

3.2 Free to Move: Conservation and Voluntary Resettlements in the Western Ghats of Karnataka, India

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Beginning with the movement of primitive *Homo sapiens* out of Africa 50,000-100,000 years ago, people have moved across the earth, driven either by the hope of a better life elsewhere or by the risk of staying at a place. As economic developments unfold in the future, human “displacements” of these two kinds will increase at all scales: local, regional, and global. Therefore, conservation strategies must function with an understanding of human movement. This paper examines this conservation dilemma in southern Asia where “intact natural landscapes” comprise less than 5% of total land area, leading some conservationists (Sanderson et al. 2002) to abandon this region. This densely populated, poverty-ridden region has 25% of the earth’s six billion humans packed into less than 10% of its land, and is experiencing rapid technological and economic growth. Given the region’s overall demographic and economic growth rates, humans will move or be displaced at scales witnessed in other developing countries. It is likely that displacement to protect biodiversity will be a miniscule proportion of all human displacements in the region.

Key drivers of massive biodiversity decline in South Asia include habitat fragmentation (Barve et al. 2005; Das et al. 2006; Kumar and Shahabuddin 2006; Yadav and Gupta 2006), hunting (Madhusudan and Karanth 2000, 2002), and human-wildlife conflicts (Saberwal et al. 1994; Mishra 1997; Karanth 2002; Madhusudan and Mishra 2003; Madhusudan 2004). Current conservation initiatives are not adequately addressing these threats. On the other hand, changing land-use practice (e.g. crops that do not attract wildlife, electric barriers), economic development (e.g., availability of affordable poultry protein, new job opportunities), and cultural changes (e.g., watching television instead of recreational hunting) provide some hope for reducing pressures on nature reserves. Nevertheless, impacts of human settlements inside conservation areas pose difficult problems and will likely not be ameliorated by these new trends. Conservationists in South Asia do not often have recourse to “human-wildlife coexistence” and “sustainable forest use” that help reduce pressure in some conservation contexts in Africa, Latin America, or Southeast Asia (McNeely 1994). Rather, conservationists are being compelled to consider the relocation of human settlements to arrest fragmentation.

It is therefore necessary to examine voluntary resettlement as a conservation option for saving endangered species in the Western Ghats region of Karnataka State in India. This includes long-term qualitative case studies from three nature reserves that represent a range of ecological and social variations. The analysis provides scope for addressing gaps in past resettlement efforts. In fact, incentive-driven resettlement projects offer a valid alternative to coercive displacement. Given the present social-ecological context of the region, incentive driven resettlement is the only remaining option to conserve several endangered species, mitigate human-wildlife conflicts, and at the same time improve human livelihoods.

Ecological Context

The Western Ghats of southern India (Figure 1; 8° N to 20° N; 160,000-km²) are a global biodiversity hotspot with high levels of biological productivity, species diversity, and endemism (Myers et al. 2000). The Ghat forests occur as a fragmented strip within a larger landscape matrix consisting of crops and tree plantations. The natural vegetation includes evergreen, moist-deciduous and dry deciduous forests, and montane grasslands (Pascal 1988). Fauna in this region represent 30% of all Indian mammal and bird species (Das et al. 2006). There are several larger vertebrate species of global conservation significance due to their rarity, endemism, habitat-specificity, susceptibility to commercial exploitation, or proneness to come into conflict with human societies (Table 1). Although traditional sacred groves in the region have been promoted as a solution to achieving balance between people and nature (Gadgil and Guha 1992; Bhagwat et al. 2005), they occupy less than 1% of the overall landscape, and typically are small, occur in tiny fragments, and their contribution to sustaining biological diversity is relatively small.

Nature reserves in the Ghats cover only 12% of total area and average reserve size is 243 km² (Das et al. 2006). Increasing densities of people and livestock, local to global market pressures, and expansion of human activities have placed these reserves in an extremely vulnerable position. Some reserves are additionally under threat from large-scale development activities (mines, dams, roads). The 14 legally protected areas cover a total of only 6,400 km². People living in these areas have also suffered significant livelihood losses. Given this context, preventing (rather than mitigating) human-wildlife conflict, and reducing negative human impacts on wildlife merits serious consideration (Treves and Karanth 2003; Karanth and Gopal 2005; Karanth 2006).

