chickmagalur     | 18.37                                                                         | 35.03     | 20.94       | 25.07              | 0.60              |
| 8 Chitradurga      | 25.20                                                                         | 39.52     | 18.18       | 15.86              | 1.23              |
| 9 Dakshina Kannada | 17.01                                                                         | 27.13     | 21.92       | 33.11              | 0.83              |
| 10 Dharwad         | 26.82                                                                         | 40.48     | 16.50       | 14.84              | 1.36              |
| 11 Gulbarga        | 29.56                                                                         | 35.45     | 15.03       | 19.71              | 0.26              |
| 12 Hassan          | 25.91                                                                         | 32.81     | 17.37       | 17.03              | 6.88              |
| 13 Kodagu          | 9.76                                                                          | 20.81     | 20.01       | 49.27              | 0.15              |
| 14 Kolar           | 26.01                                                                         | 31.32     | 16.58       | 20.11              | 5.98              |
| 15 Mandya          | 36.32                                                                         | 32.85     | 13.47       | 11.30              | 6.05              |
| 16 Mysore          | 36.46                                                                         | 30.41     | 13.04       | 12.33              | 7.75              |
| 17 Raichur         | 38.57                                                                         | 37.64     | 13.31       | 10.15              | 0.32              |
| 18 Shimoga         | 9.86                                                                          | 34.37     | 23.80       | 31.49              | 0.48              |
| 19 Tumkur          | 31.27                                                                         | 32.18     | 14.28       | 15.33              | 6.93              |
| 20 Uttara Kannada  | 10.21                                                                         | 31.39     | 25.76       | 32.25              | 0.39              |
| 21 Karnataka       | 31.15                                                                         | 33.72     | 16.18       | 16.62              | 2.33              |
| 22 Karnataka (SCs) | 43.68                                                                         | 33.86     | 11.03       | 8.58               | 2.85              |
| 23 Karnataka (STs) | 41.66                                                                         | 35.35     | 10.99       | 8.01               | 4.00              |

**Source :-** Census 1991 data on housing (H3.wk1 on floppy) from the Office of the Director of Census Operations Karnataka, Bangalore

## 11. HOUSING PROFILE

| District              | Distribution of households by size of households 1991 (rural) |       |             |       |                     |       |               |        |
|-----------------------|---------------------------------------------------------------|-------|-------------|-------|---------------------|-------|---------------|--------|
|                       | Distribution of households by house size                      |       |             |       |                     |       |               |        |
|                       | 1-2 members                                                   |       | 3-5 members |       | More than 6 members |       | Total members |        |
|                       | No.                                                           | %age  | No.         | %age  | No.                 | %age  | No.           | %age   |
|                       | 55                                                            | 56    | 57          | 58    | 59                  | 60    | 61            | 62     |
| 1 Bangalore           | 16885                                                         | 13.29 | 62085       | 48.88 | 48050               | 37.83 | 127020        | 100.00 |
| 2 Bangalore Rural     | 26870                                                         | 10.60 | 121485      | 47.93 | 105090              | 41.46 | 253445        | 100.00 |
| 3 Belgaum             | 53160                                                         | 11.26 | 206455      | 43.75 | 212320              | 44.99 | 471935        | 100.00 |
| 4 Bellary             | 24835                                                         | 10.97 | 92500       | 40.87 | 108990              | 48.16 | 226325        | 100.00 |
| 5 Bidar               | 13570                                                         | 8.12  | 63185       | 37.81 | 90355               | 54.07 | 167110        | 100.00 |
| 6 Bijapur             | 42740                                                         | 11.29 | 141815      | 37.46 | 194030              | 51.25 | 378585        | 100.00 |
| 7 Chickmagalur        | 17365                                                         | 10.82 | 82040       | 51.12 | 61085               | 38.06 | 160490        | 100.00 |
| 8 Chitradurga         | 27785                                                         | 9.87  | 127440      | 45.29 | 126155              | 44.83 | 281380        | 100.00 |
| 9 Dakshina<br>Kannada | 30780                                                         | 9.47  | 126880      | 59.04 | 167375              | 51.49 | 325035        | 100.00 |
| 10 Dharwad            | 39610                                                         | 10.31 | 158215      | 41.20 | 186225              | 48.49 | 384050        | 100.00 |
| 11 Gulbarga           | 36070                                                         | 10.51 | 135140      | 39.36 | 172115              | 50.13 | 343325        | 100.00 |
| 12 Hassan             | 22195                                                         | 9.21  | 119425      | 49.56 | 99345               | 41.23 | 240965        | 100.00 |
| 13 Kodagu             | 13840                                                         | 15.47 | 51535       | 57.62 | 24060               | 26.90 | 89435         | 100.00 |
| 14 Kolar              | 35570                                                         | 11.63 | 139905      | 45.74 | 130375              | 42.63 | 305850        | 100.00 |
| 15 Mandya             | 24520                                                         | 9.71  | 125590      | 49.72 | 102495              | 40.58 | 252605        | 100.00 |
| 16 Mysore             | 43590                                                         | 10.47 | 208075      | 50.00 | 164490              | 39.53 | 416155        | 100.00 |
| 17 Raichur            | 39120                                                         | 12.16 | 134145      | 41.68 | 148570              | 46.16 | 321835        | 100.00 |
| 18 Shimoga            | 22790                                                         | 9.13  | 117685      | 47.17 | 109030              | 43.70 | 249505        | 100.00 |
| 19 Tumkur             | 44185                                                         | 11.94 | 182515      | 49.30 | 143500              | 38.76 | 370200        | 100.00 |
| 20 Uttara Kannada     | 21400                                                         | 13.01 | 69360       | 42.17 | 73730               | 44.82 | 164490        | 100.00 |
| 21 Karnataka          | 596880                                                        | 10.79 | 2465475     | 44.59 | 2467385             | 44.62 | 5529740       | 100.00 |
| 22 Karnataka (SCs)    | 112305                                                        | 11.02 | 463005      | 45.44 | 443615              | 43.54 | 1018925       | 100.00 |
| 23 Karnataka (STs)    | 22900                                                         | 11.03 | 95565       | 46.04 | 89115               | 42.93 | 207580        | 100.00 |

**Source :-** Census 1991 data on housing (H3.wk1 on floppy) from the Office of the Director of Census Operations, Karnataka, Bangalore.

## 11. HOUSING PROFILE

| District              | Distribution of households by size of households 1991 (urban) |       |             |       |                     |       |               |        |
|-----------------------|---------------------------------------------------------------|-------|-------------|-------|---------------------|-------|---------------|--------|
|                       | Distribution of households by house size                      |       |             |       |                     |       |               |        |
|                       | 1 - 2 members                                                 |       | 3-5 members |       | More than 6 members |       | Total members |        |
|                       | No.                                                           | %age  | No.         | %age  | No.                 | %age  | No.           | %age   |
|                       | 63                                                            | 64    | 65          | 66    | 67                  | 68    | 69            | 70     |
| 1 Bangalore           | 93820                                                         | 11.72 | 439445      | 54.90 | 267140              | 33.38 | 800405        | 100.00 |
| 2 Bangalore Rural     | 6165                                                          | 11.19 | 25745       | 46.72 | 23195               | 42.09 | 55105         | 100.00 |
| 3 Belgaum             | 17910                                                         | 12.55 | 67435       | 47.26 | 57330               | 40.18 | 142675        | 100.00 |
| 4 Bellary             | 10850                                                         | 11.05 | 43460       | 44.26 | 43880               | 44.69 | 98190         | 100.00 |
| 5 Bidar               | 3065                                                          | 9.16  | 11480       | 34.31 | 18915               | 56.53 | 33460         | 100.00 |
| 6 Bijapur             | 14350                                                         | 12.66 | 45545       | 40.18 | 53445               | 47.15 | 113340        | 100.00 |
| 7 Chickmagalur        | 4325                                                          | 13.31 | 16450       | 50.61 | 11730               | 36.09 | 32505         | 100.00 |
| 8 Chitradurga         | 10395                                                         | 10.29 | 46815       | 46.33 | 43845               | 43.39 | 101055        | 100.00 |
| 9 Dakshina<br>Kannada | 15140                                                         | 11.84 | 58125       | 45.46 | 54600               | 42.70 | 127865        | 100.00 |
| 10 Dharwad            | 22490                                                         | 11.13 | 86985       | 43.05 | 92600               | 45.82 | 202075        | 100.00 |
| 11 Gulbarga           | 10960                                                         | 11.02 | 38695       | 38.92 | 49775               | 50.06 | 99430         | 100.00 |
| 12 Hassan             | 6105                                                          | 12.06 | 24885       | 49.14 | 19650               | 38.80 | 50640         | 100.00 |
| 13 Kodagu             | 2940                                                          | 18.15 | 8975        | 55.42 | 4280                | 26.43 | 16195         | 100.00 |
| 14 Kolar              | 9480                                                          | 10.43 | 40685       | 44.76 | 40740               | 44.82 | 90905         | 100.00 |
| 15 Mandya             | 5940                                                          | 11.86 | 25365       | 50.66 | 18765               | 37.48 | 50070         | 100.00 |
| 16 Mysore             | 19450                                                         | 11.49 | 85375       | 50.45 | 64410               | 38.06 | 169235        | 100.00 |
| 17 Raichur            | 10675                                                         | 12.61 | 36225       | 42.79 | 37760               | 44.60 | 84660         | 100.00 |
| 18 Shimoga            | 10820                                                         | 11.37 | 48580       | 51.04 | 35780               | 37.59 | 95180         | 100.00 |
| 19 Tumkur             | 9085                                                          | 12.68 | 36610       | 51.08 | 25980               | 36.25 | 71675         | 100.00 |
| 20 Uttara Kannada     | 7710                                                          | 14.27 | 25250       | 46.72 | 21085               | 39.01 | 54045         | 100.00 |
| 21 Karnataka          | 291675                                                        | 11.72 | 1212130     | 48.71 | 984905              | 39.57 | 2488710       | 100.00 |
| 22 Karnataka (SCs)    | 27280                                                         | 10.28 | 117575      | 44.32 | 120440              | 45.40 | 265295        | 100.00 |
| 23 Karnataka (STs)    | 4590                                                          | 11.29 | 19530       | 48.06 | 16520               | 40.65 | 40640         | 100.00 |

Source :- Census 1991 data on housing (H3.wk1 on floppy) from the Office of the Director of Census Operations, Karnataka, Bangalore.



## 11. HOUSING PROFILE

| District              | Distribution of households by tenure status 1991 |        |        |        |        |        |       |        |        |
|-----------------------|--------------------------------------------------|--------|--------|--------|--------|--------|-------|--------|--------|
|                       | Total                                            |        |        | Rural  |        |        | Urban |        |        |
|                       | Owned                                            | Rented | Others | Owned  | Rented | Others | Owned | Rented | Others |
|                       | 71                                               | 72     | 73     | 74     | 75     | 76     | 77    | 78     | 79     |
| 1 Bangalore           | 47.52                                            | 50.00  | 2.48   | 78.27  | 18.23  | 3.50   | 42.64 | 55.04  | 2.32   |
| 2 Bangalore Rural     | 87.40                                            | 11.26  | 1.34   | 93.50  | 5.32   | 1.18   | 59.32 | 38.58  | 2.10   |
| 3 Belgaum             | 84.54                                            | 13.46  | 2.01   | 91.77  | 6.19   | 2.05   | 60.62 | 37.52  | 1.87   |
| 4 Bellary             | 83.32                                            | 14.24  | 2.44   | 91.40  | 6.24   | 2.36   | 64.69 | 32.70  | 2.62   |
| 5 Bidar               | 91.24                                            | 7.39   | 1.38   | 95.59  | 3.11   | 1.30   | 69.52 | 28.72  | 1.76   |
| 6 Bijapur             | 85.27                                            | 12.70  | 2.02   | 91.37  | 6.98   | 1.65   | 64.92 | 31.81  | 3.27   |
| 7 Chickmagalur        | 77.77                                            | 15.47  | 6.76   | 83.56  | 8.61   | 7.82   | 49.18 | 49.33  | 1.49   |
| 8 Chitradurga         | 82.76                                            | 15.47  | 1.77   | 92.73  | 5.47   | 1.80   | 54.98 | 43.33  | 1.69   |
| 9 Dakshina<br>Kannada | 85.92                                            | 11.36  | 2.71   | 91.79  | 5.10   | 3.12   | 71.01 | 27.29  | 1.69   |
| 10 Dharwad            | 80.84                                            | 16.80  | 2.36   | 91.76  | 6.03   | 2.21   | 60.09 | 37.26  | 2.65   |
| 11 Gulbarga           | 84.13                                            | 13.46  | 2.41   | 92.54  | 5.42   | 2.04   | 55.12 | 41.18  | 3.70   |
| 12 Hassan             | 86.23                                            | 11.61  | 2.16   | 93.31  | 4.39   | 2.29   | 52.53 | 45.95  | 1.52   |
| 13 Kodagu             | 62.84                                            | 20.22  | 16.94  | 66.55  | 14.08  | 19.37  | 42.36 | 54.12  | 3.52   |
| 14 Kolar              | 83.62                                            | 15.25  | 1.13   | 94.32  | 4.60   | 1.08   | 47.63 | 51.08  | 1.29   |
| 15 Mandya             | 88.04                                            | 10.53  | 1.43   | 93.67  | 5.04   | 1.29   | 59.61 | 38.24  | 2.16   |
| 16 Mysore             | 83.29                                            | 14.89  | 1.83   | 94.6\$ | 3.69   | 1.61   | 55.23 | 42.41  | 2.36   |
| 17 Raichur            | 84.91                                            | 12.24  | 2.85   | 90.91  | 6.14   | 2.95   | 62.08 | 35.44  | 2.48   |
| 18 Shimoga            | 80.61                                            | 17.74  | 1.66   | 91.92  | 6.40   | 1.68   | 50.95 | 47.45  | 1.60   |
| 19 Tumkur             | 87.38                                            | 11.62  | 1.00   | 93.63  | 5.46   | 0.92   | 55.10 | 43.45  | 1.44   |
| 20 Uttara Kannada     | 84.07                                            | 13.34  | 2.59   | 91.06: | 6.05   | 2.89   | 62.82 | 35.51  | 1.67   |
| 21 Karnataka          | 79.83                                            | 17.83  | 2.34   | 91.64  | 5.97   | 2.39   | 53.60 | 44.16  | 2.24   |
| 22 Karnataka (SCs)    | 88.96                                            | 8.61   | 2.44   | 94.99  | 2.80   | 2.21   | 65.79 | 30.91  | 3.30   |
| 23 Karnataka (STs)    | 86.35                                            | 9.37   | 4.27   | 91.38  | 4.30   | 4.32   | 60.70 | 35.27  | 4.02   |

**Source :-** Census 1991 data an housing (H3.wk1 on floppy) from the Office of the Director of Census Operations, Karnataka, Bangalore.

## 11. HOUSING PROFILE

| District           | No.of slums identified and population covered        |                                                                            |                         | Houses constructed by Slum Board |                                     |                                          |
|--------------------|------------------------------------------------------|----------------------------------------------------------------------------|-------------------------|----------------------------------|-------------------------------------|------------------------------------------|
|                    | As per survey undertaken by Dr.Jogan Shanker in 1994 | As per survey under taken by sub divisional officers of Slum Board in 1995 | Population covered 1995 | No.of slums declared 1995        | Houses constructed up to March 1997 | Amount spent up to March 1997 (in lakhs) |
|                    | 80                                                   | 81                                                                         | 82                      | 83                               | 84                                  | 85                                       |
| 1 Bangalore        | 338                                                  | 339                                                                        | 504821                  | 164                              | 5751                                | 1655.3                                   |
| 2 Bangalore Rural  | 51                                                   | 61                                                                         | 30216                   | 52                               | 603                                 | 95.8                                     |
| 3 Belgaum          | 56                                                   | 76                                                                         | 90127                   | 47                               | 575                                 | 147.03                                   |
| 4 Bellary          | 98                                                   | 127                                                                        | 81435                   | 83                               | 364                                 | 98.46                                    |
| 5 Bidar            | 38                                                   | 69                                                                         | 54766                   | 36                               | 272                                 | 65.58                                    |
| 6 Bijapur          | 70                                                   | 161                                                                        | 211087                  | 92                               | 521                                 | 124.52                                   |
| 7 Chickmagalur     | 68                                                   | 74                                                                         | 68166                   | 61                               | 648                                 | 92.37                                    |
| 8 Chitradurga      | 38                                                   | 48                                                                         | 20681                   | 41                               | 50                                  | 36.86                                    |
| 9 Dakshina Kannada | 19                                                   | 30                                                                         | 7381                    | 19                               | 1788                                | 343.47                                   |
| 10 Dharwad         | 148                                                  | 152                                                                        | 112585                  | 104                              | 100                                 | 18.35                                    |
| 11 Gulbarga        | 61                                                   | 110                                                                        | 105345                  | 73                               | 505                                 | 92.56                                    |
| 12 Hassan          | 38                                                   | 55                                                                         | 34008                   | 53                               | 773                                 | 201.83                                   |
| 13 Kodagu          | 72                                                   | 69                                                                         | 53646                   | 57                               | 579                                 | 84.43                                    |
| 14 Kolar           | 3                                                    | 3                                                                          | 844                     | 3                                | 1508                                | 248.79                                   |
| 15 Mandya          | 77                                                   | 96                                                                         | 59962                   | 65                               | 2796                                | 516.48                                   |
| 16 Mysore          | 38                                                   | 59                                                                         | 32611                   | 50                               | 591                                 | 142.01                                   |
| 17 Raichur         | 110                                                  | 118                                                                        | 109060                  | 83                               | 143                                 | 38.01                                    |
| 18 Shimoga         | 90                                                   | 111                                                                        | 78049                   | 109                              | 384                                 | 98.09                                    |
| 19 Tumkur          | 71                                                   | 77                                                                         | 54341                   | 58                               | 256                                 | 46.8                                     |
| 20 Uttara Kannada  | 48                                                   | 36                                                                         | 7571                    | 16                               | 0                                   | 0                                        |
| <b>STATE</b>       | <b>1532</b>                                          | <b>1871</b>                                                                | <b>1716702</b>          | <b>1266</b>                      | <b>18207</b>                        | <b>4146.74</b>                           |

Source :- Slum Clearance Board.

## 12. DRINKING WATER AND SANITATION

| District              | % of households having access to |       |       |             |       |       |
|-----------------------|----------------------------------|-------|-------|-------------|-------|-------|
|                       | Safe drinking water              |       |       | Electricity |       |       |
|                       | Total                            | Rural | Urban | Total       | Rural | Urban |
| 1                     | 2                                | 3     | 4     | 5           | 6     | 7     |
| 1 Bangalore Urban     | 81.97                            | 88.57 | 80.92 | 79.40       | 63.97 | 81.84 |
| 2 Bangalore Rural     | 86.51                            | 85.96 | 89.04 | 55.86       | 51.38 | 76.46 |
| 3 Belgaum             | 64.23                            | 60.70 | 75.92 | 59.37       | 51.95 | 83.88 |
| 4 Bellary             | 84.21                            | 82.00 | 89.29 | 41.23       | 32.69 | 60.90 |
| 5 Bidar               | 60.47                            | 59.72 | 64.16 | 39.92       | 33.65 | 71.24 |
| 6 Bijapur             | 73.30                            | 69.13 | 87.25 | 41.19       | 32.96 | 68.70 |
| 7 Chikmagalur         | 69.46                            | 64.63 | 93.31 | 50.67       | 44.72 | 80.03 |
| 8 Chitradurga         | 88.11                            | 86.35 | 93.00 | 53.68       | 46.54 | 73.56 |
| 9 Dakshina<br>Kannada | 20.01                            | 11.78 | 40.90 | 43.75       | 31.55 | 74.73 |
| 10 Dharwad            | 81.51                            | 78.01 | 88.14 | 54.81       | 46.65 | 70.31 |
| 11 Gulbarga           | 62.99                            | 56.68 | 84.78 | 35.91       | 25.85 | 70.64 |
| 12 Hassan             | 79.53                            | 76.82 | 92.43 | 54.70       | 49.26 | 80.59 |
| 13 Kodagu             | 44.83                            | 37.76 | 83.88 | 36.28       | 29.08 | 76.04 |
| 14 Kolar              | 89.78                            | 90.44 | 87.57 | 57.96       | 50.76 | 82.20 |
| 15 Mandya             | 71.16                            | 69.55 | 79.27 | 51.68       | 48.17 | 69.43 |
| 16 Mysore             | 82.70                            | 79.80 | 89.83 | 48.27       | 36.76 | 76.57 |
| 17 Raichur            | 65.41                            | 60.52 | 83.99 | 32.51       | 26.47 | 55.48 |
| 18 Shimoga            | 66.25                            | 58.87 | 85.61 | 53.89       | 45.45 | 76.02 |
| 19 Tumkur             | 80.79                            | 79.53 | 87.32 | 53.01       | 47.57 | 81.08 |
| 20 Uttara Kannada     | 30.20                            | 24.14 | 48.64 | 53.33       | 45.38 | 77.49 |
| STATE                 | 71.68                            | 67.31 | 81.38 | 52.47       | 41.75 | 76.27 |

**Source :-** Worked out districtwise from census 1991 - H5 series tables (H5.wk1 floppy from the Director, Census Operations, Karnataka)

**Note :-** Safe drinking water is defined in the census, to cover taps, hand pumps and tube wells.

#### 4.DEMOGRAPHIC PROFILE

| District              | Projected population |                 |                 |                 |                 |
|-----------------------|----------------------|-----------------|-----------------|-----------------|-----------------|
|                       | 1996                 | 1997            | 1998            | 1999            | 2000            |
|                       | 9                    | 10              | 11              | 12              | 13              |
| 1 Bangalore           | 5759559              | 5938142         | 6118502         | 6300348         | 6483372         |
| 2 Bangalore Rural     | 1778606              | 1792767         | 1805932         | 1818041         | 1829039         |
| 3 Belgaum             | 3904305              | 3954813         | 4003514         | 4050249         | 4094859         |
| 4 Bellary             | 2127536              | 2169168         | 2210256         | 2250697         | 2290386         |
| 5 Bidar               | 1408060              | 1434495         | 1460529         | 1486094         | 1511120         |
| 6 Bijapur             | 3216210              | 3263149         | 3308741         | 3352844         | 3395322         |
| 7 Chikmagalur         | 1062121              | 1066738         | 1070718         | 1074033         | 1076655         |
| 8 Chitradurga         | 2403996              | 2440895         | 2476838         | 2511720         | 2545433         |
| 9 Dakshina<br>Kannada | 2837728              | 2855054         | 2870722         | 2884649         | 2896754         |
| 10 Dharwad            | 3792210              | 3836334         | 3878590         | 3918828         | 3956905         |
| 11 Gulbarga           | 2866871              | 2914944         | 2962005         | 3007919         | 3052554         |
| 12 Hassan             | 1672192              | 1686236         | 1699354         | 1711490         | 1722590         |
| 13 Kodagu             | 495431               | 494713          | 493691          | 492360          | 490713          |
| 14 Kolar              | 2369466              | 2390943         | 2411134         | 2429956         | 2447328         |
| 15 Mandya             | 1754177              | 1769397         | 1783654         | 1796886         | 1809038         |
| 16 Mysore             | 3476741              | 3527517         | 3576836         | 3624548         | 3670505         |
| 17 Raichur            | 2632770              | 2691007         | 2748844         | 2806145         | 2862775         |
| 18 Shimoga            | 2030374              | 2046620         | 2061731         | 2075637         | 2088276         |
| 19 Tumkur             | 2467430              | 2490384         | 2512007         | 2532214         | 2550921         |
| 20 Uttara Kannada     | 1288218              | 1296684         | 1304404         | 1311340         | 1317454         |
| <b>STATE</b>          | <b>49344000</b>      | <b>50060000</b> | <b>50758000</b> | <b>51436000</b> | <b>52092000</b> |

Source :- Cols.9 to 13 :-

States projected population from the publication 'Population Projections for India and States 1996-2016. Report of the Technical group on population projection August 1996 - Registrar General India', District population projections as made by Directorate of Economics and Statistics, Government of Karnataka, are used for working out districts shares, then district population projections are made by applying districts shares to the State's projected population as arrived by the Technical group .

## 12. DRINKING WATER AND SANITATION

| District           | % of households having access to |       |       |                                     |       |       |
|--------------------|----------------------------------|-------|-------|-------------------------------------|-------|-------|
|                    | Toilets                          |       |       | Safe drinking water and electricity |       |       |
|                    | Total                            | Rural | Urban | Total                               | Rural | Urban |
|                    | 8                                | 9     | 10    | 11                                  | 12    | 13    |
| 1 Bangalore Urban  | 72.86                            | 18.82 | 81.44 | 65.24                               | 57.00 | 66.54 |
| 2 Bangalore Rural  | 16.79                            | 6.02  | 66.32 | 48.30                               | 44.00 | 68.08 |
| 3 Belgaum          | 14.37                            | 4.25  | 47.85 | 41.67                               | 34.60 | 65.07 |
| 4 Bellary          | 12.92                            | 3.34  | 34.98 | 35.62                               | 27.07 | 55.34 |
| 5 Bidar            | 10.28                            | 2.6k  | 48.37 | 23.87                               | 19.09 | 47.73 |
| 6 Bijapur          | 6.95                             | 1.34  | 25.69 | 31.79                               | 23.34 | 60.02 |
| 7 Chikmagalur      | 23.15                            | 14.34 | 66.65 | 39.59                               | 32.57 | 74.27 |
| 8 Chitradurga      | 16.97                            | 4.47  | 51.80 | 47.21                               | 39.74 | 68.01 |
| 9 Dakshina Kannada | 34.06                            | 20.12 | 69.47 | 11.64                               | 3.63  | 32.01 |
| 10 Dharwad         | 21.63                            | 8.28  | 47.01 | 45.33                               | 36.41 | 62.30 |
| 11 Gulbarga        | 12.16                            | 2.17  | 46.66 | 25.57                               | 15.28 | 61.13 |
| 12 Hassan          | 16.06                            | 5.7\$ | 65.10 | 44.70                               | 38.37 | 74.78 |
| 13 Kodagu          | 32.12                            | 24.90 | 72.00 | 20.72                               | 12.74 | 64.77 |
| 14 Kolar           | 19.82                            | 7.0\$ | 62.79 | 51.86                               | 45.91 | 71.90 |
| 15 Mandya          | 14.27                            | 6.18  | 55.09 | 35.50                               | 31.66 | 54.88 |
| 16 Mysore          | 24.88                            | 5.30  | 72.99 | 40.60                               | 28.87 | 69.42 |
| 17 Raichur         | 7.31                             | 1.92  | 27.81 | 23.12                               | 16.34 | 48.88 |
| 18 Shimoga         | 25.52                            | 10.07 | 66.02 | 38.93                               | 28.72 | 65.69 |
| 19 Tumkur          | 13.99                            | 4.27  | 64.17 | 43.20                               | 37.81 | 71.02 |
| 20 Uttara Kannada  | 22.80                            | 11.92 | 55.90 | 17.64                               | 11.14 | 37.45 |
| STATE              | 24.13                            | 6.85  | 62.52 | 39.65                               | 29.37 | 62.50 |

**Source :-** Worked put districtwise from census 1991 - H5 series tables (H5.wk1 floppy from the Director, Census Operations, Karnataka)

## 12. DRINKING WATER AND SANITATION

| District           | % of households having access to |       |       |                  |       |       |
|--------------------|----------------------------------|-------|-------|------------------|-------|-------|
|                    | Electricity and toilets          |       |       | All 3 facilities |       |       |
|                    | Total                            | Rural | Urban | Total            | Rural | Urban |
|                    | 14                               | 15    | 16    | 17               | 18    | 19    |
| 1 Bangalore Urban  | 68.35                            | 17.54 | 76.41 | 55.76            | 14.96 | 62.24 |
| 2 Bangalore Rural  | 15.36                            | 5.31  | 61.59 | 13.32            | 4.29  | 54.86 |
| 3 Belgaum          | 13.90                            | 3.90  | 46.99 | 10.90            | 2.89  | 37.39 |
| 4 Bellary          | 12.35                            | 2.89  | 34.16 | 11.28            | 2.59  | 31.31 |
| 5 Bidar            | 9.45                             | 2.22  | 45.59 | 6.30             | 1.31  | 31.22 |
| 6 Bijapur          | 6.58                             | 1.04  | 25.11 | 5.70             | 0.83  | 21.96 |
| 7 Chikmagalur      | 20.94                            | 12.09 | 64.61 | 17.44            | 8.93  | 59.48 |
| 8 Chitradurga      | 16.21                            | 3.96  | 50.30 | 14.58            | 3.27  | 46.05 |
| 9 Dakshina Kannada | 30.92                            | 17.55 | 64.89 | 9.60             | 2.01  | 28.90 |
| 10 Dharwad         | 20.32                            | 7.33  | 45.00 | 17.93            | 6.32  | 39.98 |
| 11 Gulbarga        | 11.42                            | 1.76  | 44.79 | 10.15            | 1.32  | 40.66 |
| 12 Hassan          | 15.10                            | 4.96  | 63.38 | 13.49            | 3.97  | 58.80 |
| 13 Kodagu          | 25.29                            | 17.63 | 67.61 | 15.29            | 7.65  | 57.52 |
| 14 Kolar           | 18.80                            | 6.34  | 60.73 | 16.35            | 5.52  | 52.81 |
| 15 Mandya          | 13.30                            | 5.55  | 52.43 | 9.80             | 3.65  | 40.79 |
| 16 Mysore          | 22.48                            | 4.50  | 66.66 | 20.05            | 3.61  | 60.46 |
| 17 Raichur         | 7.03                             | 1.73  | 37.16 | 6.05             | 1.19  | 24.50 |
| 18 Shimoga         | 24.19                            | 9.18  | 03.54 | 19.18            | 5.38  | 55.34 |
| 19 Tumkur          | 13.12                            | 3.64  | 62.07 | 11.50            | 3.05  | 55.15 |
| 20 Uttara Kannada  | 21.96                            | 11.04 | 55.17 | 8.74             | 2.76  | 26.92 |
| STATE              | 22.52                            | 5.97  | 59.28 | 17.63            | 3.69  | 48.59 |

**Source :-** Worked out districtwise from census 1991 - H5 series tables (H5.wk1 floppy from the Director, Census Operations, Karnataka)



## 12. DRINKING WATER AND SANITATION

| District           | % of households having<br>None of the 3 facilities |              |             |
|--------------------|----------------------------------------------------|--------------|-------------|
|                    | Total                                              | Rural        | Urban       |
|                    | 20                                                 | 21           | 22          |
| 1 Bangalore Urban  | 2.88                                               | 4.30         | 2.65        |
| 2 Bangalore Rural  | 5.73                                               | 6.51         | 2.12        |
| 3 Belgaum          | 17.92                                              | 21.82        | 5.02        |
| 4 Bellary          | 10.07                                              | 12.25        | 5.06        |
| 5 Bidar            | 23.25                                              | 25.60        | 11.55       |
| 6 Bijapur          | 17.18                                              | 21.16        | 3.87        |
| 7 Chikmagalur      | 18.85                                              | 22.51        | 0.82        |
| 8 Chitradurga      | 5.34                                               | 6.78         | 1.32        |
| 9 Dakshina Kannada | 45.53                                              | 58.06        | 13.68       |
| 10 Dharwad         | 8.80                                               | 11.58        | 3.53        |
| 11 Gulbarga        | 26.47                                              | 32.55        | 5.45        |
| 12 Hassan          | 10.30                                              | 12.11        | 1.67        |
| 13 Kodagu          | 35.67                                              | 41.46        | 3.70        |
| 14 Kolar           | 3.99                                               | 4.62         | 1.87        |
| 15 Mandya          | 12.38                                              | 13.74        | 5.51        |
| 16 Mysore          | 9.24                                               | 12.15        | 2.10        |
| 17 Raichur         | 25.11                                              | 29.29        | 9.24        |
| 18 Shimoga         | 18.35                                              | 23.98        | 3.60        |
| 19 Tumkur          | 9.29                                               | 10.62        | 2.41        |
| 20 Uttara Kannada  | 33.55                                              | 41.00        | 10.88       |
| <b>STATE</b>       | <b>15.03</b>                                       | <b>19.93</b> | <b>4.13</b> |

**Source :-** Worked out districtwise from census 1991 - H5 series tables (H5.wk1 floppy from the Director, Census Operations, Karnataka)

# Glossary

*Births attended by trained health personnel* : The percentage of births attended by physicians, nurses, midwives, etc.

*Child labourers* : Working children between 5 and 14 years.

*Crude birth rate* : Number of births per 1000 population in a given year.

*Crude death rate* : Number of deaths per 1000 population in a given year.

*Disability* : Disability is a restriction or lack of ability resulting from impairment to perform an activity in the manner or within the range considered normal for human being. Impairment is defined as any loss of psychological, physiological or anatomical structure and function.

on of population below 14 years and above 60 years to

*Dropout rates*: The percentage of the number of children to total enrolment dropping out of the school system in a particular level in a particular year.

*Enrolment* :

i) *Primary education enrolment* : Enrolment of students in classes from the 1st to the VIIIth standard.

ii) *Secondary education enrolment*: Enrolment of students in classes from the VIIIth to the Xth standard.

iii) *Higher secondary enrolment* : Enrolment of students at the PUC level (XIth and XIIth standards)

iv) *Tertiary education enrolment* • Enrolment of students in degree colleges, Enrolment of students in degree colleges, teacher's colleges, universities and higher professional schools.

*Enrolment ratios (gross and net)* : The gross enrolment ratio is the number of students enrolled in a level of education whether or not they belong to the relevant group for that level - as a percentage of the population in the relevant age group for that

The net enrolment ratio is the number of students enrolled in a level of education who belong in the relevant age group as a percentage of the population in the age group

*Female-male gap* : A set of national, regional and other estimates in which all figures index to 100 for females. Corresponding figures for males, which are

*Fertility rate* : (I) Total fertility rate is the average number of children that would be born to a woman if she experiences the current fertility pattern throughout her reproduction span (15-49 years). In a mathematical form different fertility rates are

defined as below:

$$\begin{aligned}
 \text{i. Age specific fertility rate(ASFR)} &= \frac{\text{Number of live births in a particular age group}}{\text{Mid-year female population of the same age group}} \times 1000 \\
 \text{ii. General fertility rate (GFR)} &= \frac{\text{Number of live births in a year}}{\text{Mid-year female population between 15-49 years}} \times 1000 \\
 \text{iii. Total fertility rate i(TFR)} &= \frac{5 \times \text{a ASFR}}{1000} \\
 \text{iv. Age-specific marital fertility rate (ASMFR)} &= \frac{\text{Number of live births in a particular age-group}}{\text{Mid-year married female population of the same age group}} \times 1000 \\
 \text{v. General marital fertility rate (GMFR)} &= \frac{\text{Number of live births in a year}}{\text{Mid-year married female population between 15 and 49}} \times 1000 \\
 \text{vi. Total marital fertility rate(TMFR)} &= \frac{5 \times \text{ASMFR}}{1000}
 \end{aligned}$$

**Katcha\*** : If both the wall and roof are made of katcha materials, the house could be classified as katcha. Katcha houses may be divided into two categories: serviceable and non-serviceable.

*i) Serviceable katcha houses* : Serviceable katcha houses are those which have walls of solid mud, unburnt bricks or wood and a thatched roof.

*ii) Non-serviceable katcha houses* : If both walls and roof are made of materials like grass, leaves or bamboo the house may be classified as a non-serviceable katcha house. Such houses have to be rebuilt at short intervals.

**Pucca**: If both wall and roof are made of pucca materials like burnt bricks, GI sheets, stone, cement concrete or ekra for walls and tiles, slates, shingle sheets of corrugated iron, with zinc or other material, asbestos or cement sheets, bricks, stone and lime concrete RBC or RCC roofs, the house may be classified as pucca.

**Semi-pucca** : Cases which are not katcha or pucca may be classified as semi-pucca.

**Head count ratio (poverty)** : The ratio of population living below the poverty line to total population.

**Gross domestic product (GDP)** : This represents the sum of the economic value of all goods and services produced within the geographical boundaries of a state or district during a given year, from which are deducted raw material, fuels, lubricants etc., consumed in the process of production counted without duplication. Production originates in the state or district and therefore GDP is said to be "by origin".

*\*Definitions adopted by the National Building Organization - Government of India in consultation with RGI & NSSO.*

*Net domestic product (NDP)* : Net domestic product is derived by deducting depreciation from the GDP.

*Immunisation* : Vaccination coverage of children under one year of age for the antigens used in the universal child immunization programme.

*Infant mortality rate (IMR)* : The number of infants dying under one year of age in a year per 1000 live births of the same year.

*Labour force participation rate* : The proportion of main and marginal workers and jobseekers to total population.

*Life expectancy at birth* : Average number of years a new born child is expected to live under current mortality conditions.

*Literacy rate*: It is the ratio of the number of literates above seven years to total population. Literacy is defined as the ability to read and write with understanding in any language. Till the 1991 census, literacy was canvassed for all persons above five years of age. A significant departure was made in 1991 by canvassing the question of literacy only for population aged 7 and above.

*Maternal mortality rate* : The number of deaths of women while pregnant or within 42 days of termination of pregnancy from any cause related to pregnancy and childbirth per 100000 live births in a given year.

*Mortality rates* :

$$\text{i) Crude death rate} = \frac{\text{No. of deaths during the year}}{\text{Mid year population}} \times 1000$$

$$\text{ii) Age-specific mortality rate (ASMR)} = \frac{\text{Number of deaths in a particular age group}}{\text{Mid year population of the same age group}} \times 1000$$

$$\text{iii) Infant mortality rate} = \frac{\text{No. of infant deaths during the year}}{\text{No. of live births during the year}} \times 1000$$

$$\text{iv) Neo-natal mortality rate} = \frac{\text{No. of deaths of infant of less than 29 days during the year}}{\text{No. of live births during the year}} \times 1000$$

$$\text{v) Peri-natal mortality rate} = \frac{\text{No. of still births and deaths of infant of less than 7 days during the year}}{\text{No. of live births and still births during the year}} \times 1000$$

*Purchasing power parity (PPP\$)* : The purchasing power of a country's currency. The number of units of that currency required to purchase the same representative basket of goods and services (or a similar basket of goods and services) that the US dollar (the reference currency) would buy in the United States.

*Real GDP per capita (PPP\$)* : The GDP per capita of a country converted into US dollars on the basis of the purchasing power parity of the country's currency.

*Safe drinking water-access* : If a household has access to drinking water supply from taps, hand pumps borewells or tubewells within or outside the premises, it is considered as having access to safe drinking water.

*Sanitation-access* : Households with reasonable access to sanitary means of excreta and waste disposal including outdoor latrines are considered as having access to sanitation.

*Sex ratio* : Number of females per 1000 males in a population

*Slum* : Slum is a compact area with a collection of poorly built tenements crowded together usually with inadequate sanitary and drinking water facilities.

*Work participation rate (WPR)* : The proportion of total workers (main workers and marginal workers) expressed as percentage of total population is the Work Participation Rate (WPR). This is considered a very crude measure since it does not take into account the age structure of the population. For making specific comparisons, the age specific WPR would be ideal.

*Workers* : Workers could be main and marginal.

i) Main workers : Those who have worked for 6 months (183 days or more a year) are termed main workers.

ii) Marginal workers : Those who have worked for less than 183 days in a year are marginal workers.

*Under five mortality rate* : Number of children under five years of age dying in a year per 1000 live births of the same year.

