ISSUES OF CONSERVATION AND LIVELIHOOD AMONG THE FOREST VILLAGERS IN THE NAMERI AREA OF ASSAM

A THESIS SUBMITTED IN PART FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

INDRANI SARMA

REGISTRATION NO. 006 of 2009

DEPARTMENT OF SOCIOLOGY

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

TEZPUR UNIVERSITY

OCTOBER 2012

ABSTRACT

This thesis, set in the theoretical perspective of the contemporary conservation debates, seeks to study the complex relationship between wildlife and the forest dwelling communities in the context of the conflict between the conservation initiatives of the state and the livelihood necessities of the communities in the specific setting of a forest area in the state of Assam. The study is based on the data collected through an extensive fieldwork in two forest villages located in the fringe areas of the state's Nameri National Park (NNP). It historicises the migration of landless indigenous peasants into these forest areas in search of secured land and livelihood during the colonial period leading to the formation of the forest villages in the area.

While on the one hand, the study shows that the forest villages in Assam were a part of the colonial forest management policy as in the rest of India, on the other, it explores and locates the specific nature of man-forest interface in Assam vis-à-vis other parts of India. Unlike the traditional tribal forest dwellers from central and eastern India who have been gatherers and foragers, the settlers in the forest areas of Assam, tribal and non-tribal, have always been peasants and the forest resources have only been complementary to their livelihood.

The thesis argues that the forest dwellers of Assam, being agriculturists, have always been animated by the fact that they enjoy no tenurial security over their land in the forest areas. An increase in their population, in the absence of sustainable alternative livelihood opportunities, has compelled them to further expand the agrarian frontier reclaiming forest land. This has triggered an intensifying conflict between the livelihood needs of these forest dwellers and an exclusivist conservation regime of the state.

The newly implemented Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006, popularly known as the FRA 2006, has sought to address this conflict by bringing about a paradigm shift in the domain of forest conservation in India by bringing the forest dwelling communities to the centrestage of the conservation process and has indeed achieved some success in this regard.

However, government's apathy and the weakness of the Act in addressing the cultural and historical specificities of areas outside central and eastern India have remained a serious hindrance to its implementation for the forest dwellers of Assam creating new trepidation in its forest areas. Thus, while at a more general level, this thesis argues for an inclusive, people-friendly conservation policy, it also underscores the fact that such a conservation policy may be effective only by giving due importance to the historical and cultural specificities shaping the life and livelihood of the people of a particular region.

TEZPUR UNIVERSITY

Certificate

This is to certify that the thesis entitled "Issues of Conservation and Livelihood Among the Forest Villagers in the Nameri Area of Assam" submitted to the School of Humanities and Social Sciences Tezpur University in part fulfilment for the award of the degree of Doctor of Philosophy in Sociology is a record of research work carried out by Ms Indrani Sarma under my supervision and guidance.

All help received by him/her from various sources have been duly acknowledged.

No part of this thesis has been submitted elsewhere for award of any other degree.

Signature of Research Supervisor

(Dr.Chandan Kumar Sharma)

Designation: Professor
School: Humanities and Social Sciences
Department: Sociology

DECLARATION

I do hereby declare that the thesis titled "Issues of Conservation and Livelihood Among the Forest Villagers in the Nameri Area of Assam" submitted by me to the Tezpur University in part fulfilment of the requirements for the Degree of Doctor of Philosophy in Sociology under the School of Humanities and Social Sciences, in my own and that it has not been submitted to any other institution, including this University in any other form or published at any time before.

Date: 30/04/2013

Indrani Sarma

(INDRANI SARMA)

Registration No.: 006 of 2009

ACKNOWLEDGEMENTS

I would like to express heartiest thanks to my Supervisor Professor Chandan Kumar Sharma for his whole hearted guidance, support and infinite patience throughout the course of this research. This thesis would not have been complete without his countless constructive comments and insightful suggestions. He has been an unstinting source of courage and confidence which helped me face and wade through various odds and adversities throughout the course of this work.

I express my sincere gratitude to all the faculty members of the Department of Sociology, Tezpur University, for their valuable advice, suggestions and kind support in their own special ways.

This work owes a lot to all the villagers of Gamani and Sopaloga forest villages who showered a lot of warmth on me and accepted me as one of them. I would like to place on record my special thanks to Nayanmoni Das and Dipak Das without whose help and support my fieldwork for this study would not have been possible. I extend my most heart-felt thanks to their families for the love and care during my two years of fieldwork which will remain a life-time experience for me. I would also like to extend my special gratitude to Rajani Bhuyan, Arun Bhuyan, Ranjit Barua and Durlav Das of Sopaloga forest village and Molan Koch, Thaneswar Saikia and Gangadhar Das of Gamani forest village.

I would also like to thank Dr. Partha Jyoti Das (Aaranyak, Guwahati); Mr. A.K. Dev Choudhury (Ranger, Chariduar Range Office, Forest Department, Assam); Mr. Altamash Baig (Lecturer, Central Academy for State Forest Service, Byrnihat, Assam); Dr. Arupjyoti Saikia (Indian Institute of Technology, Guwahati); Prof. B.K. Danta (Tezpur University); Commanding Officer (Eco Task Force, Nameri), V. Bishnoi (PCCF, State Forest Department, Assam, Guwahati) for their valuable inputs regarding various aspects of my research.

I must acknowledge my sincere thanks to Tezpur University and the University Grants Commission, New Delhi for providing me with the financial assistance for this research.

I also offer my special thanks to the staffs of the following institutions for assisting me in locating the books, journals, records and documents related to my study: National Archives of India, New Delhi; Nehru Memorial Museum and Library, New Delhi; Central Library, Jawaharlal Nehru University, New Delhi; DSA Library, Centre for the Study of Social System, JNU, New Delhi; Ratan Tata Library, Delhi School of Economics, New Delhi; Library, National Institute of Advanced Study, Bangalore; Central Library, Tezpur University; Library, Assam State Museum, Guwahati; District Library, Guwahati; Central Library, Indian Institute of Technology, Guwahati; Directorate of State Archive, Dispur, Guwahati; Office of the Principal Chief Conservator of Forest and Wildlife, Guwahati; Assam Forest and Wildlife Divisions, Sonitpur; Circle Office, Chariduar. My research would have not been possible without the support of these institutions.

On a more personal note, I am profoundly indebted to my parents for their constant emotional support and care throughout this work. I have no words to appreciate the unstinted support and inspiration from my husband Arnab who stood by me during various odds and personal difficulties in the course of this research.

My deep gratitude goes to Shashwati Goswami, Rosy Sarmah and Angana Misra for their generosity at different junctures. I thank Angana also for going through the final drafts of my Chapters. I also wish to thank Prarthana, Gargi, Poonam and Dharitri for their help at different stages.

My younger brother Amit did not live to see the completion of my thesis. It would have been my greatest comfort if he were there to see its completion. It was he who accompanied me to the unknown forest villages of Nameri during the initial visits for the fieldwork. In his absence today, I have to be content with the fact that at least he had

visited my field several times and listened to my discussions on various issues. I dedicate this small piece of work to his memory.

TEZPUR UNIVERSITY

REPORT OF EXAMINERS OF ORAL DEFENCE EVALUATION COMMITTEE

The examiners of Oral Defence Evaluation Committee (ODEC) certify that the thesis entitled "Issues of Conservation and Livelihood Among the Forest Villagers in the Nameri Area of Assam" submitted by Ms. Indrani Sarma to the Tezpur University in partial fulfilment of requirement of the Ph.D. degree in the department of Sociology under the school of Humanities and Social Sciences has been examined by us on 17th June, 2013 and found to be satisfactory.

The Committee recommends for the award of the Degree of Doctor of Philosophy.

Signature of

Principal Supervisor

External Examiner

Date:

CONTENTS

LIST OF MAPS

LIST OF TABLES

LIST OF PICTURES

ABBREVIATIONS

AFP: Assam Forest Policy

APO: Assistant Political Officer

CFRs: Community Forest Resources

CPRs: Common Property Resources

ETF: Ecological Task Force

FD: Forest Department

FRA: Forest Rights Act

FRC: Forest Rights Committee

FV: Forest Village

JFM: Joint Forest Management

JFMC: Joint Forest Management Committee

KNP: Kaziranga National Park

MoEF: Ministry of Environment and Forest

MoTA: Ministry of Tribal Affairs

NFP: National Forest Policy

NNP: Nameri National Park

NP: National Park

NTFP: Non-Timber Forest Product

NTR: Nameri Tiger Reserve

PA: Protected Area

RF: Reserved Forest

SHG: Self Help Group

USF: Unclassed State Forest

WLS: Wildlife Sanctuary

GLOSSARY

Forest: That the word 'forest' is not properly defined in the Indian context is at the root of much of the problem and there is considerable uncertainty over the meaning and use of the term. The Indian Forest Act, 1927 and Forest Policy, 1988, that form the basic institutional framework for forest governance, do not clearly define the term. In 2007, the Ministry of Environment and Forests (MoEF) reconsidered the definition, and included any area under government control, notified or recorded as 'forest' under any act, for conversion and management of ecological and biological resources. This definition accommodated the earlier legislations and forms of state control over forests.

Forest Land: According to Section 2(d) of the FRA 2006, "(F)orest land means land of any description falling within any forest area and includes unclassified forests, undemarcated forests, existing or deemed forests, protected forests, reserved forests, Sanctuaries and National Parks."

Forest Dwelling Scheduled Tribes: According to Section 2(c) of the FRA 2006, "(F)orest dwelling Scheduled Tribes who primarily reside in and who depend on the forest lands for *bona fide* livelihood needs and includes the Scheduled Tribes pastoralist communities."

Other Traditional Forest Dweller: According to Section 2(o) of the FRA 2006, "(O)ther traditional forest dweller means any member or community who has for at least three generations prior to the 13th day of December, 2005 primarily resided in and who depend on the forest or forests land for *bona fide* livelihood needs."

Forest Village: According to Section 2(a) of the FRA 2006, "(F)orest village means the settlements which have been established inside the forests by the forest department of any State Government for forestry operations or which were converted into forest

villages through the forest reservation process and includes forest settlement villages, fixed demand landholdings, all types of *taungya* settlements, by whatever name called, foe such villages and includes lands for cultivation and other uses permitted by the Government." Unlike, other Indian states, in Assam, forest villages are mostly situated in the fringe areas of the forests.

Forest Rights Act 2006: The newly implemented Act which came into force on 1 January, 2008. The Act is considered a significant piece of legislation in the history of forest management in India. For the first time, it has provided an entire gamut of rights and privileges to the Scheduled Tribes and Other Traditional Forest Dwellers in order to 'undo the historical injustice' done to them since the Colonial period.

Community Forest Resources: According to the Section 2(a) of the FRA 2006, "(C)ommunity forest resources (CFRs) means customary common forest land within the traditional or customary boundaries of the village or seasonal use of landscape in the case of pastoral communities, including reserved forests, protected forests and protected areas such as Sanctuaries and National Parks to which the community had traditional access". These include village pastures, community forests, waste lands, common threshing grounds, village ponds, etc. These are the resources accessible to the whole community of a village and to which no individual has exclusive property rights. The customary rights allowed the villagers to collect minor forest produces for their daily needs such as honey, firewood, lac, thatch, resins, dried leaves, thatch, and other medicinal herbs.

Gram Sabha: According to the Section 2(g) of the FRA 2006, "(G)ram Sabha means a assembly which shall consist of all adult members of a village and in case of States having no Panchayats, Padas, Tolas and other traditional village institutions and elected village committees, with full and unrestricted participation of women."

Joint Forest Management (JFM): The concept of JFM was first introduced in 1988. *The entire idea behind the propagation of the JFM is to evolve co-management*

strategy that would maintain ecological security of forests while ensuring enhanced livelihoods. It emphasises on involving the local forest dwellers in the task of conservation on the one hand and meeting the day-to-day- subsistence needs of these forest dependent communities such as access to the Non-Timber Forest Produces (NTFPs), like firewood, fodder, honey, resins, medicinal herbs, tendu leaves, sal leaves, and other such minor produces for local sustenance on the other.

Taungya: Taungya, believed to have been developed by the British in Burma during the nineteenth century, is a system of forest management in which land is cleared and planted initially to produce food crops. Seedlings of desirable tree species are then planted on the same plot, leading in time to a harvestable stand of timber.

Biodiversity: The number and variety of living organisms, sometimes refers to the total life on Earth.

Environmental Sociology: Environmental sociology can be defined as the study of societal-environmental interactions. The discipline focuses not only in the relationship between society and environment, but also environmental sociologists, place special emphasis on studying the social factors that cause environmental problems, the societal impacts of those problems, and the efforts to solve the problems.

Exclusionism: It implies a conservation regime which solely believes in protecting forests and wildlife by excluding the local forest-dwellers through 'fences and fines' and 'guns and guard' approaches. But such a conservation move is unrealistic in Indian context where protected areas are inhabited by forest-dwellers from ages.

Human Exemptionalism Paradigm: This paradigm involves the assumption that humans have unique culture; and the societies are accordingly seen as being shaped by socio-cultural forces. In other words, the human beings are different from rest of the natural world in term of its capacities to remake their habitats and their world

through technological innovations. Human society, then, in contrast to the rest of nature, is organized on two levels: the biotic and the cultural.

New Ecological Paradigm: It reflects an assumption that humans are only one of species among many in the ecosystem, like all other species, humans are also part of the ecosystem.

New Social Movement: Refers to the emergence of growing public concerns about the state of environmental crisis and the mass political movement during the 1960s in the United States and Europe.

Minor forest produce: Minor forest produce includes all non-timber forest produce of plant origin including bamboo, brush wood, stumps, cane, tussar, cocoon, honey, wax, lac, tendu or kendu leaves, medicinal plants and herbs, roots, tubers and the like.

Treadmill of Production: This refers to the inherent need of an economic system to continually expand its profit even at the cost of environment. In a modern production system which is capital intensive (and which also uses chemical-intensive technologies) requires large-scale extraction of natural resources for production of finished goods. This results in depletion of natural resources (ecological withdrawals) on one hand; and environmental pollution (addition to the ecosystem) on the other hand. With regard to this, Allan Schnaiberg detects a dialectical tension that arises in advanced industrial societies as a consequence of the conflict between the Treadmill of Production and demand for environmental protection.

VERNACULAR TERMS

Adhi: A system of sharecropping

Baam mati: Shallow land usually suitable for plantation of seasonal vegetables

Bari mati: Homestead land

Bhaona: Neo-Vaishnavite folk-popular drama tradition of Assam

Bhoral-ghar: A granary store room

Bigha: Local measurement of land (1 Bihga = 0.13387 Hectare = 0.33058 Acres)

Bihu: Spring festival of Assam

Dhaan: Paddy

Da-mati/ Rupit mati: Land suitable for wet-rice cultivation

Gaon: Village

Gaonbura: Village headman

Haat: Periodic market, usually weekly or bi-weekly

Mati: Land

Meji: A stack of hay

Maund: Traditional measurement where 1 maund is equal to 40 kgs (approximately)

Naamghar: The community prayer hall

Mati Patta: Land Title

Naamgharia: The village priest who is in-charge of the naamghar and recites the holy scripture in the naamghar

Paaleng: Garden consists of plantations of seedlings of different varieties of trees under JFM and FD is locally known as paaleng

Paam: Land used for cultivation for a temporary period located at a distance from the village

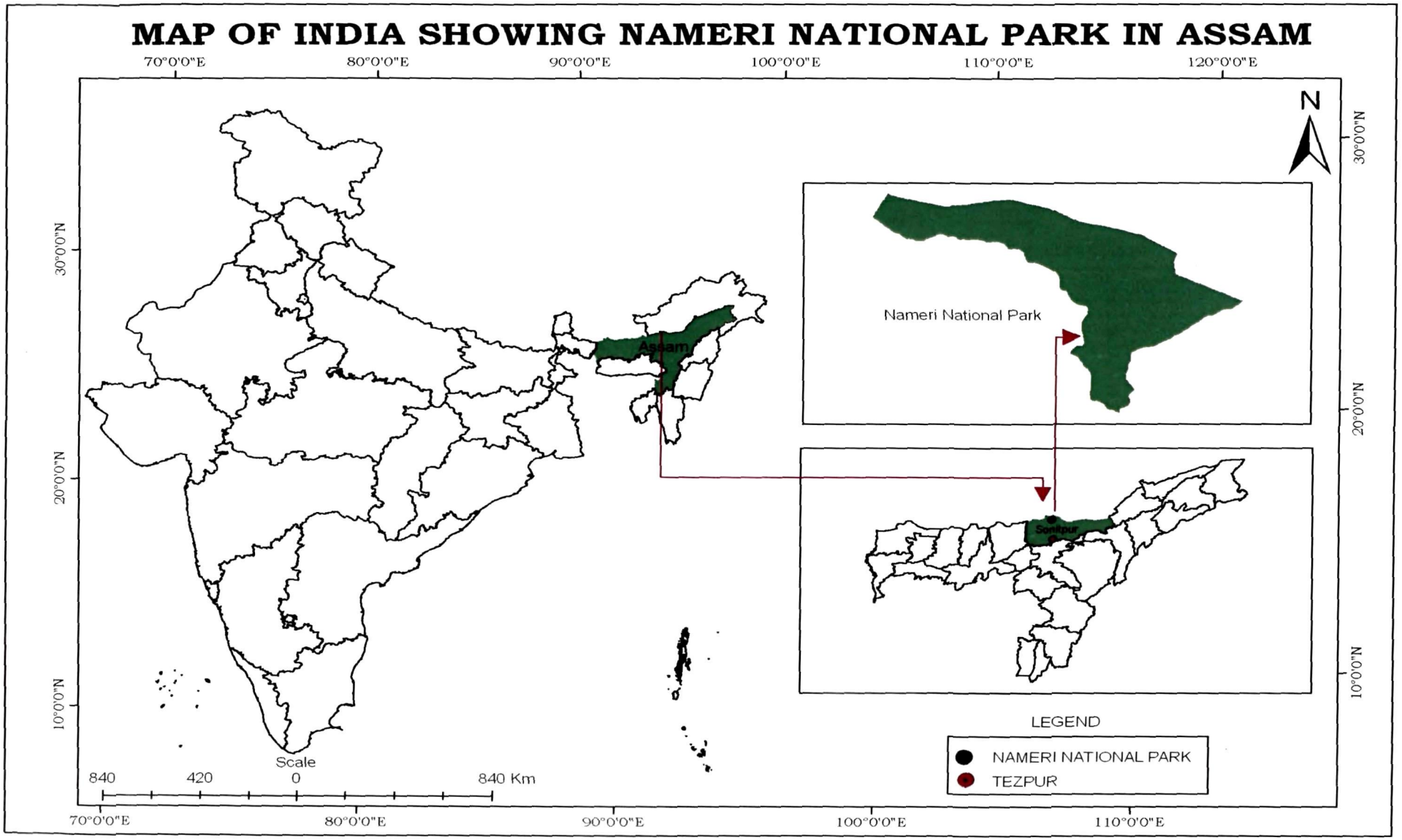
Sali: A traditional variety of paddy

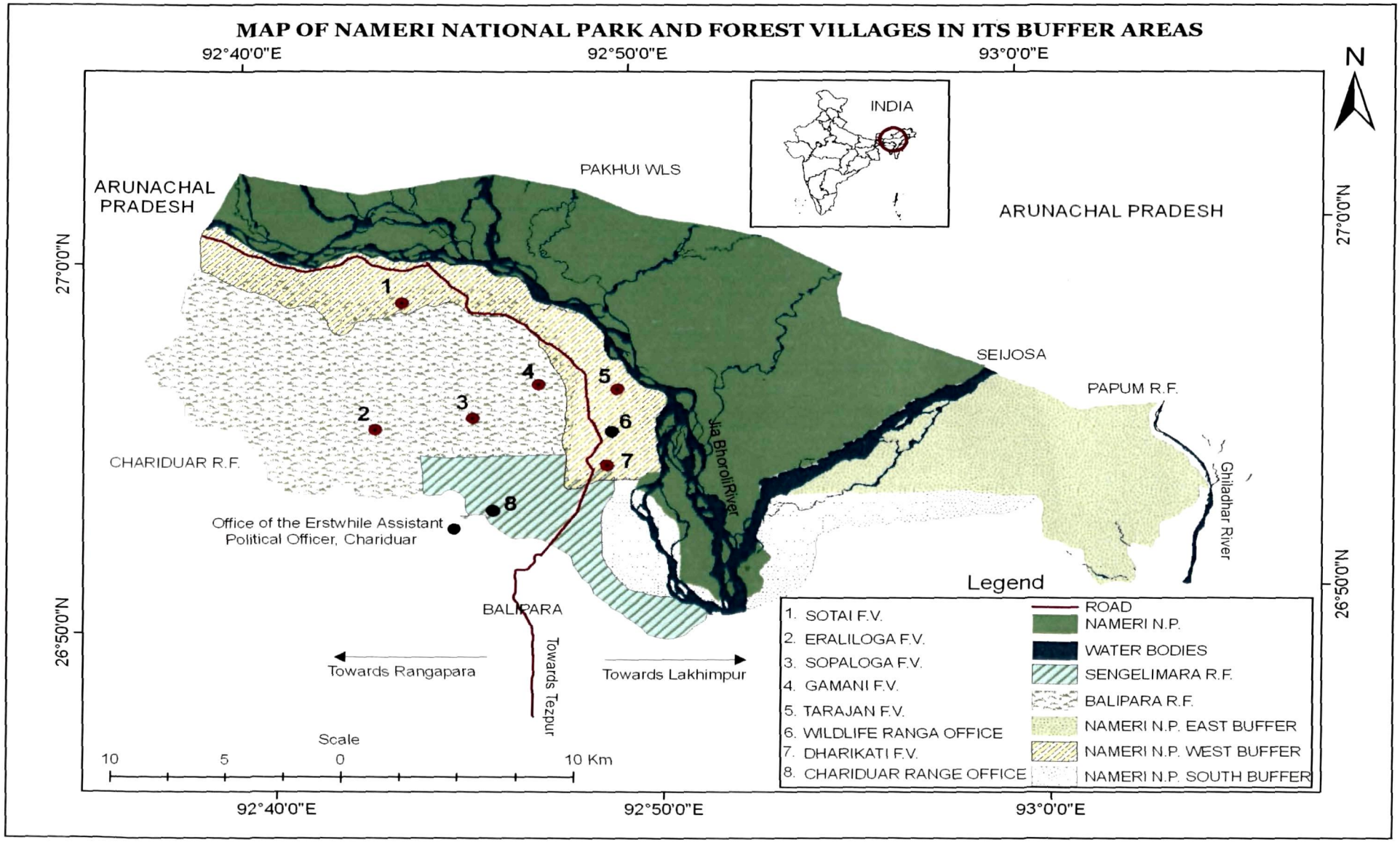
Tat Saal: Traditional loom

Tangi-ghar: A small temporary structure which can accommodate one or two persons built upright on the top of a tree or a wooden or bamboo platform in the midst of paddy field to chase away wild elephants.

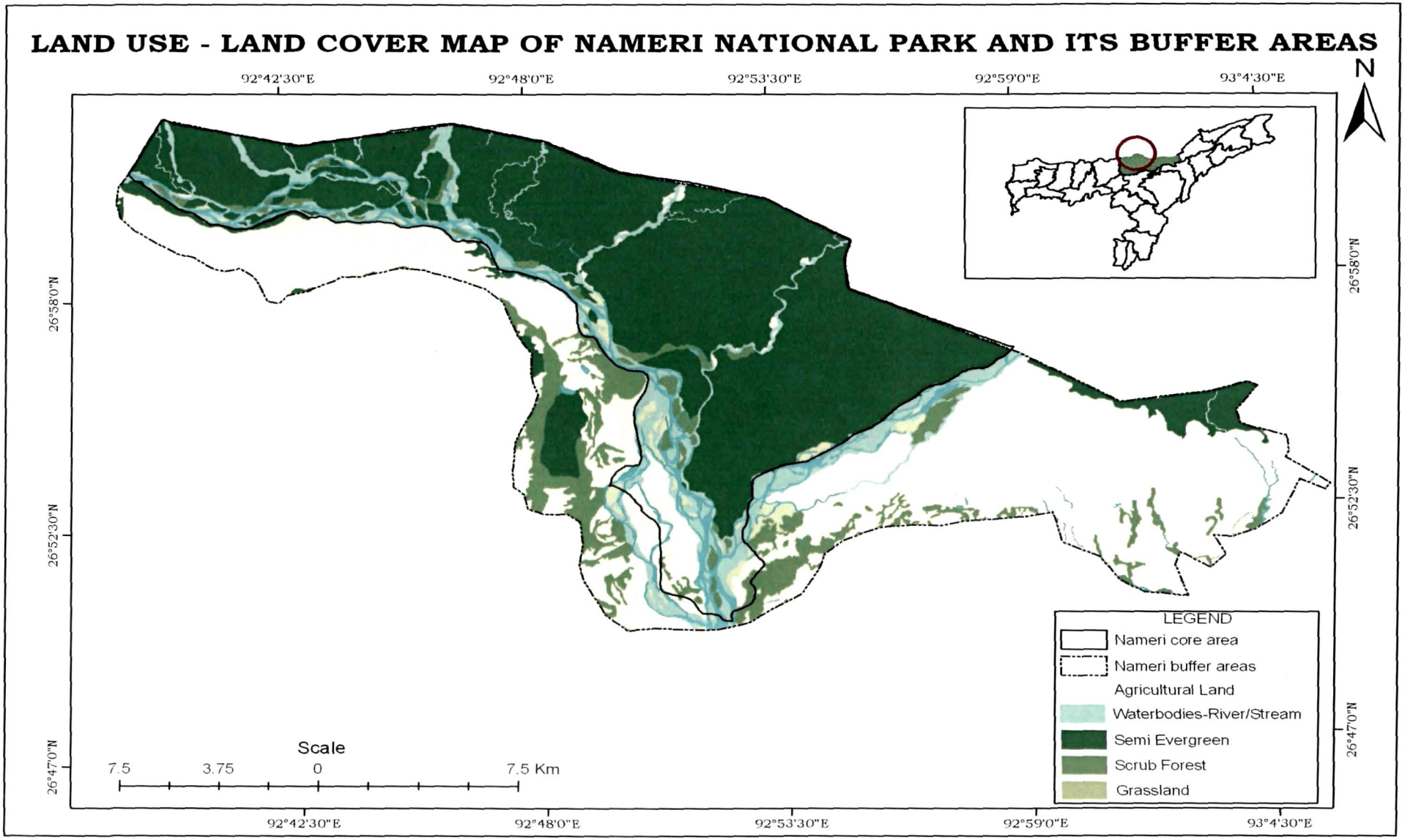
Thela: A Push cart used by the villagers to carry loads of grains from the field to home and to the weekly market

Xatriya: The cultural practices and traditions relating to the xatras, the neo-Vaishnavite monasteries of Assam


MAP OF INDIA SHOWING NAMERI NATIONAL PARK IN ASSAM
70°0'0"E
80°0'0"E
90°0'0"E
100°0'0"E
110°0'0"E
120°0'0"E
30°0'0"N
20°0'0"N
10°0'0"N
N
Assam
Nameri National Park
Sonitpur
LEGEND
NAMERI NATIONAL PARK
TEZPUR
Scale
840
420
0
840 Km


MAP OF NAMERI NATIONAL PARK AND FOREST VILLAGES IN ITS BUFFER AREAS
92°40'0"E
92°50'0"E
93°0'0"E
N
27°0'0"N
26°50'0"N
INDIA
ARUNACHAL PRADESH
PAKHUI WLS
ARUNACHAL PRADESH
SEIJOSA
PAPUM R.F.
Ghiladhar River
Jia BhoroliRiver
CHARIDUAR R.F.
Office of the Erstwhile Assistant Political Officer, Chariduar
BALIPARA
Towards Rangapara
Towards Tezpur
Towards Lakhimpur
Scale
10 5 0 10 Km
Legend
1. SOTAI F.V.
2. ERALILOGA F.V.
3. SOPALOGA F.V.
4. GAMANI F.V.
5. TARAJAN F.V.
6. WILDLIFE RANGA OFFICE
7. DHARIKATI F.V.
8. CHARIDUAR RANGE OFFICE
ROAD
NAMERI N.P.
WATER BODIES
SENGELIMARA R.F.
BALIPARA R.F.
NAMERI N.P. EAST BUFFER
NAMERI N.P. WEST BUFFER
NAMERI N.P. SOUTH BUFFER

LAND USE - LAND COVER MAP OF NAMERI NATIONAL PARK AND ITS BUFFER AREAS



CHAPTER ONE
INTRODUCTION

1. The Problem

The critical relationship between man and forest has for long been the theme of intense debates among various conservation theorists and activists. The objective of the present work is to study this relationship between wildlife and the human beings in the context of the conflict between the conservation initiatives of the state and the livelihood necessities of the community in the specific context of a forest area in Assam.