The study sites for this analysis include Nagarahole, Bhadra, and Kudremukh – all three reserves have ongoing resettlement projects to protect wildlife. Importantly, these resettlement projects were initiated at least partially by demand from local people. Details on the location, size, ecology, and conservation history of these sites is in Table 2. These case studies clearly demonstrate the challenges as well as opportunities for understanding human displacement and conservation.

Historical and Social Context

This region has a history of human occupation by aboriginal groups going back 50,000 years (Wells 2002), followed by successive waves of colonization by different cultures (Thapar 2003). The seasonal (3-4 months/year) heavy rainfall (1500-6000 mm/year), benign temperature (15°C-35°C), and fertile soils promoted settled rice agriculture as the predominant land use. From historical records, we know that the movement of people, involving periodic depopulation or re-colonization of large tracts of forest, was common (Ribbentrop 1900; Thapar 1990).

British administrators established full political control over the region in the early 1860s and created “reserved forests” to ensure sustained timber supplies, halting the massive conversion of forests to agricultural land (Brandis 1897; Stebbing 1921). These forests became the network of nature reserves a century later. As human populations increased, slow encroachments by homesteads into the reserved forests were legally sanctioned (Stebbing 1921).

The Ghats were sparsely populated and agriculture was restricted to lowland areas until the late 19th century when commercial coffee plantations replaced some of the upland forests. In the post-colonial period (1947-1970), the national policy to “grow more food” encouraged colonization of forests by external settlers responding to land grant incentives. The forestry department intensified exploitation of timber and the emergence of the paper and plywood industry in the 1950s created a demand for bamboo and softwoods. Forestry policies increased logging in interior areas and encouraged migrant laborers to move in and cultivate in these areas. Subsequently, the human settlements in interior forests increased dramatically. Hunting of wildlife also increased in scale, intensity, and impact due to availability of firearms and improved road and motorized access (BNHS 1934; Karanth 2002). Weak wildlife protection laws failed to arrest the sharp decline of tigers, dholes, and elephants.

In the 1960s wildlife conservationists (Gee 1964; Schaller 1967) highlighted the perilous status of wild nature in India and in 1974, the Indian government enacted the Wildlife Protection Act that prohibited hunting and “commercial” exploitation of nature reserves. In 1980, the government’s Forest Conservation Act prevented the diversion of reserved forest land for agriculture or developmental projects. These laws slowed the legalization of forest settlements (Karanth 1998; Karanth 2002).

Conservation Issues

Habitat fragmentation at landscape scales

Nagarahole, Bhadra, and Kudremukh were all established and managed under the above-mentioned legal framework. Despite nominally strong legal protection, homesteaders gradually encroached onto land in these three reserves a few meters at a time (Karanth 1982, 1992, 1998, 1999, 2002; Karanth 2003, 2006). All three reserves are under pressures from commercial development, particularly iron-ore mining at Kudremukh and Bhadra (Krishnaswamy et al. 2006), highways and road development in Nagarahole and Kudremukh (road construction is now a heavily funded activity of national priority), and windmills in Bhadra. Additional proposals to construct irrigation reservoirs, river diversions, and power plants threaten the integrity of these reserves.

Impacts of fire and biomass extraction on habitat quality

Several recent studies have examined the negative impacts of human activities on wild animal and plant communities inside reserves. These activities include biomass extraction, livestock grazing, deliberate arson, and removal of wood (Barve et al. 2005; Madhusudan 2005; Karanth et al. 2006). In Bhadra, Karanth et al. (2006) estimated that these combined human activities had directly affected 8 to 10% of this sanctuary by altering 23.7 km² of the forest near the villages.

Livestock grazing is widespread in these reserves and increased livestock densities have reduced forage availability, degraded forest vegetation, changed plant composition, and led to declines in wild herbivores due to competition in Bhadra and Bandipur (Mishra et al. 2001; Madhusudan and Mishra 2003; Madhusudan 2005).

Forest products and fuel wood are collected in all reserves (Madhusudan and Karanth 2002; Karanth et al. 2006). In Bhadra, all households collected fuel wood from the forest and quantities ranged from 2,190 to 22,140 kgs/ per week (Karanth 2003). This local scale collection of plant parts has directly affected food availability for wildlife as well as regeneration and recruitment of plant species (Hiremath 2004; Shahabuddin and Prasad 2004).