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## 4.DEMOGRAPHIC PROFILE

| District           | Sex ratio  |            |            | Sex ration (0-6 age group) |            |
|--------------------|------------|------------|------------|----------------------------|------------|
|                    | 1961       | 1981       | 1991       | 1961                       | 1991       |
|                    | 14         | 15         | 16         | 17                         | 18         |
| 1 Bangalore        | 917        | 916        | 903        | 989                        | 950        |
| 2 Bangalore Rural  |            |            | 945        |                            | 957        |
| 3 Belgaum          | 951        | 957        | 954        | 966                        | 955        |
| 4 Bellary          | 960        | 973        | 965        | 981                        | 957        |
| 5 Bidar            | 971        | 968        | 952        | 990                        | 962        |
| 6 Bijapur          | 976        | 982        | 964        | 976                        | 956        |
| 7 Chikmagalur      | 903        | 953        | 977        | 1006                       | 978        |
| 8 Chitradurga      | 940        | 944        | 944        | 999                        | 960        |
| 9 Dakshina Kannada | 1082       | 1059       | 1063       | 958                        | 966        |
| 10 Dharwad         | 951        | 948        | 944        | 973                        | 952        |
| 11 Gulbarga        | 989        | 981        | 962        | 990                        | 959        |
| 12 Hassan          | 969        | 987        | 999        | 1007                       | 967        |
| 13 Kodagu          | 862        | 933        | 979        | 980                        | 957        |
| 14 Kolar           | 968        | 971        | 965        | 1007                       | 971        |
| 15 Mandya          | 967        | 960        | 963        | 990                        | 959        |
| 16 Mysore          | 950        | 951        | 953        | 1002                       | 966        |
| 17 Raichur         | 985        | 988        | 979        | 979                        | 965        |
| 18 Shimoga         | 898        | 947        | 960        | 997                        | 961        |
| 19 Tumkur          | 956        | 961        | 959        | 1008                       | 970        |
| 20 Uttara Kannada  | 946        | 958        | 966        | 989                        | 949        |
| <b>STATE</b>       | <b>959</b> | <b>963</b> | <b>960</b> | <b>987</b>                 | <b>960</b> |

**Source :-** Cols.14 to 16 :- Reports of Census of India - General Population Tabeles of 1961. 1981 and 1991.

Col.17 :- Census of India 1961, Volume XI-Mysore state

Col. 18 :- Census of India 1991 (Karnataka)-Social and Cultural Tables

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#### 4.DEMOGRAPHIC PROFILE

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|--------------------|---------------------------------------------------------|---------|---------|------------------------------------------|------------------|---------|--------|------------------------------------------|
|                    | Scheduled Castes                                        |         |         |                                          | Scheduled Tribes |         |        |                                          |
|                    | Total                                                   | Rural   | Urban   | Proportion to total population (percent) | Total            | Rural   | Urban  | Proportion to total population (percent) |
|                    | 19                                                      | 20      | 21      | 22                                       | 23               | 24      | 25     | 26                                       |
| 1 Bangalore        | 711775                                                  | 178494  | 533281  | 14.71                                    | 53631            | 14569   | 39062  | 1.11                                     |
| 2 Bangalore Rural  | 326599                                                  | 286780  | 39819   | 19.52                                    | 49305            | 44594   | 4711   | 2.95                                     |
| 3 Belgaum          | 406955                                                  | 325338  | 81617   | 11.36                                    | 83076            | 65247   | 17829  | 2.32                                     |
| 4 Bellary          | 365154                                                  | 281525  | 83629   | 19.32                                    | 166693           | 129460  | 37233  | 8.82                                     |
| 5 Bidar            | 260033                                                  | 228197  | 31836   | 20.71                                    | 104215           | 98442   | 5773   | 8.30                                     |
| 6 Bijapur          | 509862                                                  | 421185  | 88677   | 17.41                                    | 39535            | 34068   | 5467   | 1.35                                     |
| 7 Chikmagalur      | 195852                                                  | 175176  | 20676   | 19.25                                    | 26534            | 24553   | 1981   | 2.61                                     |
| 8 Chitradurga      | 432668                                                  | 358069  | 74599   | 19.84                                    | 318381           | 275326  | 43055  | 14.60                                    |
| 9 Dakshina Kannada | 175548                                                  | 140296  | 35252   | 6.52                                     | 106159           | 94285   | 11874  | 3.94                                     |
| 10 Dharwad         | 410499                                                  | 290616  | 119883  | 11.72                                    | 105099           | 84138   | 20961  | 3.00                                     |
| 11 Gulbarga        | 610641                                                  | 502448  | 108193  | 23.65                                    | 106935           | 94924   | 12011  | 4.14                                     |
| 12 Hassan          | 273379                                                  | 241053  | 32326   | 17.42                                    | 16581            | 14868   | 1713   | 1.06                                     |
| 13 Kodagu          | 59009                                                   | 51477   | 7532    | 12.08                                    | 40312            | 38899   | 1413   | 8.25                                     |
| 14 Kolar           | 570400                                                  | 455560  | 114840  | 25.73                                    | 153019           | 142496  | 10523  | 6.90                                     |
| 15 Mandya          | 226626                                                  | 190551  | 36075   | 13.78                                    | 11936            | 9485    | 2451   | 0.73                                     |
| 16 Mysore          | 597921                                                  | 480387  | 117534  | 18.89                                    | 102102           | 77696   | 24406  | 3.23                                     |
| 17 Raichur         | 397923                                                  | 326337  | 71586   | 17.23                                    | 180272           | 163352  | 16920  | 7.80                                     |
| 18 Shimoga         | 337921                                                  | 279830  | 58091   | 17.70                                    | 74106            | 64379   | 9727   | 3.88                                     |
| 19 Tumkur          | 408524                                                  | 364376  | 44148   | 17.72                                    | 167632           | 149641  | 17991  | 7.27                                     |
| 20 Uttara Kannada  | 91990                                                   | 67491   | 24499   | 7.54                                     | 10168            | 9074    | 1094   | 0.83                                     |
| STATE              | 7369279                                                 | 5645186 | 1724093 | 16.38                                    | 1915691          | 1629496 | 286195 | 4.26                                     |

Source :-Census of India: Final Population Totals, Series-I vol-II India, Paper 1 of 1992 Registrar General India.



## 1. INTERSTATE COMPARISONS OF KEY INDICATORS

| 15 Major States | Crude birth rate 1997 |       |       | Crude death rate 1997 |       |       | Total fertility rate (TFR) 1993-95 |       |       | Couples currently protected (All Methods) 31-03-96 |  |
|-----------------|-----------------------|-------|-------|-----------------------|-------|-------|------------------------------------|-------|-------|----------------------------------------------------|--|
|                 | Total                 | Rural | Urban | Total                 | Rural | Urban | Total                              | Rural | Urban |                                                    |  |
| 1               | 2                     | 3     | 4     | 5                     | 6     | 7     | 8                                  | 9     | 10    | 11                                                 |  |
| Andhra Pradesh  | 22.5                  | 23.1  | 20.5  | 8.3                   | 9.1   | 5.9   | 2.7                                | 2.8   | 2.4   | 51.5                                               |  |
| Assam           | 28.2                  | 29.0  | 20.7  | 9.9                   | 10.3  | 5.9   | 3.5                                | 3.7   | 2.4   | 22.0                                               |  |
| Bihar           | 31.7                  | 32.7  | 23.6  | 10.0                  | 10.4  | 6.8   | 4.6                                | 4.7   | 3.5   | 23.1                                               |  |
| Gujarat         | 25.6                  | 27.0  | 22.6  | 7.6                   | 8.3   | 6.2   | 3.2                                | 3.3   | 2.8   | 67.4                                               |  |
| Haryana         | 28.3                  | 29.6  | 23.8  | 8.0                   | 8.3   | 6.9   | 3.7                                | 3.9   | 3.0   | 63.7                                               |  |
| Karnataka       | 22.7                  | 23.9  | 20.1  | 7.6                   | 8.5   | 5.4   | 2.8                                | 3.0   | 2.4   | 57.0                                               |  |
| Kerala          | 17.9                  | 17.9  | 17.9  | 6.2                   | 6.3   | 6.1   | 1.7                                | 1.8   | 1.8   | 51.7                                               |  |
| Madhya Pradesh  | 31.9                  | 33.6  | 23.1  | 11.0                  | 11.7  | 7.7   | 4.2                                | 4.6   | 2.8   | 57.1                                               |  |
| Maharashtra     | 23.1                  | 24.4  | 21.0  | 7.3                   | 8.6   | 5.4   | 2.9                                | 3.2   | 2.6   | 58.2                                               |  |
| Orissa          | 26.5                  | 27.2  | 21.3  | 10.9                  | 11.3  | 7.5   | 3.2                                | 3.3   | 2.5   | 44.7                                               |  |
| Punjab          | 23.4                  | 24.9  | 19.0  | 7.4                   | 7.8   | 6.1   | 2.9                                | 3.1   | 2.5   | 91.9                                               |  |
| Rajasthan       | 32.1                  | 33.7  | 25.1  | 8.9                   | 9.3   | 7.0   | 4.5                                | 4.7   | 3.4   | 33.7                                               |  |
| Tamil Nadu      | 19.0                  | 19.3  | 18.3  | 8.0                   | 8.7   | 6.7   | 2.1                                | 2.2   | 1.9   | 55.2                                               |  |
| Uttar Pradesh   | 33.5                  | 34.6  | 27.9  | 10.3                  | 10.7  | 8.2   | 5.1                                | 5.3   | 4.1   | 46.1                                               |  |
| West Bengal     | 22.4                  | 24.8  | 15.9  | 7.7                   | 7.9   | 7.2   | 2.9                                | 3.3   | 2.0   | 37.1                                               |  |
| INDIA           | 27.2                  | 28.9  | 21.5  | 8.9                   | 9.6   | 6.5   | 3.5                                | 3.8   | 2.7   | 52.2                                               |  |

**Source :** Cols.2 to 7 :- SRS Bulletin, October-98 (RGI)  
 Cols.8 to 10 :- State of India's Population (main source SRS),  
 Population Foundation of India, New Delhi, 1998.  
 Cols. 11:- Year Book 1995-96, Family Welfare programme  
 in India, Department of Family Welfare Ministry of Health and  
 Family Welfare, Government of India.

## 4.DEMOGRAPHIC PROFILE

| District           | Total fertility rate |      | Total marital fertility rate |      | General fertility rate |      | General marital fertility rate |      |
|--------------------|----------------------|------|------------------------------|------|------------------------|------|--------------------------------|------|
|                    | 1981                 | 1991 | 1981                         | 1991 | 1981                   | 1991 | 1981                           | 1991 |
|                    | 27                   | 28   | 29                           | 30   | 31                     | 32   | 33                             | 34   |
| 1 Bangalore        | 4.10                 | 3.52 | 5.80                         | 5.46 | 140                    | 115  | 187                            | 160  |
| 2 Bangalore Rural  | 4.10                 | 3.76 | 5.80                         | 5.32 | 140                    | 121  | 187                            | 155  |
| 3 Belgaum          | 4.40                 | 3.57 | 5.30                         | 4.65 | 138                    | 119  | 171                            | 147  |
| 4 Bellary          | 5.00                 | 4.85 | 6.10                         | 6.33 | 163                    | 157  | 200                            | 196  |
| 5 Bidar            | 5.10                 | 4.82 | 6.00                         | 6.18 | 159                    | 155  | 187                            | 189  |
| 6 Bijapur          | 5.00                 | 4.27 | 5.80                         | 5.27 | 156                    | 139  | 186                            | 167  |
| 7 Chikmagalur      | 4.60                 | 3.13 | 6.60                         | 5.46 | 151                    | 106  | 216                            | 151  |
| 8 Chitradurga      | 4.90                 | 3.60 | 6.40                         | 5.45 | 158                    | 120  | 204                            | 158  |
| 9 Dakshina Kannada | 4.80                 | 3.61 | 7.60                         | 6.70 | 142                    | 111  | 233                            | 183  |
| 10 Dharwad         | 5.00                 | 3.94 | 6.50                         | 5.61 | 161                    | 130  | 213                            | 171  |
| 11 Gulbarga        | 4.80                 | 4.75 | 5.60                         | 5.83 | 154                    | 149  | 183                            | 181  |
| 12 Hassan          | 4.60                 | 2.90 | 6.30                         | 5.12 | 147                    | 97   | 205                            | 136  |
| 13 Kodagu          | 3.80                 | 2.77 | 6.20                         | 5.43 | 128                    | 98   | 197                            | 140  |
| 14 Kolar           | 4.60                 | 3.89 | 5.80                         | 5.44 | 145                    | 122  | 182                            | 157  |
| 15 Mandya          | 4.50                 | 3.11 | 5.70                         | 4.57 | 145                    | 103  | 183                            | 133  |
| 16 Mysore          | 4.40                 | 3.56 | 5.80                         | 5.20 | 142                    | 118  | 185                            | 156  |
| 17 Raichur         | 5.20                 | 4.65 | 6.00                         | 5.71 | 160                    | 152  | 193                            | 183  |
| 18 Shimoga         | 4.80                 | 3.72 | 7.00                         | 6.15 | 158                    | 123  | 225                            | 175  |
| 19 Tumkur          | 4.50                 | 3.46 | 5.70                         | 5.11 | 141                    | 109  | 180                            | 142  |
| 20 Uttara Kannada  | 4.90                 | 3.66 | 6.80                         | 6.22 | 150                    | 119  | 222                            | 178  |
| STATE              | 4.70                 | 3.87 | 6.10                         | 5.54 | 149                    | 126  | 196                            | 167  |

Source :- Office of the Registrar General India (RGI)

#### 4. DEMOGRAPHIC PROFILE

| District           | Mean age at marriage |         |       |         | Births of order >2as % of total births |      | Births to women <25 years as % of total births |      |
|--------------------|----------------------|---------|-------|---------|----------------------------------------|------|------------------------------------------------|------|
|                    | 19 81                |         | 1991  |         | 1981                                   | 1991 | 1981                                           | 1991 |
|                    | Males                | Females | Males | Females |                                        |      |                                                |      |
|                    | 35                   | 36      | 37    | 38      | 39                                     | 40   | 41                                             | 42   |
| 1 Bangalore        | 27.10                | 20.18   | 27.30 | 20.89   | 50.5                                   | 34.3 | 24.6                                           | 37.5 |
| 2 Bangalore Rural  |                      |         | 26.71 | 19.69   |                                        | 38.4 |                                                | 44.1 |
| 3 Belgaum          | 24.73                | 18.35   | 24.79 | 18.75   | 50.3                                   | 40.6 | 29.1                                           | 49.5 |
| 4 Bellary          | 24.72                | 18.11   | 24.80 | 19.06   | 42.6                                   | 54.4 | 29.2                                           | 39.2 |
| 5 Bidar            | 24.02                | 17.65   | 24.63 | 18.78   | 43.6                                   | 55.2 | 26.1                                           | 38.9 |
| 6 Bijapur          | 23.68                | 17.32   | 24.09 | 18.27   | 45.7                                   | 50.0 | 32.8                                           | 45.4 |
| 7 Chikmagalur      | 25.77                | 20.82   | 27.07 | 21.54   | 48.6                                   | 29.8 | 22.7                                           | 41.5 |
| 8 Chitradurga      | 26.10                | 19.17   | 26.59 | 20.15   | 47.8                                   | 43.7 | 25.9                                           | 41.7 |
| 9 Dakshina Kannada | 28.28                | 22.43   | 28.95 | 23.40   | 45.7                                   | 42.6 | 18.1                                           | 31.8 |
| 10 Dharwad         | 25.99                | 19.25   | 26.39 | 20.02   | 44.9                                   | 46.5 | 28.0                                           | 39.3 |
| 11 Gulbarga        | 24.05                | 17.50   | 24.37 | 18.64   | 43.0                                   | 56.0 | 28.6                                           | 36.7 |
| 12 Hassan          | 25.84                | 20.24   | 26.31 | 21.00   | 49.9                                   | 33.0 | 23.4                                           | 50.2 |
| 13 Kodagu          | 27.09                | 21.75   | 27.02 | 21.94   | 55.2                                   | 28.1 | 21.2                                           | 51.3 |
| 14 Kolar           | 28.44                | 19.10   | 26.15 | 19.90   | 46.1                                   | 42.2 | 26.2                                           | 41.1 |
| 15 Mandya          | 26.07                | 18.47   | 26.67 | 19.60   | 49.0                                   | 32.5 | 28.0                                           | 50.0 |
| 16 Mysore          | 26.29                | 19.27   | 26.48 | 19.88   | 49.4                                   | 39.2 | 27.3                                           | 48.7 |
| 17 Raichur         | 23.65                | 18.61   | 23.79 | 18.20   | 43.0                                   | 53.2 | 31.0                                           | 43.7 |
| 18 Shimoga         | 26.82                | 20.53   | 27.28 | 21.29   | 47.2                                   | 39.1 | 24.6                                           | 43.8 |
| 19 Tumkur          | 26.50                | 19.22   | 26.72 | 20.05   | 48.3                                   | 37.8 | 23.5                                           | 40.9 |
| 20 Uttara Kannada  | 27.00                | 21.23   | 27.79 | 22.35   | 45.7                                   | 44.9 | 21.6                                           | 32.8 |
| STATE              | 25.90                | 19.41   | 26.21 | 20.14   | 47.0                                   | 43.8 | 26.3                                           | 40.6 |

Source:- Cols.35 to 38 :- Population Centre, Bangalore.

Cols.39 to 42 :- Karnataka Health Systems Development Project (KHSDP) Government of Karnataka. (Study report brought out by STEM)

#### 4. DEMOGRAPHIC PROFILE

| District           | Work participation rates by residence, 1991 |                         |              |                         |              |                         |
|--------------------|---------------------------------------------|-------------------------|--------------|-------------------------|--------------|-------------------------|
|                    | Total                                       |                         | Rural        |                         | Urban        |                         |
|                    | Main workers                                | Main & marginal workers | Main workers | Main & marginal workers | Main workers | Main & marginal workers |
|                    | 43                                          | 44                      | 45           | 46                      | 47           | 48                      |
| 1 Bangalore        | 33.57                                       | 34.03                   | 39.19        | 41.11                   | 32.66        | 32.89                   |
| 2 Bangalore Rural  | 37.17                                       | 42.94                   | 38.07        | 44.92                   | 33.11        | 34.02                   |
| 3 Belgaum          | 36.59                                       | 41.53                   | 38.45        | 44.62                   | 30.52        | 31.45                   |
| 4 Bellary          | 42.76                                       | 45.04                   | 46.75        | 49.82                   | 33.38        | 33.80                   |
| 5 Bidar            | 37.11                                       | 39.82                   | 40.04        | 43.32                   | 25.03        | 25.39                   |
| 6 Bijapur          | 37.91                                       | 41.62                   | 40.98        | 45.55                   | 27.90        | 28.88                   |
| 7 Chikmagalur      | 40.58                                       | 45.02                   | 42.31        | 47.49                   | 32.07        | 32.89                   |
| 8 Chitradurga      | 38.75                                       | 43.09                   | 42.09        | 47.80                   | 29.70        | 30.33                   |
| 9 Dakshina Kannada | 41.24                                       | 43.11                   | 42.21        | 44.48                   | 38.79        | 39.65                   |
| 10 Dharwad         | 38.54                                       | 42.14                   | 42.80        | 47.80                   | 30.62        | 31.61                   |
| 11 Gulbarga        | 40.13                                       | 42.92                   | 44.31        | 47.84                   | 26.59        | 27.04                   |
| 12 Hassan          | 37.68                                       | 44.38                   | 39.33        | 47.25                   | 29.85        | 30.75                   |
| 13 Kodagu          | 44.57                                       | 46.60                   | 46.22        | 48.55                   | 35.88        | 36.50                   |
| 14 Kolar           | 39.83                                       | 43.48                   | 43.39        | 48.00                   | 28.12        | 28.63                   |
| 15 Mandya          | 38.71                                       | 44.56                   | 39.96        | 46.80                   | 32.28        | 33.02                   |
| 16 Mysore          | 37.33                                       | 40.14                   | 40.14        | 13.92                   | 30.68        | 31.22                   |
| 17 Raichur         | 41.94                                       | 44.33                   | 44.88        | 47.78                   | 30.72        | 31.17                   |
| 18 Shimoga         | 37.77                                       | 40.90                   | 40.59        | 44.66                   | 29.96        | 30.49                   |
| 19 Tumkur          | 39.88                                       | 47.83                   | 41.43        | 50.62                   | 32.07        | 33.80                   |
| 20 Uttara Kannada  | 35.03                                       | 38.68                   | 37.19        | 41.75                   | 28.23        | 29.02                   |
| STATE              | 38.34                                       | 41.88                   | 41.47        | 46.34                   | 31.33        | 31.93                   |

**Source :-** Census 1991 data (B series on floppy) from the office of the Director of Census Operations Karnataka, Bangalore.

#### 4. DEMOGRAPHIC PROFILE

| District              | Work participation rates females 1991 |                        |              |                        |              |                        |
|-----------------------|---------------------------------------|------------------------|--------------|------------------------|--------------|------------------------|
|                       | Total                                 |                        | Rural        |                        | Urban        |                        |
|                       | Main workers                          | Main& marginal workers | Main workers | Main& marginal workers | Main workers | Main& marginal workers |
|                       | 49                                    | 50                     | 51           | 52                     | 53           | 54                     |
| 1 Bangalore           | 12.47                                 | 13.21                  | 19.91        | 23.64                  | 11.27        | 11.53                  |
| 2 Bangalore Rural     | 17.89                                 | 29.20                  | 19.28        | 32.70                  | 11.57        | 13.25                  |
| 3 Belgaum             | 20.18                                 | 29.71                  | 23.17        | 35.12                  | 10.33        | 11.91                  |
| 4 Bellary             | 32.15                                 | 36.19                  | 38.67        | 44.13                  | 16.65        | 17.31                  |
| 5 Bidar               | 25.10                                 | 30.46                  | 29.16        | 35.61                  | 7.79         | 8.48                   |
| 6 Bijapur             | 24.89                                 | 32.04                  | 29.59        | 38.37                  | 9.43         | 11.26                  |
| 7 Chikmagalur         | 23.93                                 | 32.11                  | 26.52        | 36.06                  | 10.86        | 12.18                  |
| 8 Chitradurga         | 23.33                                 | 31.50                  | 28.11        | 38.90                  | 10.10        | 11.02                  |
| 9 Dakshina<br>Kannada | 32.19                                 | 35.13                  | 34.30        | 37.89                  | 26.65        | 27.85                  |
| 10 Dharwad            | 23.40                                 | 30.18                  | 29.49        | 39.00                  | 12.02        | 13.70                  |
| 11 Gulbarga           | 29.18                                 | 34.60                  | 35.10        | 41.91                  | 9.55         | 10.36                  |
| 12 Hassan             | 19.78                                 | 32.37                  | 21.87        | 36.74                  | 9.50         | 10.79                  |
| 13 Kodagu             | 31.79                                 | 35.27                  | 34.69        | 38.74                  | 16.08        | 16.50                  |
| 14 Kolar              | 24.59                                 | 31.37                  | 29.34        | 37.94                  | 8.83         | 9.57                   |
| 15 Mandya             | 19.81                                 | 31.03                  | 21.21        | 34.33                  | 12.48        | 13.69                  |
| 16 Mysore             | 17.26                                 | 22.61                  | 20.08        | 27.35                  | 10.55        | 11.33                  |
| 17 Raichur            | 30.44                                 | 35.05                  | 34.87        | 40.47                  | 13.19        | 13.94                  |
| 18 Shimoga            | 20.08                                 | 26.00                  | 23.90        | 31.63                  | 9.28         | 10.10                  |
| 19 Tumkur             | 23.53                                 | 38.06                  | 25.53        | 42.27                  | 12.99        | 15.91                  |
| 20 Uttara Kannada     | 17.23                                 | 23.69                  | 19.88        | 28.06                  | 8.84         | 9.87                   |
| <b>STATE</b>          | <b>22.73</b>                          | <b>29.39</b>           | <b>27.44</b> | <b>36.60</b>           | <b>11.96</b> | <b>12.90</b>           |

Source :-Primary Census Abstract General Population Part II-b(I) - Directorate of Census Operations Karnataka.

## 5. HUMAN DEPRIVATION PROFILE

| District               | Population below poverty line 1993-94 |                         | Population per medical institution |         | Percentage of households without access to safe drinking water 1991 |       |       |
|------------------------|---------------------------------------|-------------------------|------------------------------------|---------|---------------------------------------------------------------------|-------|-------|
|                        | Number in lakhs                       | As% of total population | 1960-61                            | 1996-97 | Total                                                               | Rural | Urban |
| 1                      | 2                                     | 3                       | 4                                  | 5       | 6                                                                   | 7     | 8     |
| 1 Bangalore            | 13.07                                 | 31.42                   | 20528                              | 32107   | 18                                                                  | 11    | 19    |
| 2 Bangalore <i>Run</i> | 4.54                                  | 38.17                   |                                    | 16213   | 13                                                                  | 14    | 11    |
| 3 Belgaum              | 10.85                                 | 29.86                   | 37430                              | 24346   | 36                                                                  | 39    | 24    |
| 4 Bellary              | 8.99                                  | 44.50                   | 22882                              | 19970   | 16                                                                  | 18    | 11    |
| 5 Bidar                | 7.56                                  | 56.06                   | 39010                              | 24432   | 40                                                                  | 40    | 36    |
| 6 Bijapur              | 9.34                                  | 28.98                   | 37731                              | 26677   | 27                                                                  | 31    | 13    |
| 7 Chikmagalur          | 1.84                                  | 15.61                   | 6788                               | 11123   | 31                                                                  | 35    | 7     |
| 8 Chitradurga          | 9.34                                  | 39.00                   | 14211                              | 16854   | 12                                                                  | 14    | 7     |
| 9 Dakshina Kannada     | 2.83                                  | 8.91                    | 21720                              | 17899   | 80                                                                  | 88    | 59    |
| 10 Dharwad             | 19.57                                 | 49.75                   | 37507                              | 23475   | 18                                                                  | 22    | 12    |
| 11 Gulbarga            | 12.79                                 | 45.54                   | 45144                              | 20264   | 37                                                                  | 43    | 15    |
| 12 Hassan              | 2.47                                  | 14.44                   | 9530                               | 12397   | 20                                                                  | 23    | 8     |
| 13 Kodagu              | 1.12                                  | 20.73                   | 6726                               | 10756   | 55                                                                  | 62    | 16    |
| 14 Kolar               | 11.83                                 | 48.45                   | 13439                              | 18371   | 10                                                                  | 10    | 12    |
| 15 Mandya              | 5.51                                  | 30.16                   | 13224                              | 15587   | 29                                                                  | 30    | 21    |
| 16 Mysore              | 10.09                                 | 28.94                   | 13928                              | 16385   | 17                                                                  | 20    | 10    |
| 17 Raichur             | 5.54                                  | 25.11                   | 42342                              | 26442   | 35                                                                  | 39    | 16    |
| 18 Shimoga             | 5.16                                  | 25.56                   | 11561                              | 14524   | 34                                                                  | 41    | 14    |
| 19 Tumkur              | 11.16                                 | 40.64                   | 19534                              | 18576   | 19                                                                  | 20    | 13    |
| 20 Uttara Kannada      | 2.82                                  | 24.97                   | 16418                              | 13661   | 70                                                                  | 76    | 51    |
| STATE                  | 156.45                                | 33.16                   | 18900                              | 19496   | 28                                                                  | 33    | 19    |

**Source :-** Cols.2 & 3 >

Estimated by the Directorate of Economics and Statistics, Government of Karnataka, based on pooled data of NSS (central and state samples), 50th Round 1993-94.

Cols.4 & 5 :-

Worked out for districts based on no.of Institutions from " Directorate of Health & Family Welfare, Government of Karnataka", and Population figures from the census 1961 and projected population of 1996-97.

Cols.6 to 8 :-

District estimates worked out from " Census of India 1991, H-5 Tables (H5T.wk1)<sup>1</sup>



## 5.HUMAN DEPRIVATION PROFILE

| District              | Percentage of households<br>without access to electricity 1991 |       |       | Percentage of households<br>without access to toilet 1991 |       |       |
|-----------------------|----------------------------------------------------------------|-------|-------|-----------------------------------------------------------|-------|-------|
|                       | Total                                                          | Rural | Urban | Total                                                     | Rural | Urban |
|                       | 9                                                              | 10    | 11    | 12                                                        | 13    | 14    |
| 1 Bangalore           | 21                                                             | 36    | 18    | 27                                                        | 81    | 19    |
| 2 Bangalore Rural     | 44                                                             | 49    | 24    | 83                                                        | 94    | 34    |
| 3 Belgaum             | 41                                                             | 48    | 16    | 86                                                        | 96    | 52    |
| 4 Bellary             | 59                                                             | 67    | 39    | 87                                                        | 97    | 65    |
| 5 Bidar               | 60                                                             | 66    | 29    | 90                                                        | 97    | 52    |
| 6 Bijapur             | 59                                                             | 67    | 31    | 93                                                        | 99    | 74    |
| 7 Chikmagalur         | 49                                                             | 55    | 20    | 77                                                        | 86    | 33    |
| 8 Chitradurga         | 46                                                             | 53    | 26    | 83                                                        | 96    | 48    |
| 9 Dakshina<br>Kannada | 56                                                             | 68    | 25    | 66                                                        | 80    | 31    |
| 10 Dharwad            | 45                                                             | 53    | 30    | 78                                                        | 92    | 53    |
| 11 Gulbarga           | 64                                                             | 74    | 29    | 88                                                        | 98    | 53    |
| 12 Hassan             | 45                                                             | 51    | 19    | 84                                                        | 94    | 35    |
| 13 Kodagu             | 64                                                             | 71    | 24    | 68                                                        | 75    | 28    |
| 14 Kolar              | 42                                                             | 49    | 18    | 80                                                        | 93    | 37    |
| 15 Mandya             | 48                                                             | 52    | 31    | 86                                                        | 94    | 45    |
| 16 Mysore             | 52                                                             | 63    | 23    | 75                                                        | 95    | 27    |
| 17 Raichur            | 67                                                             | 74    | 45    | 93                                                        | 98    | 72    |
| 18 Shimoga            | 46                                                             | 55    | 24    | 74                                                        | 90    | 34    |
| 19 Tumkur             | 47                                                             | 52    | 19    | 86                                                        | 96    | 36    |
| 20 Uttara Kannada     | 47                                                             | 55    | 23    | 77                                                        | 88    | 44    |
| STATE                 | 48                                                             | 58    | 24    | 76                                                        | 93    | 37    |

Source :- Cols.9 & 14 :-

District estimates worked out from " Census of India 1991,  
H-5 Tables (H5T.wk1)"

## 5.HUMAN DEPRIVATION PROFILE

| District           | Percentage of households using polluted fuel (wood, cowdung, kerosene & coal) for cooking 1991 |       |       | Illiterate adults 1991 |                               | Illiterate female adults 1991 |                               |
|--------------------|------------------------------------------------------------------------------------------------|-------|-------|------------------------|-------------------------------|-------------------------------|-------------------------------|
|                    | Total                                                                                          | Rural | Urban | Number in lakhs        | As% of total adult population | Number in lakhs               | As% of total adult population |
|                    | 15                                                                                             | 16    | 17    | 18                     | 19                            | 20                            | 21                            |
| 1 Bangalore        | 69                                                                                             | 95    | 65    | 8.76                   | 26.51                         | 5.48                          | 35.67                         |
| 2 Bangalore Rural  | 96                                                                                             | 99    | 87    | 6.20                   | 57.62                         | 3.71                          | 71.87                         |
| 3 Belgaum          | 85                                                                                             | 91    | 66    | 12.07                  | 52.83                         | 7.70                          | 69.33                         |
| 4 Bellary          | 94                                                                                             | 99    | 84    | 6.63                   | 58.96                         | 4.09                          | 74.06                         |
| 5 Bidar            | 97                                                                                             | 99    | 87    | 4.56                   | 61.82                         | 2.80                          | 78.34                         |
| 6 Bijapur          | 95                                                                                             | 99    | 81    | 9.13                   | 51.39                         | 6.00                          | 68.53                         |
| 7 Chikmagalur      | 93                                                                                             | 97    | 76    | 3.02                   | 44.34                         | 1.87                          | 55.72                         |
| 8 Chitradurga      | 93                                                                                             | 99    | 79    | 6.92                   | 49.92                         | 4.27                          | 63.77                         |
| 9 Dakshina Kannada | 88                                                                                             | 95    | 70    | 5.22                   | 28.78                         | 3.62                          | 38.11                         |
| 10 Dharwad         | 89                                                                                             | 98    | 73    | 10.13                  | 46.25                         | 6.60                          | 62.36                         |
| 11 Gulbarga        | 94                                                                                             | 99    | 80    | 10.16                  | 66.17                         | 6.15                          | 81.47                         |
| 12 Hassan          | 95                                                                                             | 98    | 80    | 5.07                   | 49.42                         | 3.24                          | 63.24                         |
| 13 Kodagu          | 91                                                                                             | 96    | 69    | 1.17                   | 35.45                         | 0.72                          | 43.94                         |
| 14 Kolar           | 95                                                                                             | 99    | 82    | 8.01                   | 56.42                         | 4.91                          | 70.85                         |
| 15 Mandya          | 96                                                                                             | 98    | 85    | 6.49                   | 59.86                         | 3.86                          | 73.07                         |
| 16 Mysore          | 91                                                                                             | 98    | 74    | 12.08                  | 58.07                         | 6.92                          | 68.71                         |
| 17 Raichur         | 96                                                                                             | 99    | 87    | 9.21                   | 67.36                         | 5.59                          | 82.48                         |
| 18 Shimoga         | 88                                                                                             | 94    | 70    | 5.42                   | 43.48                         | 3.37                          | 55.43                         |
| 19 Tumkur          | 96                                                                                             | 99    | 80    | 7.91                   | 52.29                         | 4.93                          | 67.09                         |
| 20 Uttara Kannada  | 88                                                                                             | 94    | 70    | 3.00                   | 37.59                         | 1.94                          | 49.38                         |
| STATE              | 90                                                                                             | 97    | 73    | 141.18                 | 49.06                         | 87.77                         | 62.54                         |

C-3 Tables (C3A & C3B.wk1)

## 5.HUMAN DEPRIVATION PROFILE

| District           | Children under five mortality rate |           | No.of disabled persons per lakh population 1991 |            |            |
|--------------------|------------------------------------|-----------|-------------------------------------------------|------------|------------|
|                    | 1981                               | 1991      | Male                                            | Female     | Total      |
|                    | 22                                 | 23        | 24                                              | 25         | 26         |
| 1 Bangalore        | 105                                | 67        | 297                                             | 245        | 273        |
| 2 Bangalore Rural  | 105                                | 67        | 1251                                            | 911        | 1086       |
| 3 Belgaum          | 138                                | 69        | 759                                             | 508        | 637        |
| 4 Bellary          | 181                                | 119       | 1233                                            | 893        | 1066       |
| 5 Bidar            | 144                                | 85        | 784                                             | 574        | 682        |
| 6 Bijapur          | 165                                | 88        | 875                                             | 604        | 742        |
| 7 Chikmagalur      | 144                                | 75        | 1097                                            | 808        | 954        |
| 8 Chitradurga      | 161                                | 104       | 721                                             | 540        | 633        |
| 9 Dakshina Kannada | 86                                 | 46        | 1387                                            | 930        | 1151       |
| 10 Dharwad         | 168                                | 95        | 539                                             | 426        | 484        |
| 11 Gulbarga        | 163                                | 86        | 1031                                            | 733        | 885        |
| 12 Hassan          | 133                                | 78        | 824                                             | 586        | 705        |
| 13 Kodagu          | 131                                | 66        | 937                                             | 676        | 808        |
| 14 Kolar           | 134                                | 100       | 909                                             | 687        | 800        |
| 15 Mandya          | 129                                | 84        | 842                                             | 601        | 723        |
| 16 Mysore          | 135                                | 89        | 916                                             | 675        | 798        |
| 17 Raichur         | 184                                | 80        | 1695                                            | 1329       | 1514       |
| 18 Shimoga         | 140                                | 88        | 864                                             | 608        | 738        |
| 19 Tumkur          | 145                                | 102       | 1110                                            | 817        | 967        |
| 20 Uttara Kannada  | 117                                | 69        | 807                                             | 552        | 682        |
| <b>STATE</b>       | <b>142</b>                         | <b>90</b> | <b>891</b>                                      | <b>654</b> | <b>775</b> |

**Source :-** Cols.22 :- Child Mortality Estimates of India, 1981 - Occasional Papers No.5 of 1988 " Office of the Registrar General India.

Cols. 23 :- "Estimates of Fertility & Child Mortality at District level for 1991, Occasional Paper No.1 of 1997 " Officer of the Registrar General India.

Cols.24 TO 26 :- Report on Survey of Persons with Disability in Karnataka 1991" - Department of Welfare of Disabled, Government of Karnataka.

## 6. HEALTH PROFILE

| Growth of medical institutions from '1960-61' to '1996-97' |             |             |             |             |             |
|------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|
| District                                                   | 1960-61     | 1970-71     | 1980-81     | 1990-91     | 1996-97     |
| 1                                                          | 2           | 3           | 4           | 5           | 6           |
| 1 Bangalore                                                | 122         | 168         | 237         | 182         | 189         |
| 2 Bangalore Rural                                          |             |             |             | 91          | 113         |
| 3 Belgaum                                                  | 53          | 74          | 115         | 140         | 166         |
| 4 Bellary                                                  | 40          | 51          | 77          | 97          | 111         |
| 5 Bidar                                                    | 17          | 23          | 43          | 50          | 60          |
| 6 Bijapur                                                  | 44          | 61          | 90          | 94          | 125         |
| 7 Chikmagalur                                              | 88          | 59          | 75          | 88          | 98          |
| 8 Chitradurga                                              | 77          | 76          | 103         | 125         | 148         |
| 9 Dakshina Kannada                                         | 72          | 126         | 130         | 145         | 163         |
| 10 Dharwad                                                 | 52          | 93          | 120         | 143         | 167         |
| 11 Gulbarga                                                | 31          | 66          | 91          | 122         | 147         |
| 12 Hassan                                                  | 94          | 73          | 94          | 117         | 139         |
| 13 Kodagu                                                  | 48          | 44          | 45          | 43          | 47          |
| 14 Kolar                                                   | 96          | 86          | 109         | 118         | 133         |
| 15 Mandya                                                  | 68          | 61          | 82          | 99          | 116         |
| 16 Mysore                                                  | 120         | 117         | 149         | 194         | 220         |
| 17 Raichur                                                 | 26          | 52          | 79          | 82          | 104         |
| 18 Shimoga                                                 | 88          | 86          | 109         | 126         | 144         |
| 19 Tumkur                                                  | 70          | 73          | 98          | 116         | 137         |
| 20 Uttara Kannada                                          | 42          | 52          | 63          | 87          | 97          |
| <b>STATE</b>                                               | <b>1248</b> | <b>1441</b> | <b>1909</b> | <b>2259</b> | <b>2624</b> |

**Source :-** Cols.2 to Cols.6 :- Directorate of Health & Family Welfare, Government Of Karnataka.

**Note :-**

1. Government medical institutions refer to government hospitals (including ESI hospitals) and dispensaries run by state and central governments, primary health centres (PHCS of government of India type) and primary health units (PHUS of old Mysore / Karnataka Government type).
2. Break-up not available for Bangalore (U) & Bangalore (R) districts from 1960-61 to 1980-81, hence value of undivided district of Bangalore is shown against Bangalore (U) district.