2. The Theoretical Framework

Notwithstanding the progress it has achieved, mankind today is faced with massive existential challenges arising out of its skewed interaction with the environment that has resulted in large scale devastation of natural resources. In response to this crisis situation, the recent years have witnessed an unprecedented environmental consciousness all over the world. This consciousness has resulted in the establishment of an increasing number of protected areas (PAs) with a strong 'preservationist orientation' adopting the 'people out approach' (Ghimire and Pimbert 2006). This approach has understandably faced severe criticism from many others as being anti-people and unsustainable (Saberwal et al. 2001; Saberwal and Rangarajan 2003; Shahabuddin and Rangarajan 2007; Kothari 2003). They also point out that many of the traditional forest dwellers have been having a symbiotic relationship with forests and in the process also contributed toward its preservation. In view of such opposite stands, it becomes imperative to examine the man-forest interactions particularly among those who are living in and around the PAs. This study will make an attempt in that direction. It aims to throw light on an appropriate and viable model of forest conservation.

What really ails the PAs in the recent context? The dangers pertaining to poaching, illegal trade in animals and animal parts, surreptitious removal of timber, development projects, etc are all posing serious threats to the natural ecosystem and it is against these that the areas need to be protected. But more pervading and conspicuous threat is the presence of

human settlements and their activities in almost every PA in the country (Gole 2001, 150). In this context, the moot question that arises is related to the issue of human settlements in the forest areas which have been inhabited in India by the forest dwellers. In the post-independence period, NPs and other PAs are seen as important instruments for the conservation of biological diversity. This conservation in its true sense of the term considers human settlements in and around the parks and reserves as nuisance to wildlife and the general notion is that these communities should be removed from there (Ghimire and Pimbert 2006, 11-15).

Significantly, most of the forest Acts and policies are designed in such a way that they do not include the perspective of the forest dwelling communities into its fold. The forest Acts both during the colonial and post-colonial periods failed to consider the age-old rights of these communities over forests. In the process, rigorous attempts have always been made to keep forests as an 'isolated entity'. Pravin Sheth points out that the forest laws and administration, during both the pre and post-1947 regimes were characterised by the rulers' perceptions that the local communities lack knowledge of and capacity to manage the land on which they live for centuries. Such a pattern of forest management has alienated the local forest dwelling communities from forests. Deprived of their sense of belonging to the forest, they lost their stake in conservation. On the other hand, the urban consumer and the industrial interests like pulp and paper mills and forest contractors who exploit the forests of their wood, deep and green, only for commercial interests, have no stake in forest conservation (1997, 105-106).

The PAs have now become a major source of tension between the local people and the state which has brought about considerable changes in the pattern of man-forest interactions. Archana Prasad in *Environmentalism and the Left: Contemporary Debates and Future Agendas in Tribal Areas* contends that forests are a site of conflict between the indigenous forest dwellers and the state. The major aspect of this conflict is witnessed in the problems arising out of the government's forest conservation programmes emanating from the state's monopoly control of forest since the nineteenth century (2004, 58). By bringing the forest land under government control – a process which continued even after independence – the state conservation programmes intend to move the local

communities out of the forest areas for conservation. But the major concern that arises is -- where will these people go if they are displaced from their traditional habitats?

Ghimire and Pimbert observe that a study of 171 NPs and sanctuaries conducted in India in the mid 1980's found that there were 1.6 million people living in 118 parks that were inhabited. By 1993, some 600,000 tribal people were already displaced (2006, 7). This number has increased manifold by now. India's conservation experiences show that the alienation of the communities living in the forest areas has resulted in serious conflict with the conservation strategies of the state in the post-independence period. This has given rise to many debates among the Indian conservationists on the question of devising right strategies for long-term conservation goals and the place of the local communities in conservation (Ghimire and Pimbert 2006; Sachchidananda 2004; Guha 2006; Gadgil 2001; Shahabuddin and Rangarajan 2007; Kothari et al. 1998; Saberwal and Rangarajan 2003; Saberwal et al. 2001).

The People-wildlife debate has long dominated the conservation discourse in India. The traditional wildlife conservationists contend that forests should be protected as an 'isolated entity' without the people. The other group of conservationists argues that people must be considered integral to the conservation process. The former view, defined as the 'wilderness view' (Kothari 2003, 1) believes in the preservation of natural habitats within the PAs by purging of any form of human interventions. It aims to create 'people-free zones' in and around the parks, considering humans as outsiders to the natural ecosystem. This is perceived to be the best way to ensure protection to forests and wildlife. The wildlife enthusiasts support this strand. Thapar and Manfredi, for example, contend,

> One of the primary reasons for establishing non-use forest areas, or National Parks, is because virtually any form of sustained human activity results in serious modifications of the natural environment whether in watershed regulation, soil erosion, agriculture productivity or climatic change. Such modification can seriously upset a balance and cause severe stress for man. (1995: 28)

Tiger Conservationist K Ullhas Karanth, another advocate of the 'people-free' approach to conservation contends,

> Environmentalism is primarily concerned with the goal of making the world a better place for us human beings. Consequently, for environmentalists, wildlife conservation occupies only a narrow band within a wider spectrum of people-centric issues...Social activism is even further removed from wildlife conservation concerns, because the 'rights' of a single species, *Homo sapiens*, are central to its agenda. (2008: 273)

He further asserts,

> The cumulative effect on wildlife of the 'sustainable use' paradigm shift has been disastrous in India. Even as demographic and social pressures on the nature reserves have mounted, and international trade and commerce in endangered species boomed, official wildlife protection mechanisms have gone into serious neglect and decline. By the late 1990s, India's wildlife reserves had perhaps lost about 60 per cent of the protective capabilities that existed a decade earlier. Although numerous social factors have contributed to this decline, the seductive siren song of 'eco-development' was the most crucial element...The threat of habitat degradation arises when contiguous habitats are fragmented by intrusion of human settlements, roads, railways, or pipelines...human impacts on habitat quality are obvious: an area overgrazed by livestock may support lower densities of wild ungulates than an area without cattle; a forest that is heavily logged for timber may be an inferior habitat for rainforest primates. In other cases, such effects are less obvious. The long-term consequences of the exploitation of non-timber forest products like fruits, leaves, bark, root, gum, resin, rattan, and bamboo can be particularly insidious...The impact of human disturbances on wildlife habitats is often cumulative...Yet such non-timber forest product collection is often blindly touted as a 'conservation solution' by many conservationists. (2008: 276-279)

This approach informs conventional environmentalism and the formation of NPs and sanctuaries with the aim of preserving wildlife and biodiversity by the post-colonial Indian state reflects this view (Prasad 2004, 12). It upholds a conservation regime which believes in protecting forests and wildlife by excluding the local forest dwellers through fences and fines or 'guns-and-guards' approach (Kothari 2003, 2).

Contrarily, the other group of conservationists argues that communities must be considered integral to the conservation process. They plea for a more democratic system of park management in which the voices of local communities can be heard loud and clear (Guha 2006, 140). Saberwal et al. (2001) suggest that the crisis with the Indian conservation scene today is located within the exclusionary policy. The forests across India have remained the habitats for a large number of indigenous communities for ages. The settlements were formed not only in the fringes of the forests but also deep inside

them. These communities have also evolved certain practices with regard to the use of land and other resources within forests for their survival. Their alienation from forests by the state conservation policies has only undermined the latter. Smuggling and poaching in the PAs have increased. Alienation and lack of access to forest resources for livelihood has resulted in local hostilities to conservation strategies and regular clash with the forest officials. Prasad also explains how forests have become a site of conflict between the forest dwellers and the existing conservation regime premised on its monopoly control of the forests since the nineteenth century (2004, 58).

A large body of contemporary literature on conservation has developed as a critique of the exclusionary state conservation policies and the majority of the critics are concerned essentially with the livelihood question of the locals and the necessity of making them partners in conservation. There are very few works either by academics or activists that seem to support the 'wilderness' or the 'park-centric view'. This, however, has still somewhat remained a dominant approach of the post-independence Indian state which has been always exclusive of local communities' specific livelihood patterns and their traditional institutions, beliefs and practices. Various conservation policies and Acts in the post-independence period amply reflect this view (as discussed in the subsequent Chapters). Although the Forest Policy of 1988 set the stage for participatory forest management in the country through the introduction of the JFM, there is little to be seen in terms of its success.

The newly enacted FRA 2006 has brought about a significant shift in the erstwhile exclusionary conservation approach of the state toward a people-oriented participatory conservation. This Act is considered a new beginning in the way forests are to be managed. For the first time in the history of forest conservation, vital changes are made in the policy structure for recognising the long denied rights of the forest dwelling communities. The implications of the Act are discussed in detail in Chapter Five.

At this juncture, question arises as to – the forests are for what and for whom? Whether the issue of conservation since independence has really been addressed in the right perspective? Or what would be a viable (and sustainable) model of conservation that

would benefit society, wildlife and the forests? In this context, it is important to examine the very basis of the approach to conservation in the present times.

In the light of these theoretical positions, this study examines the issues of conservation and livelihood vis-à-vis the changing human-wildlife interface in two forest villages (FVs) located in the buffer area of the Nameri Tiger Reserve (NTR). It historicises the formation of the forest settlements in the area and then throws light into the local forest dwellers' sources of livelihood, dependence on forest and responses to various conservation initiatives to explicate the specific nature of human-wildlife relationship in Nameri in particular and Assam in general.

3. Environmental Sociology

3.1 Its Emergence as a Discipline

In the recent years, discourses on environmental issues and concerns have gained in immense importance. The studies on environment have come to dominate significant place in the arena of social thought. Various disciplines are incorporating environmental issues into their core paradigm as a response to the challenges raised by global environmental crisis. The contemporary environmental problems reveal how the subject matter of various disciplines (for example, history, sociology, anthropology, ecology, geography, economics, biology, etc.) has changed over time. They share close disciplinary boundaries in the study of global dimensions of resource use as well as environmental problems and policies. In this context, sociology too, has made a dramatic progress with the growth of its sub-field of environmental sociology in the 1970s and again after a period of quiescence in the late 1980s and 1990s (Foster 1999, 367). However, the study of the environmental problems gained momentum only after late 1980s and 1990s (Ibid). Environmental sociology has seen many phases of development as a full-fledged academic discipline.

Environmental problems like global warming, desertification, large-scale deforestation, etc not only pertain to scientific causes and consequences but also concern a wide range of sociological underpinnings too. In other words, these problems are not only problems of technology and industry, of ecology and biology, of pollution control and pollution

prevention, they are also social problems. Since it is seen that the utilisation of natural resources is totally dictated and appropriated by human beings, issues and problems concerning the environment are mainly determined by social factors. Therefore, environmental sociology is defined as the study of societal-environmental interactions. The discipline focuses not only in the relationship between society and environment, but also place special emphasis on studying the social factors that cause environmental problems, the societal impacts of those problems, and the efforts to solve the problems (See Munshi 2000; Hannigan 1995; Sundar and Muthukumar 2006, Bell 1957). The focus of environmental sociology is on the study of both built as well as natural environment.

The built environment that we see around us refers to all those man-made and tangible settings which people create for their comfort and which can be repeatedly used. The Earth is not only marked by its natural features (mountains, deserts, forests, rivers, oceans, etc.) but also by large numbers of built environments constructed by human being to suffice their needs. The environmental sociologists are showing increasing interests to the study of urban-industrial settings and the patterns of change in the interactions between man and their physical environment. The natural environment represents the realm which is outside human control. For example, forests and other natural settings constitute the natural environment (Dunlap et al. 2002, 2-6).

The environmental sociologists are more concerned with assessing human interventions into the natural environment as well as the dynamics of human-environment interactions. They also study a multiplicity of ways in which these relations are often influenced by various socio-cultural as well as socio-economic processes. This implies two very significant points of human existence: human beings as part of the larger ecosystem on one hand, and humans as creators of unique and distinctly social environment on the other. Frederick H. Buttel termed this as the 'inherent duality in human existence'. Further, Buttel and Humphrey observe that this double determination and especially the social significance of dependence on and interaction with the natural as well as built environment, represents the uniqueness of the field (Dunlap et al. 2002, 15).

Environmental concerns grew among the people along with the Protest Movement during the 1960s. The New Social Movement in the 1960s marked a radical criticism of industrialism and the capitalist expansion in various parts of the planet, including the United States, accentuating the need to investigate the environmental problems (Sundar and Muthukumar 2006, 5). The emergence of environmental sociology as an academic discipline has its roots in the field of human ecology. According to Buttel and Humphrey, "(H)uman ecology as a field can be defined as the study of structure and change in sustenance organisations or resource groups which support human populations within dynamic and constraining environments. It focuses on patterns of activities for sustaining human populations, their functional relationships, and temporal change in their level of complexity...The nature of organised sustenance activities, of course, involves more than productive organisations, supplies of natural resources, and other limits encountered by growing human populations" (2002, 37). It has played an important role in the development of environmental sociology.

Human ecology had remained dominant within urban sociology from 1920s to the 1960s. The urban ecology model was introduced during the 1920s and 1930s by sociologists Robert Park and his colleagues at the University of Chicago (Hannigan 1995, 16). The American sociologists Park and Burgess were heavily influenced by the works of Charles Darwin. In their study of urban ecology, they used Darwin's work-'Web of Life', whereby the active principle is the 'struggle for existence'. According to this principle, the human interventions in the form of urban development and industrial pollution have disturbed the natural ecological balance, thus intensifying the 'struggle for existence' (Hannigan 1995, 17; Buttel and Humphrey 2002, 39).

Although, human ecology as a field of study has its own limitations of focusing only on competitive cooperation in the spatial organisation of urban populations, a number of sociologists re-worked the conceptual basis of the field during the 1950s and 1960s. Consequently, it came to be known as the study of interrelations among four major properties of human ecosystem: population, organisation, environment and technology, which are often designated as components of a 'POET' model by O. D. Duncan. This model was depicted as an ecological complex in which each element is interrelated to the

other three and a change in one can therefore affect each others. For example, an increase in population (P) can create a pressure for technological change (T) as well as increased urbanisation (O), leading to the creation of more pollution (E) (Buttel and Humphrey 2002, 38-43; Hannigan 1995, 18). Environmental sociology, therefore, did not emerged in vacuum, and human ecology served as one entry point for sociologists with a growing interest in what would become a new field. Also, several research were conducted within the rural sociology on a variety of areas like, agriculture, forestry, recreation, mining and other primary industries (Buttel and Humphrey 2002, 44).

3.2 Environment in Classical Sociological Theory

Although works pertaining to natural resources and environmental sociology had appeared mostly within the areas of urban and rural sociology (broadly speaking, the area of human ecology) these had never coalesced into a cumulative body of work. The rise of environmental sociology during the 1970s had surprised the contemporary environmental sociologists on the ground that they found themselves without any prior body of theory or research to guide them towards more comprehensive understanding of society-environment interactions. Each of the three major classical sociological pioneers -- Karl Marx, Emile Durkheim and Max Weber -- arguably had an implicit environmental dimension to their work (Hannigan 1995, 5).

Nevertheless, to a certain extent each of the three sociological pioneers had something significant to say about the complex interactions between society and environment (Hannigan 1995, 5). Some of the contemporary environmental sociologists like William Catton, Riley Dunlap, Allan Schnaiberg, Frederick H. Buttel, Michael Redclift and others have made deliberate attempt to adopt the strategy of extracting 'ecological' insights from the works of the classical thinkers. They were inclined to extract the concepts and ideas from the collected works of the sociological pioneers, even if these were not originally used in the arena of environment and apply to the understanding of current environmental crisis. The following section explores the 'ecological concerns' in the writings of Marx, Durkheim and Weber -- the three founding fathers of modern sociological thought.

(a) Karl Marx

Karl Marx's analysis of social structure and social change has become a starting point for the contemporary theories of the environment. This is evident in the writings of Marx on capitalism during the Industrial Revolution (eighteenth and nineteenth century). The penetration of capitalism into the society was held responsible for a wide range of social problems from over-population and resource depletion to the estrangement of people from the natural worlds which were once together. In a capitalist system, the social conflict for huge profits between the proletariats and the capitalists leads to their alienation from the nature. In some of the later works, Marx seems to follow a distinctively anthropocentric[1] direction depicting man gaining mastery over nature. In contrast, his earlier works provides a powerful analysis of ecological crisis of his time, like growth of cities, pollution, over-population and spread of capitalist agriculture (Hannigan 1995, 8; Buttel 2005).

Central to his argument was the notion that the capitalist large-scale agriculture prevented any truly rational application of the new science of soil management. Despite scientific and technological development in the area of agriculture, capitalism was unable to maintain the necessary conditions for the recycling of the constituent elements of the soil (Foster 1999, 380). Both Marx and Engels did not restrict their concerns of environmental degradation to the robbing of the soil but also focused on other aspects of this problem, including the depletion of coal reserves, the destruction of forests and so on. According to Marx, the development of civilisation and industry in general had always been active in the destruction of forests that everything that has been done for their conservation and production is completely insignificant in comparison (Ibid, 385).

Marx used the concept of metabolism to describe the complex relationship and interaction between society and nature. According to him, metabolism 'constitutes the fundamental basis on which life is sustained and growth and reproduction become possible'. During the mid-nineteenth century, even the agricultural practice that was prevalent led to the estrangement of human beings from the natural world of soil. This Marx referred to as 'metabolic rift' (See Hannigan 1995, 9; Foster 1999, 378). He had

[1] Man as the centre of everything.

employed the concept to capture the material estrangement of human beings in capitalist society from the natural conditions of their existence (Foster 1999, 383). The capitalist mode of agricultural practiced especially for huge commercial profit was accused of polluting the environment with the use of large-scale chemical fertilizers

Marx raised fundamental issues about the necessity of ecological sustainability. In emphasising the need to maintain the earth for successive generations, he captured the contemporary notion of sustainable development, defined as -- development which meets the needs of the present which compromising the ability of the future generations to meet their needs. In this regard, Marx proposed the concept of 'humanisation of nature' suggesting that human will develop a new understanding with nature for its sustainable use (Hannigan 1995, 8).

Hence, Marx and Engels' schema of positioning the contradictory development of class societies and the revolutionary transformation from one mode of production to the other depicts an evolutionary model based on Darwin's work. It will be wrong to say that Marx has provided little insights into nature and the natural world. In fact, Marx's analysis of modes of production includes not only class relations (or people-people relations) but also the relations of material appropriation (people-nature relationship). In his theory of 'metabolic rift', he has very skilfully applied the sociological thinking to the ecological realm (Hannigan 1995, 8-10).

(b) Emile Durkheim

Like Marx, Emile Durkheim also set forth a modified evolutionary schema drawing heavily from Darwinian evolution and organismic biology (Hannigan 1995, 6; Buttel 2005, 18). His first major work, *The Division of Labour in Society (1893)* is indeed a classic study of social solidarity. Wherein he described the evolution of modern society from a state of mechanical solidarity (social solidarity is a product of shared cultural values) to organic solidarity (the social bond is a function of interdependence, notably that arising out of an increasingly complex division of labour). Durkheim, in this work set forth the major element of a theoretical perspective that has come to be known as 'human ecology'. Durkheim while examining the master direction of societal transformation from

primitive to modern societies with a complex division of labour has also taken into consideration the related consequences of this shift. As societies evolve from simple to complex, physical densities as well as competitive struggle for available resources also increase. This essentially led to an ecological crisis of rising population paired with scarce resources. Durkheim recognised that increasing occupational specialisations (functional interdependencies) within the human population in a modern society is a way to solve competition and struggle over resources (Hannigan 1995, 6-8; Buttel 2005, 18).

As already discussed, human ecology has traditionally stressed the role of population growth in changing the organisation of communities and societies. The same emphasis on population process seems to be strong in Durkheim's analysis of the Division of Labour in Society. His ideas have played a formative role in human ecological theory, particularly in its emphasis on the ability of human population to transcend. Durkheim identified the role of technological and scientific innovations (that is, increasing specialisation) in an advanced industrial society to tackle the problem of population growth as well as scarce resources. In short, the spurt of technological advancement will increase the productive capabilities of human population. In this regard, William Catton contends that Durkheim's theory was very much an attempt to devise a solution to what is essentially an ecological crisis of rising population paired with scarce resources (Buttel and Humphrey 2002, 40-41).

Furthermore his study on 'totemism', especially among the tribes in primitive societies also very clearly reflects the relationship between society and nature. A 'totem' can be anything selected from the natural world. It may be a wolf, bear, turtle, fox, a bird, a tree, etc. The relationship between a totem and the people exhibits a harmonious nature-culture relationship, wherein the nature is nurtured and worshipped. Though Durkheim is least recognised as an environmental commentator, nonetheless some of his major works contained implicit ecological insights.

(c) Max Weber

A final classical sociologist whose work is said to possess an ecologically relevant component is Max Weber. He was an opponent of social Darwinism and had arguably

stressed how social sciences differed from biological sciences (Buttel 2005, 18). The methods, techniques and concepts employed by social sciences in the study of societies are also different. Weber's work has been taken to be the first decisive break from nineteenth century evolutionism anchored in biological analogies (Ibid). His works on comparative-historical, empirical studies were clearest in explaining his break with evolutionism and biological analogies. Weber in his book -- *Economy and Society* (1922/1978), he had discussed at length about the capitalist economy and its related ill-consequences on the society. He had observed that the capitalism or the industrial work which was growing very fast in the west had destructive consequences upon human societies.

As we have seen that each of the three widely acknowledged founding fathers of the discipline of sociology -- Marx, Durkheim and Weber -- addressed some aspects of nature and society, but this was not really definitive to their work. Ecological or environmental issues got implicitly raised in their works while discussing various socio-political and economic conditions prevailing in their society during that time.

3.3 Contemporary Environmental Sociologists and their contributions

3.3.1 Growing Environmental concern

The eighteenth and nineteenth centuries the landscapes of England began to show changes with the advent of the Industrial Revolution. Coal mines, textile mills, railroads, and shipyards were visible signs of an enormous expansion of industry and trade. The industrialisation was accompanied by rapid urbanisation. The population in the cities began to grow at a faster rate, while the countryside had also undergone considerable changes. The peasants, shepherds and artisans, who had formed the backbone of the rural economy started to flock in the cities in search of employment. England was the home of industrialisation (Guha 2005, 10-11). Large tracts of forests were converted into timber plantations and beautiful meadows were destroyed. Guha further contends,

> It is only in the sixties that environmentalism emerges as a popular movement, successfully influencing public policy through a mixture of protest in the streets and lobbying of legislators in the corridors of power. However, an intellectual concern for the protection or conservation of nature goes back to at least to the last decades of the eighteenth century. This precarious interest rapidly grew in

> the nineteenth century, its votaries seeking to influence the modernising government of North America and Europe. The history of environmentalism in most countries has followed a broadly similar pattern; an early period of pioneering and prophecy, culminating in recent decades in a widespread social movement. We might thus speak of a first wave of environmentalism, the initial response to the onset of industrialisation, and a second wave, when a largely intellectual response was given shape and force by a grounds-well of public support. (2005: 3-4)

The period spanning from the 1960s to the mid 1980s, the New Social Movement and a radical criticism of industrialisation, marked a drastic change in the society in various parts of the planet. The United States was a pioneer in institutionalising environmental sociology. In 1960s and 1970s, the US and Europe showed concern about environmental degradation due to increasing industrialisation, capitalist agriculture, technological innovations, depletion of natural resources, etc (Sundar and Muthukumar 2006; Hannigan 1995; Buttel 2005). They tried to approach these issues from a more radical perspective with a view to find out ways to solve growing environmental crisis. In this regard, John Hannigan noted,

> As Europe and America became increasingly urbanised at the close of the nineteenth century...views towards nature began to undergo a major transformation. In particular, the concept of 'wild nature' as a threat to human settlement which had long predominant gave way to a new romantic depiction of nature...Rather than a threat, wilderness was now seen as a precious resource. This view was strong, especially, in the US, where...natural landscapes were rapidly disappearing as urban growth proceeded. Urban expansion...seemed to produce a surfeit of noise, pollution, overcrowding, and other social problems. In this context, unspoiled natural settings took on a special meaning...'*Back to Nature'* movement that flourished in the United States from the turn of the century to shortly after the First World War...encompassed a wide range of activities including, summer camps, wilderness novels, country clubs, wildlife photography, dude ranches, landscaped public parks, and the Boy Scouts. While it was not the only factor, this nature-loving sentiment played a significant role in the creation of the natural parks systems. (Hannigan 1995: 40-41)

A large number of environmental writings were frequently featured in popular periodicals. By this time, sociological interests in environmental matters had been re-ignited primarily by the rising popularity of environmentalism and environmental movement.

3.3.2 The Contemporary Theorists

Two pioneers in environmental social theory -- William Catton and Riley Dunlap have argued that anthropocentrism is the key legacy of the classical theory. Though scholars have pointed to the limitations of the theoretical legacy of classical sociologists, their works were taken as the theoretical base. The contemporary scholars, like, Raymond Murphy, David Pepper, Anthony Giddens, Ulrich Beck and others have tried to interpret these intellectual precedents. The constitution of a theoretical core in the emergence of environmental sociology was unified around the works of environmental sociologists such as Catton, Dunlap, Schnaiberg, Buttel, Hannigan, Michael Redclift, and others, who stood out in theoretical work after 1970s (Hannigan 1995; Buttel 2005; Buttel and Humphrey 2002; Dunlap et al. 2002). These scholars, despite the differences in their analytical perspectives, emphasised on the study of relationships between man and the environment. They have strongly criticised the unsustainability of modern societies, whereby the patterns of interactions with the natural environment are mainly responsible for large-scale environmental crisis.

The most influential components of the environmental sociology literature remain those originally contributed by Catton, Dunlap and Schnaiberg during the mid to late 1970s. They are regarded as the most influential contributors at the theoretical core of environmental sociology. Catton and Dunlap's environmental sociology is built around several interrelated notions. In terms of attempts to conceptualise societal-environmental relations, there involves two poles dichotomies with regard to the biological duality of human species. One pole dichotomy involves the assumption that humans have unique culture; and the societies are accordingly seen as being shaped by socio-cultural forces. That is, the human beings are different from rest of the natural world in term of its capacities to remake their habitats and their world through technological innovations. Human society then, in contrast to the rest of nature, is organised on two levels: the biotic and the cultural. The second pole of dichotomy reflects an assumption that humans are only one species among many in the ecosystem, like all other species, humans are also part of the ecosystem. These poles of continuum are referred to as the Human

Exemptionalism Paradigm (HEP) and the New Ecological Paradigm (NEP) respectively (Hannigan 1995, 13-17; Buttel and Humphrey 2002, 47-48).

