SECTION - I
Chapter 1

INTRODUCTION

"Development ought to be what human communities do to themselves. In practice, however, it is what is done to them by states and their bankers and 'expert' agents in the name of modernity, national integration, economic growth or a thousand other slogans."  - Adams (1990:199)

"Although both (conservation and development) desire enhanced well-being, both intimately reorder peoples lives, environments and futures, and have been characterised by authoritarian planning and execution." - Brockington (2002:4)

'Economists have tended to neglect the problems of what anthropologists and sociologists refer to as "oustees" or displaced people – those who have to resettle in the face of large development projects that wipe out the economic activities from which they have earned their livelihood. ... It isn't enough just to re-establish those ousted from their previous situations. Rather, the goal should be to re-establish the oustees in such a fashion that they can experience sustained economic growth in the future, or sustained increases in per capita income.' - Schuh (1993:59)

1.1 The Development versus Conservation Dilemma

1.1.1. Common Property Resources and Rural Poverty

Six decades after independence, nearly two-thirds of India's population continues to depend on agriculture for livelihood, as a rising capital output ratio makes it increasingly difficult for the non-agricultural sectors to absorb even incremental workforce. Of the vast majority of Indians who depend on land-based livelihoods, nearly one-third are located in the arid and semi-arid tropics, which extend over more than 150 districts and account for around 43 per cent of the country's total geographical area. The semi-arid tropics are home to a large section of India's rural poor (including a large proportion of especially vulnerable groups like the Scheduled Tribes), who eke out precarious livelihoods from land and other natural resources in hilly, upland and forested areas. Forests and common property resources (CPRs) are critical to the coping strategies of the poor in India's drylands (Jodha 2003; Saxena 2007). In a scenario of uncertain foodgrain production in the
drylands, overall availability and stability of biomass (obtained from CPRs) allows the poor to diversify their livelihood basket through crop and livestock based mixed farming, and by providing the poor with access to food, fodder, fuel and marketable forest produce. Thus, the ways in which forests and commons are managed and conserved have a critical bearing on the livelihoods of the poor.

Over the 20th Century, especially in its last few decades, a range of demographic, technological and institutional changes resulted in rapid decline in the quality of CPRs in India's drylands. Increased soil salinity, decline in water table, decreased availability of biomass, desertification and replacement of large cattle by smaller ruminants are symptoms of this crisis of CPRs in the dry tropics of India. For the rural poor, the implications of this are non-trivial, since it is estimated that between 14 to 23 per cent of their income emanates from CPRs (Jodha 2003; Menon and Vadivelu 2006). An obvious corollary of CPR decline, then, is an increase proletarianization and distress migration among the rural poor, along with increasing their dependence on public relief.

The response of the state to the livelihood crises arising from degradation of CPRs and falling viability of dryland agriculture has evolved over the decades. From highly bureaucratic and non-participatory schemes like social forestry and wasteland development in the 1980s and early 1990s, the thrust of state policy has shifted to integrated watershed development with community participation in the late 1990s. However, actual implementation of watershed development schemes appears to have suffered from a host of lacunae, as demonstrated, for instance, by near stagnation of net sown area in India since the 1980s and increase in total drought prone area during 1973-1995 (Saxena 2007). The new watershed guidelines evolved on the basis of the report of the Hanumantha Rao Committee in
1995, as well as the recent report of the Parthasarathy Committee (2006) reflect the concern of the state to make effective, pro-poor changes in the regime of CPR management.

1.1.2. The Conservation-Livelihood Conflict

CPR decline has led the poor in India to exert increased biotic pressure on productive forests to meet their requirements of fuel, fodder, food and marketable NTFP. As a result, India's forests (including designated Protected Areas – Wildlife Sanctuaries and National Parks) have become sites of severe conflict for limited and critical natural resources. This conflict has intra-generation, inter-generation and inter-species dimensions, and its very complexity precludes simple and widely acceptable solutions. In the post-liberalization period, pressures on forest resources from industry and commerce have been increasing, as industrial demand for land, water and raw material grows in the face of skyrocketing aspirations of the domestic urban, semi-urban and rural populations, as well as demands from distant markets abroad.

At the same time, since the 1980s, pressure has been increasing on the government to conserve effectively the limited and dwindling natural wealth of the country. Extinction threats faced by charismatic species like the tiger, lion, elephants and rhinos, along with growing recognition of vital ecosystem services provided by forests, have spurred conservationists within and outside India to clamour for better management of natural resources. Increase in conservation-consciousness in India is also correlated with the global growth of the environmental movement, which in turn is linked to phenomena like ozone layer depletion and global warming, which have underscored sharply the fragile nature of the planet's ecological balance. This has translated into pressure on the state to increase controls over resource use in existing Protected Areas
(PAs), and also for increasing the total area under the PA network.