## 6. HEALTH PROFILE

| District           | Annual growth rate (%) |                       |                       |                       |
|--------------------|------------------------|-----------------------|-----------------------|-----------------------|
|                    | 1960-61<br>to 1996-97  | 1970-71<br>to 1980-81 | 1980-81<br>to 1990-91 | 1990-91<br>to 1996-97 |
|                    | 7                      | 8                     | 9                     | 10                    |
| 1 Bangalore        | 4.098                  | 4.107                 | 1.519                 | 0.641                 |
| 2 Bangalore Rural  |                        |                       |                       | 4.029                 |
| 3 Belgaum          | 5.922                  | 5.541                 | 2.174                 | 3.095                 |
| 4 Bellary          | 4.931                  | 5.098                 | 2.597                 | 2.405                 |
| 5 Bidar            | 7.026                  | 8.696                 | 1.628                 | 3.333                 |
| 6 Bijapur          | 5.114                  | 4.754                 | 0.444                 | 5.496                 |
| 7 Chikmagalur      | 0.316                  | 2.712                 | 1.732                 | 1.894                 |
| 8 Chitradurga      | 2.561                  | 3.553                 | 2.136                 | 3.067                 |
| 9 Dakshina Kannada | 3.511                  | 0.317                 | 1.154                 | 2.069                 |
| 10 Dharwad         | 6.143                  | 2.903                 | 1.917                 | 2.797                 |
| 11 Gulbarga        | 10.394                 | 3.788                 | 3.407                 | 3.415                 |
| 12 Hassan          | 1.330                  | 2.877                 | 2.447                 | 3.134                 |
| 13 Kodagu          | -0.058                 | 0.227                 | -0.444                | 1.550                 |
| 14 Kolar           | 1.071                  | 2.674                 | 0.826                 | 2.119                 |
| 15 Mandya          | 1.961                  | 3.443                 | 2.073                 | 2.862                 |
| 16 Mysore          | 2.315                  | 2.735                 | 3.020                 | 2.234                 |
| 17 Raichur         | 8.333                  | 5.192                 | 0.380                 | 4.472                 |
| 18 Shimoga         | 1.768                  | 2.674                 | 1.560                 | 2.381                 |
| 19 Tumkur          | 2.659                  | 3.425                 | 1.837                 | 3.017                 |
| 20 Uttara Kannada  | 3.638                  | 2.115                 | 3.810                 | 1.916                 |
| STATE              | 3.063                  | 3.248                 | 1.833                 | 2.693                 |

## 1. INTERSTATE COMPARISONS OF KEY INDICATORS

| 15 Major States | Infant mortality rate 1 |       |       | Neo-natal mortality rate 1995 | Child mortality rate - under 5 years 1995 | 997Medical attention at birth 1995             |                |                         |
|-----------------|-------------------------|-------|-------|-------------------------------|-------------------------------------------|------------------------------------------------|----------------|-------------------------|
|                 | Total                   | Rural | Urban |                               |                                           | Perce-ntage of births above 4th order of birth | Insti-tutional | Trai-ned Profes-sionals |
|                 | 12                      | 13    | 14    | 15                            | 16                                        | 17                                             | 18             | 19                      |
| Andhra Pradesh  | 63                      | 70    | 37    | 52.7                          | 82                                        | 12.0                                           | 41.9           | 27.0                    |
| Assam           | 76                      | 79    | 37    | 47.3                          | 131                                       | 28.9                                           | 20.7           | 15.3                    |
| Bihar           | 71                      | 73    | 53    | 44.4                          | 117                                       | 35.3                                           | 14.7           | 18.6                    |
| Gujarat         | 62                      | 69    | 46    | 44.6                          | 99                                        | 18.4                                           | 36.1           | 36.9                    |
| Haryana         | 68                      | 70    | 59    | 41.9                          | 100                                       | 20.6                                           | 24.2           | 67.3                    |
| Karnataka       | 53                      | 63    | 24    | 44.2                          | 94                                        | 17.5                                           | 49.3           | 25.1                    |
| Kerala          | 12                      | 11    | 15    | 11.0                          | 20                                        | 6.4                                            | 96.8           | 1.8                     |
| Madhya Pradesh  | 94                      | 99    | 57    | 64.9                          | 168                                       | 26.3                                           | 13.9           | 21.1                    |
| Maharashtra     | 47                      | 56    | 31    | 39.6                          | 75                                        | 18.5                                           | 47.5           | 20.1                    |
| Orissa          | 96                      | 100   | 65    | 62.5                          | 145                                       | 23.1                                           | 13.3           | 22.4                    |
| Punjab          | 51                      | 54    | 38    | 28.1                          | 76                                        | 17.0                                           | 12.4           | 85.8                    |
| Rajasthan       | 85                      | 89    | 61    | 56.3                          | 131                                       | 27.8                                           | 7.6            | 25.8                    |
| Tamil Nadu      | 53                      | 58    | 40    | 40.3                          | 66                                        | 8.3                                            | 64.2           | 20.8                    |
| Uttar Pradesh   | 85                      | 89    | 66    | 52.4                          | 145                                       | 35.9                                           | 7.2            | 41.6                    |
| West Bengal     | 55                      | 58    | 43    | 38.8                          | 91                                        | 20.0                                           | 35.8           | 13.4                    |
| INDIA           | 71                      | 77    | 45    | 48.1                          | 113                                       | 25.4                                           | 25.2           | 28.2                    |

Source : Cols. 12 to 14 :- SRS Bulletin October 98 (RGI)  
 Cols.15,16 & 17 :- State of India's Population, Population Foundation of India, New Delhi, 1998  
 Cols.18 & 19 :- Year Book 1995-96, Family Welfare programme in India, Department of Family Welfare Ministry of Health and Family Welfare, Government of India.



## 6. HEALTH PROFILE

| District           | Population per government medical institution |         |         |         |         |
|--------------------|-----------------------------------------------|---------|---------|---------|---------|
|                    | 1960-61                                       | 1970-71 | 1980-81 | 1990-91 | 1996-97 |
|                    | 11                                            | 12      | 13      | 14      | 15      |
| 1 Bangalore        | 20528                                         | 20033   | 20876   | 26589   | 31419   |
| 2 Bangalore Rural  |                                               |         |         | 18387   | 15861   |
| 3 Belgaum          | 37430                                         | 32748   | 25917   | 25597   | 23824   |
| 4 Bellary          | 22882                                         | 22013   | 19341   | 19485   | 19542   |
| 5 Bidar            | 39010                                         | 35829   | 23156   | 25116   | 23908   |
| 6 Bijapur          | 37731                                         | 32551   | 26686   | 31149   | 26105   |
| 7 Chikmagalur      | 6788                                          | 12486   | 12157   | 11560   | 10885   |
| 8 Chitradurga      | 14211                                         | 18388   | 17257   | 17444   | 16493   |
| 9 Dakshina Kannada | 21720                                         | 15391   | 18282   | 18581   | 17516   |
| 10 Dharwad         | 37507                                         | 25185   | 24546   | 24498   | 22972   |
| 11 Gulbarga        | 45144                                         | 26352   | 22864   | 21165   | 19830   |
| 12 Hassan          | 9530                                          | 15101   | 14436   | 13416   | 12131   |
| 13 Kodagu          | 6726                                          | 8598    | 10264   | 11359   | 10526   |
| 14 Kolar           | 13439                                         | 17635   | 17482   | 18787   | 17977   |
| 15 Mandya          | 13224                                         | 18924   | 17294   | 16610   | 15253   |
| 16 Mysore          | 13928                                         | 17754   | 17422   | 16315   | 16034   |
| 17 Raichur         | 42342                                         | 27226   | 22580   | 28169   | 25875   |
| 18 Shimoga         | 11561                                         | 15134   | 15199   | 15156   | 14213   |
| 19 Tumkur          | 19534                                         | 22298   | 20182   | 19878   | 18178   |
| 20 Uttara Kannada  | 16418                                         | 16329   | 17016   | 14026   | 13368   |
| STATE              | 18900                                         | 20332   | 19453   | 19910   | 19078   |

**Source :-** Cols. 11 to Cols.15 :- No. of medical institutions from the Directorate of Health & Family Welfare, population data of respective Censuses 1961, 1971, 1981 and 1991 & Projected Population of 1997 were used to workout corresponding ratios.

**Note :-** 1. Break-up not available for Bangalore (U) & Bangalore (R) districts from 1960-61 to 1980-81, hence value of undivided district of Bangalore is shown against Banaglore (U) district

## 6. HEALTH PROFILE

| No. of medical institutions per lakh population |         |         |         |         |         |
|-------------------------------------------------|---------|---------|---------|---------|---------|
| District                                        | 1960-61 | 1970-71 | 1980-81 | 1990-91 | 1996-97 |
|                                                 | 16      | 17      | 18      | 19      | 20      |
| 1 Bangalore                                     | 4.87    | 4.99    | 4.79    | 3.76    | 3.18    |
| 2 Bangalore Rural                               |         |         |         | 5.44    | 6.30    |
| 3 Belgaum                                       | 2.67    | 3.05    | 3.86    | 3.91    | 4.20    |
| 4 Bellary                                       | 4.37    | 4.54    | 5.17    | 5.13    | 5.12    |
| 5 Bidar                                         | 2.56    | 2.79    | 4.32    | 3.98    | 4.18    |
| 6 Bijapur                                       | 2.65    | 3.07    | 3.75    | 3.21    | 3.83    |
| 7 Chikmagalur                                   | 14.73   | 8.01    | 8.23    | 8.65    | 9.19    |
| 8 Chitradurga                                   | 7.04    | 5.44    | 5.79    | 5.73    | 6.06    |
| 9 Dakshina Kannada                              | 4.60    | 6.50    | 5.47    | 5.38    | 5.71    |
| 10 Dharwad                                      | 2.67    | 3.97    | 4.07    | 4.08    | 4.35    |
| 11 Gulbarga                                     | 2.22    | 3.79    | 4.37    | 4.72    | 5.04    |
| 12 Hassan                                       | 10.49   | 6.62    | 6.93    | 7.45    | 8.24    |
| 13 Kodagu                                       | 14.87   | 11.63   | 9.74    | 8.80    | 9.50    |
| 14 Kolar                                        | 7.44    | 5.67    | 5.72    | 5.32    | 5.56    |
| 15 Mandya                                       | 7.56    | 5.28    | 5.78    | 6.02    | 6.56    |
| 16 Mysore                                       | 7.18    | 5.63    | 5.74    | 6.13    | 6.24    |
| 17 Raichur                                      | 2.36    | 3.67    | 4.43    | 3.55    | 3.86    |
| 18 Shimoga                                      | 8.65    | 6.61    | 6.58    | 6.60    | 7.04    |
| 19 Tumkur                                       | 5.12    | 4.48    | 4.95    | 5.03    | 5.50    |
| 20 Uttara Kannada                               | 6.09    | 6.12    | 5.88    | 7.13    | 7.48    |
| STATE                                           | 5.29    | 4.92    | 5.14    | 5.02    | 5.24    |

**Source :-** Cols.16 to Cols.20 :- No. of medical institutions from the Directorate of Health & Family Welfare, population data of respective Censuses 1961, 1971, 1981 and 1991 & Projected Population of 1997 were used to workout corresponding ratios.

**Note :-** 1. Break-up not available for Bangalore (U) & Bangalore (R) districts from 1960-61 to 1980-81, hence value of undivided district of Bangalore is shown against Banaglore (U) district

## 6. HEALTH PROFILE

|          |                  | Population per PHC |         |         |         |         |
|----------|------------------|--------------------|---------|---------|---------|---------|
| District |                  | 1960-61            | 1970-71 | 1980-81 | 1990-91 | 1996-97 |
|          |                  | 21                 | 22      | 23      | 24      | 25      |
| 1        | Bangalore        | 114702             | 74988   | 83543   | 14253   | 10658   |
| 2        | Bangalore Rural  |                    |         |         | 59561   | 47882   |
| 3        | Belgaum          | 135529             | 91693   | 96209   | 26881   | 23585   |
| 4        | Bellary          | 141745             | 68160   | 83089   | 30830   | 25506   |
| 5        | Bidar            | 96992              | 88116   | 81828   | 31566   | 28274   |
| 6        | Bijapur          | 122434             | 74496   | 86817   | 31101   | 24583   |
| 7        | Chikmagalur      | 126958             | 103595  | 75189   | 23484   | 18580   |
| 8        | Chitradurga      | 150688             | 85731   | 90650   | 26979   | 20709   |
| 9        | Dakshina Kannada | 98729              | 90949   | 99728   | 18223   | 16294   |
| 10       | Dharwad          | 142574             | 69750   | 76289   | 29221   | 24824   |
| 11       | Gulbarga         | 117304             | 84114   | 84469   | 28585   | 22574   |
| 12       | Hassan           | 112616             | 86633   | 105322  | 24018   | 18302   |
| 13       | Kodagu           | 93380              | 106533  | 78045   | 16421   | 14532   |
| 14       | Kolar            | 124609             | 80235   | 92354   | 26983   | 23502   |
| 15       | Mandya           | 199785             | 110621  | 99840   | 28114   | 22458   |
| 16       | Mysore           | 104703             | 86007   | 89730   | 20225   | 17524   |
| 17       | Raichur          | 117534             | 79885   | 80005   | 31013   | 26148   |
| 18       | Shimoga          | 126167             | 99417   | 102546  | 25989   | 20594   |
| 19       | Tumkur           | 136490             | 89820   | 89767   | 27481   | 22289   |
| 20       | Uttara Kannada   | 113737             | 63510   | 72749   | 19697   | 16894   |
| STATE    |                  | 122955             | 83372   | 88020   | 25934   | 21548   |

Source :- Cols.21 to Cols.25 :- No. of PHCs from the Directorate of Health and Family Welfare, Government of Karnataka, rural population data of respective censuses 1961, 1971 1981 & 1991 and projected rural population of 1997 were used to workout corresponding ratios.

**Note :-** 1. Break-up not available for Bangalore (U) & Bangalore (R) districts from 1960-61 to 1980-81, hence value of undivided district of Bangalore is shown against Bangalore (U) district.

## 6. HEALTH PROFILE

| Number of PHCs per lakh populations |         |         |         |         |         |
|-------------------------------------|---------|---------|---------|---------|---------|
| District                            | 1960-61 | 1970-71 | 1980-81 | 1990-91 | 1996-97 |
|                                     | 26      | 27      | 28      | 29      | 30      |
| 1 Bangalore                         | 0.87    | 1.33    | 1.20    | 7.02    | 9.38    |
| 2 Bangalore Rural                   |         |         |         | 1.68    | 2.09    |
| 3 Belgaum                           | 0.74    | 1.09    | 1.04    | 3.72    | 4.24    |
| 4 Bellary                           | 0.71    | 1.47    | 1.20    | 3.24    | 3.92    |
| 5 Bidar                             | 1.03    | 1.13    | 1.22    | 3.17    | 3.54    |
| 6 Bijapur                           | 0.82    | 1.34    | 1.15    | 3.22    | 4.07    |
| 7 Chikmagalur                       | 0.79    | 0.97    | 1.33    | 4.26    | 5.38    |
| 8 Chitradurga                       | 0.66    | 1.17    | 1.10    | 3.71    | 4.83    |
| 9 Dakshina Kannada                  | 1.01    | 1.10    | 1.00    | 5.49    | 6.14    |
| 10 Dharwad                          | 0.70    | 1.43    | 1.31    | 3.42    | 4.03    |
| 11 Gulbarga                         | 0.85    | 1.19    | 1.18    | 3.50    | 4.43    |
| 12 Hassan                           | 0.89    | 1.15    | 0.95    | 4.16    | 5.46    |
| 13 Kodagu                           | 1.07    | 0.94    | 1.28    | 6.09    | 6.88    |
| 14 Kolar                            | 0.80    | 1.25    | 1.08    | 3.71    | 4.25    |
| 15 Mandya                           | 0.50    | 1.09    | 1.00    | 3.56    | 4.45    |
| 16 Mysore                           | 0.96    | 1.16    | 1.11    | 4.94    | 5.71    |
| 17 Raichur                          | 0.85    | 1.25    | 1.25    | 3.22    | 3.82    |
| 18 Shimoga                          | 0.79    | 1.01    | 0.98    | 3.85    | 4.86    |
| 19 Tumkur                           | 0.73    | 1.11    | 1.11    | 3.64    | 4.49    |
| 20 Uttara Kannada                   | 0.88    | 1.57    | 1.37    | 5.08    | 5.92    |
| STATE                               | 0.81    | 1.20    | 1.14    | 3.86    | 4.64    |

**Source :-** Cols.26 to Cols.30 :- No. of PHCs from the Directorate of Health and Family Welfare, Government of Karnataka, rural population data of respective censuses and projected rural population of 1997, were used to workout corresponding ratios.

**Note :-** 1. Break-up not available for Bangalore (U) & Bangalore (R) districts from 1960-61 to 1980-81, hence value of undivided district of Bangalore is shown against Bangalore (U) district.

## 6. HEALTH PROFILE

| District              | No.of subcentres<br>on 31st March of the year |             |             | Rural population per subcentre |             |             |
|-----------------------|-----------------------------------------------|-------------|-------------|--------------------------------|-------------|-------------|
|                       | 1980-81                                       | 1990-91     | 1996-97     | 1980-81                        | 1990-91     | 1996-97     |
|                       | 31                                            | 32          | 33          | 34                             | 35          | 36          |
| 1 Bangalore           | 196                                           | 134         | 140         | 8951                           | 2427        | 2683        |
| 2 Bangalore Rural     |                                               | 276         | 286         |                                | 10223       | 10602       |
| 3 Belgaum             | 247                                           | 578         | 598         | 9348                           | 4744        | 5048        |
| 4 Bellary             | 113                                           | 240         | 264         | 8824                           | 5524        | 6087        |
| 5 Bidar               | 104                                           | 217         | 231         | 7868                           | 4655        | 5018        |
| 6 Bijapur             | 203                                           | 426         | 456         | 8981                           | 5256        | 5607        |
| 7 Chikmagalur         | 93                                            | 328         | 335         | 8085                           | 2578        | 2718        |
| 8 Chitradurga         | 243                                           | 441         | 458         | 5596                           | 3609        | 3843        |
| 9 Dakshina<br>Kannada | 202                                           | 692         | 708         | 8887                           | 2791        | 2854        |
| 10 Dharwad            | 211                                           | 571         | 596         | 9039                           | 3992        | 4290        |
| 11 Gulbarga           | 194                                           | 467         | 512         | 8273                           | 4223        | 4409        |
| 12 Hassan             | 127                                           | 450         | 463         | 9122                           | 2882        | 3004        |
| 13 Kodagu             | 52                                            | 158         | 163         | 7504                           | 2598        | 2585        |
| 14 Kolar              | 265                                           | 359         | 375         | 5576                           | 4735        | 4951        |
| 15 Mandya             | 141                                           | 364         | 376         | 8497                           | 3785        | 4002        |
| 16 Mysore             | 214                                           | 672         | 690         | 8805                           | 3311        | 3581        |
| 17 Raichur            | 169                                           | 349         | 378         | 8521                           | 5243        | 5672        |
| 18 Shimoga            | 273                                           | 365         | 380         | 4508                           | 3845        | 4010        |
| 19 Tumkur             | 186                                           | 404         | 418         | 9170                           | 4762        | 4959        |
| 20 Uttara Kannada     | 101                                           | 302         | 316         | 7923                           | 3065        | 3208        |
| <b>STATE</b>          | <b>3334</b>                                   | <b>7793</b> | <b>8143</b> | <b>7920</b>                    | <b>3987</b> | <b>4237</b> |

**Source :-** No. of subcentres from the Directorate of Health and Family Welfare, Government of Karnataka, rural population data of respective censuses 1981 a 1991 and projected rural population of 1997 were made use of to work out corresponding rates.

**Note :-** 1. Break-up not available for Bangalore (U) & Bangalore (R) districts from 1960-61 to 1980-81, hence value of undivided district of Bangalore is shown against Banaglore (U) district.

## 6. HEALTH PROFILE

| District           | No. of subcentres per lakh rural population |         |         | Growth of beds in medical institutions from 1960-61 to 1996-97 |         |         |
|--------------------|---------------------------------------------|---------|---------|----------------------------------------------------------------|---------|---------|
|                    | 1980-81                                     | 1990-91 | 1996-97 | 1960-61                                                        | 1970-71 | 1980-81 |
|                    | 37                                          | 38      | 39      | 40                                                             | 41      | 42      |
| 1 Bangalore        | 11                                          | 41      | 37      | 3837                                                           | 6429    | 7801    |
| 2 Bangalore Rural  |                                             | 10      | 9       |                                                                |         |         |
| 3 Belgaum          | 11                                          | 21      | 20      | 389                                                            | 1636    | 1106    |
| 4 Bellary          | 11                                          | 18      | 16      | 590                                                            | 1099    | 1404    |
| 5 Bidar            | 13                                          | 21      | 20      | 210                                                            | 302     | 363     |
| 6 Bijapur          | 11                                          | 19      | 18      | 253                                                            | 583     | 883     |
| 7 Chikmagalur      | 12                                          | 39      | 37      | 267                                                            | 428     | 582     |
| 8 Chitradurga      | 18                                          | 28      | 26      | 277                                                            | 891     | 1756    |
| 9 Dakshina Kannada | 11                                          | 36      | 35      | 1419                                                           | 2788    | 1774    |
| 10 Dharwad         | 11                                          | 25      | 23      | 902                                                            | 2228    | 2141    |
| 11 Gulbarga        | 12                                          | 24      | 23      | 289                                                            | 954     | 949     |
| 12 Hassan          | 11                                          | 35      | 33      | 433                                                            | 900     | 840     |
| 13 Kodagu          | 13                                          | 38      | 39      | 1145                                                           | 1169    | 1167    |
| 14 Kolar           | 18                                          | 21      | 20      | 814                                                            | 1394    | 1514    |
| 15 Mandya          | 12                                          | 26      | 25      | 147                                                            | 396     | 705     |
| 16 Mysore          | 11                                          | 30      | 28      | 1453                                                           | 2655    | 2632    |
| 17 Raichur         | 12                                          | 19      | 18      | 224                                                            | 456     | 415     |
| 18 Shimoga         | 22                                          | 26      | 25      | 580                                                            | 862     | 1092    |
| 19 Tumkur          | 11                                          | 21      | 20      | 326                                                            | 569     | 686     |
| 20 Uttara Kannada  | 13                                          | 33      | 31      | 231                                                            | 424     | 552     |
| SLA re             | 13                                          | 25      | 24      | 13786                                                          | 26163   | 28362   |

**Source :-** Cols.37 to Qols.39 :-

No. of subcentres from the Directorate of Health and Family Welfare, Government of Karnataka, rural population data of respective censuses 1981, 1991 and projected rural population of 1997 were made use of to work out corresponding ratios.

Cols.40 to Qols.42 :- The Directorate of Health and Family Welfare, Government of Karnataka

**Note :-** 1. Break-up not available for Bangalore (U) & Bangalore (R) districts from 1960-61 to 1980-81, hence value of undivided district of Bangalore is shown against Bangalore (U) district.



## 6. HEALTH PROFILE

| District           | Growth of beds<br>in medical institutions<br>from 1960-61 to 1996-97 |         | Annual growth rate (%) |                       |                       |                       |
|--------------------|----------------------------------------------------------------------|---------|------------------------|-----------------------|-----------------------|-----------------------|
|                    | 1990-91                                                              | 1996-97 | 1960-61 to<br>1996*97  | 1970-71 to<br>1980-81 | 1980-81 to<br>1990-91 | 1990-91 to<br>1996-97 |
|                    | 43                                                                   | 44      | 45                     | 46                    | 47                    | 48                    |
| 1 Bangalore        | 8424                                                                 | 8766    | 4.312                  | 2.134                 | 1.684                 | 8.104                 |
| 2 Bangalore Rural  | 691                                                                  | 1027    |                        |                       |                       | 0.677                 |
| 3 Belgaum          | 1739                                                                 | 2063    | 11.954                 | -3.240                | 5.723                 | 3.105                 |
| 4 Bellary          | 1690                                                                 | 1908    | 6.205                  | 2.775                 | 2.037                 | 2.150                 |
| 5 Bidar            | 608                                                                  | 800     | 7.804                  | 2.020                 | 6.749                 | 5.263                 |
| 6 Bijapur          | 1400                                                                 | 1812    | 17.117                 | 5.146                 | 5.855                 | 4.905                 |
| 7 Chikmagalur      | 806                                                                  | 1073    | 8.385                  | 3.598                 | 3.849                 | 5.521                 |
| 8 Chitradurga      | 2121                                                                 | 2601    | 23.305                 | 9.708                 | 2.079                 | 3.772                 |
| 9 Dakshina Kannada | 2420                                                                 | 2787    | 2.678                  | -3.637                | 3.641                 | 2.528                 |
| 10 Dharwad         | 2645                                                                 | 3021    | 6.526                  | -0.390                | 2.354                 | 2.369                 |
| 11 Gulbarga        | 1506                                                                 | 2020    | 16.638                 | -0.520                | 5.869                 | 5.688                 |
| 12 Hassan          | 1120                                                                 | 1673    | 7.955                  | -0.667                | 3.333                 | 8.229                 |
| 13 Kodagu          | 1221                                                                 | 1279    | 0.325                  | -0.017                | 0.463                 | 0.792                 |
| 14 Kolar           | 1912                                                                 | 2262    | 4.941                  | -0.861                | 2.629                 | 3.051                 |
| 15 Mandya          | 996                                                                  | 1332    | 22.392                 | 7.803                 | 4.128                 | 5.622                 |
| 16 Mysore          | 3395                                                                 | 3962    | 4.797                  | -0.087                | 2.899                 | 2.784                 |
| 17 Raichur         | 773                                                                  | 1180    | 11.855                 | -0.899                | 8.627                 | 8.775                 |
| 18 Shimoga         | 1386                                                                 | 1760    | 5.651                  | 2.668                 | 2.692                 | 4.497                 |
| 19 Tumkur          | 1033                                                                 | 1350    | 8.725                  | 2.056                 | 5.058                 | 5.115                 |
| 20 Uttara Kannada  | 920                                                                  | 1193    | 11.568                 | 3.019                 | 6.667                 | 4.946                 |
| STATE              | 36806                                                                | 43869   | 6.062                  | 0.840                 | 2.977                 | 3.198                 |

Source :- Cols.43 to Cols.44 :- The Directorate of Health and Family Welfare, Government of Karnataka.

**Note :-** 1. Break-up not available for Bangalore (U) & Bangalore (R) districts from 1960-61 to 1980-81, hence value of undivided district of Bangalore is shown against Bangalore (U) district.

## 6. HEALTH PROFILE

| District           | Population per bed in govt. medical institution |         |         |         |         |
|--------------------|-------------------------------------------------|---------|---------|---------|---------|
|                    | 1960-61                                         | 1970-71 | 1980-81 | 1990-91 | 1996-97 |
|                    | 49                                              | 50      | 51      | 52      | 53      |
| 1 Bangalore        | 653                                             | 523     | 634     | 574     | 677     |
| 2 Bangalore Rural  |                                                 |         |         | 2421    | 1746    |
| 3 Belgaum          | 5100                                            | 1481    | 2695    | 2061    | 1959    |
| 4 Bellary          | 1551                                            | 1022    | 1061    | 1118    | 1162    |
| 5 Bidar            | 3158                                            | 2729    | 2743    | 2065    | 1832    |
| 6 Bijapur          | 6562                                            | 3406    | 2720    | 2091    | 1840    |
| 7 Chikmagalur      | 2237                                            | 1721    | 1567    | 1262    | 1016    |
| 8 Chitradurga      | 3950                                            | 1568    | 1012    | 1028    | 959     |
| 9 Dakshina Kannada | 1102                                            | 696     | 1340    | 1113    | 1047    |
| 10 Dharwad         | 2162                                            | 1051    | 1376    | 1324    | 1298    |
| 11 Gulbarga        | 4842                                            | 1823    | 2192    | 1715    | 1475    |
| 12 Hassan          | 2069                                            | 1225    | 1615    | 1402    | 1030    |
| 13 Kodagu          | 282                                             | 324     | 396     | 400     | 395     |
| 14 Kolar           | 1585                                            | 1088    | 1259    | 1159    | 1080    |
| 15 Mandya          | 6117                                            | 2915    | 2012    | 1651    | 1357    |
| 16 Mysore          | 1150                                            | 785     | 986     | 932     | 910     |
| 17 Raichur         | 4915                                            | 3105    | 4298    | 2988    | 2330    |
| 18 Shimoga         | 1754                                            | 1510    | 1517    | 1378    | 1188    |
| 19 Tumkur          | 4194                                            | 2861    | 2883    | 2232    | 1885    |
| 20 Uttara Kannada  | 2985                                            | 2003    | 1942    | 1326    | 1111    |
| STATE              | 1711                                            | 1120    | 1309    | 1222    | 1166    |

**Source :-** Cols.49 to Cols.53 :- No. of beds in government health institutions from the Directorate of Health and Family Welfare, Government of Karnataka, population data of respective population censuses and projected population of 1996-97 were used to work out corresponding ratios

**Note :-** 1. Break-up not available for Bangalore (U) & Bangalore (R) districts from 1960-61 to 1980-81, hence value of undivided district of Bangalore is shown against Bangalore (U) district

## 6. HEALTH PROFILE

| No.of beds per lakh population |         |         |         |         |         |
|--------------------------------|---------|---------|---------|---------|---------|
| District                       | 1960-61 | 1970-71 | 1980-81 | 1990-91 | 1996-97 |
|                                | 54      | 55      | 56      | 57      | 58      |
| 1 Bangalore                    | 153     | 191     | 158     | 503     | 148     |
| 2 Bangalore Rural              |         |         |         | 14      | 57      |
| 3 Belgaum                      | 20      | 68      | 37      | 49      | 51      |
| 4 Bellary                      | 64      | 98      | 94      | 89      | 86      |
| 5 Bidar                        | 32      | 37      | 36      | 48      | 55      |
| 6 Bijapur                      | 15      | 29      | 37      | 48      | 54      |
| 7 Chikmagalur                  | 45      | 58      | 64      | 79      | 98      |
| 8 Chitradurga                  | 25      | 64      | 99      | 97      | 104     |
| 9 Dakshina Kannada             | 91      | 144     | 75      | 90      | 96      |
| 10 Dharwad                     | 46      | 95      | 73      | 76      | 77      |
| 11 Gulbarga                    | 21      | 55      | 46      | 58      | 68      |
| 12 Hassan                      | 48      | 82      | 62      | 71      | 97      |
| 13 Kodagu                      | 355     | 309     | 253     | 250     | 253     |
| 14 Kolar                       | 63      | 92      | 79      | 86      | 93      |
| 15 Mandya                      | 16      | 34      | 50      | 61      | 74      |
| 16 Mysore                      | 87      | 128     | 101     | 107     | 110     |
| 17 Raichur                     | 20      | 32      | 23      | 33      | 43      |
| 18 Shimoga                     | 57      | 66      | 66      | 73      | 84      |
| 19 Tumkur                      | 24      | 35      | 35      | 45      | 53      |
| 20 Uttara Kannada              | 34      | 50      | 51      | 75      | 90      |
| STATE                          | 58      | 89      | 76      | 82      | 86      |

**Source :-** Cols.54 to Cols.58 :- No of beds in government health institutions from the Directorate of Health and Family Welfare, Government of Karnataka, population data of respective population censuses and projected population of 1996-97 were used to work out corresponding ratios.

**Note :-** 1. Break-up not available for Bangalore (U) & Bangalore (R) districts from 1960-61 to 1980-81, hence value of undivided district of Bangalore is shown against Banaglore (U) district.

## 1. INTERSTATE COMPARISONS OF KEY INDICATORS

| 15 Major State | Life<br>expec-<br>tancy<br>at birth<br>1991-95 | Mean age at<br>marriage 1992-93 |        | Literacy rate 1991 |      |        | Adult<br>literacy<br>rate<br>1991 | Projected adult<br>literacy rate<br>1995 |        |      |
|----------------|------------------------------------------------|---------------------------------|--------|--------------------|------|--------|-----------------------------------|------------------------------------------|--------|------|
|                |                                                | Male                            | Female | Total              | Male | Female |                                   | Male                                     | Female |      |
|                | 20                                             | 21                              | 22     | 23                 | 24   | 25     | 26                                | 27                                       | 28     | 29   |
| Andhra Pradesh | 436                                            | 61.8                            | 23.6   | 18.1               | 44.1 | 55.1   | 32.7                              | 38.5                                     | 54.3   | 29.5 |
| Assam          | 544                                            | 55.7                            | 27.9   | 21.6               | 52.9 | 61.9   | 43.0                              | 49.6                                     | 62.3   | 40.4 |
| Bihar          | 470                                            | 59.3                            | 23.2   | 18.0               | 38.5 | 52.5   | 22.9                              | 24.8                                     | 50.5   | 19.4 |
| Gujarat        | 389                                            | 61.0                            | 23.9   | 20.2               | 61.3 | 73.1   | 48.6                              | 55.9                                     | 71.6   | 45.3 |
| Haryana        | 436                                            | 63.4                            | 23.1   | 18.4               | 55.8 | 69.1   | 40.5                              | 48.9                                     | 67.2   | 36.1 |
| Karnataka      | 450                                            | 62.5                            | 26.1   | 19.6               | 56.0 | 67.3   | 44.3                              | 50.9                                     | 65.9   | 41.2 |
| Kerala         | 87                                             | 72.9                            | 28.1   | 22.1               | 89.8 | 93.6   | 86.2                              | 88.0                                     | 95.3   | 89.3 |
| Madhya Pradesh | 711                                            | 54.7                            | 22.0   | 17.4               | 44.2 | 58.4   | 28.8                              | 40.0                                     | 59.6   | 25.9 |
| Maharashtra    | 336                                            | 64.8                            | 24.9   | 19.3               | 64.9 | 76.6   | 52.3                              | 60.4                                     | 77     | 50.4 |
| Orissa         | 738                                            | 56.5                            | 25.6   | 20.7               | 49.1 | 63.1   | 34.7                              | 46.1                                     | 63.1   | 32.9 |
| Punjab         | 369                                            | 67.2                            | 24.8   | 21.1               | 58.5 | 65.7   | 50.4                              | 52.9                                     | 66.8   | 48.2 |
| Rajasthan      | 550                                            | 59.1                            | 22.7   | 18.4               | 38.6 | 55.0   | 20.4                              | 35.5                                     | 56.1   | 18.9 |
| Tamil Nadu     | 376                                            | 63.3                            | 26.4   | 20.5               | 62.7 | 73.7   | 51.3                              | 57.0                                     | 70.4   | 47.3 |
| Uttar Pradesh  | 624                                            | 56.8                            | 23.0   | 18.6               | 41.6 | 55.7   | 25.3                              | 38.6                                     | 56.7   | 24.2 |
| West Bengal    | 389                                            | 62.1                            | 25.9   | 19.2               | 57.7 | 67.8   | 46.6                              | 56.2                                     | 70.1   | 46.8 |
| INDIA          | 453                                            | 60.3                            | 25.0   | 20.0               | 52.2 | 64.1   | 39.3                              | 48.5                                     | 64.2   | 37.6 |

**Source :** Col.20 :- The Progress of Indian States, UNICEF, New Delhi 1995.  
Col.21 :- Life Tables 1991-95, RGI.  
Cols.22 & 23 :- National Family Health Survey (NFHS) 1992-93.  
Col.24 & 25 :- Population Census 1991  
Col.27 :- Census of India 1991 - Social and Cultural Tables  
Cols.28 & 29 :- Projected by Population Foundation of India, State of India's Population.

## 6. HEALTH PROFILE

| District           | Mean age at marriage |         |       |         | Difference in mean age at marriage between males & females |      |
|--------------------|----------------------|---------|-------|---------|------------------------------------------------------------|------|
|                    | 1981                 |         | 1991  |         | 1981                                                       | 1991 |
|                    | Males                | Females | Males | Females | 1981                                                       | 1991 |
|                    | 59                   | 50      | 61    | 62      | 63                                                         | 64   |
| 1 Bangalore        | 27.10                | 20.18   | 27.30 | 20.89   | 6.92                                                       | 7.02 |
| 2 Bangalore Rural  |                      |         | 26.71 | 19.69   |                                                            | 6.41 |
| 3 Belgaum          | 24.73                | 18.35   | 24.79 | 18.75   | 6.38                                                       | 6.04 |
| 4 Bellary          | 24.72                | 18.11   | 24.80 | 19.06   | 6.61                                                       | 5.74 |
| 5 Bidar            | 24.02                | 17.65   | 24.63 | 18.78   | 6.37                                                       | 5.85 |
| 6 Bijapur          | 23.68                | 17.32   | 24.09 | 18.27   | 6.36                                                       | 5.82 |
| 7 Chikmagalur      | 25.77                | 20.82   | 27.07 | 21.54   | 4.95                                                       | 5.53 |
| 8 Chitradurga      | 26.10                |         | 26.59 | 20.15   | 6.93                                                       | 6.44 |
| 9 Dakshina Kannada | 28.28                | 22.43   | 28.95 | 23.40   | 5.83                                                       | 5.55 |
| 10 Dharwad         | 25.99                | 19.25   | 26.39 | 20.02   | 6.74                                                       | 6.37 |
| 11 Gulbarga        | 24.05                | 17.50   | 24.37 | 18.64   | 6.55                                                       | 5.73 |
| 12 Hassan          | 25.84                | 20.24   | 26.31 | 21.00   | 5.60                                                       | 5.31 |
| 13 Kodagu          | 27.09                | 21.75   | 27.02 | 21.94   | 5.34                                                       | 5.08 |
| 14 Kolar           | 28.44                | 19.10   | 26.15 | 19.90   | 9.34                                                       | 6.25 |
| 15 Mandya          | 26.07                | 18.47   | 26.67 | 19.60   | 7.60                                                       | 7.07 |
| 16 Mysore          | 26.29                | 19.27   | 26.48 | 19.88   | 7.02                                                       | 6.60 |
| 17 Raichur         | 23.65                | 18.61   | 23.79 | 18.20   | 5.04                                                       | 5.59 |
| 18 Shimoga         | 26.82                | 20.53   | 27.28 | 21.29   | 6.29                                                       | 5.99 |
| 19 Tumkur          | 26.50                | 19.22   | 26.72 | 20.05   | 7.28                                                       | 6.67 |
| 20 Uttara Kannada  | 27.00                | 21.23   | 27.79 | 22.35   | 5.77                                                       | 5.44 |
| STATE              | 25.90                | 19.41   | 26.21 | 20.14   | 6.49                                                       | 6.07 |

**Source :-** Cols.59 to 62 :- Population Centre, Government of Karnataka, Bangalore.

## 6. HEALTH PROFILE

| District           | Total<br>antenatal<br>cases regd.,<br>1996-97 | Total<br>deliveries<br>1996-97 | Institutional deliveries (1996-97) |             |
|--------------------|-----------------------------------------------|--------------------------------|------------------------------------|-------------|
|                    |                                               |                                | No.                                | %           |
|                    | 65                                            | 66                             | 67                                 | 68          |
| 1 Bangalore        | 101858                                        | 60040                          | 53638                              | 89.3        |
| 2 Bangalore Rural  | 41041                                         | 29355                          | 14353                              | 48.9        |
| 3 Belgaum          | 110200                                        | 84035                          | 34382                              | 40.8        |
| 4 Bellary          | 48610                                         | 43877                          | 12080                              | 27.5        |
| 5 Bidar            | 39442                                         | 30946                          | 3513                               | 11.4        |
| 6 Bijapur          | 79242                                         | 58639                          | 13012                              | 22.2        |
| 7 Chikmagalur      | 23498                                         | 17547                          | 9430                               | 53.7        |
| 8 Chitradurga      | 59217                                         | 46152                          | 17307                              | 37.5        |
| 9 Dakshina Kannada | 56283                                         | 40170                          | 30918                              | 77.0        |
| 10 Dharwad         | 114934                                        | 75624                          | 30075                              | 39.8        |
| 11 Gulbarga        | 71791                                         | 56877                          | 7202                               | 12.7        |
| 12 Hassan          | 44457                                         | 25751                          | 11733                              | 45.6        |
| 13 Kodagu          | 13677                                         | 11433                          | 8684                               | 76.0        |
| 14 Kolar           | 53400                                         | 42524                          | 15357                              | 36.1        |
| 15 Mandya          | 58374                                         | 28566                          | 13960                              | 48.8        |
| 16 Mysore          | 75821                                         | 59721                          | 30711                              | 51.4        |
| 17 Raichur         | 70080                                         | 53557                          | 6383                               | 11.9        |
| 18 Shimoga         | 50081                                         | 33748                          | 15211                              | 45.0        |
| 19 Tumkur          | 59637                                         | 45256                          | 18942                              | 41.1        |
| 20 Uttara Kannada  | 24843                                         | 21325                          | 15406                              | 72.2        |
| <b>STATE</b>       | <b>1206486</b>                                | <b>865143</b>                  | <b>362297</b>                      | <b>41.8</b> |

Source :- Cols.65.66 & 67 :- Directorate of Health and Family Welfare, Government of Karnataka.