For Catton and Dunlap, the NEP which emerges from environmental sociology is based on the following assumptions: (a) human beings are now one of many species that are interdependently connected within the biotic community, (b) the biotic community consists of an intricate web of nature, with complex linkages of cause and effect, and (c) the world itself is finite, there are natural limit to social and economic progress. In contrast to the anthropocentrism that characterised the HEP, the NEP represented a shift toward what is now called an ecocentric point of view in which human beings are seen as part of the nature, interconnected with other species and subject to the natural limits of the biosphere (Foster 1999, 397).

Further, Catton and Dunlap argued that the environment can be seen as serving three distinct functions for human societies. The ecological basis of environmental destruction is probably best described in their own model – 'three competing functions of the environment'. Their model discusses three general functions that the environment serves for human beings: Supply depot, Living space and Waste repository (Hannigan 1995, 18-19; Dunlap and Catton 2005, 6-9).

Used as a Supply depot, the environment is a source of renewable and non-renewable natural resources such as air, water, forests, fossil fuels, etc, which are necessary to sustain human societies. Overuse of these resources results in shortage or scarcities. The Living space or habitat provides home for humans and other beings, including not only our housing, but also the space where we engage in other activities (for example, our transportation systems). Overuse of this function results in crowding, congestions and destruction of habitat for other species. With the Waste repository function, the environment serves as a 'sink' that absorbs the waste products of human life, including industrial production. Exceeding the ability of ecosystems to absorb wastes creates 'pollution', which may harm humans and other living beings and eventually lead to the destruction of the entire ecosystem (Hannigan 1995, 18-19; Dunlap and Catton 2005, 6-9).

The Living space, Supply depot and Waste repository functions of any given area may compete with one another. Using a given geographical area as a Waste repository, for example, tend to make it unsuitable as a Living space or Supply depot. Similarly, building a housing tract on former farmland obviously reduces the area's potential for production of natural resources. All the three functions have bearing upon one another; disturbance in any one will affect the other two.

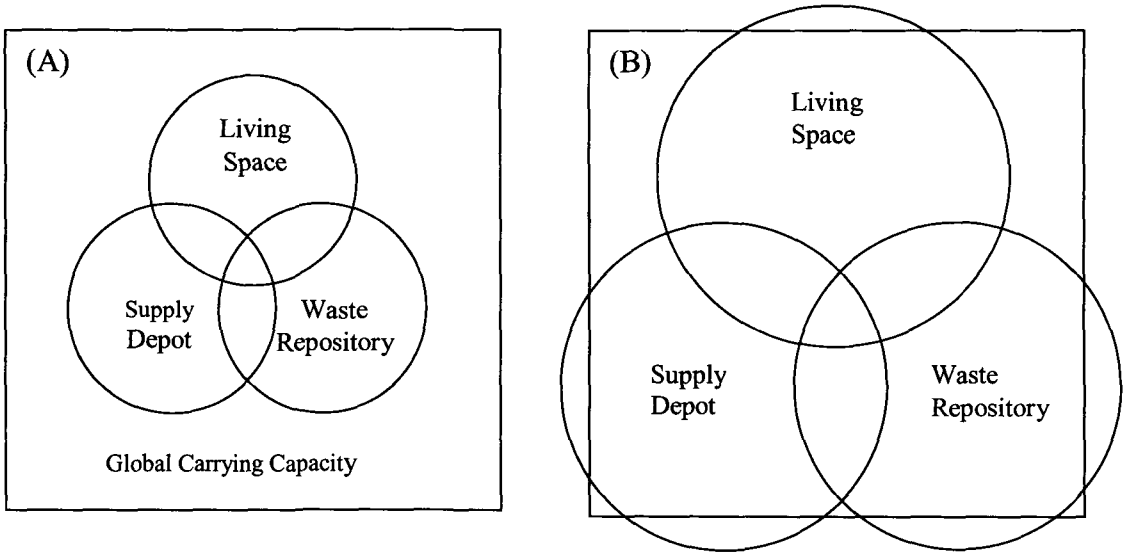


FIGURE: COMPETING FUNCTIONS OF THE ENVIRONMENT (A) SITUATION CIRCA AND (B) CURRENT SITUATION [Source: Dunlap and Catton 2002, 245]

Recent evidence of human-induced global environmental crisis (depletion of the ozone layer, loss of forests and biodiversity, air pollution, extinction of plant and animal species, soil and water pollution) suggest that human beings are overusing the global ecosystems at an alarming rate. In the present times, moving towards a more sustainable society means using natural resources efficiently in order to minimise resource 'withdrawals' and 'pollution', thus checking inexorable deterioration of the environment (Schnaiberg et al. 2005). Understanding the 'functions' performed by the ecosystem gives us an insight into the evolution of environmental problems and issues of interests to environmental sociologists.

In the late 1960s and early 1970s, when sociological interests in environmental matters were just beginning to emerge, primary attention was given to air and water pollution

(problems stemming from the environment's inability to absorb human waste products, and increasing human population), as well as on the decay of urban environment due to growth of capitalists' activities and the importance of protecting areas of natural beauty such as the large tracts of natural forest cover. Throughout the 1980s, new and often more complex environmental problems emerged which posed serious threats to the very existence of life itself (for instance, rainforest destruction, ozone depletion, loss of biodiversity, escalating industrial growth, capitalist agricultural practices and so on). This has grabbed the attention and concerns of the environmentalists towards complexities mounting in the interrelatedness of man and nature.

Allan Schnaiberg's ideas on environmental sociology are second only to Catton and Dunlap in its influence throughout North America. Within environmental sociology, the most influential explanation of the relationship between capitalism, the state and the environment can be found in Schnaiberg's works. Schnaiberg outlines the nature and genesis of the contradictory relations between economic expansion and environmental disruption. Two concepts are particularly important in his work: (1) the societal-environmental dialectic and, (2) the treadmill of production. The concept of Treadmill of Production was first introduced in 1980 by Schnaiberg. The concept was introduced taking into account two major observations of the present day societies. First, the significant changes appeared in the impact of production processes upon ecosystems in the last half of the twentieth century. Second, social and economic responses to these impacts were quite variable in a sense that some people rebelled against this modern production system while others embraced new technologies as their best hope for solving environmental problems (Schnaiberg et al. 2005, 37).

Treadmill of Production underlies the political economy of environmental problems and policies as being organised within the structure of modern industrial society. This refers to the inherent need of an economic system to continually expand its profit even at the cost of environment. In a modern production system which is capital intensive requires large-scale extraction of natural resources for production of finished goods. This results in depletion of natural resources (ecological withdrawals) on one hand; and environmental pollution (addition to the ecosystem) on the other. With regard to this,

Schnaiberg detects a dialectical tension that arises in advanced industrial societies as a consequence of the conflict between the Treadmill of Production and demand for environmental protection. The state is the only social institution which could redirect the course of economic growth in any societies. As environmental protection is a significant point on the policy agenda of governments, the state must increasingly balance its dual role as a facilitator of capital accumulation and economic growth and its role as an environmental regulator. Unfortunately, economic criteria have remained at the foundation of decision-making about the design, performance and evaluation of production and consumption. As mentioned, this primacy of economic criteria still tends to overshadow most, if not all, ecological concerns. The state also shares this orientation, and often cedes a great deal of power to private sectors. This is, in fact highly problematic in creating conditions for sustainability and ecological responsibility (Schnaiberg et al. 2005, 38; Buttel and Humphrey 2002, 52-54).

Schnaiberg's writings on the 'Political-Economy Explanation' well articulated the nature of capitalist's development. His analysis provides a clear understanding of the present times. The processes of economic liberalisation and globalisation have added to this crisis. Ramachandra Guha contends that economic liberalisation[2] will mean more rapid exhaustion of non-renewable resources, greater pollution of environment and serious impoverishment of communities depended upon nature for subsistence (Poddar 2009, 35).

In Indian context, sociologist Indra Munshi contends, "(T)here has been a spurt in social science research in the last two decades. A number of scholars turned to the colonial period to understand the ecological changes over time. There is a general agreement among the scholars that the colonial period was an important watershed in the ecological history of India" (2000, 260). Most of the studies on environment have concentrated on the social and environmental consequences of colonial state intervention, its effect on the indigenous, social, cultural institutes and practices of resource management. Scholars

---

The current development model that seeks continuous economic growth and the maximisation of profits in the shortest term possible. The very essence of this doctrine is questioned as it generates destruction and degradation of the natural environment.

such as Mahesh Rangarajan, Madhav Gadgil, Ashish Kothari, Vasant Saberwal, Ramachandra Guha, Richard Grove, David Arnold, Richard Tucker and others have been working extensively on the issues of conservation, livelihood and changing man-forest relationships both in historical and contemporary perspectives. The environmental historians and ecologists have made a vital contribution to the understanding of the continuities and changes in the man-forest interactions from the pre-colonial to the contemporary times. The work of these scholars provide valuable information and insights into the causes of depletion of natural resources, management of these resources and their effects on the local communities. They also underscore the urgent need for a new conservation paradigm in India that is more 'people oriented'. These works largely inform the approach of the contemporary scholars, conservationists and activists toward conservation.

Although, sociology is concerned with a broader area of study of human society, a sociological/social science perspective in the analysis of environmental issues is still emerging (Munshi 2000, 261). A broad area of environmental sociology has only recently gained ground among the sociologists engaged in the study of diverse societal issues. They are also influenced by contemporary ecological movements, like Chipko Movement in the Garhwal Himalaya, Narmada Bachao Andolan in Gujarat, Maharashtra and Madhya Pradesh and various other conflicts over exploitation of natural resources, like forest, land, water, etc. Recent sociological studies on environment also include studies on marginalisation and displacement of the poor, women and environment, indigenous forest dependent communities, ecological and social costs of development planning in India, etc. Sociologists such as Nandini Sundar, Amita Baviskar, Ramachandra Guha, Shiv Visvanathan and others have focused their studies on the understanding of the changing dynamics of human-nature relationships. These studies draw significantly from the works of environmental historians in tracing the changes and continuities in the interactions between man and nature. Similarly, the contemporary environmental historians have also adopted a sociological approach to their studies which extensively use sociological categories such as caste, class, tribes, gender, communities, etc. to understand the complexities and nuances of human-wildlife interactions. Thus,

sociological, social anthropological and historical insights cross-fertilise each other and play significant roles in the study of recent environmental issues and problems in India. The empirical contributions of the scholars mentioned above have proved critical in the development of environmental sociology in India.

In this part of the Chapter, an attempt has been made to delineate the history of emergence of environmental sociology, the theoretical development of the discipline and its major areas of concern. As discussed above, the limited legacy of the classical sociological theories provides an inadequate conceptual framework to understand the complex interactions between societies and environment. In the light of these intellectual precedents, the contemporary environmental scholars argue that environmental concerns do not largely brook in the traditions of thought incorporated into mainstream sociology. The sociologists today find it rather difficult to develop a systematic appraisal for the classical theorists. It is observed that though all the three authors, Marx, Durkheim and Weber saw the degrading consequences of industrial work upon human beings, none foresaw that the furthering of the forces of production would have large-scale destructive potential.

4. The Indian Context

4.1 Pre-Colonial Period

There are sufficient reasons to assert that the dynamics of people-nature relationship in the pre-colonial period were very different from what was to follow with the coming of the British. Forest dwelling communities have been dependent on forests for ages either for livelihood or survival. The system of Common Property Resources (CPRs) was their prudent system of resource use, what they held in common. CPRs were accessible to the whole community of a village and to which no individual had exclusive property rights. For these communities, forests acted as CPRs over which they had customary rights. These resources included, village pastures, rivulets or rivers, village ponds, waste lands, community forests, etc. The customary rights over the forest resources allowed to collect minor forest products, such as, honey, resins, firewood, thatch, medicinal herbs, etc for their livelihood. To quote Madhav Gadgil, "(A) perusal of the travelogues and gazetteers

of the early nineteenth century gives us a clear picture of a wooded country whose pastures and forest resources were controlled and well managed by the local communities" (2001, 190). The satisfaction of survival needs was an integral part of the functioning of the forest ecosystem. There were traditional beliefs pertaining to the worshipping of the sacred groves. The presence of sacred groves extended protection to more forms of living creatures. One is forbidden to cause any harm to these groves. Such strict taboos have led to the preservation of these sacred groves of forests in its virgin conditions. There is now left little of these great forests, but the sacred, often stand here and there, covering as much less areas (Gadgil 2001, 160-161).

4.2 The Colonial Period

Environmentalist Vandana Shiva et al. contend, "Indian civilisation is distinctive in the sense that it evolved in the forests, not in the city...The civilisational principle became the foundation of forest conservation as a social ethic through millennia" (1991, 74-75). Gadgil and Guha also observe,

> Until the early decades of this century, almost a dozen of communities in the Indian subcontinent depended on the original mode of sustenance of human populations, namely hunting and gathering. Their distribution encompasses nearly the entire length of India, with the Rajis of Kumaon in the north to the Kadars of Cochin in the south. The abundant rainfall and rich vegetation of their tropical habitats facilitated the reproduction of subsistence almost exclusively through the collection of roots, fruit, and the hunting of small game. While cultivation was largely foreign to these communities, they did engage in some trade with the surrounding agricultural population, exchanging forest produce such as herbs and honey for metals, salt, clothes, and very occasionally grain. (2000/2010: 148)

The reservation of forests by the British had disjunctive affects on the subsistence activities of these communities (Gadgil and Guha 2000/2010, 148). The coming of the British therefore, marked an ecological watershed (Prasad 2004, 16) in the history of forest management. The man-forest interactions as in the pre-colonial period underwent drastic change during the colonial period. Colonial rule introduced dramatic breaks in the way forests in India were perceived and used. The perception of forests as a sacred abode of deities and as fulfilling diverse needs for food and shelter was superseded by the commercial exploitation of forests during the colonial period. The emergence of timber

as an important commodity of commercial value led to a qualitative change in the patterns of harvesting and utilisation of forests (Gadgil and Guha 2000/2010, 147).

The British had radically redefined forest and land-use patterns. Large tracts of forest land were brought under its ambit. Through the Indian Forest Act of 1878[3], the British acquired rights over all valuable tracts of forests by converting them into Reserved Forests (RFs). These forests were exclusively under the control of the imperial Forest Department (FD). The legislations of the imperial administration had transformed CPRs of the poor into resources for revenue and profit generation through the establishment of monopoly rights and control. In this process of revenue maximisation, the rights of the local communities were severely curtailed, thus threatening their livelihood and survival needs.

A whole gamut of forest Acts and policies were introduced by the colonial power to provide guidelines restricting the customary rights of the local communities who have been the part India's 'jungles' for centuries. This way the 'jungles' were transformed into forests. The former denotes wilderness and untamed nature whereas the latter means nature tamed with rules and restrictions imposed on its use (Saikia 2011, 2). Though the British claimed that their legislation was aimed at forest conservation, but in reality revenue maximisation was their main interest. The Acts empowered the government to declare any land with, trees, brushwood or 'jungle' as government forests and was also empowered to make rules relating to the preservation of trees.

It is said that the British had already destroyed their own forests before they had established their Empire in India. They were hard-pressed for wood since their own oak forests were destroyed and rendered unproductive in the second half of the eighteenth century through unscientific management. Mudappa and Raman discussed about the degrading conditions of the Valparai Plateau in the Annamalai hills (Tamil Nadu) in the Western Ghats. These evergreen tropical rainforests with a profusion of plants and animal life and a few scattered settlements of tribal people -- the Valparai Plateau came under severe attack ever since the British had invaded the region. In 1858, the British explorers

[3] The Indian Forest Act of 1878 later came to be modified as the Indian Forest Act 1927.

found the areas covered with 'miles and miles of evergreen forests with a few main paths running through it made by the huge herds of elephants which roamed there'. They assessed these regions in terms of their economic value, as a source of forest products, including timbers. As the rainforests, particularly in the higher reaches, were not, particularly attractive for their timber, they were considered wastelands that had to be earmarked for developmental activities. The British found that the forests could be leased out for conversion to various kinds of plantations that would generate revenue for them. The leasing of the land led to the establishment of various commercial plantations that included cardamom, coffee, tea, cinchona, rubber and vanilla (2007, 213-215).

The forest policy evolved by the British in different parts of the country was the same, though it had some of regional variations. Innumerable instances of reckless exploitation of virgin forests during the colonial rule can be cited. In Assam too, the imperial rule had brought about tremendous disjunctive affects on its land. This point will be discussed later. The autocratic control over forests and forest enterprises resulted in maximising the production of commercially and industrially valuable hardwood trees like teak, sal, and eucalyptus, deodar, through the destruction of natural indigenous mixed forests which have a high use value for basic needs and for ecological sustainability. The practice of silviculture[4] and monoculture[5] in the ecologically sensitive zones had threatened the survival economy of the forest dwelling communities. The forests were also cleared to make way for agricultural development. The British had to reclaim agricultural land by clear felling of trees over large tracts of forest areas. There was also a widespread belief that forests were an obstacle to agriculture. Conversion of forest land into agricultural zones was thus seen ideal.

In many parts of the subcontinent, efforts were consequently made for cash crop plantations which the colonial rulers believed would double their revenue extraction. When the British had established their rule in India, it was estimated that around one-

[4] Silviculture refers to the method of regeneration that combines both the harvest of the timber and re-establishment of the forest. It is the practice of growth, composition and quality of forests to meet diverse needs.

[5] Monoculture refers to the practice of planting single variety of any plant specie over a large area mainly for commercial purposes. It results in serious loss of biodiversity.

third to one-half of the total area of Bengal Province alone was 'wastelands'. Such lands also included the forest districts of Chittagong, Darjeeling, Jalpaiguri, Chotta Nagpur and Assam, the vast trail of forest lands near the mouth and delta of the Hoogly and other rivers, known as Sunderban. These lands were taken over by the British government and leased to cultivators to turn them into revenue generating lands. The colonial category of 'wastelands' was thus a revenue category, not an ecological category (Shiva et al. 1991, 168-169). Historical descriptions tell us that the period spanning from 1867 to 1927 marks a major phase in the colonial struggle for legal control over resources. The abolition of the traditional rights and customary rules governing forests began with the very first draft of the Forest Act of 1865 and culminated with the total control of the state over the forest resources.

4.3 The Great Hunting Grounds

Forests were used as hunting grounds for sport hunting by the Indian emperors and even by the British officials during their regime. Hunting was not only considered an integral sport for the emperors or the officials, but it had also signified their superiority and strength to conquer wild beasts. In the early times, the emperors used to maintain accounts of the game they had shot. The Indian legacies in the pre-colonial era talk about the dynamics of people-nature relations from altogether a different perspective. The wild animals and the people lived in close proximity since there were no sharp dividing lines between the villages and the vast stretches of dense forest lands. During those days, the war against wild predators was so intense that their extermination became significant. The wild predators (large carnivores) were considered potentially dangerous as they were threats to people and their livestock.

The schemes for extermination continued without any modification in most parts of British India. The extension of agricultural frontiers was later seen as a way of reducing the living space for these wild beasts. The dominant thinking was that the clearing of dense forests would destroy their habitats and the conflict between the wild beasts and human settlement would automatically be resolved. The second Chapter provides a number of examples showing the war against dangerous beast in different Indian

Provinces. The strategy to wipe out dangerous animals by the people or by way of sport hunting gave birth to a reverse phenomenon. By 1920s, number of man-eaters had declined very rapidly. This had put the survival of the 'wild' in great danger. Gradually, forest lands, wild animals and their habitats were diminished considerably. Moreover, the existence of RFs provided no guarantee for the survival of these rare species. The main purpose of reserving large tracts of healthy forest areas was only to procure good timber. Therefore, it can be argued that the nature-culture dichotomy is interestingly reflected in these activities of hunting. According to the colonial understanding, nature is something to be mastered over, even if it meant destruction of forests.

4.4 The Post-Colonial Period

It is evident from the above discussion that conflict over forest resources has its roots in the colonial period. Forest struggles have been a sustained response to commercial forestry introduced by the British. The imperative for revenue and profit maximisation, had led to large-scale exploitation of commercially valuable resources at the cost of destruction of the ecosystem. The 1952 Forest Policy is a turning point in the evolution of forest management in India after independence. It clearly points out that local interests and priorities should be subservient to the broader national interests (Fernandes and Kulkarni 1987, 76). This policy gave a new thrust to the commercialisation of forestry and the growth of forest based industry. The wood based industries such as, pulp, paper, plywood were established, and their demand for raw materials became an important consideration in the management of forests. Large-scale commercialisation has resulted in monoculture which in turn led to the destruction of virgin mixed forests having a high use value for basic needs as well as for ecological stability. Increase in mining of ecological resources has disrupted the forest ecosystems and threatened the survival of the forest dwelling communities.

The new Indian Constitution and the changes in the political governance in the early decades of India's independence did not bring about radical shifts in the structures of these forest laws. The laws that served the purpose of the colonial government continued to serve the similar purpose for the independent government. The main features of these laws are the proclamation of the state's monopoly control over the forests and evaluation

or implementation in terms of revenue generation. The application of these principles through laws is uniform for the plains as well as for the mountains, especially where various central acts which apply to the whole of India are concerned (Singh 2007, 4-5).

The conservation of forests and environmental protection emerged as a national priority in India after the Prime Minister Indira Gandhi participated in the Stockholm Conference on Human Environment in 1972. And the following decade, particularly since 1980s saw the evolution of a number of environmental laws, policies and programmes to gear up the state to the task of environmental protection. This concern has also been reflected in the Indian Constitution. In it the Directive Principles of the State Policy, a significant set of organising norms of the desired order, contain provisions which commit the state to protect the environment with regard to forest and wildlife. Through an amendment to the Constitution of India, some fundamental duties are added which ask the people to preserve natural resources and protect the environment (Sheth 1997, 92).

The 1970s saw radical change with the foundation of organisational framework for environment programmes in the country. The period witnessed growing awareness about environmental degradation and a series of legislations were executed. The National Wildlife Policy for India was first formulated in 1970 with the aim of reserving at least 4 per cent of the total land area for wildlife, both plants and animals. Much of the policy was subsequently included in the Wildlife Protection Act 1972. It is considered to be a significance piece of legislation. The Act provides for the constitution of a Wildlife Advisory Board to regulate hunting of wild animals and birds. It lays down procedures for declaring areas as sanctuaries and NPs, as well as regulation of trade in wild animals, prevention of poaching, etc (Sheth 1997, 93-103).

In 1973, the government of India launched the Project Tiger[6]. The National Committee of Environmental Planning and Coordination was set up by Prime Minister Indira Gandhi. Eventually, it evolved into a Department of Environment in 1980 with Digvijay Singh

[6] The Project Tiger was launched in India in 1973, with the goal of saving the tiger and its habitat. It envisaged that forestry operations and other activities would be reoriented to suit wildlife conservation. From 9 tiger reserves in 1973, the number of such reserves rose to 39 in 2010. Later in 2006, it was replaced by the National Tiger Conservation Authority.

Jhala as the first Deputy Minister in charge of it. Five years later, Prime Minister Rajiv Gandhi upgraded it as a full-fledged Ministry of Environment and Forests (MoEF) of the government of India. This move had encouraged the state governments to establish their own department of environment and forests so as to attend to the fast increasing policy initiatives, measures and programmes in the environment and forest sectors as a response to environmental problems becoming more visible since 1980 (Sheth 1997, 93-103).

The contemporary conservation model depends on the establishment of an increasing number of PAs with a strong preservationist orientation, adopting the people-out approach (Ghimire and Pimbert 2006, 7-11). The local communities, who reside in and around the PAs suffer the most hardships through lost access to resources, break-down of traditional customary rights over forest and changed livelihood patterns. Parks and sanctuaries have become the major source of tension in most developing countries. The local dwellers are treated as enemies of the forests. In contrast to this notion, the pro-people view holds that communities' participation is indispensable for any conservation strategy. This view contends that the local communities are the real protectors of forests without whose support conservation of forests and wildlife is not viable.

The conservation practices of the state considers the interests of the local communities as irreconcilably opposed to the logic of conservation and thus it seeks to exclude them from within the PAs, restrict local human access to them, and prohibit customary use rights (Saberwal et al. 2001, vii). The state's exclusionary model has also failed to protect forests and wildlife from destruction rather these policies have led to outright local hostilities. Evidently, the period since 1980s has experienced the complexities in managing the PAs. In large part, this complexity revolves around the discontent of the people living in or around the PAs and around the disjunction between conservation and development objectives of the state. Local dissatisfaction with the exclusionary model of wildlife conservation has manifested itself in ways that have been detrimental to the forest resources.

In the light of this, the period 1988 saw a new turn towards enhancing the involvement of resident peoples in the management of local resources. In this context, Indian experience

with JFM has certainly seen a significant break with the past (Saberwal et al. 2001, 3-7). It introduced a new regime of participatory approach to forest management. Nevertheless, the JFM has failed to provide people, a greater stake at conservation. It has been criticised by conservation scholars and activists to be 'joint' only in name since most of the powers are seen to be concentrated in the hands of the foresters. The state is now seen to be subverting the provisions of the newly implemented The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006, briefly known as the FRA 2006 in the country. It seems to continue to believe that giving the communities control over the forests would render FD irrelevant, losing all conservation benefits from forests (Lele 2011, 101).

The recent scenario reveals that the bureaucracy that came up created a structure that was (is) ostensibly meant to carry out the scientific conservation of forests but, in effect both colonial and post colonial periods have seen massive degradation and destruction of forests in India (Prasad 2004, 58). In the post colonial, conservation has certainly gained precedence over livelihood needs of local communities, which significantly has become a more contested and debatable issue.

The issue of 'conservation' centres around a variety of strands and ideologies. The noted environmentalists and activists, Madhav Gadgil, Ramachandra Guha, Ashish Kothari, Mahesh Rangarajan, Ghazala Shahabuddin, Vasant Saberwal, Archana Prasad, Vandana Shiva and others argue that the conservation policy to be realistic, one needs to go beyond the colonial model and involve the local forest dwellers who alone can have a permanent vested interests in forest conservation. The forest dwellers' rights over resources and conservation are inter-connected. Forests cannot be protected in isolation from the people who are indeed the important part of the conservation regime. This calls for close negotiations with the people to make them genuine stakeholders in forest conservation. The state must move from its bureaucratic control over forests towards more sustainable model inclusive of human needs (Saberwal et al 2001; Sachchidananda 2004; Saberwal and Rangarajan 2003; Shahabuddin and Rangarajan 2007; Guha 2006; Kothari et al. 1998). This would ensure protection of India's dwindling forest covers as well as sustainable man-forest relationship over a long term.

Twenty-three per cent of the country's land area is recorded as 'forest', mostly under government control. This huge area includes much of the country's resources, water bodies, biodiversity, wildlife – and the marginalised communities, the Adivasis. The government's forests and PAs, which cover approximately 22 per cent of the landmass, have their genesis in the Indian Forest Acts (the last of which was passed in 1927) (Golpalkrishnan 2011, 62). The total forest cover of the country as per the 2007 assessment of State of Forest Report is 78.37 million hectares which constitutes 23.84 per cent of the geographical area of India (Geography and You 2009, 50).

The succeeding Chapters argue for the adoption of a middle ground out of the two extremes of India's conservation regime. The argument here is based on creating a new regime of conservation that seeks to provide the forest dwelling communities' rights and access to forests for survival in a sustainable manner and make them real stakeholders in the entire endeavour of management and protection of forests. To integrate the local communities into the system of conservation, the state will have to halt all kinds of illegal activities (timber felling, poaching, etc.), debarred denotification, and leasing of forest areas for commercial purposes. Elimination of such practices and providing due rights to these communities would assure greater level of local participation in conservation. Saberwal et al. rightly contend that the exclusionary policy of forest conservation over a long time is unsustainable both ecologically and socially. Hence, it is utmost important to move towards an inclusive conservation policy (2001, 8).