Impacts of illegal hunting at local scales

Large mammals that provide meat and valuable commercial products (ivory, skins, horns, antlers) are vulnerable to illegal hunting as are some smaller mammals, reptiles, and birds. An assessment of hunting in Kudremukh and Nagarahole found that densities of several large mammal species were substantially depressed in parts of the reserve with high human presence (Madhusudan and Karanth 2000; Madhusudan and Karanth 2002). Local hunting threatens long-term viability of species and sometimes causes local extirpations.

Human-wildlife conflict

People living in these reserves face intense human-wildlife conflicts that result in loss of livestock and crop destruction (Karanth 2002; Karanth 2003; Madhusudan 2003, 2004, 2005; Madhusudan and Mishra 2003). In Bhadra, 73% of households living in the park prior to resettlement regularly lost 15% of their annual harvest to crop-raiding elephants and ungulates (Karanth 2003). The Bhadra households also lost 11 to 25% of their livestock to carnivores (Karanth 2003; Madhusudan and Mishra 2003). Retaliatory killing of elephants and big cats is a serious conservation problem.

Case Studies of Resettlement

During the 1950s-1960s the Karnataka Government's unwritten policy was to generally ignore homesteaders who illegally encroached on forest lands and the Forest Department (the state Ministry of Forests) had legal power to "regularize" such encroachments. This political and administrative process usually took a decade but was liberally employed for electoral gains. Cultivators from farming castes and migrant laborers with political backing became landowners from such regularizations.

Tribal groups such as *Jenu Kuruba* (whose ancestors may have been hunter-gatherers) tended to move around rather than settle down to cultivate land. They did not have strong cultural notions of owning land. Tribal people were poorer, had little education, ranked low in social power, and were unable to become landowners unlike the farming castes and migrant labor. Nevertheless, tribal inhabitants were granted large areas of government-owned "revenue" land outside the reserved forests in parcels of four acres per homestead. These people were ill-equipped to establish themselves agriculturally, and much of the land given to them was taken over by higher caste groups through money or coercion and thereafter the tribal people became "forest encroachers."¹

The enactment of strong wildlife protection laws in the 1970s ended the "regularization" of forest encroachments. Officials in charge of nature reserves became accountable for recovering "encroached areas." This led to many cases of forced evictions or coercive displacements. Encroachers challenged evictions through support of local politicians and through interventions of local courts. However, the Forest Conservation Act of 1980 made it legally impossible for forest encroachers to get titles. Below are accounts of key issues relating to resettlement and displacements at the three sites.

Nagarahole

During the 1950s-1960s external peasants as well as tribal people cultivated rice in low-lying areas in 10% of Nagarahole. In the 1970s, most non-tribal cultivators were evicted from the reserve and given land outside it (Lakshmana 2001). With increasing restrictions on hunting, protecting agriculture became impossible inside Nagarahole. Consequently, tribal people gave up agriculture

and moved into larger settlements within the forests. Their chief sources of livelihood came from intensified logging and plantation work within forests, growing employment in coffee plantations outside, and illegal hunting and collection of forest products. In the 1980s logging was reduced and employment opportunities inside forests shrank.

The first impetus for voluntary resettlement came in 1991 when a group of tribal people met the chief minister of Karnataka State and demanded services like agricultural land, roads, hospitals, and schools inside the park. In a series of meetings that followed, a consensus was reached and they agree to relocate and resettle in areas outside the reserve and be compensated (Table 3). However, a substantial section of the tribal people initially resisted the resettlement incentive and insisted on being provided all amenities inside Nagarahole. Due to the presence of advocacy groups supporting both factions, the resettlement work progressed slowly and only about 50 families moved out in 1997.

Almost concurrently, the GEF-World Bank funded an Integrated Conservation and Development Project in Nagarahole. It progressed slowly, bringing little development, because the Bank-GEF group was reluctant to fund a reserve that was implementing voluntary resettlement. In 2003, this project was terminated due to corruption and inefficiencies.

Gradually, the perception of resettlement among local people changed. By 2006, more than 250 families had moved out into the resettlement colony at Nagapura. There appears to be an increasing preference among the 1,300 families still living inside the reserve for an acceptable compensatory package. Intensive grassroots level work by NGOs (Living Inspiration for Tribals [LIFT] and Wildlife First) committed to both tribal development and wildlife conservation appears to have successfully supported this attitude change. However, a recent unilateral decision by the Federal government's Project Tiger to reduce the land allotments from five to three acres per family may hinder resettlement progress.