## 6. HEALTH PROFILE

| Deliveries conducted by (1996-97) |              |                  |              |      |                |      |
|-----------------------------------|--------------|------------------|--------------|------|----------------|------|
| District                          | Health staff |                  | Trained dais |      | Untrained dais |      |
|                                   | No.          | %                | No.          | %    | No.            | %    |
|                                   | 69           | 70               | 71           | 72   | 73             | 74   |
| 1 Bangalore                       | 2726         | 4.5              | 3282         | 5.5  | 394            | 0.6  |
| 2 Bangalore Rural                 | 8098         | 27. <sup>6</sup> | 6081         | 20.7 | 823            | 2.8  |
| 3 Belgaum                         | 26251        | 31. <sup>2</sup> | 20152        | 23.9 | 3250           | 4.1  |
| 4 Bellary                         | 11800        | 26. <sup>9</sup> | 14241        | 32.5 | 5756           | 13.1 |
| 5 Bidar                           | 17127        | 55.3             | 9224         | 29.8 | 1082           | 4.5  |
| 6 Bijapur                         | 20562        | 35. <sup>n</sup> | 22878        | 39.0 | 2187           | 3.8  |
| 7 Chikmagalur                     | 5095         | 29. <sup>n</sup> | 2078         | 11.8 | 944            | 4.5  |
| 8 Chitradurga                     | 15171        | 32.9             | 11614        | 25.2 | 2061           | 4.4  |
| 9 Dakshina Kannada                | 5907         | 14.7             | 3060         | 7.6  | 285            | 0.7  |
| 10 Dharwad                        | 22743        | 30.1             | 21363        | 28.2 | 1443           | 1.9  |
| 11 Gulbarga                       | 20814        | 36.6             | 21245        | 37.4 | 7616           | 13.3 |
| 12 Hassan                         | 8459         | 32.8             | 4615         | 17.9 | 944            | 3.7  |
| 13 Kodagu                         | 1064         | 9.3              | 1460         | 12.8 | 225            | 1.9  |
| 14 Kolar                          | 12758        | 30. <sup>n</sup> | 12259        | 28.8 | 2150           | 5.1  |
| 15 Mandya                         | 8195         | 28. <sup>7</sup> | 4627         | 16.2 | 1784           | 6.3  |
| 16 Mysore                         | 14294        | 23. <sup>9</sup> | 12999        | 21.8 | 1715           | 2.9  |
| 17 Raichur                        | 20805        | 38. <sup>8</sup> | 21165        | 39.5 | 5204           | 7.8  |
| 18 Shimoga                        | 8333         | 24. <sup>7</sup> | 9166         | 27.2 | 1038           | 3.1  |
| 19 Tumkur                         | 15670        | 34.6             | 8616         | 19.0 | 2028           | 4.6  |
| 20 Uttara Kannada                 | 2243         | 10.5             | 2281         | 10.6 | 1343           | 6.7  |
| STATE                             | 248115       | 28. <sup>4</sup> | 212406       | 24.5 | 42272          | 5.3  |



## 6. HEALTH PROFILE

| District              | Total fertility rate (TFR) |      | Total infant mortality rate |      | Male infant mortality rate |      |
|-----------------------|----------------------------|------|-----------------------------|------|----------------------------|------|
|                       | 1981                       | 1991 | 1981                        | 1991 | 1981                       | 1991 |
|                       | 75                         | 76   | 77                          | 78   | 79                         | 80   |
| 1 Bangalore           | 4.10                       | 3.52 | 60                          | 50   | 65                         | 51   |
| 2 Bangalore Rural     |                            | 3.76 | 60                          | 50   | 65                         | 51   |
| 3 Belgaum             | 4.40                       | 3.57 | 67                          | 50   | 72                         | 48   |
| 4 Bellary             | 5.00                       | 4.85 | 92                          | 79   | 100                        | 84   |
| 5 Bidar               | 5.10                       | 4.82 | 81                          | 66   | 86                         | 67   |
| 6 Bijapur             | 5.00                       | 4.27 | 100                         | 75   | 104                        | 80   |
| 7 Chikmagalur         | 4.60                       | 3.13 | 77                          | 55   | 84                         | 56   |
| 8 Chitradurga         | 4.90                       | 3.60 | 71                          | 51   | 79                         | 51   |
| 9 Dakshina<br>Kannada | 4.80                       | 3.61 | 55                          | 29   | 69                         | 20   |
| 10 Dharwad            | 5.00                       | 3.94 | 85                          | 74   | 84                         | 74   |
| 11 Gulbarga           | 4.80                       | 4.75 | 80                          | 59   | 87                         | 59   |
| 12 Hassan             | 4.60                       | 2.90 | 83                          | 61   | 89                         | 73   |
| 13 Kodagu             | 3.80                       | 2.77 | 57                          | 41   | 57                         | 43   |
| 14 Kolar              | 4.60                       | 3.89 | 69                          | 56   | 71                         | 54   |
| 15 Mandya             | 4.50                       | 3.11 | 84                          | 67   | 93                         | 76   |
| 16 Mysore             | 4.40                       | 3.56 | 77                          | 57   | 80                         | 57   |
| 17 Raichur            | 5.20                       | 4.65 | 67                          | 59   | 73                         | 58   |
| 18 Shimoga            | 4.80                       | 3.72 | 90                          | 69   | 93                         | 81   |
| 19 Tumkur             | 4.50                       | 3.46 | 83                          | 64   | 72                         | 66   |
| 20 Uttara Kannada     | 4.90                       | 3.66 | 77                          | 49   | 81                         | 50   |
| STATE                 | 4.70                       | 3.87 | 81                          | 74   | 87                         | 74   |

Source :- Cols.75 & 76 :- Office of the Registrar General India.

Cols.77 & 79 :- Office of the Registrar General India - "Child Mortality Estimates - Occasional Paper, No.5 of 1988".

Cols. 78 & 80 :- Office of the Registrar General India- "Estimates of Fertility and Child Morality; at District level for 1991-occasional paper No. 1 of 1997".

Note :- 1. Break-up not available for Bangalore (U) & Bangalore (R) districts taken for 1980, hence value of undivided district of Bangalore is shown against Bangalore (U) district.

## 6. HEALTH PROFILE

| District              | Female infant mortality rate |      | Estimated crude birth rates |         |         |         |         |
|-----------------------|------------------------------|------|-----------------------------|---------|---------|---------|---------|
|                       | 1981                         | 1991 | 1951-61                     | 1961-71 | 1971-81 | 1981-91 | 1990-91 |
|                       | 81                           | 82   | 83                          | 84      | 85      | 86      | 87      |
| 1 Bangalore           | 55                           | 49   | 37.1                        | 37.2    | 32.8    | 29.2    | 26.2    |
| 2 Bangalore Rural     | 55                           | 49   |                             |         |         |         |         |
| 3 Belgaum             | 63                           | 54   | 38.0                        | 40.7    | 35.6    | 30.3    | 27.3    |
| 4 Bellary             | 82                           | 73   | 39.8                        | 39.4    | 36.2    | 33.2    | 30.0    |
| 5 Bidar               | 75                           | 73   | 41.3                        | 45.0    | 35.4    | 32.9    | 29.9    |
| 6 Bijapur             | 95                           | 69   | 42.8                        | 40.9    | 35.2    | 32.8    | 30.1    |
| 7 Chikmagalur         | 69                           | 55   | 46.0                        | 37.4    | 30.0    | 26.6    | 25.2    |
| 8 Chitradurga         | 64                           | 52   | 41.0                        | 38.0    | 33.2    | 30.0    | 27.4    |
| 9 Dakshina<br>Kannada | 40                           | 30   | 41.0                        | 37.7    | 32.4    | 26.3    | 25.2    |
| 10 Dharwad            | 86                           | 75   | 44.9                        | 40.1    | 35.0    | 31.5    | 29.3    |
| 11 Gulbarga           | 73                           | 59   | 40.6                        | 45.0    | 36.3    | 33.8    | 30.1    |
| 12 Hassan             | 55                           | 44   | 44.6                        | 39.9    | 32.6    | 29.7    | 30.0    |
| 13 Kodagu             | 57                           | 42   | 45.0                        | 35.0    | 30.0    | 25.9    | 25.8    |
| 14 Kolar              | 66                           | 57   | 38.3                        | 36.8    | 34.7    | 30.2    | 28.0    |
| 15 Mandya             | 75                           | 59   | 42.6                        | 41.0    | 33.4    | 29.9    | 27.9    |
| 16 Mysore             | 74                           | 58   | 37.8                        | 37.1    | 32.1    | 29.0    | 26.6    |
| 17 Raichur            | 62                           | 52   | 40.2                        | 43.0    | 36.0    | 33.4    | 30.0    |
| 18 Shimoga            | 76                           | 73   | 47.0                        | 39.8    | 32.2    | 27.8    | 25.9    |
| 19 Tumkur             | 92                           | 60   | 39.3                        | 36.9    | 33.0    | 29.4    | 27.4    |
| 20 Uttara Kannada     | 73                           | 49   | 43.0                        | 37.5    | 31.8    | 28.3    | 26.4    |
| STATE                 | 74                           | 72   | 41.6                        | 39.4    | 33.7    | 30.2    | 26.4    |

Source :- Col.81 :- Office of the Registrar General India - 'Child mortality estimates - Occasional paper, No.5 of 1988.

Col.82:- Office of the Registrar General India - "Estimates of Fertility and Child Mortality at District level for 1991, occasional paper No. 1 of 1997".

Cols.83 to 87 :- 'Estimates for Vital Rates for Districts of Karnataka 1951 - 91" (revised for 1991) by Dr. P.J.Bhattacharjee, Director. Population centre, Government of Karnataka, Bangalore.

Note > 1. Break-up not available for Bangalore (U) & Bangalore (R) districts from 1951-61 to 1990-91, hence value of undivided district of Bangalore is shown against Bangalore (U) district.

## 6. HEALTH PROFILE

| District           | 1951-61 | 1961-71 | 1971-81 | 1981-91 | 1990-91 |
|--------------------|---------|---------|---------|---------|---------|
|                    | 88      | 89      | 90      | 91      | 92      |
| 1 Bangalore        | 18.1    | 14.6    | 9.2     | 9.1     | 7.6     |
| 2 Bangalore Rural  |         |         |         |         |         |
| 3 Belgaum          | 17.9    | 16.9    | 12.2    | 9.3     | 8.0     |
| 4 Bellary          | 21.0    | 18.1    | 11.0    | 11.2    | 9.7     |
| 5 Bidar            | 17.7    | 20.3    | 10.7    | 11.9    | 10.5    |
| 6 Bijapur          | 20.3    | 18.9    | 11.6    | 12.2    | 10.4    |
| 7 Chikmagalur      | 23.8    | 11.2    | 10.0    | 8.3     | 8.4     |
| 8 Chitradurga      | 18.4    | 12.6    | 9.2     | 10.0    | 8.6     |
| 9 Dakshina Kannada | 21.0    | 12.7    | 8.4     | 7.2     | 7.0     |
| 10 Dharwad         | 20.4    | 18.7    | 11.6    | 12.1    | 10.3    |
| 11 Gulbarga        | 18.6    | 19.8    | 11.8    | 12.5    | 10.7    |
| 12 Hassan          | 18.3    | 15.6    | 10.9    | 9.6     | 8.2     |
| 13 Kodagu          | 21.9    | 14.5    | 9.0     | 9.2     | 7.9     |
| 14 Kolar           | 16.2    | 15.6    | 11.9    | 10.0    | 8.6     |
| 15 Mandya          | 21.1    | 14.9    | 11.5    | 10.8    | 9.1     |
| 16 Mysore          | 9.4     | 18.0    | 11.8    | 10.3    | 8.8     |
| 17 Raichur         | 22.2    | 17.9    | 11.6    | 11.3    | 9.5     |
| 18 Shimoga         | 22.8    | 12.4    | 9.0     | 7.7     | 7.0     |
| 19 Tumkur          | 17.8    | 16.1    | 11.8    | 9.7     | 8.2     |
| 20 Uttara Kannada  | 22.6    | 13.9    | 9.8     | 10.6    | 8.5     |
| STATE              | 19.0    | 15.9    | 10.8    | 10.2    | 8.5     |

**Source :-** Cols.88 to 92 :- "Estimates of Vital Rates for districts of Karnataka 1951 - 91" (revised for 1991) by Dr. P.J.Bhattacharjee, Director, Population Centre, Government of Karnataka.

**Note :-** 1. Break-up not available for Bangalore (U) & Bangalore (R) districts from 1951-61 to 1990-91, hence value of undivided district of Bangalore is shown against Bangalore (U) district.

**Source** - Col 30 - Directorates of Economics & Statistics of respective State Governments  
and Central Statistical Organisation, GDI

Cols.31 to 36 > Housing and Amenities, Census of India, 1991, RGI

\* Provisional estimates at current prices (1980-81 series)

## 6. HEALTH PROFILE

| District              | Life expectancy at birth<br>(LEB) |        | 5)<br>immunised against |         | One year olds (in lakhs) fully |         |         |
|-----------------------|-----------------------------------|--------|-------------------------|---------|--------------------------------|---------|---------|
|                       | 1981<br>persons                   | male ; | 1991                    |         | DPT                            |         |         |
|                       |                                   |        | males                   | females | 1985-86                        | 1990-91 | 1996-97 |
|                       | 93                                | 94     | 95                      | 96      | 97                             | 98      | 99      |
| 1 Bangalore           | 61.64                             | 65.4   | 66.10                   | 65.78   | 0.80                           | 1.61    | 1.52    |
| 2 Bangalore Rural     |                                   | 64.4   | 69.09                   | 66.69   | 0.50                           | 0.43    | 0.41    |
| 3 Belgaum             | 58.35                             | 64.01  | 66.15                   | 65.08   | 0.72                           | 0.82    | 1.06    |
| 4 Bellary             | 53.17                             | 57.1   | 63.15                   | 60.32   | 0.36                           | 0.60    | 0.48    |
| 5 Bidar               | 57.40                             | 61.2   | 66.36                   | 63.74   | 0.25                           | 0.30    | 0.41    |
| 6 Bijapur             | 57.75                             | 59.3   | 66.38                   | 62.76   | 0.54                           | 0.67    | 0.81    |
| 7 Chikmagalur         | 57.56                             | 62.4   | 66.87                   | 64.62   | 0.27                           | 0.30    | 0.20    |
| 8 Chitradurga         | 57.09                             | 59.4   | 64.47                   | 61.92   | 0.29                           | 0.45    | 0.52    |
| 9 Dakshina<br>Kannada | 65.63                             | 65.3   | 72.49                   | 68.82   | 0.60                           | 0.70    | 0.57    |
| 10 Dharwad            | 57.09                             | 60.1   | 65.56                   | 62.78   | 0.65                           | 0.81    | 0.90    |
| 11 Gulbarga           | 57.09                             | 61.2   | 66.87                   | 63.98   | 0.52                           | 0.56    | 0.70    |
| 12 Hassan             | 58.35                             | 61.0   | 70.00                   | 65.40   | 0.45                           | 0.40    | 0.35    |
| 13 Kodagu             | 60.97                             | 64.4   | 71.87                   | 68.04   | 0.15                           | 0.12    | 0.11    |
| 14 Kolar              | 58.67                             | 58.5   | 67.42                   | 62.87   | 0.54                           | 0.60    | 0.56    |
| 15 Mandya             | 57.71                             | 60.1   | 68.03                   | 63.97   | 0.38                           | 0.40    | 0.38    |
| 16 Mysore             | 58.51                             | 59.0   | 67.71                   | 63.25   | 0.65                           | 0.88    | 0.67    |
| 17 Raichur            | 57.57                             | 61.7   | 69.53                   | 65.55   | 0.46                           | 0.54    | 0.61    |
| 18 Shimoga            | 57.71                             | 59.3   | 65.00                   | 62.09   | 0.40                           | 0.45    | 0.45    |
| 19 Tumkur             | 57.25                             | 58.3   | 63.00                   | 60.64   | 0.52                           | 0.61    | 0.56    |
| 20 Uttara Kannada     | 59.64                             | 64.0   | 70.00                   | 66.96   | 0.32                           | 0.23    | 0.22    |
| STATE                 | 57.71                             | 60.6   | 63.61                   | 62.07   | 9.41                           | 11.50   | 11.51   |

**Source :-** Cols.93 :-

'Indirect Estimates of Fertility and Mortality at the District Level 1981 - Occasional Paper No.4 of 1994' Office of the Registrar General of India.

Cols.94 to 96 :-

Estimated by K.R.Narayan, Deputy Director, Censuses Department, Bangalore.

Cols.97 to 99 :-

Directorate of Health and Family Welfare Services, Government of Karnataka.

**Note :-** 1. Break -up not available for Bangalore (U) & Bangalore (R) districts got 1981, hence value of undivided district of Bangalore is shown against Bangalore (U) district.

## 6. HEALTH PROFILE

| District           | One year olds (in lakhs) fully immunised against |         |         |         |         |         |
|--------------------|--------------------------------------------------|---------|---------|---------|---------|---------|
|                    | Polio                                            |         |         | BCG     |         |         |
|                    | 1985-86                                          | 1990-91 | 1996-97 | 1985-86 | 1990-91 | 1996-97 |
|                    | 100                                              | 101     | 102     | 103     | 704     | 105     |
| 1 Bangalore        | 0.80                                             | 1.61    | 1.52    | 0.38    | 1.33    | 1.54    |
| 2 Bangalore Rural  | 0.50                                             | 0.43    | 0.41    | 0.43    | 0.46    | 0.43    |
| 3 Belgaum          | 0.66                                             | 0.83    | 1.06    | 0.65    | 0.93    | 1.11    |
| 4 Bellary          | 0.35                                             | 0.60    | 0.48    | 0.32    | 0.48    | 0.53    |
| 5 Bidar            | 0.25                                             | 0.30    | 0.40    | 0.29    | 0.33    | 0.42    |
| 6 Bijapur          | 0.65                                             | 0.70    | 0.82    | 0.56    | 0.81    | 0.88    |
| 7 Chikmagalur      | 0.27                                             | 0.30    | 0.20    | 0.17    | 0.29    | 0.21    |
| 8 Chitradurga      | 0.27                                             | 0.45    | 0.52    | 0.32    | 0.60    | 0.64    |
| 9 Dakshina Kannada | 0.47                                             | 0.70    | 0.57    | 0.40    | 0.81    | 0.65    |
| 10 Dharwad         | 0.76                                             | 0.82    | 0.91    | 0.49    | 0.99    | 0.96    |
| 11 Gulbarga        | 0.50                                             | 0.56    | 0.70    | 0.56    | 0.63    | 0.75    |
| 12 Hassan          | 0.46                                             | 0.41    | 0.35    | 0.52    | 0.45    | 0.34    |
| 13 Kodagu          | 0.14                                             | 0.12    | 0.11    | 0.21    | 0.13    | 0.12    |
| 14 Kolar           | 0.54                                             | 0.60    | 0.56    | 0.97    | 0.63    | 0.60    |
| 15 Mandya          | 0.36                                             | 0.41    | 0.38    | 0.38    | 0.43    | 0.38    |
| 16 Mysore          | 0.65                                             | 0.88    | 0.67    | 0.58    | 0.88    | 0.72    |
| 17 Raichur         | 0.44                                             | 0.54    | 0.61    | 0.40    | 0.68    | 0.65    |
| 18 Shimoga         | 0.40                                             | 0.45    | 0.45    | 0.35    | 0.52    | 0.44    |
| 19 Tumkur          | 0.49                                             | 0.60    | 0.56    | 0.42    | 0.60    | 0.58    |
| 20 Uttara Kannada  | 0.31                                             | 0.23    | 0.22    | 0.43    | 0.26    | 0.22    |
| STATE              | 9.28                                             | 11.56   | 11.52   | 8.88    | 12.25   | 12.17   |

Source :- Cols. 100 to 105 :- Directorate of Health and Family Welfare Services, Government of Karnataka.

## 6. HEALTH PROFILE

| District           |         | One year old<br>(in lakhs)<br>fully immunised<br>against measles |         | Prevalence rate of leprosy |         |         |
|--------------------|---------|------------------------------------------------------------------|---------|----------------------------|---------|---------|
|                    |         | 1990-91                                                          | 1996-97 | 1985-86                    | 1990-91 | 1996-97 |
|                    |         | 706                                                              | 107     | 708                        | 709     | 770     |
| 1 Bangalore        |         | 1.28                                                             | 1.42    | 1.88                       | 0.60    | 0.19    |
| 2 Bangalore        |         | 0.42                                                             | 0.37    | 4.09                       | 2.06    | 0.27    |
| 3 Belgaum          |         | 0.73                                                             | 1.01    | 3.46                       | 0.65    | 0.33    |
| 4 Bellary          |         | 0.41                                                             | 0.45    | 8.74                       | 5.09    | 0.91    |
| 5 Bidar            |         | 0.26                                                             | 0.41    | 9.07                       | 1.77    | 0.60    |
| 6 Bijapur          |         | 0.65                                                             | 0.74    | 5.50                       | 3.74    | 0.57    |
| 7 Chikmagalur      |         | 0.25                                                             | 0.19    | 0.27                       | 0.20    | 0.09    |
| 8 Chitradurga      | a       | 0.41                                                             | 0.36    | 1.27                       | 0.51    | 0.26    |
| 9 Dakshina Kannada | (armada | 0.56                                                             | 0.52    | 3.46                       | 1.40    | 0.21    |
| 10 Dharwad         |         | 0.72                                                             | 0.85    | 4.65                       | 0.98    | 0.41    |
| 11 Gulbarga        |         | 0.52                                                             | 0.68    | 7.37                       | 2.15    | 0.60    |
| 12 Hassan          |         | 0.38                                                             | 0.33    | 0.25                       | 0.16    | 0.04    |
| 13 Kodagu          |         | 0.10                                                             | 0.10    | 0.19                       | 0.10    | 0.07    |
| 14 Kolar           |         | 0.46                                                             | 0.52    | 3.55                       | 1.86    | 0.41    |
| 15 Mandya          |         | 0.40                                                             | 0.35    | 3.57                       | 2.62    | 0.22    |
| 16 Mysore          |         | 0.71                                                             | 0.62    | 6.52                       | 1.66    | 0.30    |
| 17 Raichur         |         | 0.51                                                             | 0.58    | 10.33                      | 3.51    | 0.77    |
| 18 Shimoga         |         | 0.42                                                             | 0.43    | 0.70                       | 0.75    | 0.22    |
| 19 Tumkur          |         | 0.51                                                             | 0.52    | 2.02                       | 0.83    | 0.19    |
| 20 Uttara Kan      |         | 0.18                                                             | 0.21    | 0.97                       | 0.86    | 0.43    |
| STATE              |         | 9.92                                                             | 10.67   | 4.08                       | 1.60    | 0.36    |

Source :- Cols 106 to 110:-

Directorate of Health and Family Welfare Services, Government of Karnataka.



## 6. HEALTH PROFILE

| District           | AIDS cases (1987 to 1997) |            | Eligible couples protected (%) |                  |                  |             |
|--------------------|---------------------------|------------|--------------------------------|------------------|------------------|-------------|
|                    |                           |            | 1996-97                        |                  |                  |             |
|                    | HIV +Ve                   | AIDS cases | Deaths due to AIDS             | Permanent method | Temporary method | All methods |
|                    | 111                       | 112        | 113                            | 114              | 115              | 116         |
| 1 Bangalore        | 1417                      | 36         | 15                             | 44               | 11               | 55          |
| 2 Bangalore Rural  | 78                        | 5          | 2                              | 52               | 14               | 66          |
| 3 Belgaum          | 66                        | 0          | 0                              | 48               | 17               | 65          |
| 4 Bellary          | 70                        | 4          | 0                              | 38               | 10               | 48          |
| 5 Bidar            | 5                         | 2          | 2                              | 45               | 13               | 58          |
| 6 Bijapur          | 100                       | 0          | 0                              | 40               | 14               | 54          |
| 7 Chikmagalur      | 31                        | 3          | 2                              | 57               | 12               | 69          |
| 8 Chitradurga      | 84                        | 5          | 2                              | 46               | 11               | 57          |
| 9 Dakshina Kannada | 698                       | 11         | 9                              | 39               | 11               | 50          |
| 10 Dharwad         | 84                        | 2          | 2                              | 47               | 12               | 59          |
| 11 Gulbarga        | 40                        | 3          | 3                              | 32               | 12               | 44          |
| 12 Hassan          | 57                        | 5          | 2                              | 57               | 12               | 69          |
| 13 Kodagu          | 7                         | 1          | 1                              | 52               | 14               | 66          |
| 14 Kolar           | 60                        | 3          | 0                              | 48               | 14               | 62          |
| 15 Mandya          | 171                       | 8          | 2                              | 59               | 14               | 73          |
| 16 Mysore          | 102                       | 8          | 5                              | 51               | 15               | 66          |
| 17 Raichur         | 93                        | 6          | 4                              | 31               | 10               | 41          |
| 18 Shimoga         | 88                        | 1          | 1                              | 52               | 12               | 64          |
| 19 Tumkur          | 56                        | 5          | 1                              | 46               | 12               | 58          |
| 20 Uttara Kannada  | 74                        | 2          | 2                              | 35               | 12               | 48          |
| Within State       | 3381                      | 110        | 55                             |                  |                  |             |
| From Other State   | 232                       | 9          | 6                              |                  |                  |             |
| Foreigners         | 13                        | 4          | 4                              |                  |                  |             |
| <b>STATE</b>       | <b>3626</b>               | <b>120</b> | <b>65</b>                      | <b>45</b>        | <b>13</b>        | <b>58</b>   |

Karnataka.

## 6. HEALTH PROFILE

| District           | Eligible couples protected (%) |                  |            |                  |                  |             |
|--------------------|--------------------------------|------------------|------------|------------------|------------------|-------------|
|                    | 1990-91                        |                  |            | 1980-81          |                  |             |
|                    | Permanent method               | Temporary method | All method | Permanent method | Temporary method | All methods |
|                    | 117                            | 118              | 119        | 120              | 121              | 122         |
| 1 Bangalore        | 37                             | 9                | 46         | 17               | 3                | 20          |
| 2 Bangalore Rural  | 43                             | 8                | 51         | 20               | 3                | 23          |
| 3 Belgaum          | 40                             | 6                | 46         | 24               | 2                | 26          |
| 4 Bellary          | 33                             | 6                | 39         | 20               | 2                | 22          |
| 5 Bidar            | 36                             | 9                | 45         | 21               | 1                | 22          |
| 6 Bijapur          | 34                             | 11               | 45         | 18               | 1                | 19          |
| 7 Chikmagalur      | 54                             | 10               | 64         | 25               | 3                | 28          |
| 8 Chitradurga      | 42                             | 7                | 49         | 26               | 2                | 28          |
| 9 Dakshina Kannada | 33                             | 7                | 40         | 25               | 2                | 27          |
| 10 Dharwad         | 39                             | 6                | 45         | 24               | 2                | 26          |
| 11 Gulbarga        | 25                             | 6                | 31         | 19               | 1                | 20          |
| 12 Hassan          | 53                             | 11               | 64         | 27               | 1                | 28          |
| 13 Kodagu          | 50                             | 11               | 61         | 25               | 5                | 30          |
| 14 Kolar           | 41                             | 8                | 49         | 22               | 4                | 26          |
| 15 Mandya          | 54                             | 10               | 64         | 24               | 3                | 27          |
| 16 Mysore          | 48                             | 12               | 60         | 16               | 2                | 18          |
| 17 Raichur         | 28                             | 7                | 35         | 17               | 2                | 19          |
| 18 Shimoga         | 47                             | 9                | 56         | 25               | 2                | 27          |
| 19 Tumkur          | 42                             | 8                | 50         | 22               | 3                | 25          |
| 20 Uttara Kannada  | 32                             | 8                | 40         | 17               | 3                | 20          |
| <b>STATE</b>       |                                | <b>39</b>        | <b>9</b>   | <b>48</b>        | <b>21</b>        | <b>324</b>  |

Source :- Cols. 117 to 122 :- Directorate of Health and Family Welfare Services, Government of Karnataka.

## 7. EDUCATION

| Growth in male literacy rate 1961 to 1996 (percent) |                    |       |       |       |       |                            |         |         |         |
|-----------------------------------------------------|--------------------|-------|-------|-------|-------|----------------------------|---------|---------|---------|
| District                                            | Male literacy rate |       |       |       |       | Growth in literacy (males) |         |         |         |
|                                                     | 1961               | 1971  | 1981  | 1991  | 1996  | 1961-71                    | 1971-81 | 1981-91 | 1961-96 |
| 1                                                   | 2                  | 3     | 4     | 5     | 6     | 7                          | 8       | 9       | 10      |
| 1 Bangalore Urban                                   | 51.33              | 59.03 | 74.83 | 82.94 | 89.07 | 15.00                      | 14.06   | 10.84   | 73.52   |
| 2 Bangalore Rural                                   |                    |       | 55.50 | 61.51 | 66.70 |                            |         | 10.83   |         |
| 3 Belgaum                                           | 44.57              | 49.80 | 58.70 | 66.65 | 73.15 | 11.73                      | 11.29   | 13.54   | 64.12   |
| 4 Bellary                                           | 37.36              | 41.09 | 50.93 | 58.71 | 64.30 | 9.98                       | 16.65   | 15.28   | 72.11   |
| 5 Bidar                                             | 28.05              | 36.90 | 46.85 | 58.97 | 67.48 | 31.55                      | 19.46   | 25.87   | 140.57  |
| 6 Bijapur                                           | 44.89              | 47.41 | 55.62 | 69.69 | 78.01 | 5.61                       | 10.12   | 25.30   | 73.78   |
| 7 Chikmagalur                                       | 44.30              | 50.81 | 62.50 | 70.56 | 77.21 | 14.70                      | 16.87   | 12.90   | 74.29   |
| 8 Chitradurga                                       | 43.05              | 48.71 | 58.77 | 66.88 | 73.48 | 13.15                      | 14.04   | 13.80   | 70.69   |
| 9 Dakshina Kannada                                  | 49.45              | 61.51 | 74.00 | 84.40 | 91.93 | 24.39                      | 14.63   | 14.05   | 85.90   |
| 10 Dharwad                                          | 56.13              | 59.92 | 66.20 | 71.37 | 76.32 | 6.75                       | 3.91    | 7.81    | 35.97   |
| 11 Gulbarga                                         | 28.13              | 34.17 | 44.54 | 52.08 | 57.43 | 21.47                      | 22.91   | 16.93   | 104.16  |
| 12 Hassan                                           | 41.86              | 47.93 | 58.20 | 68.57 | 77.17 | 14.50                      | 14.94   | 17.82   | 84.35   |
| 13 Kodagu                                           | 50.83              | 57.62 | 66.38 | 75.35 | 81.89 | 13.36                      | 10.67   | 13.51   | 61.11   |
| 14 Kolar                                            | 35.78              | 42.08 | 53.04 | 62.69 | 70.20 | 17.61                      | 19.75   | 18.19   | 96.20   |
| 15 Mandya                                           | 30.95              | 36.91 | 48.46 | 59.18 | 67.36 | 19.26                      | 24.65   | 22.12   | 117.64  |
| 16 Mysore                                           | 34.18              | 38.26 | 46.91 | 56.23 | 63.41 | 11.94                      | 16.86   | 19.87   | 85.52   |
| 17 Raichur                                          | 30.39              | 36.45 | 43.99 | 49.53 | 53.60 | 19.94                      | 13.50   | 12.59   | 76.37   |
| 18 Shimoga                                          | 45.19              | 53.46 | 64.28 | 71.24 | 77.26 | 18.30                      | 13.95   | 10.83   | 70.97   |
| 19 Tumkur                                           | 39.38              | 45.95 | 57.99 | 66.49 | 73.33 | 16.68                      | 19.43   | 14.66   | 86.21   |
| 20 Uttara Kannada                                   | 50.98              | 57.67 | 68.91 | 76.39 | 82.03 | 13.12                      | 13.27   | 10.85   | 60.91   |
| STATE                                               | 42.29              | 48.51 | 58.73 | 67.26 | 73.75 | 14.71                      | 14.76   | 14.52   | 74.39   |

**Note :-1** Literacy rates for 1961 & 1971 are effective literacy rates based on census figures excluding the population below 4 years.

2 Literacy rates for 1981 & 1991 are based on census figures excluding population below 6 years.

3 Literacy rates for 1996 are estimated ones from "Literacy Rate 1996" of the Department of Public Instruction.

4 For working out growth rates for 1971-81, population figures from censuses of respective years excluding population below 4 years, have been taken into account. For working out growth rates for 1981-91, population figures from censuses of respective years excluding population below 6 years has been taken into account.

## 7. EDUCATION

|          |                     | Growth in female literacy rate 1961 to 1996 (percent) |       |        |       |       |                              |         |         |         |
|----------|---------------------|-------------------------------------------------------|-------|--------|-------|-------|------------------------------|---------|---------|---------|
| District |                     | Female literacy rate                                  |       |        |       |       | Growth in literacy (females) |         |         |         |
|          |                     | 1961                                                  | 1971  | 1981   | 1991  | 1996  | 1961-71                      | 1971-81 | 1981-91 | 1961-96 |
|          |                     | 11                                                    | 12    | 13     | 14    | 15    | 16                           | 17      | 18      | 19      |
| 1        | Bangalore Urban     | 27.19                                                 | 38.70 | 36.40  | 68.81 | 77.52 | 42.33                        | 24.63   | 22.00   | 185.10  |
| 2        | Bangalore Rural     |                                                       |       | 31.27  | 38.15 | 43.40 |                              |         | 22.00   |         |
| 3        | Belgaum             | 16.00                                                 | 21.50 | 28.96  | 38.69 | 46.07 | 34.38                        | 28.00   | 33.60   | 187.94  |
| 4        | Bellary             | 10.75                                                 | 17.04 | 23.43  | 31.97 | 38.10 | 58.51                        | 32.75   | 36.45   | 254.42  |
| 5        | Bidar               | 5.48                                                  | 10.44 | 17.11  | 30.53 | 41.60 | 90.51                        | 57.18   | 78.43   | 659.12  |
| 6        | Bijapur             | 12.41                                                 | 16.84 | 22.43  | 40.06 | 53.54 | 35.70                        | 26.31   | 78.60   | 331.43  |
| 7        | Chikmagalur         | 19.65                                                 | 29.74 | 40.47  | 51.31 | 59.51 | 51.35                        | 29.46   | 26.79   | 202.85  |
| 8        | Chitradurga         | 14.87                                                 | 23.62 | 37.72  | 43.36 | 51.42 | 58.84                        | 31.84   | 14.95   | 245.80  |
| 9        | Dakshina<br>Kannada | 28.06                                                 | 40.50 | 52.99  | 67.96 | 78.50 | 44.33                        | 25.70   | 28.25   | 179.70  |
| 10       | Dharwad             | 22.05                                                 | 29.40 | 36.23  | 45.20 | 52.00 | 33.33                        | 16.53   | 24.76   | 135.83  |
| 11       | Gulbarga            | 6.08                                                  | 10.19 | 15.99  | 24.49 | 30.91 | 67.60                        | 50.74   | 53.16   | 408.39  |
| 12       | Hassan              | 15.19                                                 | 23.15 | 31.57  | 44.90 | 55.14 | 52.40                        | 29.94   | 42.22   | 26300   |
| 13       | Kodagu              | 33.35                                                 | 43.88 | 51.00  | 61.22 | 68.42 | 31.57                        | 11.99   | 20.04   | 105.16  |
| 14       | Kolar               | 13.20                                                 | 19.96 | 26.93  | 37.75 | 46.03 | 51.21                        | 29.66   | 40.18   | 248.71  |
| 15       | Mandya              | 9.26                                                  | 15.30 | 23.82  | 36.70 | 46.92 | 65.23                        | 49.15   | 54.07   | 406.70  |
| 16       | Mysore              | 14.83                                                 | 20.56 | 27.35  | 37.95 | 46.04 | 38.64                        | 27.48   | 38.76   | 210.45  |
| 17       | Raichur             | 6.11                                                  | 10.99 | 116.14 | 22.15 | 26.47 | 79.87                        | 40.49   | 37.24   | 333.22  |
| 18       | Shimoga             | 19.99                                                 | 31.67 | 41.41  | 51.42 | 59.02 | 58.43                        | 24.41   | 24.17   | 195.25  |
| 19       | Tumkur              | 12.59                                                 | 21.29 | 29.94  | 41.93 | 51.10 | 69.10                        | 34.34   | 40.05   | 305.88  |
| 20       | Uttara Kannada      | 27.18                                                 | 36.49 | 46.55  | 56.77 | 63.96 | 34.25                        | 21.51   | 21.95   | 135.32  |
| STATE    |                     | 16.70                                                 | 24.56 | 33.17  | 44.34 | 52.65 | 47.07                        | 28.99   | 33.68   | 215.27  |

- Note :-**
- 1 Literacy rates for 1961 & 1971 are effective literacy rates based on census figures excluding the population below 4 years.
  - 2 Literacy rates for 1981 & 1991 are based on census figures excluding population below 6 years.
  - 3 Literacy rates for 1996 are estimated ones from "Literacy Rate 1996" of the Department of Public Instruction.
  - 4 For! working out growth rates for 1971-81, population figures from censuses of respective years excluding population below 4 years have been taken into account. For! working out growth rates for 1981-91, population figures from censuses of respective years excluding population below 6 years has been taken into account.

## 7. EDUCATION

| Growth in literacy 1961 to 1996 (percent) |                     |       |       |       |       |                    |         |         |         |
|-------------------------------------------|---------------------|-------|-------|-------|-------|--------------------|---------|---------|---------|
| District                                  | Total literacy rate |       |       |       |       | Growth in literacy |         |         |         |
|                                           | 1961                | 1971  | 1981  | 1991  | 1996  | 1961-71            | 1971-81 | 1981-91 | 1961-96 |
|                                           | 20                  | 21    | 22    | 23    | 24    | 25                 | 26      | 27      | 28      |
| 1 Bangalore Urban                         | 39.86               | 49.41 | 66.15 | 76.27 | 83.61 | 23.96              | 17.89   | 15.30   | 109.76  |
| 2 Bangalore Rural                         |                     |       | 43.78 | 50.17 | 55.38 |                    |         | 14.60   |         |
| 3 Belgaum                                 | 30.67               | 36.06 | 44.18 | 53.00 | 59.93 | 17.57              | 15.92   | 19.96   | 95.40   |
| 4 Bellary                                 | 24.37               | 29.30 | 37.35 | 45.57 | 51.45 | 20.23              | 20.41   | 22.01   | 111.12  |
| 5 Bidar                                   | 16.96               | 23.97 | 32.17 | 45.11 | 54.95 | 41.33              | 26.99   | 40.22   | 224.00  |
| 6 Bijapur                                 | 28.84               | 32.34 | 39.14 | 55.13 | 66.05 | 12.14              | 13.98   | 40.85   | 129.02  |
| 7 Chikmagalur                             | 32.72               | 40.68 | 51.79 | 61.05 | 68.40 | 24.33              | 20.97   | 17.88   | 109.05  |
| 8 Chitradurga                             | 29.46               | 36.61 | 46.19 | 55.48 | 62.76 | 24.27              | 19.53   | 20.11   | 113.03  |
| 9 Dakshina<br>Kannada                     | 38.22               | 50.63 | 63.11 | 75.86 | 84.96 | 32.47              | 19.24   | 20.20   | 122.29  |
| 10 Dharwad                                | 39.55               | 45.13 | 51.61 | 58.68 | 64.55 | 14.11              | 7.76    | 13.70   | 63.21   |
| 11 Gulbarga                               | 17.18               | 22.29 | 30.38 | 38.54 | 44.50 | 29.74              | 29.25   | 26.86   | 159.02  |
| 12 Hassan                                 | 28.79               | 35.73 | 45.00 | 56.85 | 66.07 | 24.11              | 19.48   | 26.33   | 129.49  |
| 13 Kodagu                                 | 42.83               | 51.12 | 58.98 | 68.35 | 75.11 | 19.36              | 10.97   | 15.89   | 75.37   |
| 14 Kolar                                  | 24.72               | 31.30 | 40.22 | 50.45 | 58.34 | 26.62              | 22.49   | 25.44   | 136.00  |
| 15 Mandya                                 | 20.33               | 26.34 | 36.45 | 48.15 | 57.29 | 29.56              | 31.78   | 32.10   | 181.80  |
| 16 Mysore                                 | 24.80               | 29.71 | 37.40 | 47.32 | 54.94 | 19.80              | 20.20   | 26.52   | 121.53  |
| 17 Raichur                                | 18.35               | 23.84 | 30.13 | 35.96 | 40.17 | 29.92              | 19.51   | 19.35   | 118.91  |
| 18 Shimoga                                | 33.40               | 42.98 | 53.20 | 61.53 | 68.27 | 28.68              | 17.45   | 15.66   | 104.40  |
| 19 Tumkur                                 | 26.32               | 33.96 | 44.25 | 54.48 | 62.47 | 29.03              | 23.67   | 23.12   | 137.35  |
| 20 Uttara Kannada                         | 39.46               | 47.32 | 57.95 | 66.73 | 73.12 | 19.92              | 16.34   | 15.15   | 85.30   |
| STATE                                     | 29.80               | 36.83 | 46.21 | 56.04 | 63.42 | 23.59              | 19.25   | 21.27   | 112.82  |

- Note :-**
- 1 Literacy rates for 1961 & 1971 are effective literacy rates based on census figures excluding the population below 4 years.
  - 2 Literacy rates for 1981 & 1991 are based on census figures excluding population below 6 years.
  - 3 Literacy rates for 1996 are estimated ones from "Literacy Rate 1996" of the Department of Public Instruction.
  - 4 For working out growth rates for 1971-81, population figures from censuses of respective years excluding population below 4 years, have been taken into account. For working out growth rates for 1981-91, population figures from censuses of respective years excluding population below 6 years has been taken into account.