5. The Context of Assam

5.1 The Geographical Location

Assam is situated on the north-eastern frontier of the Indian state, bounded between 24°N and 28°N latitudes and 89°E and 97°E longitudes, and borders on all hill States of Bhutan, Arunachal Pradesh, Nagaland, Manipur, Mizoram, Tripura and Meghalaya in the vicinity of China and Tibet on the north, of Burma on the east and the south and of Bangladesh on the west (Baruah 1985, 3-4). It comprises of the valleys of Brahmaputra and the Barak (Surma), together with the range of hills called Assam Range, the eastern end of which inclines slightly north-ward where it is joined by the Patkai Hills. The most striking

feature of the region is its meandering rivers, that criss cross the entire region. The Rivers: Subansiri, Jia Bhoroli, Barnadi, Pagladia, Manas or Manah from the northern hills and Burhi Dihing, Disang, Dikhow, Jhanji, Dhansiri from the south predominantly merge into the River Brahmaputra.

The river Brahmaputra flows through its entire length from east to west, dividing the state into two zones: the north bank and the south bank. It has a number of tributaries, most of which are snow-fed and depend on monsoon for their water volume. They are dried up during the winter, but when the rain sets the water level rises up. The Brahmaputra basin in its north bank has a narrow basin because of which the water overflows the banks during rainy season, causing unprecedented devastations to the people and their livelihoods. Floods and inundations are a regular occurrence in Assam (Goswami 1987). Heavy rains, topography and earthquakes have made the rivers unpredictable and destructive during high floods, which at the same time leave behind rich and fertile valleys when the floods recede. Some tremors of the most violent nature are being recorded in recent history of the region. An earthquake in 1869 with its epicenter in the Shillong plateau had ravaged the area between North Cachar and Assam Valley and had made the bank of the Barak Valley sink about 15 feet. Another that followed in 1897 was one of the greatest ever experienced, hitting about 1.75 million square miles. Still another tremor of 1930 had shaken over 3.22 lakh square miles. And the most recent one of 1950, which had mutilated the whole area of Arunachal Pradesh and Upper Assam (Saikia 1976). These earthquakes had pernicious affects on the topography of the region.

Assam's landscape known for its rich evergreen forest covers evergreen hills and plains as well as numerous rivers. The entire region abounds in dense forests, meadows, marshes and swamps. The vegetation is broadly classified into tropical with evergreen, semi-evergreen, deciduous (both dry and moist) grasslands and stretches of riparian forests along the river banks and sub-tropical. Located in the monsoon belt, extreme humidity and excessive rainfall are peculiar to the climate of Assam. It is predominantly an agricultural economy, where most of its people live on agriculture. People are intrinsically dependent on land for their survival. With the elapse of time, the indigenous

peasants have seen various phases of hardships due to scarcity of available cultivable land in the Brahmaputra Valley. The plight of these peasants can be attributed to a number of factors such as, natural calamities (floods, erosions, etc.), tea plantations, migration of foreign communities into the land, development activities, military establishments, etc. These factors, both natural as well as man-made, have resulted in fast shrinking of agricultural land, thus restricting local peasants' access to land resources. Thus, Assam represents a different ecological history in terms of peasants, land and forest relationships which will be discussed in detail in Chapter Two.

5.2 The Triangle of Land, Peasant and Forest

Though in the medieval times land was abundant in the Assam valley, it was rather limited for the surplus-yielding wet rice cultivation. It necessitated a major drive by the semi-feudal Ahom state to reclaim agricultural land from the existing wastelands and forests. Under the corvee labour (called *paik*s) system of the Ahom state, each able-bodied peasant-subject was given some agricultural land for his service toward the state (Guha 1991). Further, the peasants could supplement their subsistence with various products from forests and wastelands which served as village commons.

As a historian observes,

> It would be unwise to suggest that forests remained a pristine and untouched zone in the pre-imperial period or that there was no trade in forested resources. That Assam and its neighbourhood had a rich complex trade system dependent on forest resources is well documented. An instance of this is the political economy of the Ahom-Mughal wars, which was crucially connected with the Mughal rulers' insistence of securing access to the forest resources of the region, including the prized elephants. Contest over natural resources resulted in wars and frequent clashes between the Ahom kings and Mughal rulers. In the pre-colonial time, beyond the Ahom frontier, taxes on a variety of forest produce, which included cotton and birds, contributed to the revenue. The State exchequer also relied heavily on the exploitation of the forest resources, including the elephant. The most commonly used item was timber for constructing boats. The Ahom military system was crucially interested in securing its waterways and hence required sustained investments for naval warfare. Similarly, elephants were usually procured in large numbers not only to strengthen the military system but also for everyday uses of the royal palaces... (Saikia 2011: 12)

Even during the pre-colonial period, the Ahom rulers encouraged the peasants to clear forests areas for agrarian expansion. They encouraged wet-rice cultivation (*sali kheti*) for

greater productivity. In the process, they also settled populous villages in various forested areas of Assam. Although the Ahom State had its authority over the forests, it allowed the population to enjoy their rights over the forest produces for their living (Saikia 2008, 79-80). He further mentions, "...away from the direct control of the Ahom kingdom, the relatively independent feudal chiefs and the tribal monarchies retained their hold over large forested areas. Clearly, the idea of forest a reserved territory, except some areas that were specially demarcated for hunting by the royal hunting, did not exist. The forest management during the pre-colonial times had little to do with a market economy" (Saikia 2011, 13).

The advent of the British brought tremendous changes in the landscape of Assam in the early part of the nineteenth century. The colonial administrators started to understand the vast tracts of 'jungles' in terms of their future commercial prospects and revenue potentials. The 'jungles' were converted into 'forests' and these entailed total state control with intricate sets of rules and restrictions. This was in the line of experience with other Indian imperial provinces. Saikia points out that the colonial rulers began to tame wilderness of the 'jungle' into a more ordered space in the form of forests (2011, 2). Soon, the forests were reserved to gain maximum control over them. The Bengal Forest Act of 1865 provided the basic framework for the reservation of forests in the province. Under the same, large parts of the province were declared as RFs in order to bring much of the areas under their strict control. Revenue expropriation was the main motive behind the reservation of forests. Huge patches of forests were clear-felled to make way for agrarian expansion and tea gardens. Moreover, the surge of tea plantations came as another threat to the forested landscapes of Assam. The process of reservation of forests severely curtailed the customary rights of the local people. The village 'commons' (such as grazing fields, *beels,* forests, etc) freely accessible to the communities were thus brought under heavy taxation (Sharma 2001).

Furthermore, the colonial regime had adopted the policy of opening up vast stretches of wastelands for agricultural production with a view to generating more revenue. These lands were also opened up for the poor, landless peasantry from the erstwhile East Bengal. The colonial rulers had imported labourers from outside the province to work in

the plantation industry as well as for jute cultivation. They viewed that without the aid of the vast pool of immigrant labour pool, it would not be feasible to develop the province's enormous wasteland resources (Tucker 2012, 175). All these seriously restricted the access of the local peasantry, tribal and non-tribal, to the land resources. Over and above, the two great earthquakes of 1897 and 1950 also had a cataclysmic effect on the topography of Assam exacerbating the incidences of flood and erosion and thus loss of land among the indigenous peasantry (Sharma 2010).

Post-1950 years witnessed large-scale migration of Assamese peasantry in search of agricultural land to different parts of Assam. The available wastelands including forest reserves, grazing land, etc became their main target. This flow of peasants continued as the problem of landlessness only accentuated over time with the advent of other private commercial interests which were looking for vast land resources for different enterprises not to talk of the various developmental (e.g., oil fields) as well as the military projects of the government. On the other hand, in the lower and central Assam, immigrant peasants especially from East Pakistan/ Bangladesh have grown exponentially creating a serious crisis of land among the local peasantry. In response to such a situation, the Assamese peasantry has revolted a number of times since 1947-1948 demanding land for survival. A number of these revolts have been witnessed among the forest villagers and new settlers in the forest lands. The mainstay of their mobilisation has been reclamation of forest land and tenurial rights on the land so reclaimed (Sharma 2010). The penetration of huge immigrants into the land both during colonial and post- colonial periods had added greater vulnerability to the indigenous peasantry.

The acute land alienation due to natural as well as man-made factors forced the land-starved Assamese peasantry to penetrate into these RF areas in search of land and livelihood in increasing numbers leading to their conflicts with the FD. This conflict has assumed a much more complex character in the recent times giving rise to serious contestations and challenges with regard to the people's rights and conservation approach of the state. The agrarian practices of the forest dwellers have emerged as a threat to the very existence of forests in the recent times.

6. Review of Literature

Environmental Sociology is concerned with the study of societal – environmental interactions. It places special emphasis on studying the social factors that cause environmental problems. Environmental sociology emerged as a coherent sub-field of inquiry in 1960's and early 1970's. The works of William Catton, Riley Dunlap, Allan Schnaiberg, Ulrich Beck, Frederick H. Buttel, Anthony Giddens and others have enriched the discipline with their valuable contributions. In India, the pioneers who have extensively worked towards the understanding of man-nature relationship are Mahesh Rangarajan, Ramachandra Guha, Madhav Gadgil and David Arnold. During the last two decades, the discourses on man and forests have dominated the field.

In the recent decades several eminent environmentalists in India like Ramachandra Guha, Madhav Gadgil, Vasant Saberwal, Mahesh Rangarajan, Ashish Kothari, Sharachchandra Lele, Archana Prasad, Vandana Shiva and others have contributed numbers of writings representing the dynamics of man-forest interactions in historical and contemporary perspectives.

Mahesh Rangarajan's articles, "Polity, Ecology and Landscape: New writings on South Asian Past" (2002), "The Raj and the Natural World: The War against 'Dangerous Beasts' in Colonial India" (1998) and his book *India's Wildlife History (2001)* give a clear and comprehensive description of the uses and perceptions of forests during the colonial regimes. Rangarajan provides a trajectory of human impact on nature from the ancient times to the post-independence period. The sport hunt and war against dangerous vermins, existed mainly during the colonial period had resulted in vanishing of many species in the Indian subcontinent. The Indian government, after independence took some serious steps to halt all kinds of illegal activities with bringing more areas under the domain of PAs. What followed was a notion of total preservation of nature by adopting the exclusionary policies to nature conservation. In the process, the local communities inhabiting forests for ages were alienated from their access to forests for livelihood. Following this, the decade 1980s saw growing conflicts between the FD and local communities. The crisis within the Indian conservation scene would persist as long as the state does not give a greater voice to these communities.

Madhav Gadgil's book, *The Science and Politics of Conservation in India: Ecological Journey (2001)* is a wonderful collection of articles each of which deals with different facets of nature's biodiversity and their interactions with the world of humans. In this tract, Gadgil discusses how developments of scientific knowledge in the present societies, human being have put their knowledge to tremendous use of handling nature. Science has served as the handmaiden of technology and technology has helped people gain increasing access to natural resources. This has of course developed a strong chain of science-technique appropriation. He strongly believes that the practice of prudent use of natural resources will create a sustainable man-forest relationship.

The pioneer work of Guha and Gadgil on the environment, *The Use and Abuse of Nature (2000/2010)* provides an extensive understanding of the ecological history of the Indian sub-continent. This work has sensitively addressed the nuances and dynamics of man-forest interactions during the colonial and post-colonial periods. It explicitly mentions that it is the state which is always playing a bigger role in the abuses of nature. Indeed, it started with the colonial state interventions in the management of forest and its resources. The state in independent India continued with this colonial legacy. The 'commons' have been destroyed in the process of meeting its diverse needs of commercial appropriation. Guha and Gadgil basically argue that the biases of state's development process have allowed a certain section of the society to gain at the cost of communities for whom forest is the life supporting system.

Richard P. Tucker's *A Forest History of India (2012)* provides an excellent history of imperial forest management in India. He explains how the colonial intervention in the form of commercial ulitisation of forest and its resources has resulted in widespread destruction of nature. The book is endowed with vivid historical accounts of colonial resources extractions in different Indian provinces, such as the forests in Western Himalayas, The Kumaon, The Thana District, as well as the nexus between the planters, foresters and the peasants in Assam and Kerala. However, it elucidates the situation prevailed in the colonial Assam in terms of how virgin forests in the region opened up avenues for commercial exploitation and cash crop plantations. Assam's landscape came under severe attack with the reservation of forests, coming up of tea gardens in large

numbers for revenue maximisation and import of immigrants to work in the plantations. The 'commons' of the natives were shattered with the imperial intrusion. All these resulted in scarcity of agricultural land for the indigenous peasants.

Saberwal and Rangarajan's *Battles over Nature: Science and the Politics of Conservation (2003)* is a collection of essays that call for an effective mechanism for sustainable coexistence of man and forests. The efforts to curtailed access to forests for local communities' use have not really helped in the total preservation of nature. Rather, local alienation has triggered animosities in different forms leading to poaching, smuggling and conflict with the foresters. Mahesh Rangarajan article in this volume, "The Politics of Ecology: The Debate on Wildlife and People in India, 1970-95" historicises the absence of a social context in the current stand-off jeopardising Indian conservation. He makes the case of exclusivist policies that have been a part of the Indian political landscape for centuries. Therefore, arguing against the exclusionary approach to conservation, this volume on collected essays points out that conservation without local communities' stake is bound to fail in Indian situation. This calls for an inclusive model of conservation that reconciles livelihood needs with conservation measures.

People, Park and Wildlife: Towards Coexistence (2001) by Saberwal et al. also echoes a similar opinion of forest conservation in India. This tract argues that crisis within the Indian conservation scene can be located within the exclusionary policy. It examines the inadequacies of the official conservation policies to recognise the survival needs of the communities. Some of the initiatives to provide stake to communities (for example, JFM, Eco-development) are still woefully inadequate and weak in some fundamental aspects. It thus argues that an effective conservation would only be possible with greater involvement of people.

The above mentioned work are followed by Shahabuddin and Rangarajan's edited volume on *Making Conservation Work: Securing Biodiversity in this New Century (2007)*, Rangarajan's edited volume on *Environmental Issues in India: A Reader (2007)*, Archana Prasad's *Environment, Development and Society in Contemporary India (2008)*, *Enviromentalism and the Left: Contemporary Debated and Future Agendas in Tribal*

Areas (2004), Sachchidananda's *Man, Forest and the State in Middle India (2004),* etc are some of the excellent works reflecting the present scenario of conflict and coexistence between man and forest. Ashish Kothari et al. edited volume on *Communities and Conservation: Natural Resources Management in South and Central Asia (1998)* has examined various case studies of community-based-conservation from countries of South and Central Asia. The collected essays in this volume argue that the community-based-conservation is the best method to involve the communities into conservation of natural resources which is characterised by shift from the convention top-down approach.

However, the range of literature on forest conservation in the present day context of Assam is rather thin. Whatever books that are available have also not systematically dealt with the issue of man–forest relationship, more particularly the present situation concerning the human settlements in and around the protected forest areas. In *Aaranyak* (1980), the author Shiva Prasad Kotoky who was a Forest Officer under the Assam FD since 1929 till 1961 describes the conditions of the forests in the state from his own experiences. His work provides a glimpse to the plans and policies adopted by the British with regard to the protection, development as well as exploitation of the forest wealth. He contends that forest conservation policies during the colonial times hardly took the concern of the local people into consideration and often adopted an 'isolationist model' of conservation. He laments that the same 'isolationist model' persists in the post-colonial Indian state too. Similar opinion is echoed in Ganesh Das's book *Manas, Manuh Aru Trimurty* (1988).

However, forest historian Arupjyoti Saikia has significantly contributed a number a writings on forest and environmental history of Assam. His work on *Forest and Ecological History of Assam, 1826-2000* (2011) provides an excellent and detailed account of changing forest landscapes of Assam from the days of the Imperial rule to the present. In fact, this is the first comprehensive historical work on forest and ecology in Assam. Rajiv Handique's *British Forest Policy in Assam* (2004) also provides an account of the changes that the colonial forest policies had brought about in the Assam. Besides the above, the works of H.K. Barpujari, S.K. Bhuyan, A.J. Moffat Mills, John Butler,

Richard P Tucker and others have been of rich source of data and insights into the dynamics of man-wildlife interaction in Assam in different phases of its history.

7. The Objectives

The present study has the following objectives:

1. To map out the ecological history of the area under study, especially in the context of the man-forest interactions in the overall background of Assam;
2. To assess the changes in the demographic patterns in the area under study over the years and its impact on the forest resource and the livelihood patterns of the local communities. In doing so, it seeks to examine the emerging status of and competing claims around the forest resources in the area;
3. To comprehend the current patterns of utilisation of the forest resources to meet subsistence as well as commercial demands and the extent of stakes of different categories of people in it;
4. To explicate the impact of various forest policies on the local forest villagers in terms of their livelihood and their response to the issue of conservation.

8. Period and Area of Study:

The study is based on the data collected through an extensive fieldwork in two non-tribal FVs located near the Nameri National Park (NNP), more precisely, in the West buffer areas of the Nameri Tiger Reserve (NTR) over a period of two years from late 2009 to late 2011. While NNP and NTR have a co-terminus core area, like all tiger reserves, NTR too has a buffer area of 144 sq. km of which the West buffer constitutes an area of 64 sq. km and the East buffer an area of 80 sq. km. The West buffer area comes under the Balipara Reserve Forest (RF), the East buffer comes under the Naduar RF. Thus, Sopaloga and Gamani, the FVs where the present study was carried out come simultaneously under the West buffer of NTR and the Balipara RF. The Balipara (and Naduar) RF is now shorn of any worthwhile forest cover and has already been full of human settlements and agricultural fields. Although the FVs in the buffer areas of NTR come under two separate RFs, the entire area is referred to as 'Nameri' in popular parlance. In this work too, the reference to the 'Nameri area' implies the larger area

including the NNP and its buffer areas under the Balipara and the Naduar RF which together constitute the area of NTR.

A number of FVs (tribal and non-tribal) are located in this buffer zone. These forest dwellers have their distinct rhythm of life especially tied up with agriculture. As per their level of development and occupational patterns, they are small and marginal peasants. Unlike, the forest dwellers in Scheduled V areas (Jharkhand, Orissa, Chhattisgarh and Madhya Pradesh) whose day-to-day subsistence primarily revolves round forest resources, in Assam, they are mainly cultivators. Their dependence on forest is only supplementary. At present, it is limited to the collection of firewood. Therefore, an attempt has been made to study the distinctive features of forest villagers in Assam. The critical understanding of the issues concerning the livelihood aspects, man-forest interactions, relations between the FD and the local communities, challenges towards the conservation of forests, etc involves a proper and close understanding of the existing ground realities in these FVs. I have spent considerable period of time in the two years of field study in the area trying to develop a comprehensive understanding of these forest dwelling peasant societies, their livelihood patterns, nature of dependence on forests, cultural idioms and the emerging forms of their conflicts with the forest.

9. Methodology

The methodological orientation of the study is that of qualitative research. The study is based on both primary as well as secondary data. Primary data have been generated through a field-based ethnographic study in a couple of FVs in the area which is required to understand the dynamics and the complex nature of man-forest interface. Different sets of data collection techniques were used under the ethnographic method which includes: 1) in-depth interviewing and focus group discussions with various stakeholders, 2) personal observation, 3) extensive field-notes on interactions with the local villagers, forest officials and other stakeholders, and last but not the least, 4) oral history in the form of villagers' narratives. Besides, secondary data sources including books, journals, official records, policy documents, newspaper articles, etc have been extensively used for this study. It is to be pointed out that this study has had to deal with many sensitive issues and information in the wake of its field work. Evidently, negotiating with such issues

requires some amount of methodological flexibility on the part of the scholar. Thus, this study also collected the data of such sensitive nature mostly through informal discussions and conversations with various stakeholders.

Working among the villagers as a quasi-participant observer was a challenge during the initial visits as the villagers were sceptical about the objective of my research. They were reticent in giving out information and many a times they gave incorrect information too. I had to convince them that I did not have any affiliation to the government and that I was a researcher from a university. However, the initial problems were gradually overcome with the elapse of time and with increasing informal interactions with villagers. Building good rapport with the local villagers was necessary before discussing the sensitive issues including the issue of illegal timber trading in which many local youths are also involved.

My stay in these FVs immensely helped me understand the social dynamics of these villages and revealed many facets of the lives of people therein which are hardly noticed by occasional visitors. Talks, discussions and participation in various meetings, festivals and other events in the villages helped me acquire a host of information and significant insights into the lives of the villagers.

However, despite a careful attempt to understand every detail about the field through an ethnographic study, many important issues/questions could not be resolved. For instance, information on the exact time of formation of human settlements in the Nameri area, declaration of these existing settlements as FVs during the colonial period, and so on could not be ascertained. Besides, checking the reliability of the collected data was again a challenge. Conversations with the villagers clearly suggested that even today they were not very particular with dates and numbers. They narrated the past history of the area but were vague about the dates when their forefathers had migrated to the area in search of agricultural land. This was due to two reasons: one, their forefathers were mostly illiterate; and second, lack of documents in their possessions. However, they could well relate the times in the past to some important events, like World Wars, India's independence movement, Indo-China war, etc. The information, thus received from the villagers was cross-checked through extensive discussions with other villagers as well as

the FD officials. Amazingly, the FD officials could neither provide any documentary evidences in support of the villagers' claims nor could they contradict it. Thus, in the absence of any historical records on human settlements, I had to depend mainly on the narratives of the villagers. However, I found receipts of old *khajana* payments and other documents with some villagers in both the FVs which even the forest officials denied having them in their possession. Besides, information provided by the villagers and the FD officials were also at variance on many occasions. In view of such a situation, I often had to arrive at my own tentative conclusions about specific historical data by using inferences from the available data. Moreover, whenever there was any doubt with reference to any specific year in the past, instead of pinpointing a particular year, I have used a broader time frame and the qualifier 'around' to indicate the time (for example, around 1920s and 1930s).

It is mentionable here that prior to undertaking my field study, I made a number of trips to the villages of the Nameri area to acquaint myself with the area as well as to identify the village(s) for my fieldwork. The preliminary visits to the area also helped me establish contacts and know the routes and modes of communication with the various stakeholders. In my subsequent visits, I have been able to develop good rapport with the villagers and most of the officials from the FD. Although finally I chose two non-tribal FVs for my intensive fieldwork, practically I have visited all the nearby FVs in order to have a broader understanding of the area.

10. Significance of the Study

It is widely acknowledged that the state interventions in forest management have resulted in increasing conflicts over natural resources in independent India. The conservation regime in Assam also reflects the official 'park-centric approach'. The national forest policies are being implemented in the state without properly sensitised by its specific local realities. However, it is also true that Assam's unique history of land alienation among indigenous peasantry and forest use has remained vastly understudied. There are some studies on certain aspects of man-forest interactions in the state. The short-term studies are mostly conducted by the NGOs and also by state's agencies. These studies exhibit fragmented knowledge since they lack long-term engagements and thus are

inadequate in explicating the dynamics of man-forest interactions. These studies have failed to provide the existing grass root realities pertaining to the working of forest conservation measures, local communities' responses towards these measures as well as their needs and aspirations.

In that context, long-term engaged studies on the dynamics of man-forest interactions are highly warranted in understanding the complex nature of man-forest relationship in Assam. The present study involves a long-term engagement in understanding the complex relationship between wildlife and forest dwellers in the FVs of the Nameri area in particular and in Assam in general. This relationship has been examined both in the historical and contemporary perspectives. Though this study is focused on the contemporary scenario, it delves into the history in order to understand the present. The significance of the study lies in the fact that this is the first long term ethnographic work carried out in the FVs of Assam to understand the nitty-gritty of the forest villagers' interactions with the forest, their day-to-day responses to and negotiations with the state-initiated conservation measures as well as their problems and aspirations. Intensive fieldwork helped broaden my understanding on a wide spectrum of critical issues of forest governance in the state.

This study examines the history of migration of peasants into the RFs of the Nameri area, the formation of the human settlements during the colonial times, the labour services provided by the forest dwellers, their engagements with the forests since the time they had migrated to the area, and so on. It also takes into account the dominant economic activities of the present forest dwellers, dependence on forest, relations with the FD, their role in forest management, and other related issues. The study pays special attention to the implementation of the FRA 2006 in Nameri. The findings of the study may be instructive in understanding the specific challenges in the implementation of the Act among other forest dwelling communities of Assam as well.

11. The Outline of the Chapters

The thesis has six (6) Chapters including the Introduction and the Conclusion. **Chapter One (The Introduction)** presents the theoretical perspective of the present study. It

delves into the issues arising out of the various approaches to conservation and its relationship with the question of human livelihood. It shows how an increasing anxiety about these issues and concerns has contributed to the rise of a new interest in environmental studies and to the emergence of Environmental Sociology as an academic discipline during the 1960s. The Chapter then discusses the contribution and relevance of the sociologists, from classical to contemporary times, to the study of environment. It then briefly explains the history of the relationship between man and forest in India and in that context gives an account of this relationship in the specific setting of Assam before presenting a review of selected literature relevant to the area of research. Finally, the Chapter introduces the area of the present study and its basic methodological orientation.

Chapter Two (Man and Forest: Contexualising a Critical Relationship) provides an account of the changing man-forest relationship in both historical and contemporary perspectives in India with special reference to Assam. It examines the agendas and priorities of forest management during the colonial period and thus provides a historical exploration of the origins of the contemporary conservation policy of the state. In addition to documenting these agendas, it analyses the process of formation of PAs in the post-independence period. The Chapter shows how current drive to keep people out of PAs can be traced to political and cultural agendas of the nineteenth and early twentieth century colonial policies. Over the years, the rationale for excluding humans from the PAs has resulted in serious local resentment and conflict. It also provides some examples of conservation-induced displacements from various PAs and disruptions of forest based livelihoods of the poor forest dwellers. Informed by this understanding of the historical accounts of the man-forest interface in the Indian context, the Chapter delineates the complex man-forest interactions in Assam in historical and contemporary perspectives.

Chapter Three (The Field Setting: Sopaloga and Gamani Forest Villages) gives an account of the field-setting of the present study. It provides a general background of the forest landscape of the field area which constitutes both NTR and Balipara RF along with their human settlements. It then provides a detail profile of the two FVs of the area, namely Sopaloga and Gamani, on which the study is primarily focused. It historicises the

migration of people into these forest areas and throws light into their sources of livelihood, dependence on forests, and day-to-day subsistence.

Chapter Four (Issues of Conservation and Livelihood in Sopaloga and Gamani) delineates the various state initiatives toward forest conservation and then makes a critical evaluation of their achievements in the FVs under study. It finds that over the years the conservation initiatives in these FVs have failed to evoke positive responses from the villagers. This has been attributed largely to the fact that the conservation policies of the state have remained ineffective in formulating such forest policies that would also address the specific livelihood needs of the community. The Chapter examines the nature of the increasing conflict between the forest villagers and the FD over the issue of land and access to forest resources in the face of the new conservation initiatives of the FD.

Chapter Five (The Forest Rights Act 2006 and the Forest Dwellers of Nameri Area) evaluates the newly implemented Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006, briefly known as FRA 2006, in bringing about the much expected paradigm shift in the domain of forest conservation in India. This new Act has been hailed as a historic piece of legislation for the restoration of the long denied traditional rights of the forest dwelling communities. Despite this, the Act has been criticised for being too much informed by the central and eastern Indian experiences. This appears to have created many doubts and apprehension about the benefits of the Act as far as the forest dwelling communities in Assam are concerned. The Chapter documents the grass root realities in Nameri forests with regard to such apprehensions. While bringing out the shortcomings of the Act, the Chapter also highlights its potential in addressing the imperatives of people's livelihood as well as forest conservation in Assam.