Bhadra

In the early 1900s, the Bhadra sanctuary had "a village with 88 people and 186 cattle occupying an area of 4.19 km²" (Anonymous, unpublished report 1917). Development halted when the Bhadra reservoir was built in the 1950s and 1960s. This reservoir isolated the settlements in the sanctuary, limiting infrastructure development. Although Bhadra was legally a nature reserve, human population continued to grow.

Official attempts to impose conservation regulations on the villagers against illegal hunting, grazing, and timber removal caused great resentment. Villagers systematically and deliberately used arson as a weapon in their conflict with forest authorities. In the 1970s, some villagers in the most inaccessible locations began pleading with political leaders and officials for resettlement. In 1987, a preliminary survey of households eligible for resettlement was conducted. In 1992, the state Forest Department drafted the plan for land acquisition and resettlement and in 1996 requested funds from the Central government. In 1998, the project began with the involvement of forest and revenue departments, village representatives, and NGOs (Bhadra Wildlife Conservation Trust, Wildlife First). Initially some villagers opposed the resettlement and initiated a court case that was later dismissed. The compensation package and perceived benefits of relocation (better facilities, health care, schools) convinced others to resettle. Some of the land set aside for resettlement was encroached by others so additional land was acquired in a second village. During 1999-2002, all 419

families from 11 villages moved to the two resettlement villages at M.C. Halli and Kelaguru. People have cultivated crops and have ample access to electricity, water, schools, markets, health care, and education (all of which were absent when they lived in the sanctuary). Households in M.C. Halli have cultivated crops and established themselves. Households in Kelaguru (who received land suitable for growing coffee) are taking longer to settle (Karanth 2006). The Bhadra project is clearly one of India's better planned and executed resettlement efforts.

Kudremukh

In 1987, based on the discovery of a large population of the endemic lion-tailed macaque (Karanth 1985) the process of establishing Kudremukh nature reserve was initiated. Due to initial procedural lapses and insensitivity on the part of forest officials, the notification process increased anxiety among the 40 legal settlements in the area. Subsequently, there were sharp divisions among them on the issue of resettlement; a substantial number were willing to relocate in exchange for an adequate resettlement package, while others, influenced by social advocacy groups, demanded total de-gazetting of the nature reserve. The emergence of a small-armed Maoist guerrilla group in the region after 2000 has created additional complications. The government has announced a resettlement package (without any committed funding) and has promised to relax conservation laws to permit more "development" in the settlements.

Given this uncertain political context, conservation groups (Wildlife First, Kudremukh Wildlife Foundation) have tested privately-funded voluntary resettlement efforts, since a government sponsored full-scale resettlement effort would involve entire villages and take years to materialize. Therefore, the NGOs have focused on identifying smaller settlements located deep in the reserve whose relocation would successfully consolidate large blocks of wildlife habitat. Negotiations began with eight families, all of whom were illegal encroachers in the nature reserve. After identifying suitable alternate agricultural land at locations of their choice, these families were financially compensated and moved out in 2003. Such low-key efforts have subsequently progressed with more families who volunteered to resettle in 2006.

Lessons Learned

The first author has visited these three sites since the 1970s and conducted ecological research there since the 1980s. He is a scientific advisor to Wildlife First, a conservation NGO that has promoted the voluntary resettlement efforts in all three reserves. The second author examined the impacts of villages on biodiversity in Bhadra and is tracking the resettlement effort and its impact on relocated people (2002-2006). Based on our collective experience, we present the following insights which we believe capture key "lessons learned" from these real world experiments in displacement for achieving conservation. Our analysis is empirical and qualitative but may still have some value given the scarcity of rigorous studies in this arena.

1. Given the rapid rate of economic growth in the Western Ghats region, conservation-related resettlements are a very small fraction of overall human movement and displacement driven by development. We estimate that all potential conservation related relocations would comprise less than 1% of all relocations going on now in the region.

2. The process for identifying areas for relocation must be a careful scientific exercise that leverages maximum conservation effect to reduce fragmentation. Conservation managers often use existing administrative boundaries or other convenient markers for selecting resettlement targets, resulting in relocations that may not derive maximum conservation impacts.

3. Many people living in remote forest areas of the Western Ghats are attracted by the modern amenities, better opportunities and incomes, and easier lives that people enjoy in more developed areas. Modern communication tools, such as radio, television, and the near 100% literacy rate in the region intensify this attraction. The proliferation of cheap poultry meat and other protein sources has rendered subsistence hunting irrelevant to human welfare and illegal hunting is becoming too risky to be attractive.