## 7. EDUCATION

| District               | Literacy rates - rural, urban, male and female 1991 |        |       |       |        |       |       |        |       |
|------------------------|-----------------------------------------------------|--------|-------|-------|--------|-------|-------|--------|-------|
|                        | Rural                                               |        |       | Urban |        |       | Total |        |       |
|                        | Male                                                | Female | total | Male  | Female | Total | Male  | Female | Total |
|                        | 29                                                  | 30     | 31    | 32    | 33     | 34    | 35    | 36     | 37    |
| 1 Bangalore            | 67.97                                               | 44.09  | 56.68 | 85.28 | 72.68  | 79.53 | 82.94 | 68.81  | 76.27 |
| 2 Bangalore Rural      | 58.61                                               | 33.43  | 46.37 | 74.56 | 59.68  | 67.39 | 61.51 | 38.15  | 50.17 |
| 3 Belgaum              | 61.23                                               | 31.07  | 46.47 | 83.54 | 62.99  | 73.59 | 66.65 | 38.69  | 53.00 |
| 4 Bellary              | 52.73                                               | 24.34  | 38.71 | 71.93 | 49.32  | 60.93 | 58.71 | 31.97  | 45.57 |
| 5 Bidar                | 53.85                                               | 24.51  | 39.43 | 78.76 | 55.91  | 68.03 | 58.97 | 30.53  | 45.11 |
| 6 Bijapur              | 66.09                                               | 35.29  | 50.91 | 80.88 | 55.27  | 68.42 | 69.69 | 40.06  | 55.13 |
| 7 Chikmagalur          | 67.59                                               | 47.19  | 57.46 | 84.73 | 72.03  | 78.59 | 70.56 | 51.31  | 60.05 |
| 8 Chitradurga          | 61.36                                               | 31.42  | 48.69 | 81.20 | 65.05  | 73.52 | 66.88 | 43.36  | 55.48 |
| 9 Coorg                | 72.79                                               | 58.16  | 65.50 | 88.43 | 77.76  | 83.27 | 75.35 | 61.22  | 68.35 |
| 10 Dakshina<br>Kannada | 81.65                                               | 64.00  | 72.37 | 90.87 | 78.21  | 84.51 | 84.40 | 67.96  | 75.86 |
| 11 Dharwad             | 66.70                                               | 37.13  | 52.34 | 79.82 | 59.93  | 70.20 | 71.37 | 45.20  | 58.68 |
| 12 Gulbarga            | 44.32                                               | 16.06  | 30.36 | 75.86 | 51.87  | 64.36 | 52.08 | 24.49  | 38.54 |
| 13 Hassan              | 65.51                                               | 39.56  | 52.40 | 84.02 | 71.08  | 77.76 | 68.57 | 44.90  | 56.85 |
| 14 Kolar               | 56.79                                               | 29.06  | 43.16 | 81.63 | 66.15  | 74.09 | 62.69 | 37.75  | 50.45 |
| 15 Mandya              | 55.89                                               | 32.12  | 44.19 | 75.75 | 60.66  | 68.46 | 59.18 | 36.70  | 48.15 |
| 16 Mysore              | 46.01                                               | 25.53  | 36.00 | 79.69 | 66.91  | 73.50 | 56.23 | 37.95  | 47.32 |
| 17 Raichur             | 44.26                                               | 16.48  | 30.42 | 68.53 | 43.59  | 56.38 | 49.53 | 22.15  | 35.96 |
| 18 Shimoga             | 66.38                                               | 44.24  | 55.48 | 84.23 | 71.35  | 78.01 | 71.24 | 51.42  | 61.53 |
| 19 Tumkur              | 63.00                                               | 36.98  | 50.23 | 82.51 | 67.79  | 75.61 | 66.49 | 41.93  | 54.48 |
| 20 Uttara<br>Kannada   | 72.58                                               | 51.31  | 62.10 | 88.12 | 73.79  | 81.10 | 76.39 | 56.77  | 66.73 |
| STATE                  | 60.30                                               | 34.76  | 47.69 | 82.04 | 65.74  | 74.20 | 67.26 | 44.34  | 56.04 |

Source :- Census 1991

## 7. EDUCATION

| District           | Literacy rates of SCs 1961 and 1991 (percent) |       |        |                                  |       |        |                                   |        |         |
|--------------------|-----------------------------------------------|-------|--------|----------------------------------|-------|--------|-----------------------------------|--------|---------|
|                    | % of literate SC population 1961              |       |        | % of literate SC population 1991 |       |        | Growth in literacy (SCs) 1961 -91 |        |         |
|                    | Persons                                       | Male  | Female | Persons                          | Male  | Female | Persons                           | Male   | Female  |
|                    | 38                                            | 39    | 40     | 41                               | 42    | 43     | 44                                | 45     | 46      |
| 1 Bangalore        | 13.05                                         | 20.31 | 5.44   | 57.28                            | 67.00 | 46.84  | 339.00                            | 229.86 | 760.33  |
| Urban              |                                               |       |        | 35.58                            | 47.67 | 22.83  |                                   |        |         |
| 3 Belgaum          | 13.86                                         | 22.77 | 4.76   | 41.38                            | 56.56 | 25.80  | 198.48                            | 148.36 | 441.67  |
| 4 Bellary          | 6.95                                          | 12.36 | 1.46   | 29.70                            | 42.02 | 17.20  | 327.20                            | 239.85 | 1081.65 |
| 5 Bidar            | 4.12                                          | 7.31  | 1.02   | 34.09                            | 46.12 | 21.36  | 727.06                            | 531.33 | 1991.19 |
| 6 Bijapur          | 9.34                                          | 15.90 | 2.96   | 43.22                            | 57.98 | 28.16  | 362.84                            | 264.64 | 852.58  |
| 7 Chikmagalur      | 7.77                                          | 12.49 | 2.59   | 35.17                            | 45.36 | 24.60  | 352.51                            | 263.31 | 851.58  |
| 8 Chitradurga      | 8.88                                          | 15.18 | 2.23   | 36.43                            | 48.69 | 23.35  | 310.04                            | 220.76 | 948.20  |
| 9 Dakshina Kannada | 9.52                                          | 13.74 | 5.35   | 56.05                            | 64.82 | 47.19  | 488.92                            | 371.89 | 782.37  |
| 10 Dharwad         | 14.96                                         | 24.47 | 5.32   | 40.64                            | 53.68 | 26.92  | 171.71                            | 119.40 | 406.35  |
| 11 Gulbarga        | 3.87                                          | 7.10  | 0.63   | 25.82                            | 37.05 | 12.80  | 567.25                            | 421.81 | 1927.36 |
| 12 Hassan          | 6.96                                          | 11.60 | 2.06   | 35.05                            | 46.54 | 23.47  | 403.90                            | 301.37 | 1041.51 |
| 13 Kodagu          | 11.47                                         | 16.53 | 5.60   | 45.74                            | 55.40 | 35.96  | 298.78                            | 235.13 | 541.94  |
| 14 Kolar           | 9.65                                          | 15.48 | 3.49   | 37.02                            | 48.62 | 25.22  | 283.59                            | 214.08 | 622.39  |
| 15 Mandya          | 9.30                                          | 15.54 | 2.88   | 39.08                            | 49.92 | 27.82  | 320.04                            | 221.32 | 866.27  |
| 16 Mysore          | 7.76                                          | 12.75 | 2.56   | 34.98                            | 44.06 | 25.42  | 350.84                            | 245.68 | 893.13  |
| 17 Raichur         | 4.20                                          | 7.62  | 0.83   | 21.25                            | 31.87 | 10.61  | 405.46                            | 317.98 | 1172.78 |
| 18 Shimoga         | 8.16                                          | 13.38 | 2.47   | 36.86                            | 48.09 | 24.99  | 351.86                            | 259.40 | 910.20  |
| 19 Tumkur          | 7.78                                          | 13.37 | 1.85   | 36.99                            | 48.79 | 24.56  | 375.37                            | 264.84 | 1228.04 |
| 20 Uttara Kannada  | 15.46                                         | 23.17 | 7.23   | 50.18                            | 61.40 | 38.66  | 224.63                            | 165.04 | 434.89  |
| STATE              | 9.06                                          | 14.87 | 3.04   | 38.06                            | 49.69 | 25.95  | 320.00                            | 234.21 | 752.59  |

**Source :-** Census data of 1961 and 1991 - Director Census Operations Karnataka

SCs :- Scheduled Castes



## 2. HUMAN DEVELOPMENT INDEX

| District               | Life expect-<br>ancy<br>at birth<br>1991 | Adult<br>literacy<br>rate<br>1991 | Adult<br>literacy<br>index<br>1991 | Combined<br>enrolment<br>(1st to Xth<br>class)<br>ratio 1991 | Enrol-<br>ment<br>index<br>1991 | GDP<br>per<br>capita<br>(in Rs.) | Real GDP<br>per capita PPP\$<br>1991<br>Value | Rank |
|------------------------|------------------------------------------|-----------------------------------|------------------------------------|--------------------------------------------------------------|---------------------------------|----------------------------------|-----------------------------------------------|------|
| 1                      | 2                                        | 3                                 | 4                                  | 5                                                            | 6                               | 7                                | 8                                             | 9    |
| 1 Bangalore            | 65.78                                    | 73.49                             | 0.73                               | 84.8                                                         | 0.85                            | 9242                             | 1958                                          | 2    |
| 2 Bangalore Rural      | 66.69                                    | 42.38                             | 0.42                               | 79.8                                                         | 0.80                            | 4788                             | 1015                                          | 10   |
| 3 Belgaum              | 65.08                                    | 47.17                             | 0.47                               | 73.6                                                         | 0.74                            | 5088                             | 1078                                          | 6    |
| 4 Bellary              | 60.32                                    | 41.04                             | 0.41                               | 72.7                                                         | 0.73                            | 4995                             | 1058                                          | 7    |
| 5 Bidar                | 63.74                                    | 38.18                             | 0.38                               | 70.3                                                         | 0.70                            | 3555                             | 753                                           | 20   |
| 6 Bijapur              | 62.76                                    | 48.61                             | 0.49                               | 68.4                                                         | 0.68                            | 4181                             | 886                                           | 15   |
| 7 Chikmagalur          | 64.62                                    | 55.66                             | 0.56                               | 79.4                                                         | 0.79                            | 7348                             | 1557                                          | 3    |
| 8 Chitradurga          | 61.92                                    | 50.08                             | 0.50                               | 85.6                                                         | 0.86                            | 4534                             | 961                                           | 12   |
| 9 Dakshina<br>Kannada  | 68.82                                    | 71.22                             | 0.71                               | 100.0                                                        | 1.00                            | 6384                             | 1353                                          | 4    |
| 10 Dharwad             | 62.78                                    | 53.75                             | 0.54                               | 72.8                                                         | 0.73                            | 4158                             | 881                                           | 16   |
| 11 Gulbarga            | 63.98                                    | 33.83                             | 0.34                               | 58.6                                                         | 0.59                            | 4592                             | 973                                           | 11   |
| 12 Hassan              | 65.40                                    | 50.58                             | 0.51                               | 76.9                                                         | 0.77                            | 4288                             | 909                                           | 14   |
| 13 Kodagu              | 68.04                                    | 64.56                             | 0.65                               | 92.4                                                         | 0.92                            | 11270                            | 2388                                          | 1    |
| 14 Kolar               | 62.87                                    | 43.58                             | 0.44                               | 82.1                                                         | 0.82                            | 3787                             | 802                                           | 19   |
| 15 Mandya              | 63.97                                    | 40.14                             | 0.40                               | 78.7                                                         | 0.79                            | 4309                             | 913                                           | 13   |
| 16 Mysore              | 63.25                                    | 41.93                             | 0.42                               | 69.0                                                         | 0.69                            | 4805                             | 1018                                          | 9    |
| 17 Raichur             | 65.55                                    | 32.64                             | 0.33                               | 49.7                                                         | 0.50                            | 3918                             | 830                                           | 18   |
| 18 Shimoga             | 62.09                                    | 56.52                             | 0.57                               | 81.5                                                         | 0.82                            | 4993                             | 1058                                          | 7    |
| 19 Tumkur              | 60.64                                    | 47.71                             | 0.48                               | 85.3                                                         | 0.85                            | 4091                             | 867                                           | 17   |
| 20 Uttara Kannada      | 66.96                                    | 62.41                             | 0.62                               | 84.8                                                         | 0.85                            | 5480                             | 1161                                          | 5    |
| STATE                  | 62.07                                    | 50.94                             | 0.51                               | 77.0                                                         | 0.77                            | 5357                             | 1135                                          |      |
| Maximum:-<br>Minimum:- | 85<br>25                                 | 100<br>0                          |                                    |                                                              | 100<br>0                        |                                  |                                               |      |

Source:-Working Group (HDR), GOK.

## 7. EDUCATION

| District              | Literacy rates of ST population 1961 and 1991 (percent) |       |        |                        |       |        |                                   |         |          |
|-----------------------|---------------------------------------------------------|-------|--------|------------------------|-------|--------|-----------------------------------|---------|----------|
|                       | % of literate STs 1961                                  |       |        | % of literate STs 1991 |       |        | Growth in literacy (STs) 1961 -91 |         |          |
|                       | Persons                                                 | Male  | Female | Persons                | Male  | Female | Persons                           | Male    | Female   |
|                       | 47                                                      | 48    | 49     | 50                     | 51    | 52     | 53                                | 54      | 55       |
| 1 Bangalore           | 6.81                                                    | 10.94 | 2.05   | 62.02                  | 71.64 | 51.53  | 810.28                            | 555.03  | 2419.11  |
| Urban                 |                                                         |       |        | 37.57                  | 49.24 | 25.03  |                                   |         |          |
| 3 Belgaum             | 8.40                                                    | 14.85 | 1.75   | 33.98                  | 48.42 | 19.18  | 304.48                            | 225.95  | 996.75   |
| 4 Bellary             | 16.38                                                   | 26.71 | 6.15   | 26.84                  | 38.51 | 15.05  | 63.83                             | 44.19   | 144.56   |
| 5 Bidar               | 4.45                                                    | 5.60  | 3.28   | 29.18                  | 42.77 | 14.89  | 555.00                            | 664.16  | 354.58   |
| 6 Bijapur             | 14.19                                                   | 23.80 | 3.99   | 44.29                  | 58.81 | 29.13  | 212.02                            | 147.12  | 629.85   |
| 7 Chikmagalur         | 8.10                                                    | 11.52 | 4.26   | 39.89                  | 49.37 | 30.08  | 392.69                            | 328.63  | 606.46   |
| 8 Chitradurga         | 21.71                                                   | 31.07 | 2.04   | 38.74                  | 51.98 | 24.73  | 78.44                             | 67.31   | 1111.77  |
| 9 Dakshina<br>Kannada | 9.39                                                    | 14.73 | 4.07   | 60.18                  | 68.95 | 51.40  | 541.16                            | 367.96  | 1164.3   |
| 10 Dharwad            | 15.56                                                   | 25.42 | 5.73   | 46.92                  | 62.50 | 30.13  | 201.45                            | 145.85  | 425.70   |
| 11 Gulbarga           | 0.30                                                    | 0.57  | 5.73   | 21.64                  | 33.30 | 9.37   | 7214.32                           | 5785.78 | 93700.00 |
| 12 Hassan             | 3.35                                                    | 5.13  | 1.01   | 40.12                  | 52.72 | 27.37  | 1095.83                           | 927.06  | 2623.32  |
| 13 Kodagu             | 4.00                                                    | 6.09  | 1.66   | 25.47                  | 29.27 | 21.48  | 536.21                            | 380.68  | 1197.86  |
| 14 Kolar              | 8.17                                                    | 11.35 | 4.95   | 31.41                  | 43.65 | 18.69  | 284.25                            | 284.54  | 277.95   |
| 15 Mandya             | 6.52                                                    | 10.69 | 0.85   | 37.55                  | 47.86 | 26.69  | 475.77                            | 347.63  | 3022.73  |
| 16 Mysore             | 1.89                                                    | 3.38  | 0.33   | 31.51                  | 40.23 | 22.50  | 1565.17                           | 1088.93 | 6737.50  |
| 17 Raichur            | 13.33                                                   | 18.52 | 5.56   | 17.27                  | 27.91 | 6.47   | 29.53                             | 50.71   | 16.46    |
| 18 Shimoga            | 7.96                                                    | 12.64 | 3.27   | 43.45                  | 55.40 | 30.87  | 445.53                            | 338.29  | 842.75   |
| 19 Tumkur             | 7.96                                                    | 12.39 | 2.72   | 43.82                  | 56.46 | 30.47  | 450.49                            | 355.86  | 1021.30  |
| 20 Uttara<br>Kannada  | 14.79                                                   | 21.18 | 6.68   | 35.09                  | 45.72 | 23.76  | 137.19                            | 115.89  | 255.83   |
| STATE                 | 8.15                                                    | 13.24 | 2.81   | 36.01                  | 47.95 | 23.57  | 341.98                            | 262.29  | 738.35   |

Source Census data of 1961 and 1991 - Director Census Operations Karnataka

STs:- Scheduled Tribe

## 7. EDUCATION

| District              | Growth in primary schools 1968-69 to 1997-98 |         |       |         |         |       |         |         |       |
|-----------------------|----------------------------------------------|---------|-------|---------|---------|-------|---------|---------|-------|
|                       | 1968-69                                      |         |       | 1980-81 |         |       | 1986-87 |         |       |
|                       | Govt.                                        | Private | Total | Govt.   | Private | Total | Govt.   | Private | Total |
|                       | 56                                           | 57      | 58    | 59      | 60      | 61    | 62      | 63      | 64    |
| 1 Bangalore Urban     | 386                                          | 215     | 601   | 675     | 723     | 1398  | 725     | 1131    | 1856  |
| 2 Bangalore Rural     | 2578                                         | 77      | 2655  | 2326    | 17      | 2343  | 2468    | 75      | 2543  |
| 3 Belgaum             | 1946                                         | 54      | 2000  | 2170    | 55      | 2225  | 2291    | 78      | 2369  |
| 4 Bellary             | 1119                                         | 21      | 1140  | 1225    | 33      | 1258  | 1267    | 74      | 1341  |
| 5 Bidar               | 692                                          | 4       | 696   | 720     | 34      | 754   | 781     | 189     | 970   |
| 6 Bijapur             | 1933                                         | 26      | 1959  | 1927    | 24      | 1951  | 2056    | 143     | 2199  |
| 7 Chikmagalur         | 1227                                         | 10      | 1237  | 1275    | 25      | 1300  | 1319    | 36      | 1355  |
| 8 Chitradurga         | 1645                                         | 12      | 1657  | 1893    | 33      | 1926  | 1938    | 77      | 2015  |
| 9 Dakshina<br>Kannada | 1083                                         | 479     | 1562  | 1170    | 506     | 1676  | 1297    | 534     | 1831  |
| 10 Dharwad            | 1792                                         | 66      | 1858  | 1876    | 68      | 1944  | 1973    | 163     | 2136  |
| 11 Gulbarga           | 1534                                         | 12      | 1546  | 1646    | 45      | 1691  | 1737    | 234     | 1971  |
| 12 Hassan             | 1824                                         | 26      | 1850  | 2138    | 32      | 2170  | 2270    | 69      | 2339  |
| 13 Kodagu             | 345                                          | 8       | 353   | 358     | 14      | 372   | 374     | 39      | 413   |
| 14 Kolar              | 2115                                         | 54      | 2169  | 2376    | 51      | 2427  | 2663    | 131     | 2794  |
| 15 Mandya             | 1449                                         | 12      | 1461  | 1559    | 21      | 1580  | 1681    | 69      | 1750  |
| 16 Mysore             | 2121                                         | 89      | 2210  | 2272    | 123     | 2395  | 2344    | 315     | 2659  |
| 17 Raichur            | 1395                                         | 5       | 1400  | 1444    | 25      | 1469  | 1500    | 53      | 1553  |
| 18 Shimoga            | 1826                                         | 21      | 1847  | 1954    | 30      | 1984  | 2085    | 85      | 2170  |
| 19 Tumkur             | 2559                                         | 8       | 2567  | 2628    | 18      | 2646  | 2833    | 86      | 2919  |
| 20 Uttara Kannada     | 1422                                         | 29      | 1451  | 1573    | 34      | 1607  | 1702    | 48      | 1750  |
| STATE                 | 30991                                        | 1228    | 32219 | 33205   | 1911    | 35116 | 35304   | 3629    | 38933 |

**Source :-** Commissioner for Public Instruction, Government of Karnataka.

## 7. EDUCATION

| District              | Growth in primary schools 1968-69 to 1997-98 (Contd.,) |             |              |              |             |              |              |             |              |
|-----------------------|--------------------------------------------------------|-------------|--------------|--------------|-------------|--------------|--------------|-------------|--------------|
|                       | 1993-94                                                |             |              | 1996-97      |             |              | 1997-98      |             |              |
|                       | Govt.                                                  | Private     | Total        | Govt.        | Private     | Total        | Govt.        | Private     | Total        |
|                       | 65                                                     | 66          | 67           | 68           | 69          | 70           | 71           | 72          | 73           |
| 1 Bangalore Urban     | 1196                                                   | 1089        | 2285         | 1223         | 1415        | 2638         | 1303         | 1500        | 2803         |
| 2 Bangalore Rural     | 2070                                                   | 86          | 2156         | 2234         | 188         | 2422         | 2359         | 203         | 2562         |
| 3 Belgaum             | 2398                                                   | 223         | 2621         | 2572         | 297         | 2869         | 2622         | 332         | 2954         |
| 4 Bellary             | 1263                                                   | 116         | 1379         | 1373         | 219         | 1592         | 1332         | 239         | 1571         |
| 5 Bidar               | 759                                                    | 173         | 932          | 762          | 190         | 952          | 821          | 195         | 1016         |
| 6 Bijapur             | 2050                                                   | 287         | 2337         | 2196         | 473         | 2669         | 2300         | 497         | 2797         |
| 7 Chikmagalur         | 1327                                                   | 53          | 1380         | 1431         | 82          | 1513         | 1461         | 90          | 1551         |
| 8 Chitradurga         | 1855                                                   | 298         | 2153         | 2149         | 245         | 2394         | 2238         | 262         | 2500         |
| 9 Dakshina<br>Kannada | 1360                                                   | 554         | 1914         | 1409         | 611         | 2020         | 1459         | 618         | 2077         |
| 10 Dharwad            | 2037                                                   | 231         | 2268         | 2105         | 355         | 2460         | 2205         | 398         | 2603         |
| 11 Gulbarga           | 1783                                                   | 303         | 2086         | 1781         | 344         | 2125         | 1900         | 354         | 2254         |
| 12 Hassan             | 2170                                                   | 144         | 2314         | 2339         | 103         | 2442         | 2407         | 115         | 2522         |
| 13 Kodagu             | 397                                                    | 29          | 426          | 386          | 46          | 432          | 387          | 51          | 438          |
| 14 Kolar              | 2609                                                   | 219         | 2828         | 3066         | 323         | 3389         | 3121         | 355         | 3476         |
| 15 Mandya             | 1736                                                   | 119         | 1855         | 1742         | 184         | 1926         | 1752         | 209         | 1961         |
| 16 Mysore             | 2322                                                   | 279         | 2601         | 2444         | 386         | 2830         | 2534         | 406         | 2940         |
| 17 Raichur            | 1515                                                   | 100         | 1615         | 1725         | 159         | 1884         | 1811         | 182         | 1993         |
| 18 Shimoga            | 2132                                                   | 159         | 2291         | 2174         | 270         | 2444         | 2283         | 302         | 2585         |
| 19 Tumkur             | 2876                                                   | 177         | 3053         | 3738         | 229         | 3967         | 3885         | 243         | 4128         |
| 20 Uttara Kannada     | 1704                                                   | 42          | 1746         | 2017         | 82          | 2099         | 2079         | 90          | 2169         |
| <b>STATE</b>          | <b>35559</b>                                           | <b>4681</b> | <b>40240</b> | <b>38866</b> | <b>6201</b> | <b>45067</b> | <b>40259</b> | <b>6641</b> | <b>46900</b> |

**Source :-** Commissioner for Public Instruction, Government of Karnataka.

## 7. EDUCATION

| District              | Annual growth in<br>primary school 1968-69<br>to 1997-98(%) |         |       | Growth in high schools 1968-69 to 1997-98 |         |       |         |         |       |
|-----------------------|-------------------------------------------------------------|---------|-------|-------------------------------------------|---------|-------|---------|---------|-------|
|                       |                                                             |         |       | 1968-69                                   |         |       | 1980-81 |         |       |
|                       | Govt.                                                       | Private | Total | Govt.                                     | Private | Total | Govt.   | Private | Total |
|                       | 74                                                          | 75      | 76    | 77                                        | 78      | 79    | 80      | 81      | 82    |
| 1 Bangalore Urban     | 7.66                                                        | 19.28   | 11.82 | 30                                        | 125     | 155   | 38      | 227     | 265   |
| 2 Bangalore Rural     | -0.27                                                       | 5.28    | 0.11  | 27                                        | 71      | 98    | 32      | 75      | 107   |
| 3 Belgaum             | 1.12                                                        | 16.61   | 1.54  | 8                                         | 137     | 145   | 18      | 192     | 210   |
| 4 Bellary             | 0.61                                                        | 33.49   | 1.22  | 32                                        | 32      | 64    | 38      | 44      | 82    |
| 5 Bidar               | 0.60                                                        | 154.03  | 1.48  | 29                                        | 16      | 45    | 40      | 30      | 70    |
| 6 Bijapur             | 0.61                                                        | 58.44   | 1.38  | 17                                        | 82      | 99    | 29      | 109     | 138   |
| 7 Chikmagalur         | 0.62                                                        | 25.81   | 0.82  | 24                                        | 24      | 48    | 32      | 50      | 82    |
| 8 Chitradurga         | 1.16                                                        | 67.20   | 1.64  | 24                                        | 65      | 89    | 49      | 25      | 74    |
| 9 Dakshina<br>Kannada | 1.12                                                        | 0.94    | 1.06  | 53                                        | 101     | 154   | 74      | 133     | 207   |
| 10 Dharwad            | 0.74                                                        | 16.23   | 1.29  | 13                                        | 133     | 146   | 24      | 197     | 221   |
| 11 Gulbarga           | 0.77                                                        | 91.94   | 1.48  | 50                                        | 25      | 75    | 66      | 48      | 114   |
| 12 Hassan             | 1.03                                                        | 11.04   | 1.17  | 48                                        | 20      | 68    | 60      | 46      | 106   |
| 13 Kodagu             | 0.39                                                        | 17.34   | 0.78  | 6                                         | 36      | 42    | 9       | 40      | 49    |
| 14 Kolar              | 1.53                                                        | 17.98   | 1.94  | 41                                        | 36      | 77    | 58      | 54      | 112   |
| 15 Mandya             | 0.67                                                        | 52.96   | 1.10  | 34                                        | 32      | 66    | 44      | 48      | 92    |
| 16 Mysore             | 0.63                                                        | 11.49   | 1.07  | 55                                        | 55      | 110   | 70      | 84      | 154   |
| 17 Raichur            | 0.96                                                        | 114.19  | 1.37  | 35                                        | 15      | 50    | 49      | 25      | 74    |
| 18 Shimoga            | 0.81                                                        | 43.16   | 1.29  | 45                                        | 40      | 85    | 57      | 70      | 127   |
| 19 Tumkur             | 1.67                                                        | 94.76   | 1.96  | 33                                        | 79      | 112   | 45      | 135     | 180   |
| 20 Uttara Kannada     | 1.49                                                        | 6.79    | 1.60  | 7                                         | 95      | 102   | 15      | 117     | 132   |
| STATE                 | 0.96                                                        | 14.22   | 1.47  | 611                                       | 1219    | 1830  | 847     | 1749    | 2596  |

Source :• Commissioner for Public Instruction, Government of Karnataka.

## 7. EDUCATION

| District              | Growth in high schools 1968-69 to 1997-98 |         |       |         |         |       |         |         |       |
|-----------------------|-------------------------------------------|---------|-------|---------|---------|-------|---------|---------|-------|
|                       | 1986-87                                   |         |       | 1993-94 |         |       | 1996-97 |         |       |
|                       | Govt.                                     | Private | Total | Govt.   | Private | Total | Govt.   | Private | Total |
|                       | 83                                        | 84      | 85    | 86      | 87      | 88    | 89      | 90      | 91    |
| 1 Bangalore Urban     | 66                                        | 330     | 396   | 104     | 489     | 593   | 95      | 873     | 968   |
| 2 Bangalore Rural     | 63                                        | 121     | 184   | 78      | 159     | 237   | 97      | 204     | 301   |
| 3 Belgaum             | 59                                        | 288     | 347   | 92      | 251     | 343   | 118     | 488     | 606   |
| 4 Bellary             | 57                                        | 93      | 150   | 83      | 143     | 226   | 86      | 145     | 231   |
| 5 Bidar               | 57                                        | 97      | 154   | 92      | 118     | 210   | 91      | 67      | 158   |
| 6 Bijapur             | 46                                        | 249     | 295   | 83      | 301     | 384   | 93      | 315     | 408   |
| 7 Chikmagalur         | 53                                        | 100     | 153   | 61      | 145     | 206   | 82      | 175     | 257   |
| 8 Chitradurga         | 84                                        | 227     | 311   | 108     | 256     | 364   | 121     | 213     | 334   |
| 9 Dakshina<br>Kannada | 120                                       | 192     | 312   | 152     | 221     | 373   | 180     | 230     | 410   |
| 10 Dharwad            | 80                                        | 296     | 376   | 121     | 457     | 578   | 127     | 496     | 623   |
| 11 Gulbarga           | 128                                       | 87      | 215   | 177     | 136     | 313   | 190     | 191     | 381   |
| 12 Hassan             | 118                                       | 119     | 237   | 143     | 183     | 326   | 148     | 97      | 245   |
| 13 Kodagu             | 19                                        | 70      | 89    | 27      | 61      | 88    | 30      | 74      | 104   |
| 14 Kolar              | 97                                        | 101     | 198   | 112     | 141     | 253   | 137     | 185     | 322   |
| 15 Mandya             | 75                                        | 89      | 164   | 102     | 98      | 200   | 140     | 134     | 274   |
| 16 Mysore             | 150                                       | 145     | 295   | 137     | 159     | 296   | 164     | 321     | 485   |
| 17 Raichur            | 82                                        | 59      | 141   | 104     | 77      | 181   | 132     | 94      | 226   |
| 18 Shimoga            | 119                                       | 128     | 247   | 135     | 154     | 289   | 158     | 229     | 387   |
| 19 Tumkur             | 94                                        | 300     | 394   | 117     | 365     | 482   | 136     | 330     | 466   |
| 20 Uttara Kannada     | 48                                        | 148     | 196   | 53      | 151     | 204   | 72      | 188     | 260   |
| STATE                 | 1615                                      | 3239    | 4854  | 2081    | 4065    | 6146  | 2397    | 5049    | 7446  |

## 7. EDUCATION

| Growth in high schools 1968-69 to 1997-98 (Contd.,) |             |             |             |                                                          |              |              |
|-----------------------------------------------------|-------------|-------------|-------------|----------------------------------------------------------|--------------|--------------|
| District                                            | 1997-98     |             |             | Annual growth in high schools<br>1968-69 to 1 997-98 (%) |              |              |
|                                                     | Govt.       | Private     | Total       | Govt.                                                    | Private      | Total        |
|                                                     | 92          | 93          | 94          | 95                                                       | 96           | 97           |
| 1 Bangalore Urban                                   | 107         | 923         | 1030        | 8.28                                                     | 20.59        | 18.21        |
| 2 Bangalore Rural                                   | 110         | 214         | 324         | 9.92                                                     | 6.50         | 7.44         |
| 3 Belgaum                                           | 138         | 506         | 644         | 52.42                                                    | 8.69         | 11.10        |
| 4 Bellary                                           | 95          | 147         | 242         | 6.35                                                     | 11.59        | 8.97         |
| 5 Bidar                                             | 95          | 72          | 167         | 7.34                                                     | 11.29        | 8.75         |
| 6 Bijapur                                           | 111         | 322         | 433         | 17.84                                                    | 9.44         | 10.88        |
| 7 Chikmagalur                                       | 90          | 178         | 268         | 8.87                                                     | 20.70        | 14.78        |
| 8 Chitradurga                                       | 133         | 503         | 636         | 14.65                                                    | 21.74        | 19.83        |
| 9 Dakshina Kannada                                  | 196         | 236         | 432         | 8.70                                                     | 4.31         | 5.82         |
| 10 Dharwad                                          | 145         | 508         | 653         | 32.75                                                    | 9.10         | 11.20        |
| 11 Gulbarga                                         | 204         | 198         | 402         | 9.94                                                     | 22.32        | 14.06        |
| 12 Hassan                                           | 156         | 100         | 256         | 7.26                                                     | 12.90        | 8.92         |
| 13 Kodagu                                           | 34          | 76          | 110         | 15.05                                                    | 3.58         | 5.22         |
| 14 Kolar                                            | 153         | 193         | 346         | 8.81                                                     | 14.07        | 11.27        |
| 15 Mandya                                           | 149         | 146         | 295         | 10.91                                                    | 11.49        | 11.19        |
| 16 Mysore                                           | 180         | 345         | 525         | 7.33                                                     | 17.01        | 12.17        |
| 17 Raichur                                          | 147         | 103         | 250         | 10.32                                                    | 18.92        | 12.90        |
| 18 Shimoga                                          | 170         | 240         | 410         | 8.96                                                     | 16.13        | 12.33        |
| 19 Tumkur                                           | 146         | 333         | 479         | 11.05                                                    | 10.37        | 10.57        |
| 20 Uttara Kannada                                   | 78          | 188         | 266         | 32.72                                                    | 3.16         | 5.19         |
| <b>STATE</b>                                        | <b>2637</b> | <b>5531</b> | <b>8168</b> | <b>10.70</b>                                             | <b>11.41</b> | <b>11.17</b> |

**Source :** Commissioner for Public Instruction, Government of Karnataka.



## 7. EDUCATION

| Growth in enrolment and percentage of girls in primary schools 1966-67 to 1997-98 |                   |         |         |            |                   |         |         |            |
|-----------------------------------------------------------------------------------|-------------------|---------|---------|------------|-------------------|---------|---------|------------|
| District                                                                          | Enrolment 1966-67 |         |         |            | Enrolment 1977-78 |         |         |            |
|                                                                                   | Boys              | Girls   | Total   | % of Girls | Boys              | Girls   | Total   | % of Girls |
|                                                                                   | 98                | 99      | 100     | 101        | 102               | 103     | 104     | 105        |
| 1 Bangalore Urban                                                                 | 100800            | 89929   | 190729  | 47.15      | 217398            | 201577  | 418975  | 48.11      |
| 2 Bangalore Rural                                                                 | 132164            | 94001   | 226165  | 41.56      | 139920            | 100574  | 240494  | 41.82      |
| 3 Belgaum                                                                         | 186738            | 122266  | 309004  | 39.57      | 230516            | 133159  | 363675  | 36.61      |
| 4 Bellary                                                                         | 76509             | 46379   | 122888  | 37.74      | 108239            | 73056   | 181295  | 40.30      |
| 5 Bidar                                                                           | 47492             | 18451   | 65943   | 27.98      | 82694             | 48948   | 131642  | 37.18      |
| 6 Bijapur                                                                         | 157809            | 104916  | 262725  | 39.93      | 177640            | 114882  | 292522  | 39.27      |
| 7 Chikmagalur                                                                     | 54469             | 43369   | 97838   | 44.33      | 71048             | 57806   | 128854  | 44.86      |
| 8 Chitradurga                                                                     | 100566            | 72218   | 172784  | 41.80      | 130461            | 96385   | 226846  | 42.49      |
| 9 Dakshina<br>Kannada                                                             | 154705            | 116226  | 270931  | 42.90      | 217058            | 169825  | 386883  | 43.90      |
| 10 Dharwad                                                                        | 192977            | 140516  | 333493  | 42.13      | 218673            | 164589  | 383262  | 42.94      |
| 11 Gulbarga                                                                       | 105749            | 47356   | 153105  | 30.93      | 148652            | 79958   | 228610  | 34.98      |
| 12 Hassan                                                                         | 63930             | 41684   | 105614  | 39.47      | 105124            | 83065   | 188189  | 44.14      |
| 13 Kodagu                                                                         | 31245             | 24377   | 55622   | 43.83      | 34505             | 27997   | 62502   | 44.79      |
| 14 Kolar                                                                          | 105407            | 69363   | 174770  | 39.69      | 145274            | 102631  | 247905  | 41.40      |
| 15 Mandya                                                                         | 80180             | 56257   | 136437  | 41.23      | 110945            | 78860   | 189805  | 41.55      |
| 16 Mysore                                                                         | 128396            | 95315   | 223711  | 42.61      | 169274            | 129463  | 298737  | 43.34      |
| 17 Raichur                                                                        | 77328             | 36898   | 114226  | 32.30      | 101138            | 55440   | 156578  | 35.41      |
| 18 Shimoga                                                                        | 95897             | 73622   | 169519  | 43.43      | 134968            | 105664  | 240632  | 43.91      |
| 19 Tumkur                                                                         | 118669            | 86808   | 205477  | 42.25      | 153135            | 113839  | 266974  | 42.64      |
| 20 Uttara Kannada                                                                 | 66390             | 56322   | 122712  | 45.90      | 82382             | 67234   | 149616  | 44.94      |
| STATE                                                                             | 2077420           | 1436273 | 3513693 | 40.88      | 2779044           | 2004952 | 4783996 | 41.91      |

Source :- Commissioner for Public Instruction, Government of Karnataka.