Chapter Six (Conclusion) presents a brief summary of each of the Chapters and then delves into the major findings of the study. It contends that the various national forest policies and conservation measures implemented in Assam have not borne much fruit either in effectively putting a halt to the illegal activities in the forests or in providing

justice to the forest dwellers. It argues that there has been no meaningful provision in these policies to integrate the survival needs of these forest dwellers with the official conservation measures further alienating the forest dwellers from the process of conservation. Moreover, the Chapter also emphasises the importance of accommodating the regional and cultural specificities while implementing any conservation policy. It thus argues that an effective conservation policy for Assam should be informed by its unique history of man-forest relationship which significantly varies from a general all Indian perspective.

CHAPTER TWO

MAN AND FOREST: CONTEXUALISING A CRITICAL RELATIONSHIP

This Chapter provides an account of the dynamics of man-forest relationship in India from both historical and contemporary perspective. It examines the agendas and priorities of forest management during the colonial period and thus provides an historical exploration of the origins of the current conservation policy. In addition to examining these agendas, the Chapter explains the process of formation of PAs in the post-independence period. Informed by this historical understanding, the Chapter historicises the dynamics of man-forest interface in Assam both in colonial and post-independence periods. It also throws light in the process of formation of the FVs in Assam, the idiosyncratic features of these FVs and the nature of contemporary man-forest interactions in the state.

1. Introduction

That man and forest share a close relation is to state the obvious. The forest is vital for human survival and a healthy survival of forests depends much on human activities. In the Indian context, a large number of people have remained inextricable part of the forest ecosystem for ages. These people, particularly the indigenous tribes, have been inhabiting the forests even before these were declared as the PAs. For them forests are vital for their survival, since they are heavily dependent on the forests either for livelihood or habitats or both. Unfortunately, the forests in the country as of today are in a miserable state (Jena 1995, 51). Since the first Forest Act was promulgated in 1865, the forest cover has been steadily dwindling (Ibid, 51) due to various factors including development-induced programmes during both colonial and post-colonial periods. In the colonial period, the Acts and policies were mainly informed by Britain's rapidly growing need for timber for industrial economy, particularly for the railways and ship building (Gadgil and Guha 2000/2010, 119-120).

In the process, India's vast patches of forest lands were brought under government's control for 'scientific management' and timber extraction (Gadgil and Guha 2000/2010, 135). After an area was declared a 'government forest', and subjected to the settlement process provided in the Acts, that forest became the property of the colonial state. This move of the colonial regime alienated the forest dwellers and destroyed the common property system to make forest resources available for private accumulation (Gopalkrishnan 2011, 62). In the post-colonial period too, the Indian government continued with the same colonial legacy of forest management. The new Acts and policies were designed to meet the needs and priorities of the state. For instance, the main thrust of the National Forest Policy (NFP) 1952 was on the extraction of forest products for commercial purposes which facilitated an increasing exploitation of the forests for industrial needs and the alienation of the communities traditionally dependent on forest for livelihood needs (Fernandes 1983, 2; Gadgil and Guha 2000/2010, 185; Guha 2006, 119; Prasad 2004, 32; Joshi 1983, 27; Kulkarni 1983, 89; Saikia 2011, 138).

Man-forest relationship, over the decades has seen manifold changes. In the present times, this interaction reflects an ostensible conflict between the livelihood needs of the local people and the requirements of forest and wildlife management. From the time, the forests were declared as the PAs, these have become the sites of conflict between the forest dwellers and the state. The conflict stems out from the state's monopoly over forests without recognising the rights of the local forest dwellers for whom forests are the main source of livelihood (Prasad 2004, 59).

Indeed, the challenges that modernity has brought in its wake have changed the current path of development. The path of development adopted since independence has rightly laid the foundation of modern capitalism in the country (Prasad 2004, 13). It is evident that with the so-called civilisational progress, human societies are engaged in more and more destruction of nature. The latter has been the fallout of the penetration of big commercial interests into the sphere of natural resources. The anthropogenic factors, driven by the present development paradigm, are posing disjunctive affect on the natural resources, leading to the extinction of many. Now, healthy dense forests are rare to be seen, as they were in the earlier times. In fact, with rapid globalisation of the Indian

economy, the decade of 1990's saw intensification of environmental degradation (Poddar 2009, 9). Nevertheless, this period has also witnessed an unprecedented environmental consciousness and awareness in the forms of environmental protests and struggles in the areas of biodiversity, development projects, livelihood crisis, etc. More profoundly the present societies are characterised by greater environmental laws and legislation.

The post-independence period has adopted a number of conservation strategies by implementing environmental laws and the formation of PAs. It is also true that the period seems to have been working with the British system of forest management. The present conservation strategies depend much on the establishment of parks and sanctuaries (Ghimire and Pimbert 2006). The underlying assumption is that the PAs are managed with the explicit objective of reducing human use of the resources. The overall objective is to allow nature to take its course, with minimal human disturbances. But the NPs and wildlife sanctuary managers are not always successful in creating 'people free zones' devoid of any human presence (Saberwal et al. 2001, 44; Shahabuddin and Rangarajan 2007). Over the last two–three decades, the growth of PAs has been relatively rapid. According to the definition established by International Union for Conservation of Nature (IUCN) -- "A Protected Area is an area of land and /or sea especially dedicated to protection of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means" (Ghimire and Pimbert 2006, 9-10). IUCN has devised six categories of PAs (Appendix 1).

Rangarajan argues,

> The struggle for control over forest lands in the colonial period has had echoed in independent India, where the broad parameters of legislation and executive practice, have if anything, become even more stringent. Foresters have often seen trees in terms of their worth as timber, while across much of the peninsula, peasants and other villagers have drawn a wider variety of usufruct-based products from the forests. These include nuts, fruits, leaf manure and twigs... (Saberwal and Rangarajan 2003: 207)

Till date, forests are under the strict control of the state. The state's control has disrupted the age old relations that the forest dwellers had with the forest. The people who were once the protectors of forests; deprived of their rights, they are now treated as the

marginalised people (Visvanathan 1995; Rangarajan and Shahabuddin 2008; Gopalkrishnan 2011; Saberwal et al. 2001).

In 1997 the Supreme Court of India passed a judgement to all FDs in the country to settle, within a year, all existing rights within the PAs for those who live in and around the PAs. For the many who live in wildlife sanctuaries or in areas adjoining PAs, this translates into an eviction notice and reduced access to resources. The Supreme Court's judgement has adverse implications not only for the 3 million people who live within Indian NPs, WLS but also those who live in contiguous regions. This exclusionary conservationist view argues that with less than 5 per cent of the Indian land-mass under PAs status, all of it should be given much better protection than it has so far. For this certainly all human resource use should cease within NPs as mandated by the Indian Wildlife (Protection) Act. The stress is to ensure the survival of few places of natural beauty, where organisms will have a chance to live without any human interference that has destroyed the remainders of their habitats. On this, the social activities retort that people who have often lived in these areas for decades have a right to remain where they are and that an elite environmental movement is calling on the rural poor to make all the sacrifices (Saberwal and Rangarajan 2003, 1). The later sections of the Chapter will discuss in detail the process of alienation of local communities from their access to forest and its resources for survival which has resulted in conflict and outright hostilities towards state-initiated conservation programmes.

The formation and the management of the NPs in much of the third world countries are heavily imprinted by the American experience. This philosophy and practice of conservation is known as 'deep ecology'. According to Guha, the deep ecological perspective is based on the wilderness thinking which claims that all human intervention is bad for the retention of diversity. This thinking has pushed for the constitution of huge sanctuaries, each covering thousands of square miles, and a total ban on human ingress into the 'core' areas of the NPs (Guha 2003, 151-152). Deep ecology mainly focuses on the preservation of unspoilt wilderness. It argues that the environmental movement must shift from an anthropocentric (human-centered) to a biocentric (humans as only one element in the ecosystem) perspective. This perspective is unacceptable as it holds that

intervention in nature should be guided primarily by the need to preserve biotic integrity rather than by the needs of humans (Guha and Martinez-Alier 1998, 93-95).

Guha develops a critique of deep ecology from historical and sociological point of view. He argues, "(D)eep ecology's master distinction, anthropocentric/biocentric, was of little use in understanding the dynamics of environmental degradation in the real world" (Guha 2003, 153; Guha 2005, 84-85). This is a utopian view of nature preservation. He firmly believes that the above mentioned dichotomy is irrelevant in the context of the third world countries such as India, where forests are the habitats of large numbers of communities who have developed relationships with the nature in course of their interactions. Setting aside of wilderness areas has directly resulted in a direct transfer of resources from the poor to the rich. For instance, designation of tiger reserves with the launching of the Project Tiger in the country has resulted in many displacements of existing villages (Guha and Martinez-Alier 1998, 95). It puts the interests of the tigers ahead of those of poor peasants living in and around the reserves. Also, the management of such reserves requires continuous exclusion of peasants and livestock (Sharma and Kabra 2007). Further, Guha and Martinez-Alier contend,

> The initial impetus for setting up parks for tigers and other mammals such as the rhinoceros and elephant came from two social groups: (1) a class of ex-hunters turned conservationists belonging mostly to the declining Indian feudal elite, and (2) representatives of international agencies, such as the World Wildlife Fund (WWF) and the International Union for the Conservation of Nature and Natural Resources (IUCN), seeking to transplant the American system of National Parks on to Indian soil. In no case the needs of the local population been taken into account...the designated wildlands are managed primarily for the benefit of rich tourists. Until very recently, wildlands preservation has been identified with environmentalism by the state and the conservation elite, in consequence, environmental problems that impinge far more directly on the lives of the poor (e.g. fuel, fodder, water shortage, soil erosion, and air and water pollution) have not been adequately addressed. (1998: 95-96)

2. Traditional Resource Use and Protection

India's forests have played a vital role in sustaining its people over the years. In the pre-colonial period, satisfaction of the survival needs was an intrinsic part of the functioning of the forest ecosystem. These resources were considered as the CPRs, over which the communities had customary rights. The CPRs included village pastures, community

forests, waste lands, common threshing grounds, village ponds, etc. These resources were accessible to the whole community of a village and to which no individual had exclusive property rights (Rangarajan 2007, 206). The customary rights allowed the villagers to collect minor forest produces for their daily needs such as honey, firewood, lac, thatch, resins, dried leaves, and other medicinal herbs. The forest dwellers would not indulge in any destruction of forests, because they knew without forests they cannot survive. They had nurtured the nature through the prudent management of natural resources (Gadgil 2001, 134). Such systems functioned well in pre-British India, but were largely destroyed when the British abolished all community control, converting rights into mere privileges (Gadgil 2001, 134).

During the colonial period, the ever increasing interventions with nature had resulted in the curtailment of the customary rights of the local people over the natural resources. Huge tracts of forest lands were reserved by the colonial government to get easy access for commercial exploitations. Forests of Assam, Bengal, Bihar and Orissa were indiscriminately destroyed to meet their requirements of the expanding railway network. The politics of implementing favourable rules and regulations on the use of forests was intrinsic to their mechanism. Thus, changes in resource endowments and entitlements introduced by the British came into conflict with the local people's age old rights and practices related to the use of natural resources (Shiva et al. 1991, 16).

For instance, people in Assam were forced to pay taxes even on catching of fish from rivulets, extraction of firewood and such other minor forest produces and on cattle grazing fields of their localities. The Assam Land and Revenue Regulations, 1886 was enacted and enforced only to provide the necessary legal basis to the British drive to enhance their coffers by increasing rates of taxation. Land survey was started for the first time in 1888 and in 1982, it was proposed to increase land revenue rates from 70 per cent to 100 per cent over the already increased rates existing at that time. During the period from 1861 to 1893, a large number of peasants' revolts took place at various places in Assam which were ruthlessly subdued with the use of force by the alien administration. Prominent among those revolts were the ones at Patharughat in Darrang district, Phulaguri in Nawgaon district, Bajali, Govindapur, Rangia, and Sarukhetri in Kamrup

district. More than 200 peasants were killed in police firing and thousands of others were injured, maimed, jailed or suffered from police atrocities (Tamuly 1988).

The forest dwellers in the pre-colonial period lived amidst their own traditional belief system. The practice of dedicating groves to deities was widespread in ancient times (Gadgil 2001, 161). Dietrich Brandis, the first Inspector General of Forests laid the foundations of state forestry in India. He toured the subcontinent widely and wrote authoritative reports on the direction forest management should take in the various provinces of British India. Brandis appreciatively wrote about the widespread network of sacred groves in the subcontinent which he termed the 'traditional system of forest preservation' (and examples of indigenous Indian forestry). In his tours, he found sacred woodlands 'most carefully protected' in many districts, from the *devara kadus* of Coorg in the south to the deodar temple groves in the Himalaya (Guha 2006, 105-106). Apparently in the recent times, sacred groves have decreased in their numbers due to a number of unsustainable development programmes. Perhaps population explosion, illicit felling of trees for commercial purposes has led to extinction of numerous sacred groves in the recent years. The most important concern before us today is to build upon the ethic of conservation that would propagate mechanisms to persuade people to continue even better protection of nature.

Interesting examples from the field conducted by Gadgil and his colleagues in the Himalaya show the use of the resources by the forest dwellers. In Pammad village, there is a sacred grove called *Baadidhar* that is revered over a large area. The local villagers believe that they are prohibited by divine sanction from using most of the resources of the grove. Only leaf fodder is allowed to extract but without using any tool. These sanctions have protected the thick oak forest for centuries. Unfortunately in 1967, the FD clear-felled one-third of the sacred grove. This has resulted in the breakdown of the customary rights. The clear-felling was followed by monoculture plantation of chir pine in the grove leading to further erosion of local taboos (Gadgil 2001, 230). Darlaghat town in Himachal Pradesh was notified as a wildlife sanctuary in the early 1960s. Unfortunately in 1992, Darlaghat Sanctuary was denotified to make way for a mega cement plant. The mining for limestone for this factory has in a short span of three years not only wiped out

a forest area, but also seriously affected many villages and the water cycle. The huge destruction cause by mining has destroyed the biodiversity of the area. The springs and rivulets have dried up and varieties of available medicinal plants in the area have diminished (Gadgil 2001, 230).

The forest dwelling communities possess rich stock of knowledge which they had locally developed through their interaction with nature over a period of time. Shiv Visvanathan, based on his study of the Dudhwa NP in Uttar Pradesh contends, "(T)oday the local knowledge of forestry and medicine must be utilised before they decay. The Taru tribe inhabiting the park uses a stemless plant available at Dudhwa for the effective treatment of gout and rheumatism. The Taru must be viewed as men and women of knowledge and citizens of the park. They must be its custodians" (1995, 17). The creation of PAs in the twentieth century has robbed of traditional knowledge, culture, environment and medicines from these poor indigenous forest dwellers. In village in Kaihad in Mandi district of Himachal, older people can identify about 70 per cent of the flowering plants. Devli Machan in Kota district of Rajasthan use to be called as *Vaidyo Ki Devli* (Doctor's village). But with the extension of deforestation it has lost both the medicinal herbs and the practitioners of herbal medicines. In Mala village in the Dakshina Kannada district of Karnataka, herbal medicines are still in use (Gadgil 2001, 236). It thus, calls for an urgent need to adopt new strategies and initiative by the government in the context of use of natural resources in the PAs that would ensure the survival of traditional knowledge.

3. The Imperial Intrusion into the Forests

By around 1860, Britain had emerged as a world leader in deforestation, devastating its own woods and the forests of Ireland, South Africa and the north-eastern United States to draw timber for ship-building, iron-smelting and farming (Gadgil and Guha 2000/2010, 118). At that time Europe was already experiencing vast social changes due to Industrial Revolution. With forests vanishing in their own land, they colonised India partly for permanent supply of durable timber. British expansion in the Indian subcontinent brought new pressures on woodlands in its wake. It was not easy to answer the simplest question: whose forests were these? Rulers claimed the woods, mountains and forests as their own (Rangarajan 2001, 8). They carried the notion that the forests in the subcontinent are

inexhaustible and served as the 'timber mine'. Under the colonial regimes, forests and land usages were changed radically.

However, the significance of forests for the British changed over time. In order to understand how British attitudes evolved, it is essential to examine briefly how colonial regimes viewed uncultivated lands. A significant development in ecological terms was the more absolute notion of property even on uncultivated lands (Rangarajan 1999, 10). In general, maximum revenue extraction was the priority of the rulers that worked towards the denudation of forests. All rulers encouraged the extension of cultivation at the expense of jungles. For example, the forest covers of the western Himalayas, Thana district, United Province (now Uttar Pradesh), Punjab were inexorably destructed for timber (Tucker 2012, 6).

The most vivid descriptions of the transformation in the ecological landscape were wrought by the railways. Great chunks of forests were destroyed to meet the demand for railway sleepers without any supervision exercised over the felling operations. The process was intensified in the early years of building of railway network about after 1853 (Gadgil and Guha 2000/2010, 120-121). Timber requirements for railway were the first and the most formidable forces resulting in thinning of Indian forests. The over-exploitation led to fast depletion of rare and valuable species such as teak, sal, deodar, chir, blue pines etc. These varieties got exhausted from the regions -- peninsular India, sub-Himalayan forests, Sutlej and Yamuna valleys, where they were in abundance earlier (Ibid, 122). The 1840s saw the start of the great railway-building era (Tucker 2012, 6).

During the early 1850s, the Himalayan forests were soon transformed by the growing needs for railways. Beginning with the first tract in India, laid from Bombay into the coastal hills in 1823, the forest resources of the subcontinent were mined in vast quantities to link India's natural resources with the expanding world economy. The railway building purposes included military security, the transport of grains throughout the country and to the European markets. The railway built in the Bombay region in the 1850 initially used teak from the west coast, but by the 1860s teak supplies were severely depleted. By then, *sal* forests of U.P. were also depleted (Tucker 2012, 44-45; Rangarajan

1999, 29). Moreover, deodar forests of the Himalayan Mountains were also saturated due to massive cutting during the nineteenth century (Tucker 2012, 39). Considering this watershed with respect to deforestation, the need was felt to start an appropriate department to protect the existing patches of forests through scientific management.

By the 1860s, the FDs of different provinces became committed to preservation of existing forests as their fundamental reason for existence. From then onwards, all other functions of forestry were strictly secondary to the defense of the remaining woodlands. After 1865 governments lands were categorised as Reserved and Protected Forests (Tucker 2012, 12). Till then, there was no practice of systematic forest management in the Indian subcontinent. The imperial FD was formed in 1864 and Dietrich Brandis was appointed as the first inspector-general (1864-83) of forest in India. By then, he had more than a decade experience in south Asia, primarily in the teak forests of upper Burma, where the British had first assigned him in the early 1850s. In India, after 1865, one of his major concerns was to place controls on the logging of the Himalayas and use the urgent demand for those forests as leverage to establish a permanent management system for those states as part of the new national FD system (Tucker 2012, 79-80; Guha and Gadgil 2000/2010, 122; Guha 2006, 105; Rangarajan 1999, 29).

The year 1865 was the beginning of modern forestry and game management in the colonial India. According to Tucker, three important functions of conservation were: profitable timber cutting, preservation of remaining forests and providing for villagers' subsistence needs. The commercial function was the most successful due to the high profits, praise from the higher reaches of government, and promises of more adequate department budgets. The third charge to understand and meet the needs of resident peasants and tribals was the function that the forest service was least equipped to carry out (2012, 206).

Tucker further writes that the core issue that emerged was the system of reserved or protected forests established in 1878. These reserves were under the strict supervision of the FD. The forestry hierarchy was empowered to establish restrictions on local use of the forests whenever necessary to assure regeneration of timber supplies. As a result conflict

arose between the peasants who had never been restricted in their access to subsistence needs and officials imbued with a tradition of enforcing detailed regulations (Ibid, 206). The reservation of forests paved the way for greater hold of the colonial state over the forest resources. The reservation process in India from 1878 to 1900 set the stage for game parks and forest reserves. Principally, the government aimed to increase revenue and also to upgrade the growing stock of marketable timber (Rangarajan and Shahabuddin 2008, 167). The motive behind forest conservancy was to ensure sustained availability of enormous timber requirements and also to safeguard state control over forests.

Gadgil and Guha noted that soon after the creation of the FD, the first Indian Forest Act of 1865 was passed. The Act was later modified and drafted by Dietrich Brandis and B. H. Baden Powell, which culminated in the Indian Forest Act of 1878 (2000/2010, 123-124). The Act laid down number of rules and provisions on the utilisation of forest resources. Under the provision of the Act, the forests were divided into three classes:

(a) RFs which consisted of healthy forests areas with valuable species, which would lend sustained exploitation. These forests would be managed by the FD for timber production and silvicultural improvement.
(b) Protected Forests which were maintained for the reservation of particular tree species and animals. The colonial rulers invariably guided by their commercial interests, gradually converted the protected forests into RFs where the state could exercise its fuller control. Furthermore, 'scientific' management of forests altered the virgin mixed forests into monoculture of single species. This had adversely affected the natural biodiversity but enabled the rulers in surreptitious removal of timber for commercial purposes.
(c) Village Forests constitute the third class of forests. To get the regular supply of firewood, fodder, thatch, straw, etc by the villagers, the small patches of village forests were created.

(Tucker 2012, 46; Gadgil and Guha 2000/2010, 134; Guha 2006, 95-96; Saikia 2011, 69-97).

The Indian Forest Act of 1878 was an important piece of legislation in two crucial ways. First, under the pressure of continuing deforestation it systematised the division of government-held lands into reserved and protected forests. The second feature of the law proved even more controversial. It declared that unoccupied or wastelands belonging to villages should now be taken into RF system and administered by the FD. Nevertheless, this new body of legislation resulted in conflict between the subsistence patterns of traditional village life and the colonial systems' method of timber management (Tucker 2012, 47; Gadgil and Guha 2000/2010, 133-134; Rangarajan 1999, 65).

For instance, in Thane District, the Act generated widespread fear among the villagers that their traditional rights were abrogated (Tucker 2012, 21). According to the new rules, the FD developed a system of closing some portions of the forests to harvesting and grazing so as to allow effective regeneration of young trees, especially teak. Other areas were declared open for harvesting and grazing, but villagers had to buy permits for grazing, firewood, building timber and other forest products. They were required to collect these at specified times and remove them only through certain routes marked by official checkpoints. The department now supervised all commercial cutting and sale of wood, eliminating the timber merchants' freedom of movement in the forests. The forest services had also established local timber depots where they sold or auctioned timber and other forest produce. This was the only system that would give them enough control to assure both effective forest management and a subsistence income from the department. But the more this system was enforced, the more intense was the friction with the villagers (Ibid, 21-22). This was the case in other parts of the Indian subcontinent too.

The forest ecology was equally transformed with the clearing of vast tracts of forest land for development of tea, coffee and rubber plantations. The priorities of imperial forestry were essentially commercial in nature as noted earlier. The commercialisation of forests went hand-in-hand with the allotment of vast tracts of land to planters. The development of railways served the purpose of transportation of tea, coffee and rubber to different places. Tea estates were also introduced in the Kangra valley after 1850 which became an important cash crop in the area (Tucker 2012, 43). The plantation economy itself was destructive in nature for it had a high level of demand for timber for fuel and packaging

(Gadgil and Guha 2000/2010, 143). For instance, tea industry in Assam bore a direct relation to the shrinking areas under forest cover. Healthy tracts of forest lands were cleared in huge acres for tea cultivation.

Perhaps the most serious consequences of colonial forestry were the decline of traditional conservation and the systems of forest management as discussed earlier. Forests, water and other such natural resources controlled by the forest dwellers were thus converted into the property of the state. The system of CPR of the locals was completely shattered with the coming of the British. Gadgil and Guha contend,

> It was the emergence of timber as an important commodity that led to a qualitative change in the patterns of harvesting and utilisation of forests. When the colonial state asserted control over the forests for commercial timber exploitation which were earlier controlled by local communities, it represented an intervention in the day-to-day life of these communities. Thus, the colonial state radically redefined property rights, imposing on the forest a system of management and control whose priorities sharply conflicted with earlier systems of local use and control. Significantly, the species promoted by colonial foresters -- teak, pine and deodar in different ecological zones -- were invariably of very little use to rural populations, while the species they replaced (e.g. oak, terminalia) were intensively used for fuel, fodder, leaf manure and small timber. (2000/2010: 147)

Moreover, early British accounts of India were full of astonishment and fear. The Indian subcontinent had a wide variety of animals, birds and plants, far more than the British Isles (Saberwal et al. 2001, 13). Apart from revenue extractions and timber felling, sport hunting appeared much more thrilling and fascinating activity among the British officials. The uncultivated land supplied valuable animals for hunting. The Indian rulers had also maintained RF areas for game hunting. Nevertheless, before colonialism, the Mughal state respected local customs, and was wary of offending community sentiments. While humans did not live in complete harmony with nature, popular rituals and norms regulated the sphere of conflict in important ways. Animals associated with the divine and the sacred, with Gods and saints, were revered. Crocodile and snakes were worshipped, and the killing of many species was taboo by custom. For centuries in Tamil Nadu, storks and other water birds have been protected in their nesting season by rural people who lived around the marshlands and lakes. In Thane, wild dogs were highly

valued by the Kolis as they helped chase tigers away. In the sacred groves that dot the countryside all over India, nature was to be untouched (Ibid, viii).

Therefore, the ecological changes under the Imperial rule can be gauged from two related processes: first the practice of game hunting resulted in large-scale destruction of Indian wildlife, and second unmindful destruction of forests for extraction of timber. The Indian forest ecology has been profoundly altered to meet the interests of commercial timber and revenue extraction as well as sport hunting. In the next section, an attempt has been made to introduce the long history of India's wildlife. Noted historian, Mahesh Rangarajan has extensively contributed number of writings on game hunting during both pre-colonial and colonial times vis-à-vis the dynamics of man-nature interactions.

3.1 Sport Hunting and the Vanishing Ecosystem

Today sport hunting reminds us of those fascinating and thrilling *'shikar'* tales from the days of the Indian emperors to the British Raj in India. Every period in the Indian history had its own 'uses of woods (the forests)'. In each period too, there have been different groups with varying uses of forest and its resources. While for some groups, forests were the sources of food and sustenance and for others forests acted as the great hunting grounds. Game hunting has been a practice in both pre-colonial and colonial periods. Hunting was already important to the indigenous people too as a source of survival (Gadgil and Guha 2000/2010, 145; Rangarajan 1999, 139). Long before the British came into the picture, Indian Emperors and Princes exercised privilege of hunting in the reserves. Hunting used to be part of the lifestyle of the rulers (Rangarajan 1998, 265) which had much in common with those of the British. The game like a lion or a tiger was often used as a metaphor of power and danger (Ibid, 267). As in other Indian colonial provinces, in Assam too, game hunting by different categories of people was also practiced with thrill and enjoyment. There were peasant communities who made regular forays into the jungle to kill animals for their livelihoods (Saikia 2009).

The chronicles of Mughal emperors provide many such examples with detail descriptions of hunting grounds (Rangarajan 1998, 267). These hunting grounds were known as *shikargarhs*. Strict hunting rights were reserved within these *shikargarhs.* Contemporary

European travellers in the Mughal Empire also referred to the hunting rights of the Mughal rulers. Lions and cheetahs found in the central India were among the species especially prized by the Mughals (Rangarajan 1999, 141). The catalogue of amusement royal hunting would be incomplete without a mention of the British sportsmen. The sport hunting included the hunt of a variety of game from lions, tigers, cheetas, black bears to wild goats, wild ox, wild buffaloes and houbara or Mc Queen's bustard (heaviest land bird) (Rangarajan 2001).