In response, the coverage of land under PAs in India has risen from 0.5% of the landmass in 1969 to over 5% by 2001 (Rangarajan, 2001). The core areas (the most highly conserved parts of a PA, where all rights of the local community on environmental resources have been 'extinguished') cover about 1 per cent of the country’s landmass (IPAC 1989). Provisional estimates put the number of people living in and around PAs in India at around 4.5 million (Kothari 1996), while the Planning Commission, in its Mid Term Review of the Ninth Plan, puts the number of people in India dependent on forests for sustenance at 100 million. According to an estimate based on official PA data from the state of Madhya Pradesh, on an average, there are 21 villages and 1718 families per PA or more than 4.5 families per square km of PA in Madhya Pradesh (Pabra and Mathur, 1998). Extrapolating these figures for the rest of India, they estimate that between 6,84,000 and 8,59,000 families live in India’s PAs. Assuming an average family size of 4.5 members, this yields a total estimated population of between 3.08 to 3.86 million people. In addition, there is the much greater population living adjacent to PAs, who depend on the resources of PAs to some extent. The recently published report of the Tiger Task Force commissioned by the Government of India estimates that “roughly, there are 1,500 villages – or 65,000 families, or 325,000 people... inside the core and buffer zones of tiger reserves” (ITF Report, 2005:viii).

Thus, the sheer magnitude of people's dependence on PAs in India, and the growing intensity of people-wildlife conflicts across the country, makes this an important issue for further research and scientific enquiry. Writings on India’s conservation scenario have engaged with this issue, often underscoring its complexity, and highlighting the precarious nature of livelihood
of those living in and around PAs. The Tiger Task Force report (TTF 2005) highlights that wildlife rich areas of India also happen to be among the economically poorest, and populated by the most marginalized Adivasi communities (Figure 1.1). Thus, there is a strong overlap between conservation and livelihood issues in India, and human-wildlife conflicts underlie some of the most acrimonious debates on conservation issues in the country.

**Figure 1.1: Map of India's Forest Areas and Poorest Districts**

*Source: TTF Report, 2005:89*
1.2 “Fortress” Conservation and Displacement

1.2.1. The Case for People's Displacement from PAs

The steady rise of in the number and geographical coverage of PAs in India has been accompanied by rise in the number of conservation refugees - people who have been displaced as a consequence of conservation programmes. A raging debate has emerged in India and elsewhere about the impact of human populations that use wildlife protected areas, with a clear polarization emerging between schools of thought that advocate continued use of resources from PAs and those that champion a hands-off approach (Saberwal and Rangarajan 2003). The case for people's relocation from PAs in India, mirroring worldwide trends, has been built explicitly or implicitly on the hypothesis that human use of resources depletes their availability. In short, the hypothesis is that people and wildlife cannot coexist, so that if natural areas were to be safeguarded, people would have to be removed from these. For instance, it is estimated that the minimum amount of "inviolate" habitat required for successful tiger conservation in India is 37,761 sq. km, or 1 per cent of the total land area of India (ITF Report 2005).

The ecological problems of the less industrialized countries typically have been analysed in a narrow and straitjacketed manner, often without taking into account specifics of history, culture, economics and social dynamics of the region (Hecht 2002). As a result, the solutions for ecological problems also tend to be of a 'one-size-fits-all' variet, and suffer from the same lack of specificity to local conditions. The policy of population displacement from PAs as a response to the problem of ecosystem decline and species extinction exemplifies this. In most cases of conservation-induced displacement that have been documented by researchers, it was found that the decision to displace people was high on rhetoric and low on facts (Rangarajan and Shahabuddin 2006). There is almost no
example anywhere in the world where site-specific studies were carried out *a priori* for quantifying the threat to a PA from the local population, alternative solutions were discussed and discarded, and it was conclusively established that human displacement was the most viable solution. After decades of following the exclusionist or 'fortress' approach to conservation, there is increasing recognition, even among wildlife biologists, that this is a serious lapse.

1.2.2. Need for quality research and documentation

Fernandes *et al.* (1989) estimate that the number of conservation refugees in India is around 600,000. This figure is open to contestation, since the official and non-government resources to make any accurate estimates of this kind are simply not available. It can, however, be said with certainty that displacement from Protected Areas is a generally under-researched subject in India, which in itself is rather surprising, considering the large body of literature, including detailed case-studies, on other forms of (development-induced) displacement. Displacement caused by development projects, particularly mega-dams, has been written about extensively in India, especially since the mid-1980s when the issue of poor resettlement and rehabilitation of the oustees of the Sardar Sarovar dam and other projects on the river Narmada was taken up by organizations like the Narmada Bachao Andolan. A number of micro, macro, sector-specific and issue-specific studies have been published since then, which bring out the various facets of the debate on involuntary displacement.