## 7. EDUCATION

| Growth in enrolment and percentage of girls in primary schools (Contd.,) |                     |                   |         |         |            |                   |         |         |            |
|--------------------------------------------------------------------------|---------------------|-------------------|---------|---------|------------|-------------------|---------|---------|------------|
| District                                                                 |                     | Enrolment 1980-81 |         |         |            | Enrolment 1986-87 |         |         |            |
|                                                                          |                     | Boys              | Girls   | Total   | % of Girls | Boys              | Girls   | Total   | % Of Girls |
|                                                                          |                     | 106               | 107     | 108     | 109        | 110               | 111     | 112     | 113        |
| 1                                                                        | Bangalore Urban     | 218848            | 193588  | 412436  | 46 .94     | 283447            | 261528  | 544975  | 47.99      |
| 2                                                                        | Bangalore Rural     | 168329            | 127972  | 296301  | 43 .19     | 163089            | 133795  | 296884  | 45.07      |
| 3                                                                        | Belgaum             | 229575            | 172008  | 401583  | 42.83      | 262377            | 204878  | 467255  | 43.85      |
| 4                                                                        | Bellary             | 109420            | 78983   | 188403  | 41.92      | 124758            | 89784   | 214542  | 41.85      |
| 5                                                                        | Bidar               | 87083             | 60124   | 147207  | 40.84      | 109069            | 58362   | 167431  | 34.86      |
| 6                                                                        | Bijapur             | 178671            | 127317  | 305988  | 41.61      | 222184            | 160378  | 382562  | 41.92      |
| 7                                                                        | Chikmagalur         | 75786             | 62224   | 138010  | 45.09      | 72248             | 67006   | 139254  | 48.12      |
| 8                                                                        | Chitradurga         | 136748            | 103193  | 239941  | 43.01      | 146327            | 118512  | 264839  | 44.75      |
| 9                                                                        | Dakshina<br>Kannada | 168483            | 129074  | 297557  | 43.38      | 246254            | 213831  | 460085  | 46.48      |
| 10                                                                       | Dharwad             | 218987            | 163723  | 382710  | 42.78      | 265447            | 219139  | 484586  | 45.22      |
| 11                                                                       | Gulbarga            | 144906            | 100025  | 244931  | 40.84      | 180219            | 109297  | 289516  | 37.75      |
| 12                                                                       | Hassan              | 109376            | 83074   | 192450  | 43.17      | 124941            | 98946   | 223887  | 44.19      |
| 13                                                                       | Kodagu              | 30354             | 24592   | 54946   | 44.76      | 39469             | 34121   | 73590   | 46.37      |
| 14                                                                       | Kolar               | 181967            | 138574  | 320541  | 43.23      | 183656            | 143123  | 326779  | 43.80      |
| 15                                                                       | Mandya              | 107607            | 80295   | 187902  | 42.73      | 125063            | 99129   | 224192  | 44.22      |
| 16                                                                       | Mysore              | 175385            | 134961  | 310346  | 43.49      | 196344            | 159051  | 355395  | 44.75      |
| 17                                                                       | Raichur             | 101628            | 70525   | 172153  | 40 .97     | 126600            | 74224   | 200824  | 36.96      |
| 18                                                                       | Shimoga             | 133138            | 102989  | 236127  | 43.62      | 146991            | 126588  | 273579  | 46.27      |
| 19                                                                       | Tumkur              | 179659            | 131360  | 311019  | 42 .24     | 182095            | 151803  | 333898  | 45.46      |
| 20                                                                       | Uttara Kannada      | 81748             | 64678   | 146426  | 44 .17     | 98153             | 83742   | 181895  | 46.04      |
| STATE                                                                    |                     | 2837698           | 2149279 | 4986977 | 43 .10     | 3298731           | 2607237 | 5905968 | 44.15      |

**Source :-** Commissioner for Public Instruction, Government of Karnataka.

## 7. EDUCATION

|          |                  | Growth in enrolment and percentage of girls in primary schools (Contd.,) |         |         |            |                   |         |         |            |
|----------|------------------|--------------------------------------------------------------------------|---------|---------|------------|-------------------|---------|---------|------------|
| District |                  | Enrolment 1993-94                                                        |         |         |            | Enrolment 1997-98 |         |         |            |
|          |                  | Boys                                                                     | Girls   | Total   | % of Girls | Boys              | Girls   | Total   | % of Girls |
|          |                  | 114                                                                      | 115     | 116     | 117        | 118               | 119     | 120     | 121        |
| 1        | Bangalore Urban  | 462020                                                                   | 408045  | 870065  | 46.90      | 486472            | 469572  | 956044  | 49.12      |
| 2        | Bangalore Rural  | 148825                                                                   | 128671  | 277496  | 46.37      | 144126            | 138245  | 282371  | 48.96      |
| 3        | Belgaum          | 292031                                                                   | 248512  | 540543  | 45.97      | 339521            | 309963  | 649484  | 47.72      |
| 4        | Bellary          | 190782                                                                   | 143375  | 334157  | 42.91      | 203516            | 175775  | 379291  | 46.34      |
| 5        | Bidar            | 161511                                                                   | 131883  | 293394  | 44.95      | 140046            | 132449  | 272495  | 48.61      |
| 6        | Bijapur          | 265586                                                                   | 208048  | 473634  | 43.93      | 349163            | 255110  | 604273  | 42.22      |
| 7        | Chikmagalur      | 87811                                                                    | 85328   | 173139  | 49.28      | 85125             | 78100   | 163225  | 47.85      |
| 8        | Chitradurga      | 204212                                                                   | 175521  | 379733  | 46.22      | 218825            | 188208  | 407033  | 46.24      |
| 9        | Dakshina Kannada | 253097                                                                   | 236566  | 489663  | 48.31      | 261988            | 258475  | 520463  | 49.66      |
| 10       | Dharwad          | 329430                                                                   | 283138  | 612568  | 46.22      | 337744            | 316979  | 654723  | 48.41      |
| 11       | Gulbarga         | 251159                                                                   | 172103  | 423262  | 40.66      | 290501            | 235411  | 525912  | 44.76      |
| 12       | Hassan           | 143297                                                                   | 140443  | 283740  | 49.50      | 129063            | 127087  | 256150  | 49.61      |
| 13       | Kodagu           | 39760                                                                    | 37270   | 77030   | 48.38      | 38313             | 34659   | 72972   | 47.50      |
| 14       | Kolar            | 170618                                                                   | 145233  | 315851  | 45.98      | 209823            | 196613  | 406436  | 48.37      |
| 15       | Mandya           | 144161                                                                   | 125461  | 269622  | 46.53      | 132778            | 123007  | 255785  | 48.09      |
| 16       | Mysore           | 272804                                                                   | 258558  | 531362  | 48.66      | 264302            | 242693  | 506995  | 47.87      |
| 17       | Raichur          | 189384                                                                   | 128456  | 317840  | 40.42      | 220491            | 170076  | 390567  | 43.55      |
| 18       | Shimoga          | 175581                                                                   | 155749  | 331330  | 47.01      | 163206            | 162419  | 325625  | 49.88      |
| 19       | Tumkur           | 204158                                                                   | 181630  | 385788  | 47.08      | 201549            | 190305  | 391854  | 48.57      |
| 20       | Uttara Kannada   | 107689                                                                   | 96989   | 204678  | 47.39      | 106442            | 97720   | 204162  | 47.86      |
| STATE    |                  | 4093916                                                                  | 3490979 | 7584895 | 46.03      | 4322994           | 3902866 | 8225860 | 47.45      |

Source :- Commissioner for Public Instruction, Government of Karnataka.

## 7. EDUCATION

| District           | Annual growth in enrolments<br>primary schools 1966-67<br>to 1997-98 (%) |             |             | Growth in enrolment and percentage<br>of girls in secondary<br>schools 1966-67 to 1997-98 |               |               |              |
|--------------------|--------------------------------------------------------------------------|-------------|-------------|-------------------------------------------------------------------------------------------|---------------|---------------|--------------|
|                    |                                                                          |             |             | 1966-67                                                                                   |               |               |              |
|                    | Boys                                                                     | Girls       | Total       | Boys                                                                                      | Girls         | Total         | % of Girls   |
|                    | 122                                                                      | 123         | 124         | 125                                                                                       | 126           | 127           | 128          |
| 1 Bangalore Urban  | 12.34                                                                    | 13.62       | 12.94       | 51195                                                                                     | 25770         | 76965         | 33.48        |
| 2 Bangalore Rural  | 0.29                                                                     | 1.52        | 0.80        |                                                                                           |               |               |              |
| 3 Belgaum          | 2.13                                                                     | 5.73        | 3.55        | 27747                                                                                     | 7904          | 35651         | 22.17        |
| 4 Bellary          | 5.35                                                                     | 9.00        | 6.73        | 9211                                                                                      | 2021          | 11232         | 17.99        |
| 5 Bidar            | 6.29                                                                     | 19.93       | 10.10       | 5968                                                                                      | 617           | 6585          | 9.37         |
| 6 Bijapur          | 3.91                                                                     | 4.62        | 4.19        | 21587                                                                                     | 3923          | 25510         | 15.38        |
| 7 Chikmagalur      | 1.82                                                                     | 2.58        | 2.16        | 8464                                                                                      | 3148          | 11612         | 27.11        |
| 8 Chitradurga      | 3.79                                                                     | 5.18        | 4.37        | 15913                                                                                     | 4201          | 20114         | 20.89        |
| 9 Dakshina Kannada | 2.24                                                                     | 3.95        | 2.97        | 23655                                                                                     | 13627         | 37282         | 36.55        |
| 10 Dharwad         | 2.42                                                                     | 4.05        | 3.11        | 26663                                                                                     | 7828          | 34491         | 22.70        |
| 11 Gulbarga        | 5.64                                                                     | 12.81       | 7.85        | 10827                                                                                     | 1675          | 12502         | 13.40        |
| 12 Hassan          | 6.76                                                                     | 3.19        | 4.60        | 13530                                                                                     | 4500          | 18030         | 24.96        |
| 13 Kodagu          | 0.73                                                                     | 1.36        | 1.01        | 6282                                                                                      | 4645          | 10927         | 42.51        |
| 14 Kolar           | 3.20                                                                     | 5.92        | 4.28        | 17288                                                                                     | 6156          | 23444         | 26.26        |
| 15 Mandya          | 2.12                                                                     | 3.83        | 2.82        | 11568                                                                                     | 2395          | 13963         | 17.15        |
| 16 Mysore          | 3.41                                                                     | 4.99        | 4.08        | 18421                                                                                     | 8178          | 26599         | 30.75        |
| 17 Raichur         | 5.97                                                                     | 11.64       | 7.80        | 6057                                                                                      | 855           | 6912          | 12.37        |
| 18 Shimoga         | 2.26                                                                     | 3.89        | 2.97        | 16508                                                                                     | 5619          | 22127         | 25.39        |
| 19 Tumkur          | 2.25                                                                     | 3.85        | 2.93        | 21840                                                                                     | 5331          | 27171         | 19.62        |
| 20 Uttara Kannada  | 1.95                                                                     | 2.37        | 2.14        | 11395                                                                                     | 5875          | 17270         | 34.02        |
| <b>STATE</b>       | <b>3.51</b>                                                              | <b>5.47</b> | <b>4.33</b> | <b>324119</b>                                                                             | <b>114268</b> | <b>438387</b> | <b>26.07</b> |

**Source :-** Commissioner for Public Instruction, Government of Karnataka.

## 2. HUMAN DEVELOPMENT INDEX

| District          | Life expectancy (LEB) index | Education index | Income index | HD1 1991 Value | Rank | Real GDP per capita (PPP\$) rank minus HDI rank |
|-------------------|-----------------------------|-----------------|--------------|----------------|------|-------------------------------------------------|
|                   | 10                          | 11              | 12           | 13             | 14   | 15                                              |
| 1 Bangalore       | 0.680                       | 0.773           | 0.352        | 0.601          | 2    | 0                                               |
| 2 Bangalore Rural | 0.695                       | 0.549           | 0.173        | 0.472          | 8    | -2                                              |
| 3 Belgaum         | 0.668                       | 0.560           | 0.185        | 0.471          | 9    | 3                                               |
| 4 Bellary         | 0.589                       | 0.516           | 0.181        | 0.429          | 17   | 10                                              |
| 5 Bidar           | 0.646                       | 0.489           | 0.124        | 0.419          | 18   | -2                                              |
| 6 Bijapur         | 0.629                       | 0.552           | 0.149        | 0.443          | 14   | -1                                              |
| 7 Chikmagalur     | 0.660                       | 0.636           | 0.276        | 0.524          | 5    | 2                                               |
| 8 Chitradurga     | 0.615                       | 0.619           | 0.163        | 0.466          | 10   | -2                                              |
| 9 Dakshina        | 0.730                       | 0.808           | 0.237        | 0.592          | 3    | -1                                              |
| 10 Dharwad        | 0.630                       | 0.601           | 0.148        | 0.459          | 11   | -5                                              |
| 11 Gulbarga       | 0.650                       | 0.421           | 0.165        | 0.412          | 19   | 8                                               |
| 12 Hassan         | 0.673                       | 0.594           | 0.153        | 0.473          | 7    | -7                                              |
| 13 Kodagu         | 0.717                       | 0.738           | 0.433        | 0.630          | 1    | 0                                               |
| 14 Kolar          | 0.631                       | 0.564           | 0.133        | 0.443          | 15   | 4                                               |
| 15 Mandya         | 0.650                       | 0.530           | 0.154        | 0.444          | 13   | 0                                               |
| 16 Mysore         | 0.638                       | 0.510           | 0.174        | 0.440          | 16   | 7                                               |
| 17 Raichur        | 0.676                       | 0.383           | 0.138        | 0.399          | 20   | 2                                               |
| 18 Shimoga        | 0.618                       | 0.648           | 0.181        | 0.483          | 6    | -1                                              |
| 19 Tumkur         | 0.594                       | 0.602           | 0.145        | 0.447          | 12   | -5                                              |
| 20 Uttara Kannada | 0.699                       | 0.699           | 0.201        | 0.533          | 4    | -1                                              |
| STATE             | 0.618                       | 0.596           | 0.196        | 0.470          |      |                                                 |

Source:- Working Group (HDR), GOK.

## 7. EDUCATION

| District              | Growth in enrolment and percentage of girls in secondary schools 1966-67 to 1997-98 (Contd.,) |        |        |            |         |        |        |            |
|-----------------------|-----------------------------------------------------------------------------------------------|--------|--------|------------|---------|--------|--------|------------|
|                       | 1977-78                                                                                       |        |        |            | 1980-81 |        |        |            |
|                       | Boys                                                                                          | Girls  | Total  | % of Girls | Boys    | Girls  | Total  | % of Girls |
|                       | 129                                                                                           | 130    | 131    | 132        | 133     | 134    | 135    | 136        |
| 1 Bangalore Urban     | 69449                                                                                         | 51893  | 121342 | 42.77      | 64394   | 53993  | 118387 | 91.24      |
| 2 Bangalore Rural     |                                                                                               |        |        |            | 23438   | 12172  | 35610  | 34.18      |
| 3 Belgaum             | 35842                                                                                         | 14676  | 50518  | 29.05      | 39699   | 19377  | 59076  | 32.80      |
| 4 Bellary             | 11991                                                                                         | 4734   | 16725  | 28.30      | 16989   | 7647   | 24636  | 31.04      |
| 5 Bidar               | 9056                                                                                          | 2437   | 11493  | 21.20      | 11599   | 4510   | 16109  | 28.00      |
| 6 Bijapur             | 23306                                                                                         | 7161   | 30467  | 23.50      | 26614   | 9884   | 36498  | 27.08      |
| 7 Chikmagalur         | 11803                                                                                         | 6942   | 18745  | 37.03      | 12087   | 8784   | 20871  | 42.09      |
| 8 Chitradurga         | 18930                                                                                         | 8638   | 27568  | 31.33      | 22742   | 11601  | 34343  | 33.78      |
| 9 Dakshina<br>Kannada | 32482                                                                                         | 23586  | 56068  | 42.07      | 35575   | 25991  | 61566  | 42.22      |
| 10 Dharwad            | 30761                                                                                         | 14763  | 45524  | 32.43      | 39845   | 19849  | 59694  | 33.25      |
| 11 Gulbarga           | 15623                                                                                         | 4917   | 20540  | 23.94      | 19422   | 6927   | 26349  | 26.29      |
| 12 Hassan             | 15809                                                                                         | 9453   | 25262  | 37.42      | 18145   | 9899   | 28044  | 35.30      |
| 13 Kodagu             | 6802                                                                                          | 5786   | 12588  | 45.96      | 5742    | 4816   | 10558  | 45.61      |
| 14 Kolar              | 21491                                                                                         | 10394  | 31885  | 32.60      | 28361   | 15206  | 43567  | 34.90      |
| 15 Mandya             | 15266                                                                                         | 5329   | 20595  | 25.88      | 18637   | 9816   | 28453  | 34.50      |
| 16 Mysore             | 25142                                                                                         | 14061  | 39203  | 35.87      | 35445   | 20303  | 55748  | 36.42      |
| 17 Raichur            | 10300                                                                                         | 3422   | 13722  | 24.94      | 12896   | 5131   | 18027  | 28.46      |
| 18 Shimoga            | 19509                                                                                         | 11775  | 31284  | 37.64      | 22979   | 13161  | 36140  | 36.42      |
| 19 Tumkur             | 27343                                                                                         | 11173  | 38516  | 29.01      | 33602   | 13989  | 47591  | 29.39      |
| 20 Uttara Kannada     | 12951                                                                                         | 9581   | 22532  | 42.52      | 15271   | 13322  | 28593  | 46.59      |
| STATE                 | 413856                                                                                        | 220721 | 634577 | 34.78      | 503482  | 286378 | 789860 | 36.00      |

Source :- Commissioner for Public Instruction, Government of Karnataka.

## 7. EDUCATION

| District              | Growth in enrolment and percentage of girls in<br>secondary schools 1966-67 to 1997-98 (Contd..) |               |                |              |               |               |                |             |
|-----------------------|--------------------------------------------------------------------------------------------------|---------------|----------------|--------------|---------------|---------------|----------------|-------------|
|                       | 1990-91                                                                                          |               |                |              | 1997-98       |               |                |             |
|                       | Boys                                                                                             | Girls         | Total          | % of Girls   | Boys          | Girls         | Total          | % of Girls  |
|                       | 137                                                                                              | 138           | 139            | 140          | 141           | 142           | 143            | 144         |
| 1 Bangalore Urban     | 88738                                                                                            | 84730         | 173468         | 97.94        | 92633         | 94951         | 187584         | 101.04      |
| 2 Bangalore Rural     | 32367                                                                                            | 18360         | 50727          | 36.19        | 31350         | 28505         | 59855          | 47.62       |
| 3 Belgaum             | 60928                                                                                            | 31533         | 92461          | 34.10        | 58030         | 48825         | 106855         | 45.69       |
| 4 Bellary             | 30718                                                                                            | 11431         | 42149          | 27.12        | 32522         | 19879         | 52401          | 37.94       |
| 5 Bidar               | 20084                                                                                            | 8742          | 28826          | 30.33        | 21128         | 15809         | 36937          | 42.80       |
| 6 Bijapur             | 54976                                                                                            | 27275         | 82251          | 33.16        | 61529         | 34614         | 96143          | 36.00       |
| 7 Chikmagalur         | 16799                                                                                            | 13748         | 30547          | 45.01        | 20669         | 16216         | 36885          | 43.96       |
| 8 Chitradurga         | 68450                                                                                            | 38579         | 107029         | 36.05        | 47114         | 39239         | 86353          | 45.44       |
| 9 Dakshina<br>Kannada | 65368                                                                                            | 47283         | 112651         | 41.97        | 63976         | 53670         | 117646         | 45.62       |
| 10 Dharwad            | 60546                                                                                            | 24285         | 84831          | 28.63        | 69631         | 44686         | 114317         | 39.09       |
| 11 Gulbarga           | 31021                                                                                            | 12692         | 43713          | 29.03        | 53464         | 25387         | 78851          | 32.20       |
| 12 Hassan             | 30799                                                                                            | 21603         | 52402          | 41.23        | 36903         | 28471         | 65374'         | 43.55       |
| 13 Kodagu             | 8790                                                                                             | 7827          | 16617          | 47.10        | 10031         | 9965          | 19996          | 49.83       |
| 14 Kolar              | 41486                                                                                            | 30906         | 72392          | 42.69        | 48611         | 33709         | 82320          | 40.95       |
| 15 Mandya             | 32735                                                                                            | 19494         | 52229          | 37.32        | 36015         | 26588         | 62603          | 42.47       |
| 16 Mysore             | 45001                                                                                            | 29760         | 74761          | 39.81        | 58887         | 37992         | 96879          | 39.22       |
| 17 Raichur            | 25067                                                                                            | 10565         | 35632          | 29.65        | 26582         | 12624         | 39206          | 32.20       |
| 18 Shimoga            | 34382                                                                                            | 25034         | 59416          | 42.13        | 31934         | 32038         | 63972          | 50.08       |
| 19 Tumkur             | 49280                                                                                            | 29612         | 78892          | 37.53        | 62267         | 48965         | 111232         | 44.02       |
| 20 Uttara Kannada     | 22161                                                                                            | 17611         | 39772          | 44.28        | 22295         | 20031         | 42326          | 47.33       |
| <b>STATE</b>          | <b>819696</b>                                                                                    | <b>511070</b> | <b>1330766</b> | <b>38.40</b> | <b>885571</b> | <b>672164</b> | <b>1557735</b> | <b>43.1</b> |

Source :- Commissioner for Public Instruction, Government of Karnataka.



## 7. EDUCATION

| District           | Annual growth in enrolment in secondary schools 1966-67 to 1997/98 |       |       | Children in the 6-14 age group and gross enrolment ratio (classes I-VIII) 1996-97 |         |         |                           |                |         |
|--------------------|--------------------------------------------------------------------|-------|-------|-----------------------------------------------------------------------------------|---------|---------|---------------------------|----------------|---------|
|                    |                                                                    |       |       | 6 to 14 age group                                                                 |         |         | Enrolment in stds. 1 to 8 |                |         |
|                    | Boys                                                               | Girls | Total | Boys                                                                              | Girls   | Total   | Boys                      | Girls          | Total   |
|                    | 145                                                                | 146   | 147   | 148                                                                               | 149     | 150     | 151                       | 152            | 153     |
| 1 Bangalore Urban  | -1.25                                                              | 0.34  | -0.72 | 453779                                                                            | 454890  | 908669  | 498782                    | 508746         | 1007528 |
| 2 Bangalore Rural  |                                                                    |       |       | 177209                                                                            | 180390  | 357599  | 157989                    | 144477         | 302466  |
| 3 Belgaum          | 3.52                                                               | 16.70 | 6.44  | 376515                                                                            | 371992  | 748507  | 334441                    | 319062         | 653503  |
| 4 Bellary          | 8.16                                                               | 28.50 | 11.82 | 220920                                                                            | 216556  | 437476  | 214597                    | 173127         | 387724  |
| 5 Bidar            | 8.19                                                               | 79.43 | 14.87 | 144494                                                                            | 141247  | 285741  | 153178                    | 140348         | 293526  |
| 6 Bijapur          | 5.97                                                               | 25.24 | 8.93  | 334721                                                                            | 323580  | 658301  | 337565                    | 278496         | 616061  |
| 7 Chikmagalur      | 4.65                                                               | 13.39 | 7.02  | 96231                                                                             | 95998   | 192229  | 91114                     | 86430          | 177544  |
| 8 Chitradurga      | 6.32                                                               | 26.90 | 10.62 | 232914                                                                            | 226545  | 459459  | 229258                    | 201109         | 430367  |
| 9 Dakshina Kannada | 5.50                                                               | 9.48  | 6.95  | 261923                                                                            | 263367  | 525290  | 274157                    | 272170         | 546327  |
| 10 Dharwad         | 5.20                                                               | 15.19 | 7.47  | 391714                                                                            | 380663  | 772377  | 354896                    | 316596         | 671492  |
| 11 Gulbarga        | 12.70                                                              | 45.67 | 17.12 | 298894                                                                            | 288331  | 587225  | 285781                    | 244693         | 530474  |
| 12 Hassan          | 5.57                                                               | 17.18 | 8.47  | 155756                                                                            | 158052  | 313808  | 140130                    | 137381         | 277511  |
| 13 Kodagu          | 1.93                                                               | 3.69  | 2.68  | 43839                                                                             | 42604   | 86443   | 43056                     | 39677          | 82733   |
| 14 Kolar           | 5.84                                                               | 14.44 | 8.10  | 237192                                                                            | 238724  | 475916  | 227948                    | 211387         | 439335  |
| 15 Mandya          | 6.82                                                               | 32.59 | 11.24 | 160516                                                                            | 165042  | 325558  | 149937                    | 138311         | 288248  |
| 16 Mysore          | 7.09                                                               | 11.76 | 8.52  | 322133                                                                            | 323718  | 645851  | 276739                    | 251719         | 528458  |
| 17 Raichur         | 10.93                                                              | 44.40 | 15.07 | 268494                                                                            | 265436  | 533930  | 221545                    | 157946         | 379491  |
| 18 Shimoga         | 3.01                                                               | 15.17 | 6.10  | 191421                                                                            | 189552  | 380973  | 173158                    | 171061         | 344219  |
| 19 Tumkur          | 5.97                                                               | 26.40 | 9.98  | 232967                                                                            | 232560  | 465527  | 229907                    | 208557         | 438464  |
| 20 Uttara Kannada  | 3.09                                                               | 7.77  | 4.68  | 121200                                                                            | 117069  | 238269  | 115767                    | 105357         | 221124  |
| STATE              | 5.59                                                               | 15.75 | 8.24  | 4722832                                                                           | 4676316 | 9399148 | 4509945                   | 41066508616595 |         |

**Source :-** Commissioner for Public Instruction, Government of Karnataka.

## 7. EDUCATION

| District              | Gross enrolment ratio<br>(classes I-VIII) 1996-97 |              |              | Net enrolment ratio in the 6-14 age group,<br>1996-97 |                |                |                                         |              |              |
|-----------------------|---------------------------------------------------|--------------|--------------|-------------------------------------------------------|----------------|----------------|-----------------------------------------|--------------|--------------|
|                       | Gross enrolment<br>ratio                          |              |              | Net enrolment in<br>stds. I-VIII                      |                |                | Net enrolment<br>ratio (classes I-VIII) |              |              |
|                       | Boys                                              | Girls        | Total        | Boys                                                  | Girls          | Total          | Boys                                    | Girls        | Total        |
|                       | 154                                               | 155          | 156          | 757                                                   | 158            | 159 *          | 160                                     | 161          | 762          |
| 1 Bangalore Urban     | 109.92                                            | 111.84       | 110.88       | 403565                                                | 389598         | 793163         | 88.93                                   | 85.65        | 87.29        |
| 2 Bangalore Rural     | 89.15                                             | 80.09        | 84.58        | 127829                                                | 110641         | 238470         | 72.13                                   | 61.33        | 66.69        |
| 3 Belgaum             | 88.83                                             | 85.77        | 87.31        | 270597                                                | 244338         | 514935         | 71.87                                   | 65.68        | 68.79        |
| 4 Bellary             | 97.14                                             | 79.95        | 88.63        | 173631                                                | 132581         | 306212         | 78.59                                   | 61.22        | 70.00        |
| 5 Bidar               | 106.01                                            | 99.36        | 102.72       | 123937                                                | 107479         | 231416         | 85.77                                   | 76.09        | 80.99        |
| 6 Bijapur             | 100.85                                            | 86.07        | 93.58        | 273124                                                | 213273         | 486397         | 81.60                                   | 65.91        | 73.89        |
| 7 Chikmagalur         | 94.68                                             | 90.03        | 92.36        | 73721                                                 | 66189          | 139910         | 76.61                                   | 68.95        | 72.78        |
| 8 Chitradurga         | 98.43                                             | 88.77        | 93.67        | 185493                                                | 154010         | 339503         | 79.64                                   | 67.98        | 73.89        |
| 9 Dakshina<br>Kannada | 104.67                                            | 103.34       | 104.00       | 221821                                                | 208428         | 430249         | 84.69                                   | 79.14        | 81.91        |
| 10 Dharwad            | 90.60                                             | 83.17        | 86.94        | 287147                                                | 242450         | 529597         | 73.31                                   | 63.69        | 68.57        |
| 11 Gulbarga           | 95.61                                             | 84.87        | 90.34        | 231226                                                | 187386         | 418612         | 77.36                                   | 64.99        | 71.29        |
| 12 Hassan             | 89.97                                             | 86.92        | 88.43        | 113380                                                | 105207         | 218587         | 72.79                                   | 66.56        | 69.66        |
| 13 Kodagu             | 98.21                                             | 93.13        | 95.71        | 34837                                                 | 30385          | 65222          | 79.47                                   | 71.32        | 75.45        |
| 14 Kolar              | 96.10                                             | 88.55        | 92.31        | 184433                                                | 161881         | 346314         | 77.76                                   | 67.81        | 72.77        |
| 15 Mandya             | 93.41                                             | 83.80        | 88.54        | 121315                                                | 105919         | 227234         | 75.58                                   | 64.18        | 69.80        |
| 16 Mysore             | 85.91                                             | 77.76        | 81.82        | 223910                                                | 192767         | 416677         | 69.51                                   | 59.55        | 64.52        |
| 17 Raichur            | 82.51                                             | 59.50        | 71.08        | 179253                                                | 120956         | 300209         | 66.76                                   | 45.57        | 56.23        |
| 18 Shimoga            | 90.46                                             | 90.24        | 90.35        | 140103                                                | 130999         | 271102         | 73.19                                   | 69.11        | 71.16        |
| 19 Tumkur             | 98.69                                             | 89.68        | 94.19        | 186018                                                | 159713         | 345731         | 79.85                                   | 68.68        | 74.27        |
| 20 Uttara Kannada     | 95.52                                             | 90.00        | 92.80        | 93668                                                 | 80683          | 174351         | 77.28                                   | 68.92        | 73.17        |
| <b>STATE</b>          | <b>95.49</b>                                      | <b>87.82</b> | <b>91.67</b> | <b>3649008</b>                                        | <b>3144883</b> | <b>6793891</b> | <b>77.26</b>                            | <b>67.25</b> | <b>72.28</b> |

**Source :-** Commissioner for Public Instruction, Government of Karnataka.

## 7. EDUCATION

| District              | Children out of school in 6-14 age group, 1996-97 |               |         | Student dropouts (std. 1 to VII) in primary schools from 1986-87 to 1997-98 |       |       |         |       |       |
|-----------------------|---------------------------------------------------|---------------|---------|-----------------------------------------------------------------------------|-------|-------|---------|-------|-------|
|                       | Estimated children out of school                  |               |         | Percentage of children out of school                                        |       |       | 1986-87 |       |       |
|                       | Boys.                                             | Girls         | Total   | Boys                                                                        | Girls | Total | Boys    | Girls | Total |
|                       | 163                                               | 164           | 165     | 166                                                                         | 167   | 168   | 169     | 770   | 171   |
| 1 Bangalore Urban     | 50214                                             | 65292         | 115506  | 11.07                                                                       | 14.35 | 12.71 | 35.29   | 23.95 | 30.09 |
| 2 Bangalore Rural     | 49380                                             | 69749         | 119129  | 27.87                                                                       | 38.67 | 33.31 | 68.66   | 77.49 | 72.71 |
| 3 Belgaum             | 105918                                            | 127654        | 233572  | 28.13                                                                       | 34.32 | 31.21 | 69.79   | 63.65 | 66.98 |
| 4 Bellary             | 47289                                             | 83975         | 131264  | 21.41                                                                       | 38.78 | 30.00 | 76.80   | 82.02 | 79.19 |
| 5 Bidar               | 20557                                             | 33768         | 64325   | 14.23                                                                       | 23.91 | 19.01 | 75.97   | 88.33 | 81.63 |
| 6 Bijapur             | 61597                                             | 110307        | 171904  | 18.40                                                                       | 34.09 | 26.11 | 91.63   | 79.56 | 86.10 |
| 7 Chikmagalur         | 22510                                             | 9809<br>72535 | 52319   | 23.39                                                                       | 31.05 | 27.22 | 70.13   | 65.55 | 68.03 |
| 8 Chitradurga         | 47421                                             |               | 119956  | 20.36                                                                       | 32.02 | 26.11 | 62.17   | 65.84 | 63.85 |
| 9 Dakshina<br>Kannada | 40102                                             | 54939         | 95041   | 15.31                                                                       | 20.86 | 18.09 | 15.37   | 23.79 | 19.23 |
| 10 Dharwad            | 104567                                            | 138213        | 242780  | 26.69                                                                       | 36.31 | 31.43 | 59.15   | 65.77 | 62.18 |
| 11 Gulbarga           | 67668                                             | 100945        | 168613  | 22.64                                                                       | 35.01 | 28.71 | 71.65   | 85.03 | 77.78 |
| 12 Hassan             | 42376                                             | 52845         | 95221   | 27.21                                                                       | 33.44 | 30.34 | 64.62   | 77.79 | 70.66 |
| 13 Kodagu             | 9002                                              | 2219          | 21221   | 20.53                                                                       | 28.68 | 24.55 | 20.27   | 25.84 | 26.07 |
| 14 Kolar              | 52759                                             | 76843         | 129602  | 22.24                                                                       | 32.19 | 27.23 | 66.54   | 76.65 | 71.18 |
| 15 Mandya             | 39201                                             | 59123         | 98324   | 24.42                                                                       | 35.82 | 30.20 | 52.94   | 67.84 | 59.80 |
| 16 Mysore             | 98223                                             | 130951        | 229174  | 30.49                                                                       | 40.45 | 35.48 | 62.85   | 72.31 | 67.18 |
| 17 Raichur            | 89241                                             | 144480        | 233721  | 33.24                                                                       | 54.43 | 43.77 | 76.74   | 87.59 | 81.72 |
| 18 Shimoga            | 51318                                             | 58553         | 109871  | 26.81                                                                       | 30.89 | 28.84 | 60.23   | 60.38 | 60.30 |
| 19 Tumkur             | 46949                                             | 72847         | 119796  | 20.15                                                                       | 31.32 | 25.73 | 62.09   | 71.32 | 66.32 |
| 20 Uttara Kannada     | 27532                                             | 36386         | 63918   | 22.72                                                                       | 31.08 | 26.83 | 58.69   | 62.41 | 60.39 |
| STATE                 | 1073824                                           | 153143        | 2605257 | 22.74                                                                       | 32.74 | 27.72 | 63.34   | 67.86 | 65.41 |

Source :- Commissioner for Public Instruction, Government of Karnataka.

## 7. EDUCATION

| District           | Student dropouts (std. 1 to VII) in primary schools from 1986-87 to 1997-98 |       |       |         |       |       |
|--------------------|-----------------------------------------------------------------------------|-------|-------|---------|-------|-------|
|                    | 1992-93                                                                     |       |       | 1997-98 |       |       |
|                    | Boys                                                                        | Girls | Total | Boys    | Girls | Total |
|                    | 172                                                                         | 173   | 174   | 175     | 176   | 177   |
| 1 Bangalore Urban  | 17.52                                                                       | 15.30 | 16.46 | 27.43   | 39.72 | 33.80 |
| 2 Bangalore Rural  | 55.52                                                                       | 64.09 | 59.79 | 37.33   | 38.36 | 38.24 |
| 3 Belgaum          | 47.74                                                                       | 55.95 | 51.59 | 54.78   | 48.48 | 51.77 |
| 4 Bellary          | 55.72                                                                       | 63.24 | 58.91 | 42.64   | 55.52 | 48.75 |
| 5 Bidar            | 59.24                                                                       | 58.72 | 59.04 | 66.53   | 67.96 | 67.23 |
| 6 Bijapur          | 58.14                                                                       | 70.32 | 63.89 | 46.93   | 64.50 | 54.99 |
| 7 Chikmagalur      | 36.61                                                                       | 37.02 | 36.82 | 54.50   | 60.14 | 57.28 |
| 8 Chitradurga      | 40.41                                                                       | 47.02 | 43.59 | 33.69   | 44.75 | 39.65 |
| 9 Dakshina Kannada | 31.74                                                                       | 25.23 | 28.72 | 9.30    | 6.07  | 7.75  |
| 10 Dharwad         | 11.59                                                                       | 77.87 | 43.47 | 42.11   | 49.76 | 45.99 |
| 11 Gulbarga        | 69.05                                                                       | 76.36 | 72.03 | 58.40   | 61.62 | 59.86 |
| 12 Hassan          | 47.42                                                                       | 53.90 | 50.63 | 40.60   | 49.94 | 45.29 |
| 13 Kodagu          | 28.83                                                                       | 32.32 | 30.46 | 11.80   | 15.66 | 13.70 |
| 14 Kolar           | 43.88                                                                       | 51.72 | 47.68 | 34.51   | 41.00 | 37.60 |
| 15 Mandya          | 44.84                                                                       | 51.88 | 48.31 | 39.10   | 43.32 | 41.17 |
| 16 Mysore          | 51.13                                                                       | 60.53 | 55.67 | 46.04   | 50.97 | 48.42 |
| 17 Raichur         | 55.00                                                                       | 67.13 | 59.68 | 51.09   | 72.70 | 59.62 |
| 18 Shimoga         | 40.68                                                                       | 54.14 | 47.31 | 47.60   | 44.03 | 46.00 |
| 19 Tumkur          | 36.92                                                                       | 50.25 | 43.83 | 30.37   | 43.06 | 36.80 |
| 20 Uttara Kannada  | 44.64                                                                       | 54.89 | 49.68 | 55.71   | 52.57 | 52.91 |
| STATE              | 43.84                                                                       | 54.22 | 48.71 | 41.34   | 46.28 | 43.71 |

Source :- Commissioner for Public Instruction, Government of Karnataka.

## 7. EDUCATION

| District              | Growth in no. of primary school teachers and percentage of female teachers 1966-67 to 1997-98 |        |       |              |         |        |        |              |
|-----------------------|-----------------------------------------------------------------------------------------------|--------|-------|--------------|---------|--------|--------|--------------|
|                       | 1966-57                                                                                       |        |       |              | 1977-78 |        |        |              |
|                       | Male                                                                                          | Female | Total | % of females | Male    | Female | Total  | % of females |
|                       | 778                                                                                           | 179    | 180   | 181          | 182     | 183    | 184    | 785          |
| 1 Bangalore Urban     | 1587                                                                                          | 3654   | 5241  | 69.72        | 2391    | 7670   | 10061  | 76.23        |
| 2 Bangalore Rural     | 5193                                                                                          | 883    | 6076  | 14.53        | 4471    | 588    | 5059   | 11.62        |
| 3 Belgaum             | 4952                                                                                          | 2174   | 7126  | 30.51        | 6792    | 2094   | 8886   | 23.57        |
| 4 Bellary             | 2639                                                                                          | 436    | 3075  | 14.18        | 3237    | 730    | 3967   | 18.40        |
| 5 Bidar               | 1261                                                                                          | 296    | 1557  | 19.01        | 2172    | 448    | 2620   | 17.10        |
| 6 Bijapur             | 5709                                                                                          | 886    | 6595  | 13.43        | 5774    | 1103   | 6877   | 16.04        |
| 7 Chikmagalur         | 2443                                                                                          | 501    | 2944  | 17.02        | 2475    | 692    | 3167   | 21.85        |
| 8 Chitradurga         | 4048                                                                                          | 428    | 4476  | 9.56         | 4228    | 823    | 5051   | 16.29        |
| 9 Dakshina<br>Kannada | 4376                                                                                          | 2890   | 7266  | 39.77        | 4327    | 4113   | 8440   | 48.73        |
| 10 Dharwad            | 6148                                                                                          | 1186   | 7334  | 16.17        | 6562    | 1766   | 8328   | 21.21        |
| 11 Gulbarga           | 3710                                                                                          | 435    | 4145  | 10.49        | 4149    | 809    | 4958   | 16.32        |
| 12 Hassan             | 3223                                                                                          | 552    | 3775  | 14.62        | 3686    | 765    | 4451   | 17.19        |
| 13 Kodagu             | 982                                                                                           | 448    | 1430  | 31.33        | 929     | 682    | 1611   | 42.33        |
| 14 Kolar              | 3623                                                                                          | 1080   | 4703  | 22.96        | 4401    | 1248   | 5649   | 22.09        |
| 15 Mandya             | 3035                                                                                          | 428    | 3463  | 12.36        | 1094    | 685    | 1779   | 38.50        |
| 16 Mysore             | 4069                                                                                          | 1452   | 5521  | 26.30        | 4228    | 2121   | 6349   | 33.41        |
| 17 Raichur            | 2697                                                                                          | 234    | 2931  | 7.98         | 3255    | 447    | 3702   | 12.07        |
| 18 Shimoga            | 3849                                                                                          | 643    | 4492  | 14.31        | 4229    | 933    | 5162   | 18.07        |
| 19 Tumkur             | 4936                                                                                          | 731    | 5667  | 12.90        | 5528    | 960    | 6488   | 14.80        |
| 20 Uttara Kannada     | 2444                                                                                          | 983    | 3427  | 28.68        | 2630    | 1573   | 4203   | 37.43        |
| STATE                 | 70924                                                                                         | 20320  | 91244 | 22.27        | 76558   | 30250  | 106808 | 28.32        |

## 7. EDUCATION

| District              | Growth in no. of primary school teachers and percentage of female teachers 1966-67 to 1997-98 (Contd.,) |        |        |              |         |        |        |              |
|-----------------------|---------------------------------------------------------------------------------------------------------|--------|--------|--------------|---------|--------|--------|--------------|
|                       | 1986-87                                                                                                 |        |        |              | 1993-94 |        |        |              |
|                       | Male                                                                                                    | Female | Total  | % of females | Male    | Female | Total  | % of females |
|                       | 186                                                                                                     | 187    | 188    | 189          | 190     | 191    | 192    | 193          |
| 1 Bangalore Urban     | 2603                                                                                                    | 9605   | 12208  | 78.68        | 3358    | 12469  | 15827  | 78.78        |
| 2 Bangalore Rural     | 1456                                                                                                    | 1543   | 2999   | 51.45        | 3629    | 1779   | 5408   | 32.90        |
| 3 Belgaum             | 7001                                                                                                    | 2691   | 9692   | 27.77        | 7106    | 3570   | 10676  | 33.44        |
| 4 Bellary             | 3079                                                                                                    | 1146   | 4225   | 27.12        | 3992    | 1405   | 5397   | 26.03        |
| 5 Bidar               | 2690                                                                                                    | 958    | 3648   | 26.26        | 3176    | 1294   | 4470   | 28.95        |
| 6 Bijapur             | 6463                                                                                                    | 1576   | 8039   | 19.60        | 6663    | 2205   | 8868   | 24.86        |
| 7 Chikmagalur         | 2617                                                                                                    | 967    | 3584   | 26.98        | 2713    | 1400   | 4113   | 34.04        |
| 8 Chitradurga         | 4425                                                                                                    | 1469   | 5894   | 24.92        | 5319    | 2558   | 7877   | 32.47        |
| 9 Dakshina<br>Kannada | 4439                                                                                                    | 4810   | 9249   | 52.01        | 3817    | 4858   | 8675   | 56.00        |
| 10 Dharwad            | 6678                                                                                                    | 2452   | 9130   | 26.86        | 6547    | 3448   | 9995   | 34.50        |
| 11 Gulbarga           | 4922                                                                                                    | 1477   | 6399   | 23.08        | 5148    | 2354   | 7502   | 31.38        |
| 12 Hassan             | 3800                                                                                                    | 1425   | 5225   | 27.27        | 4161    | 2106   | 6267   | 33.60        |
| 13 Kodagu             | 776                                                                                                     | 1110   | 1886   | 58.85        | 613     | 1100   | 1713   | 64.21        |
| 14 Kolar              | 4701                                                                                                    | 2530   | 7231   | 34.99        | 5323    | 3396   | 8719   | 38.95        |
| 15 Mandya             | 3639                                                                                                    | 942    | 4581   | 20.56        | 3850    | 1656   | 5506   | 30.08        |
| 16 Mysore             | 3965                                                                                                    | 2231   | 6196   | 36.01        | 4534    | 4485   | 9019   | 49.73        |
| 17 Raichur            | 3215                                                                                                    | 813    | 4028   | 20.18        | 3640    | 1299   | 4939   | 26.30        |
| 18 Shimoga            | 4374                                                                                                    | 1493   | 5867   | 25.45        | 4447    | 2468   | 6915   | 35.69        |
| 19 Tumkur             | 6014                                                                                                    | 1747   | 7761   | 22.51        | 6138    | 3197   | 9335   | 34.25        |
| 20 Uttara Kannada     | 2582                                                                                                    | 2319   | 4901   | 47.32        | 2446    | 2857   | 5303   | 53.88        |
| STATE                 | 79439                                                                                                   | 43304  | 122743 | 35.28        | 86620   | 59904  | 146524 | 40.88        |

Source :- Commissioner for Public Instruction, Government of Karnataka.