4. These combined factors provide conservationists with new opportunities to arrest habitat fragmentation in reserves through pro-active, fairly compensated and voluntary resettlements. However, the potential for such solutions are not clearly perceived by many. Still rooted in the experience of coercive displacements, social advocacy groups and reserve managers fail to perceive significant emerging opportunities to promote human welfare based on genuine aspirations of local people to change their circumstances. Such ideologically based opposition to relocation may contradict what a substantial proportion of these people want and may in fact be a curtailment of their freedom to move.

5. The resettlement process should be incentive-driven, generous, fair, and, importantly, it must be understood as being fair by all potential stakeholders. In the case studies, frequent funds shortage and administrative inefficiencies caused delays in implementation, particularly in Nagarahole. Creating appropriate institutional structures is the key to promoting successful and acceptable resettlement: The implementation of resettlement projects is best achieved by specialized agencies set up for that purpose with full involvement of conservation and social NGOs and family and village representatives.

6. Opposing the argument that satisfactory resettlement is prohibitively expensive (TTF 2005), we argue that if future costs of delivering social services to remote areas are considered (Karanth 1998), the cost of resettlement is reasonable (Karanth 2006, unpublished). Such investment would require specific re-allocation of funds from developmental budgets (rural developments, roads, power transmission) to a resettlement agency. However, government bureaucracies holding such funds are unlikely to yield them. Therefore, it may be necessary to establish a specialized new funding agency exclusively for this purpose. Possibly multilateral aid organizations currently sinking substantial funds into unviable conservation projects could instead fund voluntary resettlement projects (with grant conditions that ensure truly voluntary, fair, incentive-driven resettlement).

7. A key feature of the resettlement efforts at Nagarahole and Bhadra was that democratically elected representatives from the area were engaged in the process. After initial lack of enthusiasm, a majority of them began to support the resettlement projects since these projects were generally perceived as having improved the lives of the beneficiaries. At the same time, NGOs that had opposed the resettlement efforts (in Nagarahole) gradually lost their hold among the people. These advocacy groups initially gained some international publicity. Interestingly, after the World Bank-GEF disengaged from the Integrated Conservation and Development Project in Nagarahole, the attention of these remote players subsided.

8. Slow and inefficient project implementation and the resulting frustration can still derail the resettlement project in Nagarahole. No surveys have been undertaken to assess attitudes of the beneficiaries. However, given that very few if any of the beneficiaries have chosen to return to their original locations inside the park, it could be considered at least a tentative success. Tracking the resettlement effort in Bhadra (2002-2006) most people have been able to establish themselves and they perceive the project positively (Karanth 2006). Yet, the general human tendency to complain makes it difficult to objectively measure whether the resettled people are “happier and more satisfied,” a criterion used by social advocacy groups to test resettlement success.

9. If the government were to dismantle all conservation laws and reserved forests (25% of the area) and nature reserves (12% of the area) in the Western Ghats region, it would likely be supported by the majority of the people living in the region. However, such a policy would destroy biodiversity and likely not lead to wise and equitable development.

10. If voluntary resettlement schemes are not implemented as a strategic conservation initiative in the Western Ghats soon, then a significant component of the vulnerable species will be lost forever. As a “wildlife conservation organization,” WCS has no other option but to seriously explore appropriate opportunities for supporting voluntary resettlement. Such work would be in full compliance with India’s national conservation policy (TTF 2005).

WCS (and perhaps other conservation NGOs) can advance rational arguments for promoting incentive-driven resettlements as a part of sustainable development programs. However, demonstrating to potential beneficiaries that they are free to move out of nature reserves to achieve a better life is the task of Indian institutions, the governmental and non-governmental sectors. The key to getting started appears to be committed conservation leaders catalyzing such institutions through informed advocacy.