The expedition of hunting introduced during the British Raj is an interesting turning point in the history of wildlife and forests in India. The British surveyed different parts of the country in search of good hunting games. *Shikar* was the favourite pastime for the British officials and had become a part of their militarised lifestyle (Rangarajan 1999, 154-155). They hunted for pleasure rather than for profit or gain. Pride at possessing trophies was the marker of sportsmen's skills and courage. It was the trophy that made hunting meaningful. For the British, Indian shikaris possess no skill to hunt big game and they were ridiculed for their poor records of hunting large carnivores. It was assumed that Europeans had the courage and skill to kill tigers. However, the British were in a much better position to kill the big cats because they had virtual monopoly on modern firearms, to which Indians did not. It was true that British and Indian hunters (especially those having princely status) could co-exist in a period before the Rebellion of 1857. But after that, only few Indians had access to modern weapons. The village shikaris usually used their own primitive techniques of hunting game for their livelihood (Ibid, 157).

3.2 Extermination of 'Dangerous Beasts'

The trails of hunting man-eaters and cattle-lifters (tigers, leopards or panthers) are perhaps more fascinating. In the early years of independence, there was still a continuing war against the predators, though attention was increasingly focused on those individual panthers or tigers that had harmed people. However, it becomes imperative to mention here that in the earlier time man and animals lived in close proximity. Forests and villages were fluid entities, with no demarcations (Rangarajan 1998, 268). In both the periods, predators were seen as a threat to livestock. To reduce the attack of the wild predators, it was believed that transformation of jungle into farmland would

automatically diminish the living space for them. The clearing of jungle and extermination of wild beasts were seen as essential for security. In general, the extermination and the extension of agriculture had gone together (Ibid, 280).

The attacks of wild beasts on human beings as well as on domestic stock were very high, so efforts were made to wipe out the huge carnivores. In particular, extermination of tigers was regarded as essential for the extension of cultivation. The British government responded to increased attacks of predators by increasing the rewards paid to hunters. The vermin extermination depended on cooperation of local Indian *shikaris* (both tribals and rural people). These *shikaris* were motivated by rewards or bounties, without necessarily showing any concern for extinction of species. Mahesh Rangarajan cited interesting examples to show different strategies that were undertaken as battles against wild beasts. Between 1854 and 1861, in Sagar district alone, 85 tigers, 229 leopards, 156 bears and 517 wolves were killed in return for bounties. In Nagpur, 141 adult tigers and 78 cubs were killed by bounty-hunters in 1857-58 (Rangarajan 1999, 147). In 1862 the reward for adult tigers was increased from Rs 20 to Rs 50 and for their cubs from Rs 10 to Rs 20 (Ibid, 149). In each district of the Indian subcontinent, the local shikaris were to be organised into a corps under the command of a civil or preferably military officer. Their sole task was to eliminate large carnivores. In Dinajpur in north Bengal, Zamindars shared the cost of hiring specialist tiger-killers from outside the district. In the North West Province and Awadh, district officers employed Kanjers to kill snakes paying a regular salary. The snake catchers were being engaged to pursue their traditional vocations who used their own tactics in catching snakes rather than modern firearms (Rangarajan 1998, 273). Officials in Assam and Berar were also confident that clearing of the jungles would ensure that animals would gradually but surely disappear. The extension of cultivation often entailed sharper conflict not only with carnivores but even with herbivores.

This extermination campaign was mainly to wipe out all tigers which were seen as threats to human life. Often the villagers killed the wolves in return for bounties, due to the depredations of their livestock. However, herbivores were perceived as crop raiders by the villagers. The officials were also aware of the need to protect crops from herbivores

(eg. deer, antelopes, blackbuck, wild boars, etc). The control of herbivores and the enrichment of agriculture were tied with the revenue interests (Rangarajan 1998, 277). During 1928, in the forests areas of the Balipara Frontier Tract in Assam, a reward of Re 1/- for each jackal was granted. The jackals were a great nuisance in the area and there was an urgent need for special petrol to deal with the problem.[7] The plains of the region were the home of a large ungulate, the wild buffalo. These were disliked by the cultivators due to their ferocity and by herders because they mingled with domestic water buffalo. In 1876, as many as 164 buffaloes were killed for rewards in the province, mainly in the plains of Lakhimpur and Nowgong (Rangarajan 1998, 274). However, there were diverse interests underlying the extermination of wild beasts. Some believed that since they were seen as threats to human life and were more in number, their elimination was must. While others acknowledged the positive role of predators in controlling herbivores in forests and on the fringe of cultivated arable land. But both the views stressed on transforming forest land into agricultural land for generating more revenue. Contrary to this, in many regions of the country, the killing of wild animals had disturbed the peaceful co-existence between man and wildlife. The religious practices and cultures of people (mainly the tribes) living in and around the forests had forbidden such mercy killing. These people were totally dependent on the forests for making their livelihood and they had been sharing their living space with the wild animals for centuries. For example of the Mikirs[8] of Assam who made no attempts to kill or net tigers for fear of offending their deity (Rangarajan 1998, 287).

Later on, the hunting of herbivores and their declining population became a subject of fierce controversy. The officials contended that herbivores were declining in numbers due to over-hunting by the native *shikaris* (Rangarajan 1999, 177-178). One of the main reasons for this contradiction was that the official approached the problem from a very different standpoint. They largely saw deer and antelopes either as animals to be protected, or as trophy-worthy animals. Cultivators were not interested in protecting deer

[7] R.C.R. Cumming, the then Political Officer of the Balipara Frontier Tract, Charduar wrote to the Chief Secretary to the Government of Assam, Shillong. (Application dated 21August, 1928), Public Instruction Form No. 26 A (New), Assam Schedule 1A, Nos. 26 to 41, Assam State Archive.

[8] The Mikirs, presently known as Karbis are the main inhabitants of the Karbi Anglong district of Assam.

for the sake of sport; rather they saw deer as an important source of livelihood. This posed a complexity of the situation on the ground. In many parts of the Central Province, the cultivators tried to protect their fields from wild herbivores, while also killing them for food, especially at time of crop failure (Ibid, 178). With the establishment of RFs, hunting for livelihood was curbed and seen as destructive poaching by imperial officials. The closure of the RFs, except to permit-holders, gave forest dwelling deer a place out of reach of cultivators. The hunting rules were designed not to protect crops, but to improve the supply of trophy-worthy specimens and regulate access to the forests (Ibid, 180). Hence, there was a clear dichotomy between the officials and the cultivators in terms of their hunting needs.

3.3 Hunting Rules redefined

The years after 1870 saw the emergence of the various efforts to save the extinction of big game species, which centered on the design and enforcement of laws controlling hunting and poaching (Tucker 2012, 205). Rangarajan writes, "(T)he passage of the Forest Act of 1878 was a critical turning point in transforming the context of hunting. The Act enabled the government to dramatically increase the area under its jurisdiction, and assert its control over game within the RFs. The exercise of power pertaining to wildlife was integral to the agendas of imperial foresters" (1999, 158).

The declining numbers of important species had become a major concern in the British India. For example, elephant became a protected species, though they could still be shot on private lands or if they were dangerous to humans. This new Act had very significant implications for hunting in the forests under the control of the government. The Act of 1878 vested in the FD the power to regulate access to the government woodlands. The definition of forest produce widened to include hides, skins, horns, tusks, etc. Animals, birds and fish were also included under the term 'forest produce'. All these belonged to the government if they originated in the RFs. The British officials thus, had a very rigid notion of property. Several activities, including hunting, fishing, shooting, poisoning and setting traps became punishable offences. Even unauthorised trespassing was forbidden. It was believed that exclusion of local land users and controlling access to game was essential for the protection of woods (Rangarajan 1999, 159).

The evolution of strict forest laws and the RFs had adversely affected the lives of the local people and the tribals inhabiting the forest areas. The Act of 1878 expanded the FD's power to control hunting by the local people and to curb their traditional rights over forests and its resources. This has adversely affected the dependence of the local communities on the forests for their livelihood. There was growing dissonances among the British foresters and the communities who were heavily dependent on the forests for their survival. Furthermore, it was seen that the British officials accused Indian *shikaris* for driving several species to the edge of extinction. In reality, the British had their own selfish motive behind the creation of RFs and extending their rights. While it was a crime for the Indian *shikaris* to even enter a government forest without permission, European hunters were in a privileged position. However, the major stimulus behind the creation of RFs and promulgation of strict forest policies was the need to ensure steady supplies of timber. The general notion was that conservation was essential to put an end to the cruelty of hunting game.

It is said that perhaps most of the species had already vanished or became very rare during the colonial period itself. Mahesh Rangarajan's (ed.) book on *The Oxford Anthology of Indian Wildlife: Hunting and Shooting (2001),* Volume I offer excellent descriptions of hunting and shooting of game in India during the eighteenth century. He enriched his book by citing ample examples of hunting by Indian kings and princes as well as by the British officials. These incredible *shikar* tales in the Indian jungles and habitats in one way help us to know our country. The British officials like Wiliam Rice, G.C. Mundy, Edward Braddon, James Forsyth, Frank B. Simson, J.H. Baldwin P.D. Stracey, Isabel Savory, F.W. Fletcher, and many more had their memoirs of sport hunting in various parts of the country. The world of the hunt pervaded not only the drawing room with its draped tiger skins and mounted stags' head; it also entered the dinning room, cooking the small game for meat was also a part of it. Such anecdotes of game hunting give us wretched picture of Indian wildlife. By 1888, there were no lions left in India, outside the Kathiawar peninsula, Gujarat. Like lions and tigers, other animals-blackbuck, houbara, wild buffalo, Himalayan black bears, Nilgiri wild goat, the Kashmir

stag, gaur (wild ox), wolf, elephants, panther, Indian cheetah, that the hunters pursued now exist only in small patches that remain of their once widespread domains.

These fascinating *'shikar'* anecdotes illuminate the ways wild animals and jungles were perceived during the British and the pre-British times. Now, most of the species exist only in isolated pockets or have vanished entirely from the ecosystem. The British officials, at one level lawlessly destroyed forests and animals as a civilisational duty. Carnivores were exterminated in large numbers. Above all, the game hunting became a part of the culture of colonialism. Game Associations came up to regulate game hunting-defining norms, codifying rules, censoring native methods of hunting, and specifying the mode of hunting that could be classified as 'sport'. At another level, a new regime of conservation emerged. Forest laws sought to protect forests, closing vast areas to grazing, trapping, gleaning, and establishing state control over commercially valuable timber and other forest produces. Worried by the decline of the animal population, and keen to sustain hunting as an imperial sport, officials spoke of the need for animal conservation. A number of game laws were enacted, outlawing some forms of hunting while permitting others, debarring local practices and institutionalising licensed hunts. Hence, colonial forest laws and game laws were both premised upon similar exclusionary ideas: the assumption that local inhabitants were predators, involved in an unrestrained, senseless and indiscriminate destruction of forest resources that local practices were incompatible with the logic of conservation, and that use rights in the forest had to be seriously restricted or denied (Saberwal et al. 2001, viii-ix).

Like other provinces of India, in Assam also hunting rules were redefined to protect certain species of rare wildlife from extinction. As Rangarajan writes,

> One of the first species to benefit was the great Indian one-horned rhinoceros. In 1908, a large tract of grassland along the banks of Brahmaputra River was set aside as a rhino preserve. Tigers, panthers and stags could still be shot in the area on permit, but the rhino was now under a protective umbrella. Such protection in its wet grassland home was far more effective than the efforts to regulate or ban the trade in rhino horn that continued until the end of the colonial era. Migration of people from eastern Bengal and Nepal and the rise in human numbers within Assam itself speeded the conversion of grassland into paddy field. The huge land mammal had already disappeared from much of its range and eventually survived only where protected with its habitat, in a few reserves in eastern India and

> Nepal. Kaziranga, as the first sanctuary came to be known, had little timber worth the name because of the annual flooding of the river. The absence of market-worthy wood may have been crucial to the creation of a wildlife refuge. There were no human habitations within its bounds, though parts of it were grazing ground for the domestic buffalo...European planters along the borders resisted the expansion of the reserve as it curtailed their hunts. Their battle was unsuccessful, but by the 1930s rhino horn fetched the price of 15 rupees a *tola* and the animals became a target for poachers servicing the trade. Game protection was not a top priority and much depended on the official on the spot. A.J.W. Milroy, who held charge of the reserve round this time, put an end to illegal hunting with strategies like granting concessions to professional grazers living outside the PAs: in return for information on groups of poachers they were allowed to continue taking herds into Kaziranga. Rhino poachers denuded other such sanctuaries much more quickly. In the early 1930s, a company of Assam Rifles, a paramilitary force, camped for six weeks in the Manas sanctuary on the Bhutan border to put an end to poaching of rhino and wild buffalo. Though the wildlife recovered, the whole process was deeply flawed. The local residents, mostly Bodo tribe, were deprived of access to the forest even they were losing hold over farmland to creditors... (2001: 56-57)

World War I and its aftermath brought about tremendous changes to the wildlife regime in India. There was dramatic rise in commercial game poaching because of greatly increased access to sophisticated breech loading rifles. It also introduced a new automotive era, constructing new road networks into forested areas previously accessible only by foot, horse or elephants. With these changes, the early 1920s saw the beginning of the townman-hunter, and the introduction of new technologies made possible more wanton killing of wildlife (Tucker 2012, 208). India saw a radical shift in its approach towards planning out strategies to bring practices of game hunting to a halt. It definitely drew heavily from the experiences of other countries. As pointed out earlier, the international parks moment began with the creation of the Yellowstone National Park in 1872. After the virtual elimination of the native population in North America, parks were never faced with the problem of resident human and livestock populations to nearly the degree that park planners would face elsewhere. The North American model in this way is a risky one to adopt in the colonial countries of the tropical world, but this became evident only slowly (Tucker 2012, 209; Ghimire and Pimbert 2006, 6-7; Guha 2005/2009, 49)

Tucker further observes,

> In 1900 the European colonial powers launched a series of international conferences to plan wildlife reserves. The first conference, held in London, produced the first wildlife convention for Africa, stressing the need for more effective regulation of hunting. In 1933 conservationists met again in London to design the landmark International Convention for the Protection of the Fauna and Flora of Africa. The link between that conference and India led in both directions: India models for colonial wildlife management were used in the conference discussions, and the new convention spurred two years of major changes in India itself. (2012: 209).

In 1934 the Indian National Parks Act became law. It strictly imposed rules and defined which visitors could enter the game reserves, with which license and at which seasons. This mainly focused on sport hunters, while concerns for resident peasants and tribal populations were almost silent. A year later, India's first modern NP-- the Corbett Park-- was established covering the Terai jungles at the foot of the Himalayas (Tucker 2012, 209). The first decade after India's independence focused on framing out legal and administrative structures for wildlife preservation. In 1949 Jawaharlal Nehru established a National Wildlife Board to preserve the wildlife from extinction. Many additional NPs and wildlife refuges were established during the 1950s. (Ibid, 213).

4. The Formation of Protected Areas: The Post Colonial Era

As discussed, the colonial intervention in forest management in India led to serious conflicts over vital natural resources and eventuated new forms of deprivation in the society. In this context, it was expected that the government in independent India initiate effective measures to address the issue of forest conservation as well as the livelihood needs of the local communities. However, the conservation measures in independent India came to rely mainly on the establishment of PAs (Ghimire and Pimbert 2006, 11) which imply total protection and conservation of forest and wildlife in its natural state without any kind of human interventions. Since the PAs have become a cornerstone of conservation process in India, it is important to understand the process of formation of parks and sanctuaries in India. Evidently, the exclusivist vision that inspired the idea of PAs in India has its roots in the colonial period. However, the dominant conservation ideology to keep 'people out' of conservation regime in India today is rooted in a wide range of experiences and ideas. Conservationists in post-independence period have

primarily used ideas from this tradition to argue for the exclusion of humans from areas of conservation interests (Saberwal et al. 2001, 47).

As pointed out in Chapter One, the exclusionary logic became the basis of post-independence thinking on conservation. After independence, Nehru immediately initiated measures to protect Indian wildlife. The Indian Board of Wild Life was set up in 1952 which sought to establish better protection regime. But till 1970s there was no concerted move towards preservation. An expanding agrarian frontier created pressure on forest areas, and booming markets encouraged large-scale exports of animals and hide, threatening any species with extinction. Tigers and panthers were poisoned with pesticides to fetch foreign earnings, monkeys and macaques were trapped for exports to the west. The 1970s saw the beginning of a new and more resolute initiative towards conservation (Saberwal et al. 2001, ix). The notion NPs and sanctuaries came into vogue in the late 1970s. The export of tiger skin was banned, a new Wildlife Protection Act 1972 (WLPA) was passed, and Project Tiger (1973) was launched. The WLPA was the country first comprehensive legislation on protection of wildlife. The main objectives of WLPA are:

(a) to form a uniform legislation for the protection of wildlife, covering the whole country.
(b) to regulate and control trade in wildlife and products.
(c) to establish a network of PAs in the form of NPs and sanctuaries (Upadhyay and Kothari 2001, 1).

Rangarajan contends that the 1970s saw the emergence of a predominantly preservationist, top-down paradigm of forest and wildlife conservation in India. The policies focused on setting up PAs, curbing forest exploitation and placing restrictions on activities such as livestock grazing and collection of non-timber forest produces in PAs. In some cases, in order to reduce human impacts on wildlife, villages were relocated out of wildlife reserves, although not always in a fair or sensitive manner (Rangarajan in Karanth 2008, 274).

The number of PAs also rose from 0.5 per cent of the landmass in 1969 to over 5 per cent by 2001. This rise has been paralleled by increasing displacements of local communities as a consequence of conservation programmes. This process has been accompanied by a raging debate about the impact of forest dwelling communities on the PAs, with clear polarisation between two schools of thoughts: one that priorities the livelihood needs and forest dwellers' rights over the resources and the other that advocates the idea of forest as an 'isolated entity'(Sharma and Kabra 2007, 20). Now, there are over 500 PAs, NPs and sanctuaries in India where animals and birds live in their natural surroundings, where city dwellers can go in search of wild and untamed nature (Saberwal et al. 2001, vii).

The management of the PAs is such that any form of human interventions is seen as a threat to the process of conservation. Even local biomass extraction in the form of livestock grazing, fodder collection, forest products extraction and fuel wood collection, is seen by the conservationists and forest managers as a serious threat to biodiversity (Saberwal and Rangarajan 2003; Saberwal et al. 2001). The conservationists believe that the aims of 'forest conservation' can only be fulfilled by creating 'inviolate zones' which can be secured by moving out resident people and restricting human uses. A number of important questions could be raised in this regard such as – How far the state in independent India has been successful in checking the deterioration of India's forests? To what extent the formation of PAs has brought about changes in the management of the forest resources? What prospects do the parks have for the forest dwelling communities? These questions are addressed in the sections below.

5. Debates on Conservation

As pointed out in the Introduction, the present dilemma of forest conservation lies in choosing between the two conflicting approaches. The debate between these two, namely, the human centric and park centric approaches, has long dominated the conservation discourses in India. The moot question of the debate is: should the humans be separated from the conservation regime or should they be allowed to be a part of it for a sustainable conservation? (Saberwal and Rangarajan 2003, 3). The park-centric approach considers the presence of local communities to be contrary to the interest of conservation. The advocates of this approach opine:

> Human activities in national parks affect the relative abundance of species and in extreme cases, may lead to extinction. This can result from the habitat being made unsuitable for the species or through habitat fragmentation...At present, under the pretext of protecting or re-establishing people's rights, the idea spreads that core areas of national parks have to be reopened to 'sustainable use' for and by village communities. It is often stated that national parks are unjust. Nobody can deny that the way in which the parks have been created by imposing them on the local communities – without their involvement in either the conception, the management or the sharing of the direct or indirect benefits – has been unjust. Nor can anybody deny the need for a new fresh approach. But this cannot be at the cost of the national parks and their protection...Legalising the use of the core areas can result in fatal damage to all living organisms as the pressures of people are dangerously near to overrunning our natural systems. (Thapar and Manfredi 1995: 28)

The other dominant strands in the Indian environmental discourse are those that emerge from various environmental movements with their focus on the question of equity. These movements have largely arisen out of the conflicts between people who have gained disproportionately from economic development and those (the forest dwelling communities) whose livelihoods have been seriously undermined through a combination of resource fluxes biased against them and a growing degradation of the environment. We might call these movements the 'Environmentalism of the poor' (Guha and Gadgil 2008, 347) which denotes the defense of livelihood and communal access to natural resources, threatened by the state or by the expansion of the market (Guha and Martinez-Alier 1998, 36). It concentrates on making a critique of modern development and supports the revival of self-sufficient village economy. Basically, it talks about the fate of the local communities whose survival and livelihood needs have been abruptly affected (Prasad 2004, 12) after the forests came to be designated as PAs. It sees the modern state as an instrument of large-scale industrialisation that has alienated these communities from their own natural resources. The system of state monopoly over natural resources has led to rising inequalities in Indian society. For this reason, the 'Environmentalism of the poor' argues that the state should withdraw from the business of resources management and leave it to community institutions that have managed these resources for long (Ibid, 18-19).

There are three important ideological strands within these movements. The first emphasises the moral imperative of checking overuse and doing justice to the poor which

includes Gandhians. The second emphasises the need to dismantle the unjust social order through struggle, and its primary adherents are the Marxists. The third strand emphasises reconstruction, employing technologies appropriate to the context and time (Guha and Gadgil 2008, 347; Gadgil and Guha 2000/2010, 98-99).

The first ideological strand may also be called 'Crusading Gandhian' which looks upon the present path of economic development as fundamentally unacceptable. For them, the essence of environmentalism is to fight mines, to fight power projects, to fight other such threats (Gadgil 2001, 204; Guha and Gadgil 2008, 354; Gadgil and Guha 2000/2010, 107-108). They call for a return to pre-colonial (and pre-capitalist) village society, which they uphold as the exemplar of social and ecological harmony. Secondly, the 'Ecological Marxists' emphasises the unequal access to resources and the resultant processes of environmental degradation and social conflict. They argue that in a highly stratified society, the rich destroys nature in the pursuit of profit, while the poor do so simply to survive. It seeks to emphasise the need to dismantle the unjust social order through struggle (Guha and Gadgil 2008, 354-355; Gadgil and Guha 2007; Gadgil and Guha 2000/2010, 108).

The Crusading Gandhians would tend to deny altogether that the poor also contribute to environmental degradation. The creation of an economically just society is an important pre-condition of ecological harmony. Crusading Gandhians and the Ecological Marxists, therefore represent the 'ideological' and 'political' extremes of the Indian environmental movement, respectively. In between these two extremes, there exists a middle ground occupied by the third strand termed as Appropriate Technology. This strand thrives for a working synthesis of agriculture and industry, big and small units, modern and traditional technological traditions. The Appropriate Technologists calls for a viable alternative model of economic development to fulfill the needs of social equity, local self reliance and environmental sustainability. Crusading Gandhians, Appropriate Technologists and Ecological Marxists represent the three most forceful strands in the Indian environmental debate (Gadgil and Guha 2007, 416-419; Guha and Gadgil 2008, 354-356; Gadgil and Guha 2000/2010, 107-112).

These strands and debates within Indian environmentalism reflect concerns for viable a model of development vis-à-vis the imperatives to overcome the present ecological crisis. The search for a viable model of conservation calls upon another set of controversies related to the 'definition of forests'. That the word 'forest' is not properly defined in the Indian context is at the root of much of the problem. It gives the state enough leverage for exercising its authority arbitrarily in forest areas over the communities. However, with regard to the present day controversies on the issue of conservation, it has become extremely important to establish the definition of forests. Sharachchandra Lele in his article – "A 'Defining' Moment for Forests" contends that a clear definition is required in light of the fact that the Indian Forest Act 1927 does not define a forest and various court orders have defined it differently. But the move by the Ministry of Environment and Forests (MoEF) of the government of India for a study to establish the definition of 'forests' immediately attracted controversy. Different groups of people have varied vested interests in terms of defining 'forests'. Social activists want a definition of forests that would ensure protection of basic livelihood necessities of the forest dwelling communities along with conservation. Foresters, on the other hand, want to create forest as an isolated entity far beyond human uses. Other ministries probably want definitions that would facilitate construction of development projects like dams and roads in the forest areas. The corporate sector would like definitions that make the leasing-in of state land for commercial forestry free of legal hassles (Lele 2007, 2379).

On this situation, a forest scholar observes,

> The governance of forests in India is shrouded with ambiguities. To begin with, there is considerable uncertainty over the meaning and use of the term 'forest'. The Indian Forest Act, 1927 and Forest Policy, 1988, that form the basic institutional framework for forest governance, do not clearly define the term...In 2007, the Ministry of Environment and Forests (MoEF) reconsidered the definition, and included any area under government control, notified or recorded as 'forest' under any act, for conversion and management of ecological and biological resources. This definition accommodated the earlier legislations and forms of state control over forests. Overall, the definition of forest has been amenable to various interpretations...Such subjectivity in definition has facilitated easy transition of forest to non-forest boundary and use. Thus, the state effectively determines the notification or denotification of forests. (Das 2010: 16)

Here, arises the critical question: 'forests are for what and for whom?' In the light of this prevailing situation, a clear-cut definition of 'forest' is required for proper governance which would take into account conservation as well as the rights of the forest dwellers. Having said this, it would be worth asking if the issue of conservation has been tackled from right perspective at all.

6. The Park and the People: Contemporary Scenario

The above discussion shows that wildlife conservation in India is a complex and contentious process (Saberwal et al. 2001, 71). Since the colonial era, the forest conservation has been a part of the agenda of the Indian state. An inquiry into the history of conservation as presented in an earlier section, provides an account of the forest laws and policies favoured by the state that have alienated the local communities residing in the PAs. What is more striking about India's conservation history is that conservation without 'parks' is unthinkable (Shahabuddin and Rangarajan 2007, 5).

As already discussed in Chapter One, the process of conservation has been accompanied by an intense debate about the impact of human populations inhabiting the PAs, with a clear polarisation between two groups of conservationists. All over India the management of parks has sharply opposed the interests of the forest dwellers for the purpose of creating 'people free zone' in and around the parks. The conflicts over the issue of traditional rights and conservation are being played out in a number of PAs in the country, like the Rajaji sanctuary in Uttar Pradesh, Simlipal in Orissa, Kanha in Madhya Pradesh, Melghat in Maharashtra, Nagarhole in Karnataka and numerous other locations (Guha 2006, 134). Ghimire and Pimbert (2006, 13) note that a growing body of empirical evidence, shows that the transfer of 'Western' conservation approaches to the developing countries has adverse effects on the food security and livelihoods of people living in and around the PAs.

Further, they contend,

> The management of protected areas in developing countries all too often entails huge social and ecological costs. These are rarely perceived as likely to be significant during the process of designation but may ultimately threaten the

> long-term viability of protected areas themselves...Protected areas usually reflect the priorities of regional, national and international interests over local subsistence needs. The demarcation, management and infrastructure of protected areas all too often reinforce the interests of global conservation and those of the international leisure industry and other commercial groups. Local people often express their sense of deep frustration with these externally imposed priorities by saying that 'people should be considered before animals'...Declaring biodiversity-rich areas as 'internationally important' conservation sites is meaningless for local resource users as long as the issues that emerge out of such declarations have not been discussed and resolved to the satisfaction of local communities. Farmers and forest dwellers who have lost land and / or traditional rights over resources cannot appreciate the value of vague 'long-term' conservation benefits for society or humanity. In their view, conservation benefits should be quantifiable – if possible immediate – with local people getting a fair share of the benefits accruing from the protected areas. (Ghimire and Pimbert 2006:12-17)

International conservation organisations and national governments have a long history of denying the rights of indigenous peoples and rural communities over their ancestral lands and the resources contained therein. The modern environmental conservation faces the challenge to reconcile livelihood necessities of the people with the preservation of biodiversity. Comprehensive studies however, have shown that the local communities are indeed an important part of the conservation regime. Denying the access to livelihood resources to communities severely reduces their incentive to conserve these resources (Ghimire and Pimbert 2006).