## 7. EDUCATION

| District           | Growth in no. of primary school teachers and percentage of female teachers 1966-67 to 1997-98 (Contd.,) |               |              |                     |                                   |               |              |
|--------------------|---------------------------------------------------------------------------------------------------------|---------------|--------------|---------------------|-----------------------------------|---------------|--------------|
|                    | 1997-98                                                                                                 |               |              |                     | Annual growth rate 66-67 to 97-98 |               |              |
|                    | Male<br>194                                                                                             | Female<br>195 | Total<br>196 | % of females<br>197 | Male<br>198                       | Female<br>199 | Total<br>200 |
| 1 Bangalore Urban  | 3557                                                                                                    | 14167         | 17724        | 79.93               | 4.00                              | 9.28          | 7.68         |
| 2 Bangalore Rural  | 4571                                                                                                    | 3589          | 8160         | 43.98               | -0.39                             | 9.89          | 1.11         |
| 3 Belgaum          | 8397                                                                                                    | 4733          | 13130        | 36.05               | 2.24                              | 3.80          | 2.72         |
| 4 Bellary          | 5265                                                                                                    | 2899          | 8164         | 35.51               | 3.21                              | 18.22         | 5.34         |
| 5 Bidar            | 3623                                                                                                    | 2381          | 6004         | 39.66               | 6.04                              | 22.72         | 9.21         |
| 6 Bijapur          | 9127                                                                                                    | 3317          | 12444        | 26.66               | 1.93                              | 8.85          | 2.86         |
| 7 Chikmagalur      | 3609                                                                                                    | 2350          | 5959         | 39.44               | 1.54                              | 11.91         | 3.30         |
| 8 Chitradurga      | 6327                                                                                                    | 3604          | 9931         | 36.29               | 1.82                              | 23.94         | 3.93         |
| 9 Dakshina Kannada | 4209                                                                                                    | 5827          | 10036        | 58.06               | -0.12                             | 3.28          | 1.23         |
| 10 Dharwad         | 8133                                                                                                    | 5258          | 13391        | 39.27               | 1.04                              | 11.08         | 2.66         |
| 11 Gulbarga        | 8200                                                                                                    | 5414          | 13614        | 39.77               | 3.90                              | 36.92         | 7.37         |
| 12 Hassan          | 4546                                                                                                    | 3011          | 7557         | 39.84               | 1.32                              | 14.37         | 3.23         |
| 13 Kodagu          | 788                                                                                                     | 1573          | 2361         | 66.62               | -0.64                             | 8.10          | 2.10         |
| 14 Kolar           | 6134                                                                                                    | 3918          | 10052        | 38.98               | 2.24                              | 8.48          | 3.67         |
| 15 Mandya          | 4186                                                                                                    | 1830          | 6016         | 30.42               | 1.22                              | 10.57         | 2.38         |
| 16 Mysore          | 5959                                                                                                    | 5839          | 11798        | 49.49               | 1.50                              | 9.75          | 3.67         |
| 17 Raichur         | 6164                                                                                                    | 2323          | 8487         | 27.37               | 4.15                              | 28.80         | 6.11         |
| 18 Shimoga         | 5741                                                                                                    | 3396          | 9137         | 37.17               | 1.59                              | 13.81         | 3.34         |
| 19 Tumkur          | 6823                                                                                                    | 4403          | 11226        | 39.22               | 1.23                              | 16.20         | 3.16         |
| 20 Uttara Kannada  | 2880                                                                                                    | 3858          | 6738         | 57.26               | 0.58                              | 9.43          | 3.12         |
| STATE              | 108239                                                                                                  | 83690         | 191929       | 43.60               | 1.70                              | 10.06         | 3.56         |

Source :- Commissioner for Public Instruction, Government of Karnataka.



## 7. EDUCATION

| District |                     | Growth in no. of high school teachers and percentage of female teachers 1960-61 to 1993-94 |        |       |              |         |        |       |              |
|----------|---------------------|--------------------------------------------------------------------------------------------|--------|-------|--------------|---------|--------|-------|--------------|
|          |                     | 1960-61                                                                                    |        |       |              | 1968-69 |        |       |              |
|          |                     | Male                                                                                       | Female | Total | % of females | Male    | Female | Total | % of females |
|          |                     | 207                                                                                        | 202    | 203   | 204          | 205     | 206    | 207   | 208          |
| 1        | Bangalore Urban     | 690                                                                                        | 628    | 1318  | 47.65        | 1156    | 1348   | 2504  | 53.83        |
| 2        | Bangalore Rural     | 285                                                                                        | 19     | 304   | 6.25         | 775     | 126    | 901   | 13.98        |
| 3        | Belgaum             | 908                                                                                        | 138    | 1046  | 13.19        | 1613    | 258    | 1871  | 13.79        |
| 4        | Bellary             | 327                                                                                        | 65     | 392   | 16.58        | 656     | 95     | 751   | 12.65        |
| 5        | Bidar               | 241                                                                                        | 51     | 292   | 17.47        | 462     | 66     | 528   | 12.50        |
| 6        | Bijapur             | 543                                                                                        | 30     | 573   | 5.24         | 1128    | 70     | 1198  | 5.84         |
| 7        | Chikmagalur         | 165                                                                                        | 10     | 175   | 5.71         | 340     | 43     | 383   | 11.23        |
| 8        | Chitradurga         | 276                                                                                        | 23     | 299   | 7.69         | 684     | 76     | 760   | 10.00        |
| 9        | Dakshina<br>Kannada | 919                                                                                        | 437    | 1356  | 32.23        | 1447    | 585    | 2032  | 28.79        |
| 10       | Dharwad             | 868                                                                                        | 129    | 997   | 12.94        | 1520    | 278    | 1798  | 15.46        |
| 11       | Gulbarga            | 532                                                                                        | 60     | 592   | 10.14        | 915     | 118    | 1033  | 11.42        |
| 12       | Hassan              | 263                                                                                        | 44     | 307   | 14.33        | 472     | 98     | 570   | 17.19        |
| 13       | Kodagu              | 147                                                                                        | 72     | 219   | 32.88        | 357     | 90     | 447   | 20.13        |
| 14       | Kolar               | 337                                                                                        | 46     | 383   | 12.01        | 651     | 124    | 775   | 16.00        |
| 15       | Mandya              | 194                                                                                        | 15     | 209   | 7.18         | 487     | 74     | 561   | 13.19        |
| 16       | Mysore              | 464                                                                                        | 126    | 590   | 21.36        | 807     | 347    | 1154  | 30.07        |
| 17       | Raichur             | 313                                                                                        | 56     | 369   | 15.18        | 586     | 73     | 659   | 11.08        |
| 18       | Shimoga             | 282                                                                                        | 28     | 310   | 9.03         | 730     | 80     | 810   | 9.88         |
| 19       | Tumkur              | 373                                                                                        | 25     | 398   | 6.28         | 871     | 88     | 959   | 9.18         |
| 20       | Uttara Kannada      | 417                                                                                        | 88     | 505   | 17.43        | 741     | 163    | 904   | 18.03        |
| STATE    |                     | 8544                                                                                       | 2090   | 10634 | 19.65        | 16398   | 4200   | 20598 | 20.39        |

## 2. HUMAN DEVELOPMENT INDEX (BASED ON SEN'S WELFARE INDEX - SWI)

| District<br>per<br>capita<br>(in Rs.)<br>1991 | GDP   | GDP<br>per<br>capita<br>(Sen's<br>welfare<br>index)*<br>1991 | GDP<br>per<br>capita<br>in<br>terms<br>of<br>PPP\$<br>(SWI)<br>1991 | Life<br>expec-<br>tancy<br>(LEB)<br>index<br>1991 | Edu-<br>cation<br>index<br>1991 | Income<br>index<br>1991 | HDI based<br>on SWI<br>Value | Rank | HDI based<br>on GDP<br>per capita<br>Value | Rank |
|-----------------------------------------------|-------|--------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------|---------------------------------|-------------------------|------------------------------|------|--------------------------------------------|------|
|                                               | 16    | 17                                                           | 18                                                                  | 19                                                | 20                              | 21                      | 22                           | 23   | 24                                         | 25   |
| 1 Bangalore                                   | 9242  | 6456                                                         | 1386                                                                | 0.680                                             | 0.773                           | 0.243                   | 0.565                        | 2    | 0.601                                      | 2    |
| 2 Bangalore Rural                             | 4788  | 3580                                                         | 768                                                                 | 0.695                                             | 0.549                           | 0.126                   | 0.457                        | 8    | 0.472                                      | 8    |
| 3 Belgaum                                     | 5088  | 3746                                                         | 804                                                                 | 0.668                                             | 0.560                           | 0.133                   | 0.454                        | 9    | 0.471                                      | 9    |
| 4 Bellary                                     | 4995  | 3579                                                         | 768                                                                 | 0.589                                             | 0.516                           | 0.126                   | 0.410                        | 17   | 0.429                                      | 17   |
| 5 Bidar                                       | 3555  | 2599                                                         | 558                                                                 | 0.629                                             | 0.489                           | 0.087                   | 0.402                        | 18   | 0.419                                      | 18   |
| 6 Bijapur                                     | 4181  | 3145                                                         | 675                                                                 | 0.629                                             | 0.552                           | 0.109                   | 0.430                        | 13   | 0.443                                      | 14   |
| 7 Chikmagalur                                 | 7348  | 5716                                                         | 1227                                                                | 0.660                                             | 0.636                           | 0.213                   | 0.503                        | 5    | 0.524                                      | 5    |
| 8 Chitradurga                                 | 4534  | 2696                                                         | 579                                                                 | 0.632                                             | 0.619                           | 0.091                   | 0.447                        | 10   | 0.466                                      | 10   |
| 9 Dakshina<br>Kannada                         | 6384  | 4320                                                         | 927                                                                 | 0.730                                             | 0.808                           | 0.157                   | 0.565                        | 3    | 0.592                                      | 3    |
| 10 Dharwad                                    | 4158  | 2981                                                         | 640                                                                 | 0.630                                             | 0.601                           | 0.102                   | 0.444                        | 11   | 0.459                                      | 11   |
| 11 Gulbarga                                   | 4592  | 3438                                                         | 738                                                                 | 0.618                                             | 0.421                           | 0.121                   | 0.387                        | 19   | 0.412                                      | 19   |
| 12 Hassan                                     | 4288  | 3223                                                         | 692                                                                 | 0.673                                             | 0.594                           | 0.112                   | 0.460                        | 7    | 0.473                                      | 7    |
| 13 Kodagu                                     | 11270 | 7791                                                         | 1673                                                                | 0.717                                             | 0.738                           | 0.298                   | 0.584                        | 1    | 0.630                                      | 1    |
| 14 Kolar                                      | 3787  | 2766                                                         | 594                                                                 | 0.631                                             | 0.564                           | 0.093                   | 0.430                        | 14   | 0.443                                      | 14   |
| 15 Mandya                                     | 4309  | 3042                                                         | 653                                                                 | 0.650                                             | 0.530                           | 0.105                   | 0.428                        | 15   | 0.444                                      | 13   |
| 16 Mysore                                     | 4805  | 3671                                                         | 788                                                                 | 0.638                                             | 0.510                           | 0.130                   | 0.426                        | 16   | 0.440                                      | 16   |
| 17 Raichur                                    | 3918  | 3081                                                         | 661                                                                 | 0.626                                             | 0.383                           | 0.106                   | 0.372                        | 20   | 0.399                                      | 20   |
| 18 Shimoga                                    | 4993  | 3505                                                         | 752                                                                 | 0.629                                             | 0.648                           | 0.123                   | 0.467                        | 6    | 0.483                                      | 6    |
| 19 Tumkur                                     | 4091  | 2879                                                         | 618                                                                 | 0.621                                             | 0.602                           | 0.098                   | 0.440                        | 12   | 0.447                                      | 12   |
| 20 Uttara Kannada                             | 5480  | 3961                                                         | 850                                                                 | 0.699                                             | 0.699                           | 0.142                   | 0.513                        | 4    | 0.533                                      | 4    |
| STATE                                         | 5357  | 3741                                                         | 803                                                                 | 0.618                                             | 0.596                           | 0.133                   | 0.449                        |      | 0.470                                      |      |

\* Computation of SWI is given in Income & Employment Profile (8)

Source:- Working Group (HDR), GOK.

## 7. EDUCATION

| District              | Growth in no. of high school teachers and percentage<br>Of female teachers 1960-61 to 1993-94 (Contd.,) |        |       |              |         |        |       |              |
|-----------------------|---------------------------------------------------------------------------------------------------------|--------|-------|--------------|---------|--------|-------|--------------|
|                       | 1986-87                                                                                                 |        |       |              | 1993-94 |        |       |              |
|                       | Male                                                                                                    | Female | Total | % of females | Male    | Female | Total | % of females |
|                       | 209                                                                                                     | 210    | 211   | 272          | 213     | 214    | 215   | 216          |
| 1 Bangalore Urban     | 1839                                                                                                    | 2079   | 3918  | 53.06        | 2844    | 5929   | 8773  | 67.58        |
| 2 Bangalore Rural     | 951                                                                                                     | 147    | 1098  | 13.39        | 1629    | 359    | 1988  | 18.06        |
| 3 Belgaum             | 2088                                                                                                    | 477    | 2565  | 18.60        | 4088    | 1054   | 5142  | 20.50        |
| 4 Bellary             | 696                                                                                                     | 162    | 858   | 18.88        | 1593    | 339    | 1932  | 17.55        |
| 5 Bidar               | 714                                                                                                     | 147    | 861   | 17.07        | 1556    | 378    | 1934  | 19.54        |
| 6 Bijapur             | 1350                                                                                                    | 166    | 1516  | 10.95        | 3156    | 478    | 3634  | 13.15        |
| 7 Chikmagalur         | 881                                                                                                     | 137    | 1018  | 13.46        | 1418    | 248    | 1666  | 14.89        |
| 8 Chitradurga         | 1489                                                                                                    | 243    | 1732  | 14.03        | 2845    | 453    | 3298  | 13.74        |
| 9 Dakshina<br>Kannada | 1525                                                                                                    | 689    | 2214  | 31.12        | 2384    | 1211   | 3595  | 33.69        |
| 10 Dharwad            | 2252                                                                                                    | 563    | 2815  | 20.00        | 4408    | 1391   | 5799  | 23.99        |
| 11 Gulbarga           | 830                                                                                                     | 310    | 1140  | 27.19        | 1933    | 535    | 2468  | 21.68        |
| 12 Hassan             | 911                                                                                                     | 160    | 1071  | 14.94        | 1957    | 470    | 2427  | 19.37        |
| 13 Kodagu             | 297                                                                                                     | 140    | 437   | 32.04        | 478     | 344    | 822   | 41.85        |
| 14 Kolar              | 828                                                                                                     | 213    | 1041  | 20.46        | 1823    | 676    | 2499  | 27.05        |
| 15 Mandya             | 719                                                                                                     | 199    | 918   | 21.68        | 1365    | 334    | 1699  | 19.66        |
| 16 Mysore             | 1121                                                                                                    | 342    | 1463  | 23.38        | 1908    | 890    | 2798  | 31.81        |
| 17 Raichur            | 540                                                                                                     | 78     | 618   | 12.62        | 1251    | 265    | 1516  | 17.48        |
| 18 Shimoga            | 1537                                                                                                    | 283    | 1820  | 15.55        | 1923    | 431    | 2354  | 18.31        |
| 19 Tumkur             | 1492                                                                                                    | 230    | 1722  | 13.36        | 3547    | 591    | 4138  | 14.28        |
| 20 Uttara Kannada     | 1162                                                                                                    | 407    | 1569  | 25.94        | 1349    | 440    | 1789  | 24.59        |
| STATE                 | 23222                                                                                                   | 7172   | 30394 | 23.60        | 43455   | 16816  | 60271 | 27.90        |

Source :- Commissioner for Public Instruction, Government of Karnataka.

## 7. EDUCATION

| District              | Growth in no. of<br>high school teachers<br>1960-61 to 1993-94 (Contd.,) |        |       | Teacher - pupil ratio |         |         |              |         |         |
|-----------------------|--------------------------------------------------------------------------|--------|-------|-----------------------|---------|---------|--------------|---------|---------|
|                       | Annual growth rate<br>60-61 to 93-94                                     |        |       | Primary schools       |         |         | High schools |         |         |
|                       | Male                                                                     | Female | Total | 1980-81               | 1990-91 | 1997-98 | 1980-81      | 1990-91 | 1997-98 |
|                       | 217                                                                      | 218    | 219   | 220                   | 221     | 222     | 223          | 224     | 225     |
| 1 Bangalore Urban     | 9.46                                                                     | 25.58  | 17.14 | 37                    | 49      | 53      | 34           | 39      | 22      |
| 2 Bangalore Rural     | 14.29                                                                    | 54.23  | 16.79 | 54                    | 56      | 36      | 30           | 34      | 20      |
| 3 Belgaum             | 10.61                                                                    | 20.11  | 11.87 | 42                    | 49      | 45      | 29           | 25      | 19      |
| 4 Bellary             | 11.73                                                                    | 12.77  | 11.90 | 45                    | 3       | 46      | 28           | 42      | 24      |
| 5 Bidar               | 16.53                                                                    | 19.43  | 17.04 | 45                    | 47      | 46      | 23           | 31      | 21      |
| 6 Bijapur             | 14.58                                                                    | 45.25  | 16.19 | 42                    | 53      | 52      | 18           | 43      | 24      |
| 7 Chikmagalur         | 23.01                                                                    | 72.12  | 25.82 | 41                    | 38      | 28      | 22           | 31      | 16      |
| 8 Chitradurga         | 28.21                                                                    | 56.65  | 30.39 | 45                    | 52      | 39      | 19           | 47      | 25      |
| 9 Dakshina<br>Kannada | 4.83                                                                     | 5.37   | 5.00  | 36                    | 59      | 44      | 29           | 41      | 25      |
| 10 Dharwad            | 12.36                                                                    | 29.65  | 14.60 | 45                    | 57      | 46      | 20           | 27      | 20      |
| 11 Gulbarga           | 7.98                                                                     | 23.99  | 9.60  | 42                    | 49      | 50      | 15           | 31      | 23      |
| 12 Hassan             | 19.52                                                                    | 29.34  | 20.93 | 41                    | 40      | 32      | 23           | 31      | 19      |
| 13 Kodagu             | 6.82                                                                     | 11.45  | 8.34  | 32                    | 45      | 29      | 20           | 31      | 25      |
| 14 Kolar              | 13.36                                                                    | 41.50  | 16.74 | 49                    | 49      | 37      | 44           | 49      | 27      |
| 15 Mandya             | 18.29                                                                    | 64.44  | 21.60 | 45                    | 45      | 39      | 20           | 50      | 28      |
| 16 Mysore             | 9.43                                                                     | 18.37  | 11.34 | 67                    | 49      | 45      | 45           | 30      | 24      |
| 17 Raichur            | 9.08                                                                     | 11.31  | 9.42  | 48                    | 59      | 49      | 17           | 49      | 16      |
| 18 Shimoga            | 17.63                                                                    | 43.61  | 19.98 | 45                    | 47      | 38      | 37           | 30      | 19      |
| 19 Tumkur             | 25.79                                                                    | 68.61  | 28.48 | 45                    | 47      | 34      | 21           | 30      | 37      |
| 20 Uttara Kannada     | 6.77                                                                     | 12.12  | 7.70  | 33                    | 41      | 30      | 23           | 25      | 21      |
| <b>STATE</b>          | 12.38                                                                    | 21.35  | 14.14 | 44                    | 50      | 43      | 26           | 35      | 23      |

**Source :-** Commissioner for Public Instruction, Government of Karnataka.

## 7. EDUCATION (HIGHER EDUCATION)

| University/<br>District | Number of general and professional colleges |       |       |       |       |       |             |       |
|-------------------------|---------------------------------------------|-------|-------|-------|-------|-------|-------------|-------|
|                         | General degree                              |       | Law   |       | B.Ed. |       | Engineering |       |
|                         | 91-92                                       | 96-97 | 91-92 | 96-97 | 91-92 | 96-97 | 91-92       | 96-97 |
|                         | 226                                         | 227   | 228   | 229   | 230   | 231   | 232         | 233   |
| 1. Mysore               |                                             |       |       |       |       |       |             |       |
| 1 Mysore                | 32                                          | 52    | 3     | 4     | 6     | 7     | 4           | 4     |
| 2 Mandya                | 11                                          | 23    | 2     | 3     | 1     | 1     | 1           | 1     |
| 3 Hassan                | 14                                          | 22    | 2     | 2     | 4     | 4     | 1           | 1     |
| 2. Karnataka            |                                             |       |       |       |       |       |             |       |
| 1 Dharwad               | 45                                          | 77    | 7     | 7     | 5     | 5     | 4           | 5     |
| 2 Belgaum               | 34                                          | 60    | 2     | 4     | 4     | 4     | 2           | 3     |
| 3 Bijapur               | 31                                          | 49    | 2     | 2     | 3     | 3     | 2           | 3     |
| 4 Uttara Kannada        | 17                                          | 22    | 1     | 2     | 2     | 2     | 1           | 1     |
| 3. Bangalore            |                                             |       |       |       |       |       |             |       |
| 1 Bangalore (U)         | 79                                          | 151   | 11    | 18    | 11    | 12    | 15          | 15    |
| 2 Bangalore (R)         |                                             |       |       |       |       |       |             |       |
| 3 Kolar                 | 14                                          | 20    | 1     | 2     | 3     | 3     | 2           | 2     |
| 4 Tumkur                | 19                                          | 36    | 1     | 2     | 4     | 4     | 4           | 3     |
| 4. Gulbarga             |                                             |       |       |       |       |       |             |       |
| 1 Gulbarga              | 34                                          | 47    | 2     | 2     | 4     | 4     | 2           | 2     |
| 2 Bellary               | 17                                          | 21    | 1     | 1     | 2     | 2     | 1           | 1     |
| 3 Bidar                 | 18                                          | 28    | 1     | 1     | 2     | 2     | 2           | 2     |
| 4 Raichur               | 14                                          | 25    | 1     | 1     | 2     | 2     | 1           | 1     |
| S.Mangalore             |                                             |       |       |       |       |       |             |       |
| 1 Dakshina Kannada      | 53                                          | 76    | 4     | 6     | 3     | 3     | 4           | 4     |
| 2 Kodagu                | 5                                           | 7     | 0     | 0     | 1     | 1     | 0           | 0     |
| 6.Kuvempu               |                                             |       |       |       |       |       |             |       |
| 1 Shimoga               | 28                                          | 39    | 1     | 1     | 1     | 2     | 2           | 1     |
| 2 Chitradurga           | 32                                          | 52    | 2     | 3     | 5     | 5     | 2           | 3     |
| 3 Chikmagalur           | 11                                          | 14    | 0     | 1     | 1     | 1     | 1           | 1     |
| STATE                   | 508                                         | 821   | 44    | 62    | 64    | 67    | 51          | 53    |

Source :- 1. Directorate of Collegiate Education  
2. Directorate of Technical Education

## 7. EDUCATION (HIGHER EDUCATION)

| University/District | Number of professional colleges |       |       |       |         |       |          |       |
|---------------------|---------------------------------|-------|-------|-------|---------|-------|----------|-------|
|                     | Polytechnics                    |       | ITIs  |       | Medical |       | Pharmacy |       |
|                     | 91-92                           | 96-97 | 91-92 | 96-97 | 91-92   | 96-97 | 91-92    | 96-97 |
|                     | 234                             | 235   | 236   | 237   | 238     | 239   | 240      | 241   |
| 1 .Mysore           |                                 |       |       |       |         |       |          |       |
| 1 Mysore            | 11                              | 11    | 12    | 14    | 2       | 2     | 3        | 2     |
| 2 Mandya            | 3                               | 2     | 4     | 3     | 1       | 1     | 1        | 1     |
| 3 Hassan            | 5                               | 3     | 9     | 10    | 0       | 0     | 0        | 1     |
| 2 . Karnataka       |                                 |       |       |       |         |       |          |       |
| 1 Dharwad           | 16                              | 13    | 19    | 29    | 1       | 1     | 2        | 3     |
| 2 Belgaum           | 11                              | 11    | 6     | 11    | 1       | 1     | 2        | 2     |
| 3 Bijapur           | 10                              | 7     | 15    | 18    | 2       | 2     | 0        | 2     |
| 4 Uttara Kannada    | 6                               | 6     | 5     | 8     | 0       | 0     | 0        | 0     |
| 3. Bangalore        |                                 |       |       |       |         |       |          |       |
| 1 Bangalore (U)     | 51                              | 54    | 37    | 46    | 5       | 5     | 17       | 17    |
| 2 Bangalore (R)     |                                 |       |       | 8     |         |       |          |       |
| 3 Kolar             | 11                              | 12    | 14    | 19    | 1       | 1     | 2        | 2     |
| 4 Tumkur            | 7                               | 5     | 12    | 13    | 1       | 1     | 1        | 1     |
| 4. Gulbarga         |                                 |       |       |       |         |       |          |       |
| 1 Gulbarga          | 8                               | 7     | 12    | 14    | 1       | 1     | 4        | 5     |
| 2 Bellary           | 6                               | 6     | 5     | 6     | 1       | 1     | 2        | 2     |
| 3 Bidar             | 8                               | 6     | 6     | 8     | 0       | 0     | 3        | 2     |
| 4 Raichur           | 5                               | 6     | 6     | 7     | 0       | 0     | 1        | 2     |
| 5. Mangalore        |                                 |       |       |       |         |       |          |       |
| 1 Dakshina Kannada  | 8                               | 8     | 17    | 17    | 2       | 1     | 2        | 2     |
| 2 Kodagu            | 2                               | 2     | 2     | 2     | 0       | 0     | 0        | 0     |
| 6. Kuvempu          |                                 |       |       |       |         |       |          |       |
| 1 Shimoga           | 7                               | 8     | 7     | 9     | 0       | 0     | 1        | 1     |
| 2 Chitradurga       | 10                              | 7     | 7     | 9     | 1       | 1     | 1        | 2     |
| 3 Chikmagalur       | 3                               | 3     | 2     | 5     | 0       | 0     | 0        | 0     |
| STATE               | 188                             | 177   | 197   | 256   | 19      | 18    | 42       | 47    |

Source 1 Directorate of Technical Education

2. Directorate of Medical Education

## 7. EDUCATION (HIGHER EDUCATION)

| University/District | Number of professional colleges |           |           |           |           |           |            |           |
|---------------------|---------------------------------|-----------|-----------|-----------|-----------|-----------|------------|-----------|
|                     | Dental                          |           | Nursing   |           | Ayurvedic |           | Homeopathy |           |
|                     | 91-92                           | 96-97     | 91-92     | 96-97     | 91-92     | 96-97     | 91-92      | 96-97     |
|                     | 242                             | 243       | 244       | 245       | 246       | 247       | 248        | 249       |
| 1. Mysore           |                                 |           |           |           |           |           |            |           |
| 1 Mysore            | 2                               | 2         | 0         | 0         | 1         | 2         | 0          | 0         |
| 2 Mandya            | 0                               | 0         | 0         | 0         | 0         | 0         | 0          | 0         |
| 3 Hassan            | 1                               | 1         | 0         | 0         | 1         | 1         | 0          | 0         |
| 2. Karnataka        |                                 |           |           |           |           |           |            |           |
| 1 Dharwad           | 1                               | 1         | 0         | 0         | 7         | 7         | 4          | 4         |
| 2 Belgaum           | 2                               | 2         | 1         | 1         | 1         | 1         | 4          | 4         |
| 3 Bijapur           | 2                               | 2         | 1         | 1         | 4         | 4         | 1          | 1         |
| 4 Uttara Kannada    | 0                               | 0         | 0         | 0         | 0         | 0         | 0          | 0         |
| 3. Bangalore        |                                 |           |           |           |           |           |            |           |
| 1 Bangalore (U)     | 17                              | 17        | 5         | 7         | 1         | 3         | 2          | 2         |
| 2 Bangalore (R)     |                                 |           |           |           |           |           |            |           |
| 3 Kolar             | 1                               | 1         | 0         | 1         | 0         | 0         | 0          | 0         |
| 4 Tumkur            | 1                               | 1         | 0         | 0         | 0         | 0         | 0          | 0         |
| 4. Gulbarga         |                                 |           |           |           |           |           |            |           |
| 1 Gulbarga          | 3                               | 2         | 1         | 1         | 0         | 0         | 1          | 1         |
| 2 Bellary           | 0                               | 0         | 0         | 0         | 2         | 2         | 1          | 0         |
| 3 Bidar             | 1                               | 2         | 0         | 0         | 1         | 1         | 0          | 0         |
| 4 Raichur           | 1                               | 1         | 0         | 1         | 0         | 2         | 0          | 0         |
| S. Mangalore        |                                 |           |           |           |           |           |            |           |
| 1 Dakshina Kannada  | 5                               | 5         | 4         | 7         | 1         | 3         | 0          | 1         |
| 2 Kodagu            | 0                               | 0         | 0         | 0         | 0         | 0         | 0          | 0         |
| 6. Kuvempu          |                                 |           |           |           |           |           |            |           |
| 1 Shimoga           | 1                               | 1         | 0         | 0         | 1         | 2         | 0          | 0         |
| 2 Chitradurga       | 3                               | 3         | 2         | 2         | 1         | 4         | 0          | 0         |
| 3 Chikmagalur       | 0                               | 0         | 0         | 0         | 1         | 1         | 0          | 0         |
| <b>STATE</b>        | <b>41</b>                       | <b>41</b> | <b>14</b> | <b>21</b> | <b>22</b> | <b>33</b> | <b>13</b>  | <b>13</b> |

Source :- 1. Directorate of Medical Education

2. Directorate of Nursing Education

3. Directorate of Indian Systems of Medicine and Homeopathy



## 7. EDUCATION (HIGHER EDUCATION)

| University/District | Number of general and professional colleges |       |             |       | Enrolment of students 1996-97 |         |          |
|---------------------|---------------------------------------------|-------|-------------|-------|-------------------------------|---------|----------|
|                     | Unani                                       |       | Nature cure |       | Arts                          | Science | Commerce |
|                     | 91-92                                       | 96-97 | 91-92       | 96-97 |                               |         |          |
|                     | 250                                         | 251   | 252         | 253   | 254                           | 255     | 256      |
| 1. Mysore           |                                             |       |             |       |                               |         |          |
| 1 Mysore            | 0                                           | 0     | 1           | 0     | 9785                          | 3868    | 5100     |
| 2 Mandya            | 0                                           | 0     | 0           | 0     | 5940                          | 1554    | 804      |
| 3 Hassan            | 0                                           | 0     | 0           | 0     | 6405                          | 1656    | 1048     |
| 2. Karnataka        |                                             |       |             |       |                               |         |          |
| 1 Dharwad           | 0                                           | 0     | 0           | 0     | 16589                         | 4034    | 6115     |
| 2 Belgaum           | 0                                           | 0     | 0           | 0     | 11077                         | 2812    | 5391     |
| 3 Bijapur           | 0                                           | 0     | 0           | 0     | 18551                         | 3480    | 2631     |
| 4 Uttara Kannada    | 0                                           | 0     | 0           | 0     | 5810                          | 1273    | 3104     |
| 3. Bangalore        |                                             |       |             |       |                               |         |          |
| 1 Bangalore (U)     | 1                                           | 1     | 0           | 1     | 17179                         | 17924   | 21213    |
| 2 Bangalore (R)     |                                             |       |             |       | 5890                          | 756     | 931      |
| 3 Kolar             | 0                                           | 0     | 0           | 0     | 10043                         | 2981    | 2096     |
| 4 Tumkur            | 0                                           | 0     | 0           | 0     | 12186                         | 3269    | 1532     |
| 4. Gulbarga         |                                             |       |             |       |                               |         |          |
| 1 Gulbarga          | 0                                           | 0     | 0           | 0     | 9648                          | 2176    | 1890     |
| 2 Bellary           | 0                                           | 0     | 0           | 0     | 6879                          | 2069    | 2586     |
| 3 Bidar             | 0                                           | 0     | 0           | 0     | 6351                          | 1535    | 545      |
| 4 Raichur           | 0                                           | 0     | 0           | 0     | 4636                          | 597     | 1608     |
| S. Mangalore        |                                             |       |             |       |                               |         |          |
| 1 Dakshina Kannada  | 0                                           | 0     | 1           | 1     | 10047                         | 4234    | 11496    |
| 2 Kodagu            | 0                                           | 0     | 0           | 0     | 1130                          | 79      | 489      |
| 6. Kuvempu          |                                             |       |             |       |                               |         |          |
| 1 Shimoga           | 0                                           | 0     | 0           | 0     | 8722                          | 1606    | 3694     |
| 2 Chitradurga       | 0                                           | 0     | 0           | 0     | 13986                         | 3128    | 2054     |
| 3 Chikmagalur       | 0                                           | 0     | 0           | 0     | 3893                          | 518     | 817      |
| STATE               | 1                                           | 1     | 2           | 2     | 184747                        | 59549   | 75144    |

Source :• 1. Directorate of Indian Systems of Medicine and Homeopathy  
2. Directorate of Collegiate Education

## 7. EDUCATION (HIGHER EDUCATION)

| University/        |                         | Enrolment of students |              |       |         | 1996-97 |          |         |
|--------------------|-------------------------|-----------------------|--------------|-------|---------|---------|----------|---------|
| District           | B.Pharma<br>Engineering |                       | Polytechnics | ITI   | Medical | Dental  | Pharmacy | Nursing |
|                    | 257                     | 258                   | 259          | 260   | 261     | 262     | 263      | 264     |
| I.Mysore           |                         |                       |              |       |         |         |          |         |
| 1 Mysore           | 228                     | 3335                  | 2749         | 1784  | 1760    | 400     | 228      | 0       |
| 2 Mandya           | 171                     | 939                   | 473          | 276   | 880     | 0       | 171      | 0       |
| 3 Hassan           | 0                       | 1293                  | 946          | 940   | 0       | 130     | 0        | 0       |
| 2. Karnataka       |                         |                       |              |       |         |         |          |         |
| 1 Dharwad          | 252                     | 3849                  | 3443         | 2720  | 704     | 400     | 252      | 0       |
| 2 Belgaum          | 327                     | 1996                  | 3434         | 1180  | 980     | 580     | 327      | 160     |
| 3 Bijapur          | 153                     | 2858                  | 1398         | 2024  | 1490    | 360     | 153      | 160     |
| 4 Uttara Kannada   | 0                       | 780                   | 1666         | 936   | 0       | 0       | 0        | 0.      |
| 3. Bangalore       |                         |                       |              |       |         |         |          |         |
| 1 Bangalore (U)    | 1659                    | 17032                 | 12241        | 5472  | 3216    | 3450    | 1659     | 1160    |
| 2 Bangalore (R)    | 192                     | 869                   | 408          | 532   | 0       | 0       | 192      | 200     |
| 3 Kolar            | 135                     | 1824                  | 2116         | 2160  | 750     | 160     | 135      | 200     |
| 4 Tumkur           | 171                     | 4046                  | 1442         | 1352  | 910     | 160     | 171      | 0       |
| 4.Gulbarga         |                         |                       |              |       |         |         |          |         |
| 1 Gulbarga         | 585                     | 2982                  | 1576         | 1576  | 840     | 380     | 585      | 200     |
| 2 Bellary          | 216                     | 1306                  | 1952         | 1032  | 640     | 0       | 216      | 0       |
| 3 Bidar            | 249                     | 2293                  | 1427         | 696   | 0       | 320     | 249      | 0       |
| 4 Raichur          | 360                     | 897                   | 868          | 952   | 0       | 160     | 360      | 160     |
| S.Mangalore        |                         |                       |              |       |         |         |          |         |
| 1 Dakshina Kannada | 423                     | 5104                  | 4244         | 2312  | 2700    | 1650    | 423      | 1060    |
| 2 Kodagu           | 0                       | 0                     | 470          | 312   | 0       | 0       | 0        | 0       |
| 6.Kuvempu          |                         |                       |              |       |         |         |          |         |
| 1 Shimoga          | 180                     | 992                   | 1436         | 1196  | 0       | 160     | 180      | 0       |
| 2 Chitradurga      | 267                     | 3900                  | 1446         | 976   | 1549    | 1078    | 267      | 320     |
| 3 Chikmagalur      | 0                       | 1096                  | 568          | 328   | 0       | 0       | 0        | 0       |
| STATE              | 5568                    | 57391                 | 44303        | 28756 | 16419   | 9388    | 5568     | 3620    |

Source :- 1. Directorate of Technical Education

2. Directorate of Medical Education

3. Directorate of Nursing Education

4. Directorate of Employment and Training

## 7. EDUCATION (HIGHER EDUCATION)

| Colleges                               | Management wise colleges at undergraduate level in Karnataka |            |              |             |            |              |             |            |              |
|----------------------------------------|--------------------------------------------------------------|------------|--------------|-------------|------------|--------------|-------------|------------|--------------|
|                                        | 1965                                                         |            |              | 1975        |            |              | 1985        |            |              |
|                                        | Govt<br>265                                                  | Pvt<br>266 | Total<br>267 | Govt<br>268 | Pvt<br>269 | Total<br>270 | Govt<br>271 | Pvt<br>272 | Total<br>273 |
| 1. Arts, Science & Commerce            | 21                                                           | 64         | 85           | 38          | 179        | 217          | 95          | 285        | 380          |
| 2. Education Faculty (B.Ed. & B.P.Ed.) | 8                                                            | 10         | 18           | 9           | 28         | 37           | 11          | 55         | 66           |
| 3. Colleges under Law Faculty          | 2                                                            | 4          | 6            | 2           | 24         | 26           | 2           | 35         | 37           |
| 4. Colleges under Engg. Faculty        | 5                                                            | 13         | 18           | 5           | 16         | 21           | 5           | 39         | 44           |
| 5. Colleges under Medical Faculty      |                                                              |            |              |             |            |              |             |            |              |
| a)Medical                              | 4                                                            | 5          | 9            | 4           | 5          | 9            | 4           | 11         | 15           |
| b)Dental                               | 1                                                            | 1          | 2            | 1           | 2          | 3            | 1           | 4          | 5            |
| c)Pharmacy                             | 1                                                            | 1          | 2            | 1           | 6          | 7            | 1           | 34         | 35           |
| d)Nursing                              | 0                                                            | 0          | 0            | 1           | 0          | 1            | 1           | 0          | 1            |
| e)Indian Medicine                      | 1                                                            | 4          | 5            | 3           | 6          | 9            | 5           | 13         | 18           |
| <b>TOTAL</b>                           | <b>43</b>                                                    | <b>102</b> | <b>145</b>   | <b>64</b>   | <b>266</b> | <b>330</b>   | <b>125</b>  | <b>476</b> | <b>601</b>   |