Figure 1: Maps of area

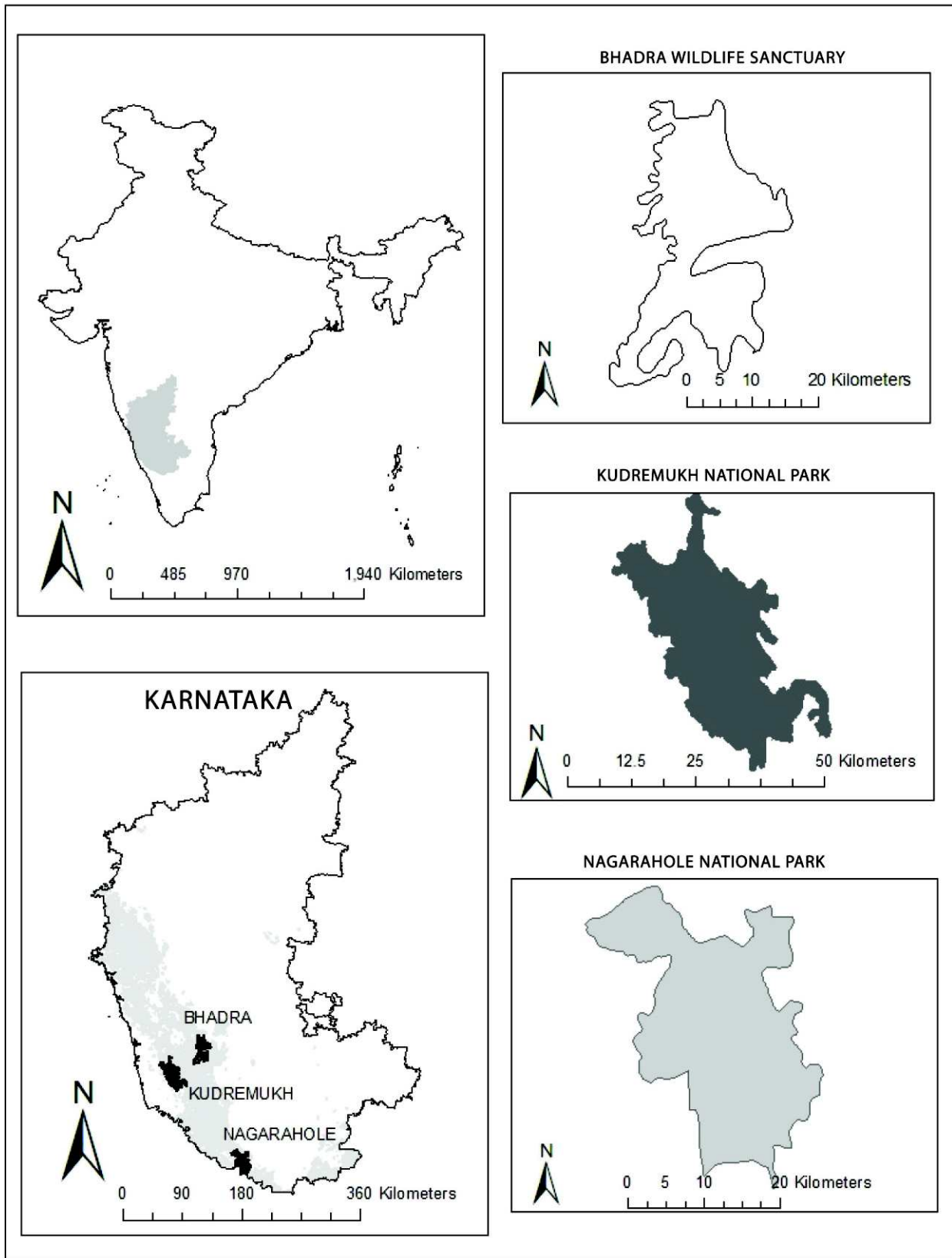


Table 1: Threatened and Endemic Species in Western Ghats

Common Name	Scientific Name	IUCN and Endemic Status
Birds		
White-naped Tit	<i>Parus nuchalis</i>	VU and Endemic
Crimson-backed Sun Bird	<i>Nectarinia minima</i>	Endemic
Nilgiri Flycatcher	<i>Eumyias albicaudata</i>	Endemic
Lesser Florican	<i>Sypheotides indica</i>	EN
Indian Vulture	<i>Gyps indicus</i>	CR
Green-billed Coucal	<i>Centropus chlororhynchus</i>	VU and Endemic
Red-faced Malkoha	<i>Phaenicophaeus pyrrhocephalus</i>	VU and Endemic
Malabar Trogon	<i>Harpactes fasciatus</i>	Endemic
Jerdon's Nightjar	<i>Caprimulgus atripennis</i>	Endemic
Mammals		
Lion-tailed Macaque	<i>Macaca silenus</i>	EN and Endemic
Nilgiri Langur	<i>Trachypithecus johnii</i>	VU and Endemic
Nilgiri Tahr	<i>Hemitragus hylocrius</i>	EN and Endemic
Dhole	<i>Cuon alpinus</i>	EN
Tiger	<i>Panthera tigris</i>	EN
Rusty-spotted Cat	<i>Prionailurus rubiginosus</i>	VU
Small-clawed Otter	<i>Amblonyx cinereus</i>	VU
Smooth-coated Otter	<i>Lutrogale perspicillata</i>	VU
Nilgiri Marten	<i>Martes gwatkinsii</i>	VU and Endemic
Malabar Civet	<i>Viverra civettina</i>	CR and Endemic
Brown palm Civet	<i>Paradoxurus jerdoni</i>	VU and Endemic
Stripe-necked Mongoose	<i>Herpestes vitticollis</i>	VU and Endemic
Wroughton's Free-tailed Bat	<i>Otomops wroughtoni</i>	CR
Malabar Giant Squirrel	<i>Ratufa indica</i>	VU and Endemic
Travancore Flying Squirrel	<i>Petinomys fuscocapillus</i>	VU and Endemic
Reptiles		
Malabar Pit Viper	<i>Trimeresurus malabaricus</i>	Endemic
King Cobra	<i>Ophiophagus hannah</i>	
Beddome's Keelback	<i>Amphiesma beddomei</i>	Endemic
Travancore Tortoise	<i>Indotestudo forstenii</i>	Endemic
Cane Turtle	<i>Geoemyda silvatica</i>	Endemic
Amphibians		
Malabar Tree Toad	<i>Pedostibes tuberculosus</i>	EN and Endemic
Black Microhylid	<i>Melanobatrachus indicus</i>	EN and Endemic
Indian Green Frog	<i>Euphlyctis hexadactylus</i>	Endemic

Table 2: Details on Selected Protected Areas in the Western Ghats

Protected Area	Bhadra Wildlife Sanctuary	Kudremukh National Park	Nagarahole National Park