These studies have influenced the shift in the contemporary global international conservation policy towards more inclusive and participatory forest management. In fact, since the 1980s itself, a discourse on decentralisation and local participation emerged among the international conservation organisations, focussing on the need to shift from the erstwhile exclusionary approaches for conservation towards people friendly approaches. Community-based conservation is now a central part of the prescriptions emanating from global institutions or forums such as the Convention on Biological Diversity and the IUCN. The 5th World Parks Congress (WPC), convened by IUCN's World Commission on Protected Areas (Durban, South Africa in September 2003) stressed strongly on the need to centrally involve indigenous peoples and local communities in conservation, including respecting their customary and traditional rights and their rights to a central role in decision-making. Thus, two crucial paradigm shifts

were evident at the WPC: 1) moving government designated and managed protected areas towards collaborative management, involving as equal decision-makers, indigenous peoples and local communities that are resident in or using these areas; and 2) recognising and supporting people and local communities in their own right, in the form of Community Conserved Areas (CCA) or in other forms (Kothari el.al. 2013).

Xavier Basurto's (2013) study in Costa Rica, for example, explores the issue of decentralisation of the protected area system. Since 1986, the Costa Rican government vowed to grant decision-making powers to the local inhabitants surrounding protected areas. The government created the National Conservation Area System. It is integrated by eleven, rurally based, so-called conservation areas, composed of one or several contiguous (or not) protected areas of varying categories. But this system of reorganisation of protected area system did not allow for significant changes in the transfer of decision-making power to the local inhabitants. This is because of the centralised bureaucratic structure which failed to incorporate local participation in decision making process in most conservation areas, except in the Guanacaste Conservation Area. In this area, an alternative bottom-up approach and participatory control by the local rural poor has been introduced which sought to create community-based governance system accountable to the local people. This allowed for greater accountability for resource protection on the part of the local communities.

Another such case study in the Sagarmatha NP in the Himalayan region in Nepal shows how the state's exclusionary approach to conservation has alienated the local communities from their traditional territories with customary practices. Although the Himalayan National Park Regulations of 1979 allowed the local inhabitants to continue certain uses of natural resources within the NPs (example, cutting of wild grass for fodder and collection of deadwood for fuel), they do not have the right to continue traditional management and use of forests, grasslands, lakes and other resources, nor to care for their sacred natural sites. The traditional practices are not recognised in the legal framework, and as a result the Indigenous Peoples' and Local Community Conserved Territories and Areas (ICCAs) are not integrated into management planning and policies (Stan Stevens 2013).

An edited volume by Ghimire and Pimbert on conservation in PAs includes several case studies from different parts of the world. For example, the study on the Wolong Reserve in China, known for its giant panda, gives an account of the discontentment of the local inhabitants where the government and other outside agencies have failed to integrate the needs of wildlife conservation with the socio-economic needs of these inhabitants. As a result of this, the conservation agencies have failed to develop the stake of the latter in conservation. This account highlights the mismatch between local priorities and the so-called global conservation imperatives. Again in Thailand, growing restrictions on the use of the natural resources by the local communities and the rapid privatisation of park areas for tourism development have provoked many sustained protests by these communities. In Africa also, hostile action against parks have been recorded in South Africa, Namibia, Zimbabwe, Uganda, Kenya, as well as in many West and Central African countries (Ghimire and Pimbert 2006). These cases clearly emphasise the significance of local communities and their institutions for the management of wildlife and PAs. Collaboration between the local communities and wildlife managers in the management of resources is also likely to bring down the cost of conservation, which would be impossible, if done alone. Local communities have always been important in facilitating collective action and coordinating natural resource management. Numerous examples from various parts of the world may be cited to underscore the importance of community-based conservation. Such global experiences have driven many conservationists to emphasise the role of the local communities for a sustainable conservation system.

In India, many conservationists (Gadgil 2001; Saberwal and Rangarajan 2003; Saberwal et al. 2001; Kothari et al. 1998; Kothari 2003) have persistently argued for the co-existence of community and wildlife in place of the existent exclusionary model for a sustainable forest management in the country. The post-independence period conspicuously shows conflicts between the livelihood needs of the forest dwellers and the exclusionary model of park management. The exclusionary policies have alienated the local communities from the forests, which has resulted in severe discontentment among the forest dwellers and the state. The interests of the forest dwellers have never been

integrated with the conservation needs. Their demands are modest consisting of shelter and fulfillment of livelihood needs through the collection of forest products such as honey, lac, fruits, herbs, etc.

In this regard, the social activists and conservationists such as Madhav Gadgil, Ramachandra Guha, Mahesh Rangarajan, Ashish Kothari, Vasant Saberwal and others have argued that the exclusionary conservation bodes serious ecological and social problems. Conservation via fences and policing is bound to fail to deal with the situation in India, where almost all PAs have remained the habitats for a large numbers of indigenous populations for centuries. The creation of pristine 'wilderness' areas devoid of human beings is a myth. The PAs today gives us a more dismal picture of growing human, squeezing wildlife corridors, increasing man-animal animosities as well as local hostilities towards the conservation efforts by the FD (Saberwal et al. 2001).

In view of the failure of the exclusionary conservation model for the management of India's PAs, efforts have been made to bring about changes in the conventional top-down approach of managing forest conservation programmes. The implementation of Forest Policy 1988 brought about a shift in Indian forest conservation model. The period from 1990s onwards has certainly seen a significant break from the past with regard to the management of forest areas. This reflects the decentralised means through the adoption of JFM programme and formation of Forest Protection Committees whereby FD officials and the local forest dwellers are equal partners in the whole endeavour of forest protection (see Guha 2006, 90-123; Saberwal et al. 2001, 81-82). It also lays stress on involving people and meeting their survival and livelihood requirements. However, the Indian experiences over various conservation strategies show wide gap between official rhetoric and the actual implementation of policies aimed at empowering local communities. Undoubtedly, there is much written on decentralisation of forest management, but evidently as environmentalist (Saberwal et al. 2001, 3) point out, there is much little in practice.

Kothari focuses on the idea that the generation of local support for conservation may be dependent upon granting local communities a greater role in managing resources within

and outside PAs (Kothari in Saberwal et al. 2001, 14). The communities must be provided with incentives to participate in conservation. The conservation experiences in India suggest that local communities are not likely to support official conservation initiatives unless they receive some benefits such as tenurial security over the land, rights over subsistence resources (fuel, fodder, non-timber forest products), etc. To strengthen local people's stake in various conservation programmes, they also must accrue benefits from their participation (Saberwal et al. 2001, 97-98). For example, 'ecodevelopment' which includes employment opportunities like, horticulture, handicrafts, dairying, etc. is undoubtedly a serious effort at tackling the conservation-people conflict. Proper monitoring and checks must ensure that such human use of the forests do not cause irreversible damage to biodiversity. Ashish Kothari and others have talked about a number of examples of local communities accruing benefits from conservation functions. The Soliga tribals in the Biligiri Ranganaswamy Temple Sanctuary, Karnataka collect medicinal plants from the forest. They have also organised cooperatives to obtain a better price for the plant products that they sell to pharmaceutical companies. Simultaneously, they are also being helped to monitor the impact of harvesting on biodiversity, and in the adoption of sustainable extraction methods (Saberwal et al. 2001, 99).

Priya Das writes about a very interesting community-initiative resource conservation institution in the Kailadevi Wildlife Sanctuary in Rajasthan, locally called 'Kulhadi bandh panchayat'. Literally meaning axe (*kulhadi*) ban (*bandh*) council (*panchayat*), it has acted as a self-imposed ban on the use of axes, a key implement in the local economy. She demonstrates: in 1997 the takeover of the kulhadi bandh panchayats by ecodevelopment committees negates the sustained practices of kulhari bandh at the village level. Locally, the panchayat operated with a sense of ownership of the forest resources. But under the new structures of village-level ecodevelopment committees within which the FD sought to accommodate kulhadi bandh panchayat, people were significantly distanced from their own practices of forest protection and policing each other. The ownership and authority of the ecodevelopment committee with the FD was a critical factor in destroying the local people's motivation for forest protection. The local villagers said: 'What is the point of protecting our forests if we are not allowed to use

them? Thus, the inability to harvest the forests the very resources they had been protecting, serves as a great disincentive, robbing the movement of the zeal it displayed in the earlier years' (Das 2007, 135-136).

The conservation experiences from different parts of the country call for close dialogues and negotiations between the local communities and the foresters (Guha 2006; Saberwal et al. 2001; Saberwal and Rangarajan 2003; Shahabuddin and Rangarajan 2007). It is most unlikely that any of India's PAs have evolved in the absence of human resource use. Forests have traditionally remained the habitats for a large numbers of communities in India. It is understandable that any move to uproot these communities from their land (or forests) and resources would result a chaotic situation. Now, there is a need to reconcile conservation imperatives of PAs with the livelihood requirement of the communities.

Furthermore, the development model adopted by the Indian state has further accentuated the problem of environmental degradation as already pointed out. The decade commencing from 1990s brought about enormous changes resulting in large-scale depletion of forest cover and its resources. The development model based on globalisation and economic liberalisation has accentuated environmental degradation in the country with the progressive deforestation for land and mining activities as part of the various development projects in the forest areas. The human displacement that these projects have caused is already an issue of national debate in India. In the context of this new paradigm of development, it becomes imperative to understand the interface between society and environment in contemporary India. Denotification of PAs for commercial purposes, developmental projects and displacements of local communities from their traditional dwellings are indicative of the push for economic growth that hardly seem to have any consideration for environment as well as the livelihood needs of the local communities. Consequently, those directly dependent on forests for their survival are being increasingly alienated from their means of livelihood.

It is worthwhile to quote Saberwal et al. who point out, "(I)ndustrialists, mine-owners, trawling companies, and others in Gujarat, Orissa, Himachal Pradesh, Madhya Pradesh, and other states have been particularly forceful in calling for such denotification in an

effort to extend their activities. Political support for such projects, particularly in the current climate of economic liberalisation, has greatly enhanced the likelihood that such denotification will, in fact take place...An acceleration of resource depletion is a likely outcome of denotification..." (2001, 6). The current trend of globalisation induced industrialisation has destroyed efforts towards community-led measures for protection and conservation in Orissa. For instance, the village of Lapanga in Sambalpur district, the Rasol Khesra Jungle in Nayagarh district and Sundargarh district, etc worst affected by the spurt of mining and industries. Foreign investments are high, POSCO and Vedanta/Sterlite being two well known examples, highly controversial for wanting to mine in a tribal landscape, which the local community considered as sacred (Wani and Kothari 2008, 19-21). The Centre has given leases to three companies in RFs in Chandrapur district of Maharashtra for open-cast coal mining. The open-cast mining would not only destroy agricultural land but adversely affect nearby Tadoba Andhari Tiger Reserve (Pallavi 2008, 9-10). Thus, denotification of PAs to accommodate the interests of the big profit making houses have generated environmental protests and struggles in the areas of biodiversity, development projects, livelihood crisis, erosion of customary rights, etc.

Such exploitation of natural resources has generated a series of struggles by the local communities against the state as well as the private enterprises supported by the state. The recent years have noticed an intensification of conflicts over natural resources between the FVs and the FD in most of the tribal areas of Madhya Pradesh, Orissa, Maharashtra, Bihar, Rajasthan, Jharkhand, Chhattisgarh and Andhra Pradesh. Across India, atrocities on the local communities have long been a part of the state's agenda.

Madhu Sarin observes, "(A)lmost 1,343,000 hectares of forest land is under encroachment in the country, of which the government has regularised only 3,66,000 hectares. From 2002 to 2004, the government removed 'encroachers' from 1.52 lakh hectares of land...who have lived there for generations have been displaced...But we have never heard of the removal of multinational corporations...."(Madhu Sarin in Bunsha 2008, 11). It is always the forest dwellers who are seen as encroachers violating the rules in the conserved space. The Indian Environmentalism also encompasses the

protest movements against big dams. The protest movements against the Tehri dam project on the Bhagirathi river in the Himalayan region, the Vishuprayag dam on the Alakananda river, the Keol-Karo dams in the Jharkhand region of Southern Bihar, the Silent Valley Hydroelectric Project in the state of Kerala, Bedthi dam project in Karnataka and above all, the most celebrated struggle against the Sardar Sarovar Project on the Narmada river (Poddar 2009, 113). The period marks enduring tensions between the goals of development and the threatened livelihood and subsistence needs of the poor people.

The post-independence India provides voluminous examples of conservation-induced displacements. In 2007-08, high priority was accorded to village displacement by the National Tiger Conservation which is planning to relocate a large proportion of villages from 29 tiger reserves. The Tiger Task Force Report (Ministry of Environment and Forests, 2005) estimates 2094 families (or approximately 14,520 people) having been move from 12 tiger reserves and three other PAs. The cases of Kuno Wildlife Sanctuary in Madhya Pradesh, Sariska Tiger Reserve in Rajasthan, Mudumalai Tiger Reserve in Tamil Nadu, Tadoba Andhari Tiger Reserve in Maharashtra, Satpura Tiger Resrve etc are illustrative of this. Despite the widespread use of village relocation for conservation purposes, there is very little information on the numbers of involved in displacements from PAs until very recently. From about 1972, when relatively improved documentation began, the total number of people estimated to have been displaced from PAs is rather low. Shahabuddin and Rangarajan also added that the recent review on displacements by NGO Kalpavriksh (2007) suggests 20,000 families (approximately 120,000 people) people from 23 PAs (Rangarajan and Shahabuddin 2008, 168).

However, the question of village relocation or displacement has to be seen in the context of the larger politics of PA management in India. The management plans in most PAs tend to prioritise the displacement of local villagers, while other external habitat pressures are ignored. In numerous Indian PAs, damaging effects of developmental projects like hydro-electric projects, industry, commercial tourism, mining and quarrying, often of serious nature, are overlooked even as authorities come down heavily on the poor who depend on forests for livelihood. In the case of Narayan Sarovar Sanctuary in

coastal Gujarat 90 per cent of the PA was denotified by the state government in 1993, to make way for mining. In 2008, along the fringes of the Tadoba Andhari Tiger Reserve, entrepreneurs have constructed a cluster of guesthouses and resorts by clearing strips of forests. India's experiences in PA management shows enough cases of displacements and local alienation.

In Assam too, the state control has often disrupted the age-old man-forest coexistence. The Kaziranga National Park (KNP) for example, which was declared as a Tiger Reserve in December 2007 is now threatening the livelihoods of thousands of poor peasants living in the buffer areas of the reserve. A Tiger Reserves essentially works on the principle of Critical Tiger Habitat (CTH) and buffer areas. In KNP, the authorities have planned to add many new territories to the buffer areas apparently for facilitating better movement of animals under its proposed sixth addition. However, the entire buffer area around the Park consists of a number of human settlements which mainly consist of indigenous small peasants a large section of whom settled in these areas much before Kaziranga was declared as a NP. They have been coexisting with the wildlife for decades and this is manifested in the fact that Kaziranga (the main habitat of one-horned Asian Rhinoceros) has been universally recognised as an ideal example of wildlife conservation. The recent move of the Park authorities has created a serious conflict between these communities and the former.

In view of the above, it is time for the Indian conservation model to take a middle path (Shahabuddin and Rangarajan 2007, 9) which would counterbalance conflict between the livelihood needs of the people and the state's conservation programmes. The communities must be made equal partners in the whole endeavour of forest management. The main thrust is that the PAs should not be opened for rampant human use, but certain land-use practices and access to the NTFPs for livelihoods would help to develop their support for conservation (Saberwal et al. 2001, 46). Only then they would protect forests out of their economic self-interests.

7. The Scenario in Assam: Making of the 'Forests' and Rights of the 'Locals'

This section examines the man-forest interactions in the context of Assam. It provides a rounded historicised account of the creation of FVs in Assam during the colonial period. Like the rest of India, the FVs in Assam were created as a part of the colonial forest management policy. These villages were established within the limits of RFs for assured supply of labour for the colonial FD. However, with the elapse of time, acute land alienation due to natural as well as man-made factors forced the land-starved Assamese peasantry to penetrate into these RF areas in search of land and livelihood in increasing numbers leading to their conflicts with the FD. This conflict has assumed a much more complex character in the recent times giving rise to serious contestations and challenges with regard to the people's rights and the approach of the state towards conservation. At present, there are 499 FVs in the state with a population of 2,34,113 (approximately)[9].

As outlined in Chapter One, Assam represents a unique ecological history in terms of its man-forest interactions. Indeed people, forest and land have been inextricably related throughout different historical periods in Assam. However, situation changed dramatically with the British annexation of the province. In the early part of the nineteenth century, when the East India Company encountered the region, they found extremely vast uninhabited wild landscape covered with dense 'jungle'. During their early explorations of the regions, the British Officers who traveled across the region left behind their chronicles of the unique landscape covered with dense 'jungles'. Forest historian Arupjyoti Saikia observes, "A.J.M. Mills, a senior company judge official touring Assam, commentated that there were immense uncultivated *churs* in the Brahmaputra and flat plains in the interior, covered with grass and reed jungle with innumerable swamps. Mills was highly optimistic of the utilitarian prospect of these jungles" (2011, 28).

Mills writes, "(A)ssam proper occupies the entire valley of the Brahmaputra, and is intersected through its whole length by the noble streams and its numerous tributaries; it is enclosed on either side by mountainous regions, inhabited by uncivilised tribes, and

[9] Director Forest Communication, Assam Forest Department (2005-06).

possesses a varied but rich soil, well adapted from its diversified elevation to the cultivation of every kind of crops" (1853, 1). Saikia further comments,

> During the course of the nineteenth century, the attitude of the colonial state and its various agencies towards the natural world of Assam underwent several changes. From the initial bewilderment to understanding the forest resources to integrating them into the world map of forest conservation...In the early part of the nineteenth century, the Company officials were merely looking for the commercial viability of the forest in Assam. But later in the century, the colonial state had to address a mixed bag of responsibilities, including the problem of conservation, the expansion of the plantation and agricultural frontier, and the demand for more revenue...By the mid-nineteenth century, both agriculture and forests were seen as complementary to each other. (2011: 28)

It is important to mention that the relationship between forests, land and people that existed during the Ahom reign underwent drastic change with the British annexation of the province. Agricultural land reclaimed from the wastelands and forests was considered most valuable asset of the state. Under the corvee labour system of the Ahom state, each able bodied peasant subject (called *paiks*) were given 2.66 acres of land in return of his services to the state. During the Ahom reign, the state demand was mainly the personal services which were rendered by the *paiks* for the King. The then state was based on barter system rather than a monetised economy. The forests acted as the CPRs of the people from where they could supplement their subsistence. However, this landscape considerably changed with the introduction of British colonial rule in Assam in 1826.

7.1 The Colonial Forest Policy

The landscape of Assam underwent drastic change with the coming of the British rule in the early part of the nineteenth century. The extremely rich and dense forest covers of the region immediately opened up avenues of commercial exploitation for the colonial administrators. The colonial state began to understand the jungles of Assam in terms of their commercial potentialities (Saikia 2011, 22), thus became the major sources of revenue extractions. Agriculture was also given priority for it yielded maximum revenue for the administration. Large tracts of forests were cleared to make way for agrarian expansions.

Moreover, the discovery of tea plants in 1834 (Saikia 2011, 24) came as another threat to the forested landscapes of Assam. Huge tracts of forestlands were cleared and reserved for commercial plantations, mainly tea cultivation. The impact of World War I on forests centered on wartime prosperity and expansion in the tea industry. As the prices rose in Europe, acreage under tea in Assam extended rapidly, and dividends to the planters rose correspondingly. With the expansion of huge acreage of tea plantations, forest cover was correspondingly reduced. Tea cultivation, directly or indirectly, contributed to the commercialisation of the remaining forests, as the timber industry emerged (Tucker 2012, 172-173). With the introduction of the tea plantations in the upper and central Assam in mid-nineteenth century, a different kind of situation was unfolding for the traditionally land abundant region. The development of tea industry in Assam is a classic case of a foreign dominated plantation economy that controlled a colony's land use patterns and was highly sensitive to markets in the industrialised world (Ibid, 158).

The Imperial FD formed in 1864, finally gave way to an independent Provincial FD in 1874. After the creation of this new Provincial FD, more areas were brought under reservation. As a historian writes,

> Conservation meant a complete command of the FD over the forest resources. To acquire this command...the forestlands were categorised into two separate categories: the RFs and Open or Protected Forests. In the former, the entire responsibility of administration and control over the forests and its products rested with the FD. In the other category, the rights and privileges of the Department were confined to specific reserved trees or such rights that were defined exclusively for a specific forest. By creating two classes of forests, the colonial government recognised the complex character of the Indian forests and its resources. It also widened the potentiality of accommodating, and thus to some extent reconciling, the plurality of interests in these forests. Forest reservation entailed forest settlement, a procedure that entrusted the legal title of the State in RFs...the Bengal Forest Act, 1865 provided the basic framework for reservation, forest reservation was mainly intended to secure for the colonial government a monopoly over the commercial value of the forests. The notion of monopoly was always being rearranged so that the FD remained the chief beneficiary of timber trade without paralyzing the private interests. (Saikia 2011: 69-70)

Needless to say, the main motive behind the reservation was to gain complete control over the rich and extensive tracts of forests in Assam. The FD brought sizeable forest areas under the ambit of its RF areas even before the Bengal Forest Act of 1865 was

replaced by the Indian Forest Act 1878. In the process, large parts of the province were declared as RFs such as Darrang, Kamrup, Nowgong, Goalpara, Nambor, Naga Hills, and Cachar (Saikia 2011, 75). Later, the Indian Forest Act 1878 had re-enacted Open Forest as Protected Forests. In the Protected Forests, a local government is entitled to reserve any class of trees. Hence, the government enjoys its full monopoly control in this category of forests (Ibid, 89-90).

Again, the Assam Forest Regulation (AFR) of 1891 came into force in 1892, under which forests were divided into three new categories: RFs, Village Forests and Unclassed State Forests (USFs) (Saikia 2011, 77). The category of Protected Forest was replaced with the category of USFs and this category included all lands at the disposal of the government. It worked as a mediator of interests between the government, tea-planters, the FD and the agrarian society. Over this category, the revenue department assisted by the FD was the *de facto* authority in the management of USF. Unlike other Indian provinces, the Revenue Department in the Assam had the most ambiguous attitude to the vast un-reserved forested tracts vis-á-vis the agrarian practices. To achieve this, the Revenue Department emphasised on creating this category of forests that would remain beyond the benevolent supervision of the Assam FD (Ibid, 93-95).

From time to time, the colonial forest administration changed the categories of forests to enjoy maximum control over the forest resources. The USFs mainly constituted the grassland forests. These categories also included roads, embankments, waterlogged areas and other uncultivated lands. Over the areas under the USFs increased substantially to meet the ever-increasing needs of the colonial government. At independence, the areas under such forests were far ahead of the RFs. Historically, the USFs have been the targets for land reclamation for agriculture by Assamese peasants. The pace of such reclamation of the forest tracts under the category of USFs resulted in unprecedented growing human pressures. After independence, human pressures were intensified under the patronage of the electoral interests of the Assamese politicians. At a later stage, these USFs came under the administrative control of the FD. Assam's dense forest belt has been under siege since the early nineteenth century. By 1900 Assam's 55,156 square miles included

20,830 under government forest control, one of the highest percentages of any state in India (Tucker 2012, 170).

The commercial appropriation of the use of forests later came under severe resistance as the forest officials emphasised forest conservation. This saw a conflict of opinion between the revenue and the FD within the colonial dispensation. Notwithstanding, Saikia noted that, despite rigorous attempts of the imperial FD to conserve forests, later it came under various compulsions to deforest RFs. In fact, the idea of deforestation was gaining ground amongst the revenue official since the early days of forest conservation. Many of them insisted that such deforestation would not only increase revenue earnings but also relieve the administration of the responsibility of taking care of less valued forests.

Since the late nineteenth century, as the colonial government was looking for more agrarian revenue and land under acreage, various RFs were brought under the deforestation scheme. Accordingly, the AFR of 1981 took care to make room for deforestation, and under the provision of Section 28 of the same, deforestation was permitted with the sanction of the government of India. The major beneficiaries were the various railway companies, tea-planters, and individual landholders. The first two, by virtue of their close proximity to the colonial state, were privileged enough to share a higher portion of such deforested land. The tea-garden always tried to gobble up forest areas from the RFs (Saikia 2011, 97-98).

In the process, the system of CPRs of the native population came under severe attack. The village 'commons' were brought under heavy taxation. For instance, forests, rivulets or *beels,* land, grazing grounds, etc were thus used as sources of revenue extraction (Sharma 2001). The politics for revenue maximisation added greater vulnerability to the forests and the people in the region. The colonial policies thus brought about pernicious changes in the indigenous social structure. The local peasantry suffered in the process of reservation of forests as they were alienated from land and other forest resources. The FD established its monopoly proprietary rights on forests restricting the access of the

peasantry and seriously affecting their day-to-day livelihood needs. Another dangerous fall-out of the colonial forest policy was the flow immigrants into Assam.

Tucker in this regard laments,

> Even more so than in most parts of India, the history of Assam's forests has been intertwined with the intricate ethnic and cultural patterns of the state. The remote high hills of Assam and adjacent regions are homes to a wide variety of tribal groups, whose subsistence has been based primarily on shifting agriculture. Until recently tribal populations were thin enough that they presented no fatal threat to the mixed forests, if left to themselves. But the Brahmaputra lowlands supported a much denser and rapidly growing, culturally different populace of Hindu rice farmer. In the twentieth century, Assam had the fastest growing population of any state in India: from 3.3 million in the 1901 census to 15 million in 1971, nearly all of the growth before 1947 occurring in the lower areas of settled agriculture...Most challenging of all, downriver in Bangladesh lies one of the densest rural populations in the world. By the late nineteenth century Bengali peasants, most of them Muslim, began surging upriver into the fertile Assamese forest fringe. Even before World War I, one cause of depletion of Assam's vegetation was the steady encroachment of these immigrant peasants on the forest lands of lower Assam. (2012: 170-171)

The colonial tea plantation industry already brought thousands of tribals from Chotanagpur region to work in the plantations in Assam who subsequently settled in Assam. Since early twentieth century, the colonial government encouraged large scale migration of peasants from East Bengal to engage in the commercial production of jute. Other groups also came to Assam during this period as graziers and peasants (For details refer to Sharma 2012). The revenue department consistently pressed for opening more land to the plow, believing that this would maximise their revenue earnings. The FD agreed on principle that the peasants' need for cultivable land should take first priority in land allocation. The foresters did not disagree with the government's 1938 report, which stressed that – 'indigenous people alone would be unable, without the aid of immigrant settlers, to develop the province's enormous wetland resources within a reasonable period' (Tucker 2012, 174). (For this)...As early as 1920s, the FD had realised that this move would threaten timber supplies. This forced the department to begin the survey of vegetation and classification of land-use potential in previously unclassified government forests, especially so as to delineate sal forests which arguably should be kept from the plow (Ibid, 174).

Since the early twentieth century the government saw the possibility of opening up the swampy wastelands of Assam for jute cultivation. The colonial regime opened up the wastelands of central and lower Assam for the poor, landless peasantry from the erstwhile East Bengal. Furthermore, the colonial regime adopted the policy of opening up more wastelands for agricultural production with a view to generating more revenue. Tucker observes, "(W)asteland, a term generally designated land not under settled agriculture or forest reserve, was a great opportunity for settling immigration peasants. In Assam the Revenue Department, for whom 'nonproductive' land was truly a waste because it produced no taxes, consistently pressed for opening more land to plow" (Tucker 2012, 159).