**Source: -** i) For 1965, 1975, 1985 and 1991-92 :- Karnataka University Review Commission Report - 1991-93

ii) For 1996-97:-

1. Director of Collegiate Education - Non-professional and law colleges.
2. Director of Technical Education - Engineering and technology colleges.
3. Director of Medical Education - Medical & dental colleges.
4. Controller of Drugs - Pharmacy colleges.
6. Director of Nursing - Nursing colleges
7. Director of Indian Medicine - Ayurvedic, unani and homeopathic colleges
8. Dept. of State Educational Research & Training- Education colleges

## 7. EDUCATION (HIGHER EDUCATION)

| Colleges                               | Management wise colleges at undergraduate level in Karnataka |            |            |            |             |             |
|----------------------------------------|--------------------------------------------------------------|------------|------------|------------|-------------|-------------|
|                                        | 1991-92                                                      |            |            | 1996-97    |             |             |
|                                        | Govt                                                         | Pvt        | Total      | Govt       | Pvt         | Total       |
|                                        | 274                                                          | 275        | 276        | 277        | 278         | 279         |
| 1. Arts, Science & Commerce            | 128                                                          | 380        | 508        | 149        | 672         | 821         |
| 2. Education Faculty (B.Ed. & B.P.Ed.) | 11                                                           | 66         | 77         | 11         | 67          | 78          |
| 3. Colleges under Law Faculty          | 2                                                            | 42         | 44         | 2          | 60          | 62          |
| 4. Colleges under Engg. Faculty        | 5                                                            | 46         | 51         | 1          | 52          | 53          |
| 5. Colleges under Medical Faculty      |                                                              |            |            |            |             |             |
| a) Medical                             | 4                                                            | 15         | 19         | 4          | 14          | 18          |
| b) Dental                              | 1                                                            | 40         | 41         | 1          | 40          | 41          |
| c) Pharmacy                            | 1                                                            | 41         | 42         | 1          | 46          | 47          |
| d) Nursing                             | 1                                                            | 13         | 14         | 1          | 20<br>44    | 21          |
| e) Indian Medicine                     | 6                                                            | 32         | 38         | 5          |             | 49          |
| <b>TOTAL</b>                           | <b>159</b>                                                   | <b>675</b> | <b>834</b> | <b>175</b> | <b>1015</b> | <b>1190</b> |

Source: • i) For 1965, 1975, 1985" and 1991-92 :- Karnataka University Review Commission Report • 1991-93

ii) For 1996-97:-

1. Director of Collegiate Education - Non-professional and law colleges.
2. Director of Technical Education - Engineering and technology colleges.
3. Director of Medical Education - Medical & dental colleges.
4. Controller of Drugs - Pharmacy colleges.
6. Director of Nursing - Nursing colleges .
7. Director of Indian Medicine - Ayurvedic, unani and homeopathic colleges
8. Dept. of State Educational Research & Training- Education colleges •

## 7. EDUCATION (HIGHER EDUCATION)

| Faculty/university | Enrolment at undergraduate level |       |       |       |       |       |      |       |       |
|--------------------|----------------------------------|-------|-------|-------|-------|-------|------|-------|-------|
|                    | 1965                             |       |       | 1975  |       |       | 1985 |       |       |
|                    | Men                              | Women | Total | Men   | Women | Total | Men  | Women | Total |
|                    | 280                              | 281   | 282   | 283   | 284   | 285   | 286  | 287   | 288   |
| Arts- Bangalore    | 2882                             | 438   | 3320  | 2867  | 3540  | 6407  | 8882 | 3358  | 12240 |
| Mysore             | 2705                             | 1569  | 4274  | 30574 | 17102 | 47676 | 1316 | 7093  | 20253 |
| Karnataka          | 6692                             | 1398  | 8090  | 11619 | 3881  | 15500 | 1485 | 6238  | 21088 |
| Mangalore          |                                  |       |       |       |       |       | 3311 | 4687  | 7998  |
| Gulbarga           |                                  |       |       |       |       |       | 7110 | 1521  | 8631  |
| Kuvempu*           |                                  |       |       |       |       |       |      |       |       |
| <b>TOTAL</b>       | 12279                            | 3405  | 15684 | 45060 | 24523 | 69583 | 4731 | 22897 | 70210 |
| Science- Bangalore | 2080                             | 1070  | 3150  | 3101  | 3219  | 6320  | 9644 | 5816  | 15460 |
| Mysore             | 5441                             | 1526  | 6967  | 2632  | 1387  | 4019  | 4219 | 3265  | 7484  |
| Karnataka          | 7082                             | 719   | 7801  | 3909  | 939   | 4848  | 3834 | 1143  | 4977  |
| Mangalore          |                                  |       |       |       |       |       | 1409 | 1305  | 2714  |
| Gulbarga           |                                  |       |       |       |       |       | 1938 | 630   | 2568  |
| Kuvempu*           |                                  |       |       |       |       |       |      |       |       |
| <b>TOTAL</b>       | 14603                            | 3315  | 17918 | 9642  | 5545  | 15187 | 2104 | 12159 | 33203 |
| Commerce-          |                                  |       |       |       |       |       |      |       |       |
| Bangalore          | 780                              | 197   | 977   | 1875  | 465   | 2340  | 1010 | 6190  | 16290 |
| Mysore             | 459                              | 8     | 467   | 5300  | 616   | 5916  | 5612 | 1096  | 6708  |
| Karnataka          | 1646                             | 36    | 1682  | 6227  | 409   | 6636  | 7484 | 3081  | 10565 |
| Mangalore          |                                  |       |       |       |       |       | 4380 | 3046  | 7426  |
| Gulbarga           |                                  |       |       |       |       |       | 1638 | 516   | 2154  |
| Kuvempu*           |                                  |       |       |       |       |       |      |       |       |
| <b>TOTAL</b>       | 2885                             | 241   | 3126  | 13402 | 1490  | 14892 | 2921 | 13929 | 43143 |

\* including science & commerce

Source: - Directorate of Collegiate Education, Govt. of Karnataka

Note : Universities of Mangalore and Gulbarga were not in existence for the period prior to 1985 and Kuvempu University has been established only after 1985.

### 3. GENDER RELATED DEVELOPMENT INDEX

| District              | Proportion of population |       | Life expectancy at birth 1991 |       | Health index |       | Equally distributed health index |
|-----------------------|--------------------------|-------|-------------------------------|-------|--------------|-------|----------------------------------|
|                       | Female                   | Male  | Female                        | Male  | Female       | Male  |                                  |
| 1                     | 2                        | 3     | 4                             | 5     | 6            | 7     | 8                                |
| 1 Bangalore           | 0.474                    | 0.526 | 66.10                         | 65.48 | 0.643        | 0.716 | 0.680                            |
| 2 Bangalore Rural     | 0.486                    | 0.514 | 69.09                         | 64.40 | 0.693        | 0.698 | 0.696                            |
| 3 Belgaum             | 0.488                    | 0.512 | 66.15                         | 64.06 | 0.644        | 0.693 | 0.668                            |
| 4 Bellary             | 0.491                    | 0.509 | 63.15                         | 57.12 | 0.594        | 0.577 | 0.585                            |
| 5 Bidar               | 0.488                    | 0.512 | 66.38                         | 61.23 | 0.648        | 0.646 | 0.647                            |
| 6 Bijapur             | 0.491                    | 0.509 | 66.38                         | 59.33 | 0.648        | 0.614 | 0.630                            |
| 7 Chikmagalur         | 0.494                    | 0.506 | 66.87                         | 62.47 | 0.656        | 0.666 | 0.661                            |
| 8 Chitradurga         | 0.486                    | 0.514 | 64.47                         | 59.49 | 0.616        | 0.615 | 0.616                            |
| 9 Dakshina<br>Kannada | 0.515                    | 0.485 | 72.49                         | 65.34 | 0.750        | 0.714 | 0.732                            |
| 10 Dharwad            | 0.485                    | 0.515 | 65.56                         | 60.13 | 0.634        | 0.627 | 0.631                            |
| 11 Gulbarga           | 0.490                    | 0.510 | 66.87                         | 61.23 | 0.656        | 0.646 | 0.651                            |
| 12 Hassan             | 0.500                    | 0.500 | 70.00                         | 61.02 | 0.708        | 0.642 | 0.674                            |
| 13 Kodagu             | 0.495                    | 0.505 | 71.87                         | 64.41 | 0.740        | 0.699 | 0.718                            |
| 14 Kolar              | 0.491                    | 0.509 | 67.42                         | 58.54 | 0.665        | 0.601 | 0.631                            |
| 15 Mandya             | 0.491                    | 0.509 | 68.03                         | 60.12 | 0.676        | 0.627 | 0.650                            |
| 16 Mysore             | 0.488                    | 0.512 | 67.71                         | 59.02 | 0.670        | 0.609 | 0.637                            |
| 17 Raichur            | 0.495                    | 0.505 | 69.53                         | 61.76 | 0.701        | 0.654 | 0.676                            |
| 18 Shimoga            | 0.490                    | 0.510 | 65.00                         | 59.33 | 0.625        | 0.614 | 0.619                            |
| 19 Tumkur             | 0.489                    | 0.511 | 63.00                         | 58.39 | 0.592        | 0.598 | 0.595                            |
| 20 Uttara Kannada     | 0.491                    | 0.509 | 70.00                         | 64.06 | 0.708        | 0.693 | 0.700                            |
| STATE                 | 0.490                    | 0.510 | 63.61                         | 60.60 | 0.602        | 0.635 | 0.618                            |

Maximum :-  
Minimum :-

87.5 82.5  
27.5 22.5

Note :- Steps involved in the computation of the GDI have been indicated in this table. The technical note may be referred to for further clarifications.

Source:- Working Group (HDR), GOK.

## 7. EDUCATION (HIGHER EDUCATION)

| Faculty/University |        | Enrolment at undergraduate level |        |         |       |        |
|--------------------|--------|----------------------------------|--------|---------|-------|--------|
|                    |        | 1991-92                          |        | 1996-97 |       |        |
| Men                | Women  | Total                            | Men    | Women   | Total |        |
| 289                | 290    | 291                              | 292    | 293     | 294   |        |
| Arts- Bangalore    | 11340  | 6300                             | 17640  | 28236   | 17062 | 45298  |
| Mysore             | 14595  | 8527                             | 23122  | 13918   | 8212  | 22130  |
| Karnataka          | 30923  | 11292                            | 42215  | 37024   | 15003 | 52027  |
| Mangalore          | 4202   | 6429                             | 10631  | 4149    | 7028  | 11177  |
| Gulbarga           | 21511  | 2293                             | 23804  | 19266   | 8248  | 27514  |
| Kuvempu*           | 17817  | 9674                             | 27491  | 16567   | 10034 | 26601  |
| TOTAL              | 100388 | 44515                            | 144903 | 119160  | 65587 | 184747 |
| Science-           |        |                                  |        |         |       |        |
| Bangalore          | 113850 | 6120                             | 19970  | 13161   | 11769 | 24930  |
| Mysore             | 1531   | 1358                             | 2889   | 3816    | 3262  | 7078   |
| Karnataka          | 7267   | 2402                             | 9669   | 8035    | 3564  | 11599  |
| Mangalore          | 1747   | 1916                             | 3663   | 1819    | 2494  | 4313   |
| Gulbarga           | 6653   | 365                              | 7018   | 3088    | 2089  | 5177   |
| Kuvempu*           |        |                                  |        | 3656    | 1596  | 5252   |
| TOTAL              | 131048 | 12161                            | 43209  | 33575   | 24774 | 58349  |
| Commerce-          |        |                                  |        |         |       |        |
| Bangalore          | 16668  | 5438                             | 22106  | 14053   | 11719 | 25772  |
| Mysore             | 1843   | 274                              | 2117   | 3782    | 3170  | 6952   |
| Karnataka          | 9150   | 4202                             | 13352  | 10446   | 6795  | 17241  |
| Mangalore          | 5339   | 4567                             | 9906   | 6571    | 5414  | 11985  |
| Gulbarga           | 4912   | 325                              | 5237   | 4547    | 2082  | 6629   |
| Kuvempu*           |        |                                  |        | 3712    | 2853  | 6565   |
| TOTAL              | 37912  | 14806                            | 52718  | 43111   | 32033 | 75144  |

\* including science & commerce

Directorate of Collegiate Education, Govt. of Karnataka

Source: -



## 7. EDUCATION (HIGHER EDUCATION)

| Faculty/University |           | Enrolment at undergraduate level |       |       |       |       |       |       |       |       |
|--------------------|-----------|----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
|                    |           | 1965                             |       |       | 1975  |       |       | 1985  |       |       |
|                    |           | Men                              | Women | Total | Men   | Women | Total | Men   | Women | Total |
|                    |           | 295                              | 296   | 297   | 298   | 299   | 300   | 301   | 302   | 303   |
| Engg               | Bangalore | 2870                             | 800   | 3670  | 5870  | 1373  | 7243  | 15860 | 7140  | 23000 |
| Tech               | Mysore    | 3763                             | 6     | 3769  | 5060  | 187   | 5247  | 8744  | 655   | 9399  |
|                    | Karnataka | 1046                             | 1     | 1047  | 1509  | 12    | 1521  | 5798  | 259   | 6057  |
|                    | Mangalore |                                  |       |       |       |       |       | 1698  | 103   | 1801  |
|                    | Gulbarga  |                                  |       |       |       |       |       | 1472  | 67    | 1539  |
|                    | Kuvempu   |                                  |       |       |       |       |       |       |       |       |
| TOTAL              |           | 7679                             | 807   | 8486  | 12439 | 1572  | 14011 | 33572 | 8224  | 41796 |
| Medical            | Bangalore | 875                              | 435   | 1310  | 1208  | 660   | 1868  | 1896  | 1444  | 3340  |
| Dental             | Mysore    | 1888                             | 356   | 2244  | 3308  | 902   | 4210  | 1730  | 638   | 2368  |
| Pharma             | Karnataka | 1486                             | 198   | 1684  | 2964  | 392   | 3356  | 1117  | 412   | 1529  |
| Nursing            | Mangalore |                                  |       |       |       |       |       | 1034  | 531   | 1565  |
|                    | Gulbarga  |                                  |       |       |       |       |       | 203   | 79    | 282   |
|                    | Kuvempu   |                                  |       |       |       |       |       |       |       |       |
| TOTAL              |           | 4249                             | 989   | 5238  | 7480  | 1954  | 9434  | 5980  | 3104  | 9084  |
| Law-               | Bangalore | 390                              | 120   | 510   | 1210  | 630   | 1840  | 1784  | 1106  | 2890  |
|                    | Mysore    | 243                              | 14    | 257   | 2404  | 312   | 2716  | 3219  | 312   | 3531  |
|                    | Karnataka | 581                              | 11    | 592   | 4141  | 101   | 4242  | 3110  | 267   | 3377  |
|                    | Mangalore |                                  |       |       |       |       |       | 1207  | 264   | 1471  |
|                    | Gulbarga  |                                  |       |       |       |       |       | 1133  | 135   | 1268  |
|                    | Kuvempu   |                                  |       |       |       |       |       |       |       |       |
| TOTAL              |           | 1214                             | 145   | 1359  | 7755  | 1043  | 8798  | 10453 | 2084  | 12537 |
| Edn-               | Bangalore | 140                              | 81    | 221   | 260   | 690   | 950   | 2948  | 1022  | 3970  |
|                    | Mysore    | 403                              | 123   | 526   | 1398  | 625   | 2023  | 1296  | 803   | 2099  |
|                    | Karnataka | 396                              | 31    | 427   | 884   | 313   | 1197  | 658   | 274   | 932   |
|                    | Mangalore |                                  |       |       |       |       |       | 111   | 285   | 396   |
|                    | Gulbarga  |                                  |       |       |       |       |       | 756   | 334   | 1090  |
|                    | Kuvempu   |                                  |       |       |       |       |       |       |       |       |
| TOTAL              |           | 939                              | 235   | 1174  | 2542  | 1628  | 4170  | 5769  | 2718  | 8487  |

Source :- Eng/Tech. - Directorate of Technical Education, Govt. of Karnataka  
 Law - Directorate of Collegiate Education, Govt. of Karnataka  
 Medical / Dental / Pharmacy / Nursing - Directorate of Medical Education  
 Edn. - Commissioner for Public Instruction.

Note:- Blank space indicates that the University had not started the faculty

## 7. EDUCATION (HIGHER EDUCATION)

| Faculty/University |              | Enrolment at undergraduate leve |              |              |              |             |              |
|--------------------|--------------|---------------------------------|--------------|--------------|--------------|-------------|--------------|
|                    |              | 1991-92                         |              |              | 1996-97      |             |              |
|                    |              | Men                             | Women        | Total        | Men          | Women       | Total        |
|                    |              | 304                             | 305          | 306          | 307          | 308         | 30           |
| Engg:              | Bangalore    | 20460                           | 7956         | 28416        | 19257        | 4514        | 23771        |
| Tech               | Mysore       | 4852                            | 860          | 5712         | 4625         | 942         | 5567         |
|                    | Karnataka    | 7919                            | 739          | 8658         | 8287         | 1196        | 9483         |
|                    | Mangalore    | 3090                            | 320          | 3410         | 4157         | 947         | 5104         |
|                    | Gulbarga     | 1959                            | 111          | 2070         | 6603         | 875         | 7478         |
|                    | Kuvempu      | 3937                            | 476          | 4413         | 5000         | 988         | 5988         |
|                    | <b>TOTAL</b> | <b>42217</b>                    | <b>10462</b> | <b>52679</b> | <b>47929</b> | <b>9462</b> | <b>57391</b> |
| Medical            | Bangalore    | 6160                            | 3640         | 9800         | n.a.         | n.a.        | 11553        |
| Dental             | Mysore       | 2443                            | 1141         | 3584         | n.a.         | n.a.        | 3569         |
| Pharma             | Karnataka    | 2890                            | 1237         | 4127         | n.a.         | n.a.        | 5566         |
| Nursing            | Mangalore    | 1724                            | 1535         | 3259         | n.a.         | n.a.        | 5833         |
|                    | Gulbarga     | 230                             | 87           | 317          | n.a.         | n.a.        | 4110         |
|                    | Kuvempu      | 250                             | 31           | 281          | n.a.         | n.a.        | 3554         |
|                    | <b>TOTAL</b> | <b>13697</b>                    | <b>7671</b>  | <b>21368</b> | <b>n.a.</b>  | <b>n.a.</b> | <b>34185</b> |
| Law-               | Bangalore    | 2890                            | 2170         | 5060         | 5616         | 1536        | 7152         |
|                    | Mysore       | 2392                            | 403          | 2795         | 3016         | 751         | 3767         |
|                    | Karnataka    | 3815                            | 473          | 4288         | 3420         | 1298        | 4718         |
|                    | Mangalore    | 1631                            | 706          | 2337         | 1523         | 1212        | 2735         |
|                    | Gulbarga     | 1096                            | 83           | 1179         | 2286         | 518         | 2804         |
|                    | Kuvempu      | 1243                            | 213          | 1458         | 1941         | 322         | 2263         |
|                    | <b>TOTAL</b> | <b>13067</b>                    | <b>4048</b>  | <b>17117</b> | <b>17802</b> | <b>5637</b> | <b>23439</b> |
| Edn-               | Bangalore    | 1940                            | 2380         | 4320         | n.a.         | n.a.        | 1990         |
|                    | Mysore       | 953                             | 721          | 1674         | n.a.         | n.a.        | 1290         |
|                    | Karnataka    | 1054                            | 414          | 1468         | n.a.         | n.a.        | 1560         |
|                    | Mangalore    | 90                              | 320          | 410          | n.a.         | n.a.        | 400          |
|                    | Gulbarga     | 731                             | 366          | 1097         | n.a.         | n.a.        | 1080         |
|                    | Kuvempu      | 560                             | 210          | 770          | n.a.         | n.a.        | 840          |
|                    | <b>TOTAL</b> | <b>5328</b>                     | <b>4411</b>  | <b>9739</b>  | <b>n.a.</b>  | <b>n.a.</b> | <b>7160</b>  |

**Source:-** Eng/Tech.- Directorate of Technical Education, Govt. of Karnataka  
 Law - Directorate of Collegiate Education, Govt of Karnataka  
 Medical / Dental / Pharmacy / Nursing - Directorate of Medical Education  
 Edn. - Commissioner for Public Instruction.

n.a. :- not available

## 7. EDUCATION (HIGHER EDUCATION)

| Faculty/University |           | Enrolment at postgraduate level |       |       |      |       |       |      |       |       |
|--------------------|-----------|---------------------------------|-------|-------|------|-------|-------|------|-------|-------|
|                    |           | 1965                            |       |       | 1975 |       |       | 1985 |       |       |
|                    |           | Men                             | Women | Total | Men  | Women | Total | Men  | Women | Total |
|                    |           | 310                             | 311   | 312   | 313  | 374   | 315   | 316  | 317   | 318   |
| Arts-              | Bangalore | 148                             | 28    | 176   | 210  | 140   | 350   | 330  | 250   | 580   |
|                    | Mysore    | 199                             | 81    | 280   | 676  | 166   | 842   | 816  | 223   | 1039  |
|                    | Karnataka | 104                             | 19    | 123   | 700  | 150   | 850   | 236  | 111   | 347   |
|                    | Mangalore |                                 |       |       |      |       |       | 60   | 66    | 126   |
|                    | Gulbarga  |                                 |       |       |      |       |       | 220  | 130   | 350   |
|                    | Kuvempu   |                                 |       |       |      |       |       |      |       |       |
| TOTAL              |           | 451                             | 128   | 579   | 1586 | 456   | 2042  | 1662 | 780   | 2442  |
| Science-           | Bangalore | 120                             | 40    | 160   | 160  | 60    | 220   | 250  | 80    | 330   |
|                    | Mysore    | 227                             | 43    | 270   | 568  | 116   | 684   | 416  | 222   | 638   |
|                    | Karnataka | 401                             | 41    | 442   | 304  | 26    | 330   | 201  | 73    | 274   |
|                    | Mangalore |                                 |       |       |      |       |       | 64   | 45    | 109   |
|                    | Gulbarga  |                                 |       |       |      |       |       | 188  | 80    | 268   |
|                    | Kuvempu   |                                 |       |       |      |       |       |      |       |       |
| TOTAL              |           | 748                             | 124   | 872   | 1032 | 202   | 1234  | 1119 | 500   | 1619  |
| Commerce-          | Bangalore |                                 |       |       | 103  | 47    | 150   | 188  | 40    | 228   |
|                    | Mysore    | 65                              | 0     | 65    | 182  | 13    | 195   | 132  | 32    | 164   |
|                    | Karnataka | 65                              | 1     | 66    | 55   | 0     | 55    | 71   | 14    | 85    |
|                    | Mangalore |                                 |       |       |      |       |       | 21   | 44    | 65    |
|                    | Gulbarga  |                                 |       |       |      |       |       | 75   | 10    | 85    |
|                    | Kuvempu   |                                 |       |       |      |       |       |      |       |       |
| TOTAL              |           | 130                             | 1     | 131   | 340  | 60    | 400   | 487  | 140   | 627   |

**Source:-** 1. For 1965, 1975, 1985 and 1991-92:- Karnataka University Review Commission Report, 1992-93

2. For 1996-97:- From the concerned universities

**Note:-** Blank space indicates that the University had not started the faculty

## 7, EDUCATION (HIGHER EDUCATION)

| Faculty/University |           | Enrolment at postgraduate level |       |       |         |       |       |
|--------------------|-----------|---------------------------------|-------|-------|---------|-------|-------|
|                    |           | 1991-92                         |       |       | 1996-97 |       |       |
|                    |           | Men                             | Women | Total | Men     | Women | Total |
|                    |           | 319                             | 320   | 321   | 322     | 323   | 324   |
| Arts-              | Bangalore | 347                             | 253   | 600   | 705     | 493   | 1198  |
|                    | Mysore    | 532                             | 216   | 748   | 602     | 218   | 820   |
|                    | Karnataka | 363                             | 133   | 496   | 410     | 197   | 607   |
|                    | Mangalore | 73                              | 78    | 151   | 64      | 106   | 170   |
|                    | Gulbarga  | 410                             | 235   | 645   | 481     | 150   | 631   |
|                    | Kuvempu   | 193                             | 46    | 239   | 226     | 72    | 298   |
| <b>TOTAL</b>       |           | 1918                            | 961   | 2879  | 2488    | 1236  | 3724  |
| Science-           | Bangalore | 288                             | 153   | 441   | 768     | 752   | 1520  |
|                    | Mysore    | 440                             | 255   | 695   | 270     | 233   | 503   |
|                    | Karnataka | 251                             | 117   | 368   | 565     | 384   | 949   |
|                    | Mangalore | 89                              | 67    | 156   | 95      | 122   | 217   |
|                    | Gulbarga  | 231                             | 109   | 340   | 292     | 149   | 441   |
|                    | Kuvempu   | 85                              | 36    | 121   | 196     | 88    | 284   |
| <b>TOTAL</b>       |           | 1384                            | 737   | 2121  | 2186    | 1728  | 3914  |
| Commerce-          | Bangalore | 273                             | 66    | 339   | 500     | 282   | 782   |
|                    | Mysore    | 112                             | 46    | 158   | 77      | 46    | 123   |
|                    | Karnataka | 57                              | 27    | 84    | 154     | 70    | 224   |
|                    | Mangalore | 25                              | 39    | 64    | 30      | 41    | 71    |
|                    | Gulbarga  | 96                              | 8     | 104   | 201     | 64    | 265   |
|                    | Kuvempu   | 52                              | 15    | 67    | 28      | 37    | 65    |
| <b>TOTAL</b>       |           | 615                             | 201   | 816   | 990     | 540   | 1530  |

**Source:-**

1. For 1965, 1975, 1985 and 1991-92:- Karnataka University Review Commission Report, 1992-93
2. For 1996-97:- From the concerned universities

## 7. EDUCATION (HIGHER EDUCATION)

| Faculty/University |           | Enrolment at postgraduate level |       |       |      |       |       |      |       |        |
|--------------------|-----------|---------------------------------|-------|-------|------|-------|-------|------|-------|--------|
|                    |           | 1965                            |       |       | 1975 |       |       | 1985 |       |        |
|                    |           | Men                             | Women | Total | Men  | Women | Total | Men  | Women | Total  |
|                    |           | 325                             | 326   | 327   | 328  | 329   | 330   | 33?  | 332   | 333    |
| Engg:              | Bangalore |                                 |       |       | 16   | 7     | 23    | 29   | 4     | 33     |
| Tech               | Mysore    |                                 |       |       |      |       |       |      |       |        |
|                    | Karnataka |                                 |       |       |      |       |       |      |       |        |
|                    | Mangalore |                                 |       |       |      |       |       | 111  | 4     | 115 .. |
|                    | Gulbarga  |                                 |       |       |      |       |       |      |       |        |
|                    | Kuvempu   |                                 |       |       |      |       |       |      |       |        |
| <b>TOTAL</b>       |           | 0                               | 0     | 0     | 16   | 7     | 23    | 140  | 8     | 148    |
| Medical            | Bangalore |                                 |       |       | 15   | 9     | 24    | 18   | 8     | 26     |
| Dental             | Mysore    |                                 |       |       | 0    | 0     | 0     | 0    | 0     | 0      |
| Pharma             | Karnataka |                                 |       |       | 15   | 2     | 17    | 59   | 11    | 70     |
| Nursing            | Mangalore |                                 |       |       |      |       |       | 188  | 133   | 321    |
|                    | Gulbarga  |                                 |       |       |      |       |       |      |       |        |
|                    | Kuvempu   |                                 |       |       |      |       |       |      |       |        |
| <b>TOTAL</b>       |           |                                 |       |       | 30   | 11    | 41    | 265  | 152   | 417    |
| Law-               | Bangalore |                                 |       |       | 1    | 1     | 2     | 1    | 1     | 2      |
|                    | Mysore    |                                 |       |       | 10   | 1     | 11    | 13   | 1     | 14     |
|                    | Karnataka |                                 |       |       | 13   | 0     | 13    | 1    | 1     | 2      |
|                    | Mangalore |                                 |       |       |      |       |       |      |       |        |
|                    | Gulbarga  |                                 |       |       |      |       |       |      |       |        |
|                    | Kuvempu   |                                 |       |       |      |       |       |      |       |        |
| <b>TOTAL</b>       |           |                                 |       |       | 24   | 2     | 26    | 15   | 3     | 18     |
| <b>GRAND TOTAL</b> |           | 1329                            | 253   | 1582  | 3028 | 738   | 3766  | 3688 | 1583  | 5271   |

Source :-  
1991-93

1 . For 1965, 1975, 1985 and 1991-92:- Karnataka University Review Commission Report,

2. For 1996-97:- From the concerned universities

**Note:-**

Blank space indicates that the University had not started the faculty

## 7. EDUCATION (HIGHER EDUCATION)

| Faculty/University |           | Enrolment at postgraduate level |       |       |         |       |       |
|--------------------|-----------|---------------------------------|-------|-------|---------|-------|-------|
|                    |           | 1991-92                         |       |       | 1996-97 |       |       |
|                    |           | Men                             | Women | Total | Men     | Women | Total |
|                    |           | 334                             | 335   | 336   | 337     | 338   | 339   |
| Engg:              | Bangalore | 142                             | 22    | 164   | 470     | 120   | 590   |
| Tech               | Mysore    | 337                             | 57    | 394   | 506     | 85    | 591   |
|                    | Karnataka |                                 |       |       | 83      | 8     | 91    |
|                    | Mangalore | 159                             | 12    | 171   | 225     | 52    | 277   |
|                    | Gulbarga  | 47                              | 5     | 52    | 98      | 23    | 121   |
|                    | Kuvempu   |                                 |       |       | 9       | 0     | 9     |
| <b>TOTAL</b>       |           | 685                             | 96    | 781   | 1391    | 288   | 1679  |
| Medica             | Bangalore | 162                             | 67    | 229   | 439     | 220   | 659   |
| Dental             | Mysore    | 170                             | 42    | 212   | 131     | 72    | 203   |
| Pharma             | Karnataka | 245                             | 88    | 333   | 214     | 68    | 282   |
| Nursing            | Mangalore | 275                             | 165   | 440   | 210     | 119   | 329   |
|                    | Gulbarga  | 60                              | 26    | 86    | 149     | 71    | 220   |
|                    | Kuvempu   |                                 |       |       | 228     | 50    | 278   |
| <b>TOTAL</b>       |           | 912                             | 388   | 1300  | 1371    | 600   | 1971  |
| Law-               | Bangalore | 6                               | 2     | 8     |         |       |       |
|                    | Mysore    | 28                              | 7     | 35    | 11      | 9     | 20    |
|                    | Karnataka | 11                              | 1     | 12    | 22      | 5     | 27    |
|                    | Mangalore |                                 |       |       |         |       |       |
|                    | Gulbarga  |                                 |       |       | 6       | 3     | 9     |
|                    | Kuvempu   | 3                               | 0     | 3     |         |       |       |
| <b>TOTAL</b>       |           | 48                              | 10    | 58    | 39      | 17    | 56    |
| <b>GRAND TOTAL</b> |           | 5562                            | 2393  | 7955  | 8465    | 4409  | 12874 |

**Source :-** 1. For 1965, 1975, 1985 and 1991-92:- Karnataka University Review Commission Report, 1991-93  
2. For 1996-97:- From the concerned universities

**Note:-** Blank space indicates that the University had not started the faculty

## 5. INCOME AND EMPLOYMENT

### (1) Income

| District           | District income and per capita district income at current prices |         |         |         |         |
|--------------------|------------------------------------------------------------------|---------|---------|---------|---------|
|                    | District income (Rs. lakhs)                                      |         |         |         |         |
|                    | 1960-61                                                          | 1970-71 | 1980-81 | 1990-91 | 1995-96 |
| 1                  | 2                                                                | 3       | 4       | 5       | 6       |
| 1 Bangalore        | 6366                                                             | 23261   | 102810  | 389930  | 807167  |
| 2 Bangalore Rural  |                                                                  |         |         | 71183   | 151959  |
| 3 Belgaum          | 5245                                                             | 13385   | 41271   | 161544  | 321137  |
| 4 Bellary          | 2773                                                             | 8844    | 23277   | 84067   | 173044  |
| 5 Bidar            | 1309                                                             | 4098    | 13090   | 40010   | 94482   |
| 6 Bijapur          | 3340                                                             | 9422    | 23088   | 109386  | 230757  |
| 7 Chickmagalur     | 2838                                                             | 8549    | 16795   | 68415   | 161124  |
| 8 Chitradurga      | 2975                                                             | 9320    | 28546   | 89537   | 185256  |
| 9 Dakshina Kannada | 5534                                                             | 15079   | 39996   | 152374  | 308076  |
| 10 Dharwad         | 4970                                                             | 13585   | 37378   | 129162  | 298767  |
| 11 Gulbarga        | 3093                                                             | 10702   | 28427   | 106237  | 248226  |
| 12 Hassan          | 2679                                                             | 7348    | 18521   | 60760   | 133988  |
| 13 Kodagu          | 2328                                                             | 6921    | 13985   | 51367   | 105753  |
| 14 Kolar           | 3044                                                             | 7200    | 16075   | 74168   | 147934  |
| 15 Mandya          | 2302                                                             | 6930    | 22354   | 64889   | 13411   |
| 17 Raichur         | 2476                                                             | 10516   | 25528   | 80643   | 183515  |
| 18 Shimoga         | 5822                                                             | 12460   | 29510   | 87091   | 207428  |
| 19 Tumkur          | 3836                                                             | 8287    | 22961   | 83905   | 183733  |
| 20 Uttara Kannada  | 3944                                                             | 7298    | 17650   | 59623   | 112815  |
| STATE              | 69164                                                            | 198446  | 558736  | 2098983 | 4525230 |

**Source :-** Directorate of Economics and Statistics.

**Note :-** Break-up not available for Bangalore (U) & Bangalore (R) districts from 1960-61 to 1980-81, hence value of undivided district of Bangalore is shown against Bangalore (U) district.



## 8. INCOME AND EMPLOYMENT

### (1) Income

| District           | District income and per capita district income at current prices |         |         |         |         |
|--------------------|------------------------------------------------------------------|---------|---------|---------|---------|
|                    | Per capita district income (Rs.)                                 |         |         |         |         |
|                    | 1960-61                                                          | 1970-71 | 1980-81 | 1990-91 | 1995-96 |
|                    | 7                                                                | 8       | 9       | 10      | 11      |
| 1 Bangalore        | 256                                                              | 699     | 2100    | 8153    | 15556   |
| 2 Bangalore Rural  |                                                                  |         |         | 4304    | 8471    |
| 3 Belgaum          | 267                                                              | 559     | 1399    | 4575    | 8356    |
| 4 Bellary          | 306                                                              | 797     | 1579    | 4478    | 8544    |
| 5 Bidar            | 199                                                              | 503     | 1329    | 3197    | 7023    |
| 6 Bijapur          | 203                                                              | 479     | 971     | 3765    | 7350    |
| 7 Chickmagalur     | 479                                                              | 1176    | 1858    | 6655    | 14783   |
| 8 Chitradurga      | 274                                                              | 674     | 1622    | 4088    | 7921    |
| 9 Dakshina Kannada | 357                                                              | 786     | 1701    | 5682    | 10665   |
| 10 Dharwad         | 257                                                              | 586     | 1283    | 3705    | 7953    |
| 11 Gulbarga        | 223                                                              | 622     | 1381    | 4098    | 8967    |
| 12 Hassan          | 301                                                              | 674     | 1381    | 3884    | 7961    |
| 13 Kodagu          | 728                                                              | 1851    | 3069    | 10447   | 20120   |
| 14 Kolar           | 238                                                              | 481     | 853     | 3387    | 6223    |
| 15 Mandya          | 258                                                              | 607     | 1592    | 3924    | 7619    |
| 16 Mysore          | 259                                                              | 742     | 1459    | 4305    | 9896    |
| 17 Raichur         | 227                                                              | 751     | 1447    | 3538    | 7418    |
| 18 Shimoga         | 578                                                              | 968     | 1800    | 4531    | 10121   |
| 19 Tumkur          | 283                                                              | 514     | 1172    | 3681    | 7427    |
| 20 Uttara Kannada  | 577                                                              | 869     | 1662    | 4941    | 8632    |
| STATE              | 296                                                              | 685     | 1520    | 4696    | 9384    |

**Source :-** Directorate of Economics and Statistics.

**Note :-** Break-up not available for Bangalore (U) & Bangalore (R) districts from 1960-61 to 1980- hence value of undivided district of Bangalore is shown against Bangalore (U) district.

## 8. INCOME AND EMPLOYMENT

### (1) Income

| District           | % shares of district income to state income at current and constant (1980-81) prices |         |         |         |         |                    |         |
|--------------------|--------------------------------------------------------------------------------------|---------|---------|---------|---------|--------------------|---------|
|                    | at current prices                                                                    |         |         |         |         | at constant prices |         |
|                    | 1960-61                                                                              | 1970-71 | 1980-81 | 1990-91 | 1995-96 | 1990-91            | 1995-96 |
|                    | 12                                                                                   | 13      | 14      | 15      | 16      | 17                 | 18      |
| 1 Bangalore        | 9.2                                                                                  | 11.7    | 18.4    | 18.6    | 17.8    | 19.7               | 19.9    |
| 2 Bangalore rural  |                                                                                      |         |         | 3.4     | 3.3     | 3.5                | 3.5     |
| 3 Belgaum          | 7.6                                                                                  | 6.7     | 7.4     | 7.7     | 7.1     | 8.0                | 7.4     |
| 4 Bellary          | 4.0                                                                                  | 4.5     | 4.2     | 4.0     | 3.8     | 4.0                | 3.5     |
| 5 Bidar            | 1.9                                                                                  | 2.1     | 2.3     | 1.9     | 2.1     | 2.2                | 2.2     |
| 6 Bijapur          | 4.8                                                                                  | 4.7     | 4.1     | 5.2     | 5.1     | 5.1                | 5.4     |
| 7 Chickmagalur     | 4.1                                                                                  | 4.3     | 3.0     | 3.3     | 3.6     | 2.6                | 2.5     |
| 8 Chitradurga      | 4.3                                                                                  | 4.7     | 5.1     | 4.3     | 4.1     | 4.3                | 4.0     |
| 9 Dakshina Kannada | 8.0                                                                                  | 7.6     | 7.2     | 7.3     | 6.8     | 7.2                | 6.2     |
| 10 Dharwad         | 7.2                                                                                  | 6.8     | 6.7     | 6.1     | 6.6     | 6.1                | 6.6     |
| 11 Gulbarga        | 4.5                                                                                  | 5.4     | 5.1     | 5.1     | 5.5     | 5.0                | 5.5     |
| 12 Hassan          | 3.9                                                                                  | 3.7     | 3.3     | 2.9     | 3.0     | 2.8                | 2.7     |
| 13 Kodagu          | 3.4                                                                                  | 3.5     | 2.5     | 2.5     | 2.3     | 1.9                | 1.6     |
| 14 Kolar           | 4.4                                                                                  | 3.6     | 2.9     | 3.5     | 3.3     | 3.2                | 3.1     |
| 15 Mandya          | 3.3                                                                                  | 3.5     | 4.0     | 3.1     | 3.0     | 3.3                | 3.3     |
| 16 Mysore          | 6.2                                                                                  | 7.7     | 6.7     | 6.4     | 7.4     | 6.3                | 7.7     |
| 17 Raichur         | 3.6                                                                                  | 5.3     | 4.6     | 3.8     | 4.0     | 3.8                | 3.9     |
| 18 Shimoga         | 8.4                                                                                  | 6.3     | 5.3     | 4.1     | 4.6     | 4.5                | 4.6     |
| 19 Tumkur          | 5.5                                                                                  | 4.2     | 4.1     | 4.0     | 4.1     | 3.9                | 4.1     |
| 20 Uttara Kannada  | 5.7                                                                                  | 3.7     | 3.1     | 2.8     | 2.5     | 2.6                | 2.3     |
| STATE              | 100.0                                                                                | 100.0   | 100.0   | 100.0   | 100.0   | 100.0              | 100.0   |

**Source :-** Directorate of Economics and Statistics.

**Note :-** Break-up not available for Bangalore (U) & Bangalore (R) districts from 1960-61 to 1980-81, hence value of undivided district of Bangalore is shown against Bangalore (U) district.