India has a rich history of resettlement, successful as well as problematic, of large human populations in the post-Independence period. Issues surrounding population displacement have begun commanding centre-stage in public debates in the last three decades or so, especially since the
second half of the 1990s. Unfortunately, these debates are, by and large, rhetorical and jingoistic, and tend to take a simplistic and non-nuanced view of the various issues involved. Contemporary writings on resettlement are journalistic and often ahistoric, looking at the issue mainly as a management problem (see, for instance, Mathur 2006). There are woefully few rigorous studies of the phenomenon from sociological, anthropological, historical, political, economic or ecological perspectives, and fewer still that look at inter-disciplinary linkages.

However, displacement from Protected Areas is not at all well-researched, despite the actual and potential number of Adivasi and other forest-based communities involved or at risk. In recent years, however, this issue has begun coming to the forefront of academic and policy discussions. Annexure 1 summarizes 35 cases of conservation-induced displacement in India about which some published information is available, along with a summary of the resettlement experience of the people displaced. This is among the first systematic attempts at documenting the current state of knowledge relating to displacement from PAs in India, and clearly brings out the paucity of good research in this field.

Another attempt at quantifying conservation-induced displacement has been made by the Tiger Task Force (Table 1.1), which estimates that since the inception of Project Tiger in the 1970s, a total of 80 villages and 2,904 families (and 46,341 livestock) have been relocated from different tiger reserves (TTF Report, 2005:89). The report also estimates that around 1,590 families have been relocated during the same period from non-tiger reserves, including the Kuno Wildlife Sanctuary, which is the subject of the present research.
Table 1.1: Relocation from PAs in India (Source: TTF Report)

<table>
<thead>
<tr>
<th>Name of reserve</th>
<th>Villages relocated</th>
<th>Families relocated</th>
<th>Livestock relocated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simlipal</td>
<td>3</td>
<td>72</td>
<td>51</td>
</tr>
<tr>
<td>Melghat</td>
<td>3</td>
<td>94</td>
<td>1,556</td>
</tr>
<tr>
<td>Ranthambhore</td>
<td>11</td>
<td>195</td>
<td>3,879</td>
</tr>
<tr>
<td>Sariska</td>
<td>1</td>
<td>71</td>
<td>165</td>
</tr>
<tr>
<td>Penma</td>
<td>3</td>
<td>210</td>
<td>2,131</td>
</tr>
<tr>
<td>Kanha</td>
<td>27</td>
<td>656</td>
<td>10,509</td>
</tr>
<tr>
<td>Bhadra</td>
<td>12</td>
<td>439</td>
<td>4,930</td>
</tr>
<tr>
<td>Corbett</td>
<td>3</td>
<td>300</td>
<td>3,000</td>
</tr>
<tr>
<td>Buxa</td>
<td>1</td>
<td>33</td>
<td>20,000</td>
</tr>
<tr>
<td>Nagarjunasagar-Srisailam</td>
<td>1</td>
<td>167</td>
<td>Nil</td>
</tr>
<tr>
<td>Bondipur</td>
<td>3</td>
<td>417</td>
<td>120</td>
</tr>
<tr>
<td>Nagerhole</td>
<td>12</td>
<td>250</td>
<td>NA</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>80</strong></td>
<td><strong>2,904</strong></td>
<td><strong>46,341</strong></td>
</tr>
</tbody>
</table>

Non-tiger reserves

<table>
<thead>
<tr>
<th>Name of reserve</th>
<th>Villages relocated</th>
<th>Families relocated</th>
<th>Livestock relocated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kuno Patpur</td>
<td>19</td>
<td>1,400</td>
<td></td>
</tr>
<tr>
<td>Madhav national park</td>
<td>1</td>
<td>102</td>
<td></td>
</tr>
<tr>
<td>Chandaka Dampora</td>
<td>3</td>
<td>168</td>
<td></td>
</tr>
</tbody>
</table>

A clear correlation seems to exist between rural poverty in tribal areas and the access of tribal communities to natural resources and forests. The exclusionist policies of forest conservation followed by post-colonial India, especially in tribal areas like Central India, need to be situated within this broad canvas. Areas of disjuncture and continuity with the colonial period need to be identified, in order to understand the overall picture from the point of view of both conservation and rural (especially tribal) development and to find directions for the future. Unfortunately, however, there appears to be an inexplicable dearth of provincial and site-specific studies that look at the relationship between tribes and forests in India. An assessment of existing literature on conservation-induced displacement, for instance, shows that there are only 17 in-depth studies of resettlement of indigenous people from Protected Areas worldwide (Brockington and Igoe 2006). It found, further, that not a single such study exists for India, while only one such study exists (for Nepal) in all of South Asia. This is
notwithstanding the fact that millions of people in the subcontinent depend on PAs for subsistence and face the threat of displacement in the near future. There is, thus, a crying need for sound, field-based research on population resettlement from PAs in India, and of rigorous impact assessments of similar resettlements carried out in the past.