Location	13°25' to 13°50' N and 75°15' to 75°50' E	13°9' to 13°19' N and 75°5' and 75°15' E	11°5' to 12°15' N and 76°0' to 76°15' E
Area	492 km ²	563 km ²	644 km ²
History and Year of Establishment	1. Reserved Forest between 1912-1950 2. Game Sanctuary in 1951 (parts) 3. Bhadra Wildlife Sanctuary in 1974	Reserved Forest between 1891-1986 Kudremukh National Park in 1987	1. Reserved Forest between 1890 - 1954 2. Game Sanctuary in 1955 (parts) 3. Nagarahole N P in 1974
Current Classification	Wildlife Sanctuary	National Park	National Park
Major Vegetation Types	Dry and moist deciduous forests(bamboo), evergreen, montane grasslands, teak plantations	Evergreen forests, montane grasslands	Moist and dry deciduous forests, teak plantations

Table 3: Details on Resettlement Projects

Protected Area	Bhadra Wildlife Sanctuary	Kudremukh National Park	Nagarahole National Park
Villages/ Settlements	13 Villages	40 villages (divided into 90 hamlets)	55 villages
Villages Relocated	11 complete	None	1 complete, 8 partial
Total Number of People/	4000	6241	6500
Cultural Composition	Agriculturalists	Agriculturalists and Tribals	Tribals
Total Number of Households	457 (419 selected for relocation)	1299 (201 voluntarily requested)	1550
Relocation Proposed	Proposed in 1974, 1992. Re-proposed in 1999 Resettlement package announced in 2001.	Proposed in 1999. Resettlement package announced in 2005.	Proposed in 1991-1992 and 1996-1997.
Implementation	1998 - 2002	Not Implemented	1999 - Ongoing
Number of HH Relocated	419	8 (through private initiatives)	250
Number of HH/People yet to Relocate	Complete; Discussion to relocate the two remaining villages	1291 (201 families have applied for rehabilitation package)	1300
NGOs involved	Wildlife First, Bhadra Wildlife Conservation Trust, Nature Conservation Guild	Kudremukh Wildlife Foundation, Wildlife First	Living Inspiration for Tribals, Wildlife First

¹ Among our study sites, tribal groups are numerically dominant only in Nagarahole and tribal groups form a very small fraction of the population in the entire Ghats region to the north of Nagarahole.