1.3 About this Study

1.3.1. Relevance of the Study
The present study is an attempt towards deepening the existing body of knowledge relating to the impact of displacement from Protected Areas on the livelihood of the communities affected. The few studies carried out so far on conservation-induced displacement in India and South Asia¹ have suffered from two lacunae. First, they are based on the displaced people's own recall of their pre-displacement livelihood, and their perceptions of the impact of relocation. As a stand-alone method, this has serious problems. Secondly, they do not engage with accepted methods of assessing displacement-related impacts, like the Impoverishment Risks and Reconstruction model or the Sustainable Livelihoods Framework. To address these concerns, the present study involves detailed, micro-level assessment of the impact of displacement from a Central Indian PA (the Kuno Wildlife Sanctuary, district Sheopur, Madhya Pradesh) on the economy of the relocated people, belonging predominantly to the Sahariya Adivasi community.

It is expected that this study will contribute to the conservation and livelihoods debate in India by providing quantitative and qualitative evidence about the precise impact of displacement on people's livelihood, an issue that is open, at present, to conjectures by proponents of both exclusionary and participatory conservation. Further, it will take forward the attempts at developing a robust methodology for assessment of
impacts of displacement, which can be used not just for conservation-induced displacement but also for displacement caused by other kinds of projects. This study will also help to identify the contours of a socially just rehabilitation package, which is able to help in reconstruction of lost livelihoods, thereby helping the government to meet its stated policy objectives regarding resettlement and rehabilitation.

1.3.2. Structure of the Study
This study is structured as follows: in Section II, we attempt to create a framework for analysis of the complex set of issues relating to rural poverty, sustainable livelihoods and environment conservation strategies. Thus, Chapter 2 examines the available literature in issues relating to sustainable development, poverty (especially rural poverty), conservation paradigms and displacement; in essence, these provide the theoretical grounds within which this study is located. In Chapter 3, we set out the scope of our research and details of the methodology used to arrive at its findings. Then, Chapter 4 outlines in detail the analytical framework within which the impact of displacement on livelihoods is to be studied. Here, we provide the contours of a modified version of the World Bank's Impoverishment Risks and Reconstruction (IRR) model, which this research uses subsequently. Chapter 5 is dedicated to a description of the study area and people, and lays out the broad livelihood context within which the specific impacts of displacement are analyzed in later chapters.

In Section III, we set out the main findings of this study with regard to the main forms of livelihood relevant to the displaced population. In each chapter, a different livelihood sector is picked up for analysis, an attempt is made to reconstruct the pre-displacement picture, and then the impact of displacement is set out in detail. Accordingly, Chapter 6 reconstructs the
nature of agriculture prior to displacement, and then goes on to
describe the impact of displacement on agriculture and
landholdings, with special emphasis on emerging trends in
critical areas like output, productivity and tenurial
arrangements. In Chapter 7, the impact of displacement on
forest-based livelihoods is examined, with respect to the role of
forest resources in the monetary economy of the Sahariya as
well as in other critical areas like diet, nutrition, health,
provision of raw materials, and culture and lifestyle. Chapter 8
looks at the impact of displacement on non-farm livelihood, with
special reference to the livestock and wage labour economy of
the Sahariya Adivasi.

Section IV of this study brings together the diverse sectoral
strands of our analysis, to examine the overall impact of
displacement on poverty and livelihood security. Using the
modified IRR framework, an attempt is made in Chapter 9 to
examine the different impoverishment risks associated with
displacement. These risks are set out against the risk-mitigation
provisions of the rehabilitation package, to identify the net
impact of displacement on the vulnerability of the relocated
households. Finally, Chapter 10 deals with the broad livelihood
outcomes of displacement, outlining its impact on income level,
income distribution, poverty, food security and mortality. Then,
at the end, Chapter 11 sets out the main conclusions emerging
from the displacement and rehabilitation experience of Kuno
with regard to people's livelihoods, and derives some broad
policy lessons that are of relevance for other Protected Areas in
India and possibly also elsewhere in the world.

Endnotes
1 See, for instance, Shahabuddin et al (2005) for displacement from Sariska Tiger Reserve;
Mehra et al (2004) for displacement from the Tadoba Andhari Tiger Reserve; McLean and
Straéde (2003) for Chitwan National Park, Nepal;