All these seriously restricted the access of the local peasantry, tribal and non-tribal, to the land resources. Over and above, the two great earthquakes of 1897 and 1950 also had a cataclysmic effect on the topography of Assam exacerbating the incidences of flood and erosion and thus loss of land among the indigenous peasantry. Loss of land and livelihoods due to floods, erosion or shortage of land owing to population increase at the place of origin had forced the people migrate in search of secured land. They were motivated by the hope of securing a better livelihood compared to the one at the place of their origin with insufficient homestead or cultivable land. The arrival of more peasants subsequently resulted in the growth of settlements and clearance of more 'jungles' facilitating agricultural expansion. However, it is to be noted that there were also human settlements in various forest areas of Assam which pre-existed the British rule. After most of the forested tracts of the state were brought under the control of the colonial forest department, many such settlements were also converted into FVs. For instance, in areas like the Doyang forest reserve (declared as such in 1878) situated in the Assam-Nagaland foothills border, there were a number of villages established during the Ahom reign. These villagers were settled there as part of the Ahom state's policy of continuously expanding its agrarian frontiers (Saikia 2008, 79-80).

Post-1950 period witnessed large-scale migration of upper Assam peasantry in search of agricultural land. The available wastelands including forest reserves, grazing land, etc became their main target. This flow of peasants continued as the problem of landlessness

only accentuated over time with the advent of other private commercial interests which were looking for vast land resources for different enterprises not to talk of the various developmental (e.g., oil fields) as well as the military projects of the government. On the other hand, in lower and central Assam, the size of immigrant peasants have grown exponentially creating a serious crisis of land among the local peasantry. In response to such a situation, the Assamese peasantry rebelled several times since 1947-1948 demanding agricultural land. A number of these risings have been witnessed among the forest dwellers and the new encroachers demanding more land and tenurial rights on such land (Sharma 2010).

7.2 The Formation of Forest Villages

The creation of FVs was a part of forest management strategy of the colonial government. The colonial FD had to meet the demand of large-scale timber extractions from the forests for railway expansion and had to accumulate more revenue to support the British imperial government. For this, a stable supply of labour was required to exploit the forest resources, mainly timbers. The colonial forest administration started the process of settling marginal and landless peasants in the forest areas and they were allowed to practice agriculture therein in exchange of their labour in collecting forest resources, mainly timbers, and such other activities on behalf of the colonial FD. The villages thus settled were known as 'FVs' (*bon gaon*). Similarly, the people practicing shifting cultivation were allowed to settle in and use forest land for a temporary period until they shift to another place. Such temporary villages were known as '*taungya* villages'. The inhabitants of the *taungya* villages also had to render manual services to the FD.

In Assam, extensive tracts containing valuable forests were reserved under the Bengal Forest Act, 1865. Thus, the process of setting up *taungya* and FVs was undertaken in Assam for an assured supply of labour for the FD. Accordingly, the rights and privileges of the forest villagers were also informed by colonial biases. The AFR of 1891 stipulated for each adult member of a forest village yearly 20 days of physical labour to the forest department at the prevailing local wages. This system was locally known as *begar*. In

exchange, the dwellers were allowed to collect thatch, firewood, cane, etc. from the forests. They were also allowed to collect timber to build and maintain their houses. Further, each family was entitled to ten cartloads of fuel wood every year in return for additional ten days of labour (Saikia 2011, 102). However, these forest dwellers were totally under the control of the FD. They had no tenurial rights on land which contributed to much of the insecurities and hardships that the forest dwellers suffered both in colonial and post-colonial periods and thus has become central to the relationship between the forest dwellers and the forest.

In the early phase of forest exploitation, supply of labour was "met through the introduction of 'taungya' system as was earlier practiced in Burma and Malaysia..." (Sonowal 2007, 47). A similar practice exists, under the name of Kumri in Madras and under other names in other provinces (Brandis 1923, 37). Sonowal contends, in India *taungya* system,

> was followed mainly in the areas where the local people refused to lend their labour for government sylvicultural programmes. Initially, the forest labourers were treated as serfs by the government as they were forced to render free service for forest work for a number of days in a year as earmarked. Later, the situation changed slightly as the migrant labourers were provided homesteads and one hector of land in lieu of services rendered by them to the forest department. These settlements came to be known as forest villages. (Sonowal 2007: 48)

In Assam, cultivable land of the settled *taungya* villages had never occupied a large areas, it had remained confined to a limited area of operation. It was allowed primarily in places where shifting (swidden) cultivation was wide in practice (Saikia 2011, 239-240). Saikia further mentions,

> The establishment of FVs was within the bureaucratic set-up of the existing RFs or, mostly, in new areas that were earmarked for creating FVs. An illustrative example of the establishment of FV was that of Kachugaon in Goalpara. The forest village was established in 1901 by making a new addition to the RFs to make way for a FV. This also meant that the FD was not willing to disturb any status quo inside the already acquired territorial rights. The department made sure that the newly added tracts did not contain any marketable timber. This practically meant that the forest villagers got little time to carry their own agricultural works. Two other FVs, that is, Panbari and Bamujhora, established in Goalpara in 1902, also turned to be similar in the nature of expropriation of labour services by the FD... (2011: 101)

Another scholar further state that by the year 1902-03, as many as 15 FVs came up and the number increased up to 145 in 1913-14. Initially, three districts were selected for functioning of FVs. These were Cachar, Goalpara and Kamrup having 8, 15 and 12 FVs respectively in each district (Sonowal 2007, 49). The establishments of FVs in RFs came as a boost for carrying out forestry operations. The villagers were given land to cultivate in the vicinities of the forests which gave better protection of the RFs (for details see Saikia 2011, 102-103).

In the Nameri area, for example, such movement of peasant settlers started in 1920s-1930s. Like other reserve throughout Assam, in Nameri too, human settlements came up with the migration of landless peasants. Most of the early peasant settlers hailed from the nearby areas of Balipara and Chariduar who had lost their small landholdings on account of either river erosion or shortage of land owing to population increase. Like other RFs of the state, in the Nameri area too, the British administration driven by its colonial economic interests allowed the peasants to settle in the vicinities of the forests in the form of temporary settlements. Later on, these temporary settlements were converted into FVs.

Likewise, Doyang and Tengani RFs, located in the Golaghat district bordering Nagaland in eastern Assam, had also attracted huge influx of landless peasants affected by floods and erosion from different parts of the state. Tengani is located in the Nambor RFs. Adjoining these forest patches is the Doyang forest reserve and the inter-state boundary with Nagaland. Doyang is under the erstwhile Doyang forest reserve which was declared as such in 1886 under Bengal Forest Act. The colonial FD set up 4 FVs in Doyang in 1905 namely, Merapani, Chaudang Pathar, Kachamari, and Amguri. During 1951-54, the Assam government set up more 'forest' and '*taungya*' villages in the area. Not only that, under a strategic policy to protect the land along the Assam-Nagaland border from the Naga encroachment, the Assam government settled indigenous peasants in adjoining forest tracts of Nambor and Doyang. Officially known as 'half-a-mile settlement', landless peasants from neighbouring areas came and settled within a distance of half mile from the inter-state border during 1968-1970 under this official policy. On the other hand, the colonial administration declared Tengani as a revenue village way back in 1838 (Gogoi 2008, 58).

However, later on it became a FV after it was brought under the Nambor RF area which was declared as a RF in 1878 under the Bengal Forest Act. After independence, in 1953, the state FD established several *taungya* villages in Tengani. With the elapse of time, these villages attracted considerable number of landless peasants affected by flood and erosion from different parts of upper Assam. However, as happens with the *taungya* villagers, they never got tenurial rights over their land. Furthermore, centring round these *taungya* villages, several waves of influx of landless peasants occurred in the area till the 1980s (Gogoi, 2008, 58). However, the forest villagers thus settled inside the RF areas had no tenurial rights on land. In both colonial and post-colonial periods, these villagers had to suffer many insecurities and hardships in the absence of the document of tenurial security known as *patta.* The issue of *patta* is also pivot to the socio-economic as well as political dynamics of the interactions between the forest villagers and the FD.

The situation, however in Doyang and Tengani is different from that of the FVs in the Nameri area. The FVs in Nameri consist of only the officially recognised forest villagers. The expansion of family members in these villages has eventually led to increase in population with the elapse of time. The present populations are the families of the original settlers. These villages have however, never witnessed many waves of migration of outsiders since their establishments during the colonial rule. In contrast, Doyang and Tengani have witnessed huge influx of landless peasants as well as other encroachers over and above the already existing FVs which were established by erstwhile colonial administration for forestry works as discussed. As the time passed, the penetration of more and more landless peasants into these areas have assumed a complex character and thus become a matter of major dispute over land.

It is in this context, a distinction must be made between forest dwelling communities and forest villagers that connote different meanings. Forest dwelling communities is a broader term that includes both forest villagers and the encroachers on forest lands. These encroachers are considered as illegal occupants on forest land without any official recognition. Whereas, forest villagers are those settlers residing in the forest areas officially declared as the FVs. Since, they are officially recognised settlers, they enjoy certain rights and privileges in form of agricultural land for livelihood, firewood from the

forest, minimal revenue payment on landholdings, etc from the FD. In the present times, increasing populations in the FVs have also resulted in encroachments in forest lands by the villagers mostly within the boundary of the villages. The expansion of families, thus led to fragmentation and eventually the shortage of land in FVs. Since agriculture is the dominant activity of the villagers, the shortage of agricultural land has further aggravated the economic conditions. It is therefore time for the FD to create alternative livelihoods strategies for the forest villagers. If we think of the long-terms benefits, these alternatives are important, because the populations will go on increasing, but the land is limited.

7.3 Idiosyncratic Features of the Forest Villages of Assam

Unlike the FVs in other parts of the country, those in Assam have their own peculiar features in terms of the history of their formation, the settlers and their dependence on forest for livelihood. Forest dwellers in most PAs of India are mainly dependent on forest products for sustenance, though agriculture is also practiced by them (Sachchidananda 2004, 55). Lele writes,

> Socially, in India, the livelihoods of 100-200 million people are intertwined directly with forests. These people live in close proximity to forests, and most of them have a long tradition of forest use, and therefore of a sense of customary rights and of how a forest should be. Indeed, in many tribal communities, there was no simple separation between 'forests' and 'non-forests': forests are completely integrated into their systems of shifting cultivation. And even settled agriculturalists think of pastures, woodlots and dense forests as all part of their 'jungle'...(2011: 96)

Sachchidananda is also of the view,

> The material culture of tribal people depends on forests to a very great extent. Food is the first and foremost requirement of any people. The forests, particularly *Sal* forests, are like a repository of all sorts of edible fruits, roots, shoots, etc. from which these things are picked up as and when required. The availability of these edible items is maximum during the lean period of the year from March/April to August/ September when people's need of an alternative to their cereal diet is the most. Apart from being a substitute to their normal diet, these products also act as a nutrient additive. Besides these vegetable produce they also get red ants, squirrels, and other small game from these forests which are very much part of their diet. (2004: 54-55)

In contrast, the FVs in Assam present a different picture of man-forest interactions. A FV does not imply any human settlements formed deep inside the forests. In Assam, the FVs are found in the vicinities (i.e. buffer areas) of the forests with vast agricultural lands, acting as life-supporting system for the dwellers. The forest villagers are thus primarily agriculturists with minimal dependence on forest produces such as non-timber forest produces (NTFPs). It is worth mentioning that the socio-economic systems of the tribal and the non-tribal FVs hardly present any worthwhile difference. The dominant activities of the both tribals and non-tribals forest villagers revolve around agriculture and their dependence on forests are only supplementary. This also applies to all other forest villagers in Assam, both tribal and non-tribal. The existing ground realities in different FVs in Assam are clearly at variance with the other forest dwellers in the country. These villages consist of tribal as well as non-tribal populations. Further, the forest dwelling communities of Assam are in general not the traditional inhabitants of forests. Most of them migrated to the forested areas in search of land due to the causes discussed above. In course of time, the settlements formed by these peasants were converted to FVs. Thus, one does not witness any utilitarian religious or cultural ties of the villagers with forests. One also hardly comes across any explicit history of forest protection and sacred groves among the forest villagers in Assam.

7.4 Contemporary Discourses on Man-Forest Interface

The above discussion gives a historical account of the changing patterns of man-forest interface in Assam. As time elapsed, increasing anthropogenic pressures on forest lands, illegal activities such as poaching, timber trade, encroachments, etc have emerged as serious threats to the wildlife. There has been widespread depletion of forest cover, erosion of rich biodiversity, fragmentation and shrinkage of animal habitats, and the near extinction of a variety of rare species of animals. Besides, man-animal conflict has alarmingly increased in recent years in many PAs. These areas are facing increasing environmental stress because deforestation and expanding human populations. Needless to mention encroachment on forest lands is a major challenge to conservation.

In Assam, the problem is more acute. For example, the case of encroachment of immigrant Muslim settlers into the buffer areas of the KNP and the Bodo tribal

inhabitants into some other reserves of the state may be mentioned which are also pointers to the political dynamics behind such encroachments. The migrants from East Bengal have encroached forest lands in many reserves of the state such as KNP, Pobitara WLS, Laokhowa Burachapori WLS, and others. They have migrated in search of secured land and livelihoods due to acute persistence of poverty at the place of origin. In the absence of available revenue land, the forests became their main target of settlement. On the other hand, it is worth mentioning that recent spurt of ethnic homeland politics posed a serious challenge to the forests in Assam. The Bodo homeland movement since 1990s to create a contiguous Bodo-inhabited territory in the northern Assam brought a huge influx of people to different forest reserves of the state. The settlers had migrated from different parts of Assam. Although political motivation was the major driver, settlers were additionally motivated by the hope of more secured land and livelihoods. Lack of available revenue land meant that the settlers had to clear and occupy land in the forest areas (Bose 2009). In the process, forests were indiscriminately destroyed to make way for human settlements. Such strategic usurpation of forest land adds a new dimension not only to the ecological conservation but also to the socio-political landscape of the state.

The issue of encroachment into the forest areas is a complex one. Contextualising the recent encroachment drives in Indian forestlands Archana Prasad (2003) writes,

> The problem of 'an encroachment on forestlands' is contentious and complex. While the FD has time and again reiterated its inalienable right to land, grassroots movements emphasise the need to look at the problem from the point of view of the villagers who will lose their livelihood and places of residence if they are evicted from the forest. As per the FD, the ministry of agriculture revealed in early 1980 that nearly 7 lakh hectares of forests were under encroachments. Today this figure has gone up to 12.5 lakh hectares, as per information furnished by the states... In order to tackle this problem, the ministry issued to the state governments an order on May 30, 2002. Herein, it said that the state governments should evict all encroachers in compliance with the Forest Conservation Act of 1980 and the guidelines of 1990. In essence, the act and the order mentioned by the May 30 circular form the core of the government policy on encroachments. The legal position on encroachments can be summed up as below: (1) Encroachment on forestlands is an offence under the Indian Forest Act 1927 and various state acts. (2) The Forest Conservation Act of 1980 forbids regularisation of encroachments. (3) In writ petition no. 202/95 and 171/96 the Supreme Court has banned the regularisation of encroachments on the forestlands till the leave of court. The provisions of Forest Conservation Act 1980 (1) regulate the pre-1980 encroachments and permit their regularisation; (2) stop regularisation of post-

> 1980 encroachments; and (3) following this the National Forest Policy of 1988 insisted on "no regularisation of encroachments.

On the same issue, Ashish Kothari comments,

> The Supreme Courts (SC) in WP No. 202/1995, which has come to be known as the 'forest conservation case, while dealing with the problem of deforestation and its causes, reviewed the issue of forest encroachments, that is, illegal or unauthorised occupation or cultivation of forest lands. The issue came to notice of the SC, when the amicus curie in IA 703/2001 mentioned that one of the major reasons for decimination of forests is the growing extent of encroachments. The problem of encroachments was highlighted with reference to some of the eco-fragile regions in Andaman and Nicobar, West Bengal, Karnataka, Madhya Pradesh, Chhattisgarh, Tamil Nadu and Assam. The SC instructed the Chief Secretaries of these states to indicate the steps to be taken by them. Taking a cue from this, the MoEF immediately sent a circular...to all states and union territories to evict all encroachers by September 30, 2002, even though the SC had not ordered eviction of encroachers. Naturally, the country and the forest dwellers were outraged. (2003: 2)

The issue of encroachment has generated much debate and resentment in Assam too. But it has never been addressed in right earnest by the government. The general public opinion is that the state government has always tried to evict those native landless peasants who had settled in the vicinities of the forest areas. The most blatant example is the indiscriminate eviction drives carried out in Doyang and Tengani forest reserves in the Golaghat district of Assam since late 1960s to the recent times.

However, the government has remained generally indifferent to the issues of widespread encroachments in some PAs in the state. The PAs such as KNP, Sonai-Rupai WLS and others are also facing serious crisis mainly due to encroachment that has led to: (a) large-scale deforestation in the buffer areas to make way for human habitation and agricultural land; (b) fragmentation of wildlife corridors and habitats; (c) human-wildlife conflict; etc. Hence, the effective implementation of policies to put a complete halt to such illegal encroachments is an urgent necessity. The AFP 2004 sought to address the issue of encroachments in PAs. Its sections 4.3.11 and 4.3.12 said,

> The government of Assam shall endeavour to identify pre-1980 encroachers who were allowed to enter the forest area by any competent authority, with a view to finding a solution to their land related problems. The encroachers who belong to the ethnic communities of Assam and who have traditionally and characteristically dependent on the forests would be motivated to join the forest

> protection activities as economic stakeholders. Providing sustainable livelihood support to the people who live in the fringe villages would be a major thrust activity of the FD so that fringe villagers would work as real protectors of forests. (AFP 2004)

But the implementation of the AFP was halted with the coming of the FRA 2006. The implementation and applicability of the FRA 2006 has also been widely contested by various quarters in the state. This point is elaborately discussed in Chapter Five.

Today, the FVs in Assam have become major sites of conflict between the survival needs of the poor peasant forest dwellers and the conservation measures of the FD. The above discussion shows that the colonial forest policies had considerably alienated local people's traditional rights over land and livelihood. It had set the genesis of a series of local struggles for traditional rights over the land. After independence, Assam has witnessed strong mobilisations among the peasant forest dwellers demanding their due rights over land for decent livelihoods. Their struggles on the issue of land rights have assumed a much complex character in the recent times. The forest reserves like Doyang and Tengani, for instance, have seen major spurt of peasant mobilisations for land rights under the patronage of Krishak Mukti Sangram Samity (KMSS– Movement Forum for Peasant Liberation) – an on-going popular peasant movement in contemporary Assam. The movement demand permanent tenurial security for the indigenous peasant forest dwellers (landless and marginal peasants) on their occupied government forest lands.

In the recent years, Doyang and Tengani have faced massive ingress and therefore eviction drives by the government. The movement in these forest areas took a serious turn, when the state FD carried out an intensive eviction in June 2002. This eviction drive was actually in response to a Supreme Court order as mentioned above. The greatest contributing factor to this eviction was the newly implemented Joint Forest Management (JFM) programme. Though this national policy was initiated in India in 1990, the Assam government had notified it in November 1998. Under the programme, the state FD would carry out a series of afforestation programmes in the deforested tracts with community participation. But the FD began to plan intensively for its implementation from June 2002. Forests in Golaghat were chosen for this programme and the deforested areas in Nambor became the natural choice for it. Accordingly, eviction began in June 2002,

coinciding with the World Environment Day, and was aimed at afforestation (Saikia 2008, 78-79). The pertinent question that arises is - where will these native people go, if they are evicted from their land. Most of the people settled in these areas are landless peasants, who have lost their lands in floods and erosion as pointed out above. Naturally, after Doyang and Tengani, the KMSS Movement for tenurial security of land for indigenous forest dwellers has spread to many other areas of Assam in recent times.

In Assam, the question of indigenous peasantry's migration into the forest areas and the creation of agrarian space for livelihoods are the two most critical issues. With the elapse of time, growing population coupled with their unsustainable agrarian practices has emerged as serious threats to the existence of forests. However, state's exclusivist conservation mechanism has further accentuated the problem. Since state's conservation strategies have failed to reconcile livelihood needs of the forest dwellers, pressure on forest lands for agriculture is mounting. Present conflicts in Assam over the issue of rights on forest land can be understood only in the above context.

CHAPTER THREE

THE FIELD SETTING: SOPALOGA AND GAMANI FOREST VILLAGES

This chapter presents a detailed profile of the two FVs, namely Sopaloga and Gamani which are simultaneously located in the Balipara RF as well as in the West buffer areas of the NTR. It historicises the migration of landless indigenous communities into these forest areas during the colonial period and the formation of human settlement in the area. The Chapter also throws light into the sources of livelihood, dependence on forests, and day-to-day subsistence of the forest dwelling communities. It further examines the nature of the increasing conflict between the forest villagers and the FD over the issue of land and access to forest resources.

1. Topography of the Area

1.1 Geographic Location

Despite some differences in the nature of the forest landscape, NNP and Balipara RF are part of a contiguous territory. Characterised by a hilly terrain, tropical evergreen, semi evergreen and moist deciduous forests, Nameri is located about 35 km northeast of Tezpur, the district headquarters of the Sonitpur District of Assam. Present day NNP was carved out of the Naduar RF on the East and the Balipara RF on the West. Balipara was constituted as a RF in 1874. The Naduar Reserve was gazatted in 1876. Balipara RF was the eastern most natural *sal* forest patch of India. The boundary of these two RFs was subsequently notified with necessary modifications in 1878.

Nameri was declared as a WLS in 1985 with an area of 137.07 sq. km covering parts of the erstwhile Naduar RF. In July 1996, an additional area of 75.32 sq. km was added to the Nameri WLS. It was elevated to the status of a NP in 13 August 1998 with an area of 200 sq. km. The Government of Assam constituted and notified the NTR with an area of 344 sq. km. on 1 March 2000. The NTR has the NNP as the core area (200 sq. km of area) and a buffer area of 144 sq. km. The NTR (See Appendix 2) shares continuous

forests with the Pakhui (or Pakke) Tiger Reserve of Arunachal Pradesh on the north and both together constitute an area of over 1000 sq. km. which is one of the largest and most ideal habitats of many wild animals (Management Plan of Nameri Tiger Reserve 2003-04 to 2007-08). The buffer area, as mentioned in Chapter One, is constituted by the east and west buffer areas each consisting of several FVs (Appendix 3). These villages in the east buffer area come under the Naduar RF while those in the west buffer come under the Balipara RF. There is no human settlement inside the core area, unlike other PAs of the country.

The area has its own characteristic climate which can be divided into three, namely--summer (March-May), rainy (June-September) and winter (November-February). The level of precipitation is heavy from May to September and low from November to March every year. During the rainy season the water courses of the NNP becomes turbulent with running water coming down from the hilly catchment areas of Arunachal Pradesh. The subtropical monsoon climate of the region is characterised by heavy rainfall with an annual average of 3,500 mm. As such humidity is comparatively higher in the summer and minimal in the winter. The relative humidity is high, and varies between 65 per cent and 90 per cent or more. The average temperature in the area varies from a low of 5°C in winter to a high of 37°C in summer (Management Plan of Nameri Tiger Reserve 2003-04 to 2007-08).

The geo-morphological features of the area illustrate the history of the process of soil formation thousands of years ago. The low outer hills along the northern edge of the NNP are made up of red and sedimentary rocks. These foothills are supposed to have formed from the deposition of sediments laid down thousands of years ago which had risen up from the movement of the tectonic plates into the sea bed. However, rest of the NNP and the RFs in the area is composed of alluvial soil which covers a wide area. Mostly the soil is composed of clay loam with fine sand. Changing of the course by the Jia Bhoroli River and other tributaries in the core area forms river island or sand bars (locally called *'Chaporis'* or *'Char'*) (Management Plan of Nameri Tiger Reserve 2003-04 to 2007-08).

The entire area is intersected by numerous streams running from north towards the south-west direction and meets the Jia Bhoroli River (also called Jia Bhorelli) which joins the mighty Brahmaputra River in the further south. During the rainy season the Jia Bhoroli and its tributaries become full to the bank and flood the NNP and its adjoining areas. The Jia Bhoroli River flows along the park's western and southern boundaries and the Bor Dikarai River forms the eastern boundary. The upper stretch of the Jia Bhoroli is known as River Kameng that falls in Arunachal Pradesh. The terrain is undulating, with lower areas at 80–100 m along the Jia Bhoroli and its tributaries, and higher areas at 200–225 m in the central and northern parts of the park. Numerous small rivers and perennial streams originating in Arunachal Pradesh run through the park and feed into the Jia Bhoroli. Many rivers shift their course during the rainy season and form dry river beds during the winter. The average altitude of the area ranges from 340 m above the mean sea-level at Bhalukpong near Assam-Arunachal border to 80 m near the confluence of the Bor Dikarai and Jia-Bhoroli Rivers. The area mostly encompasses plains except along the northern boundary where the terrain is undulating as the outer Himalayas are protruding with hillocks (Management Plan of Nameri Tiger Reserve 2003-04 to 2007-08).

The NNP is one of the ideal habitats for the Asiatic Elephants, Tiger, Gaur (*Bos gaurus*), Binturong, White Winged Wood Duck, Great Hornbill, Rufous-necked Hornbill, Weathered Hornbill, Oriental Pied Hornbill, Assam Roofed Turtle (*Kachuga sylhetensis*), etc. The River Jia Bhoroli is a breeding place of a number of fishes like the Golden Mahsheer, Silgharia (*Labeo pangusia*), etc. The PA is one of the richest habitats for both residents and terrestrial avifauna and also is a breeding place for the endangered avian species White Winged Wood Duck (Management Plan of Nameri Tiger Reserve 2003-04 to 2007-08).

With high densities of prey species located within the forest, Nameri is regarded as one of the key tiger conservation site in Assam which, it is estimated, could potentially support a population of around 30 adult tigers. However, at present the estimated tiger population of the park is less than half of this number. Since its notification as a Tiger Reserve in the year 2000, a number of NGOs (mainly Aaranyak) and the World Wide Fund for Nature (WWF) have been engaged in conservation efforts to protect the tigers of Nameri and

their habitat. Unfortunately, the recent years have witnessed heavy biotic pressure in and around the park which has been attributed by its management and by conservationists to the increasing population and the illegal encroachments in the forest areas. Its forest villagers being historically dependent on settled agriculture for their livelihood, the 'land' question in the Nameri area has become a much challenging and contested issue in recent times.

2. A Brief History of the Forest Reserve in the Area

As discussed in Chapters One and Two, there is no dearth of historical records about the evolution of the colonial forest administration in Assam and its various activities. We find vivid accounts of the landscape of Assam in the writings of the colonial foresters such as Major John Butler, Gustav Mann, Dietrich Brandis, and others. These accounts give wide-ranging details about the unique ecological landscape, climate and the inhabitants of the area. Further, the extensive evergreen tracts of forest covers gave the colonial foresters a clear picture of commercial potentialities of the region's forests and the future revenue prospects.

The colonial foresters saw the future commercial potential of the forests in the Nameri area and created Balipara and Naduar RFs and Charduar Rubber Plantation Reserve. These areas contained rich and dense *sal (Shorea Robusta)* forests. *Sal* was one of the most commercially viable timbers with high revenue potentials. The entire area including Balipara and Naduar were brought under reservation with a view to gaining monopoly control over these forests. As mentioned above, the Balipara RF was the eastern most natural *sal* forest patch of India. In the year 1906-07 the first working plan for *sal* forests of then Darrang Division was introduced by E.M. Coventry. The Charduar in the northern part of Darrang (now Sonitpur District) were extensively used for Rubber Plantations[10]. Later, on due to the discovery of 'Para' Rubber and its large-scale plantations in

[10] Discussions with some of the elderly villagers in Sopaloga and Gamani revealed that the colonial administration had encouraged migration of the Garo tribal population from Tura in present day Meghalaya to work in the Charduar Rubber Plantations during the early part of the twentieth century. Today, FVs such as Sotai and Phuloguri in the Nameri area are inhabited by the descendents of the early Garo settlers.

Malaysia, Sri Lanka (Ceylone) and South India, the Rubber Plantations in this area faced market crisis and had to be abandoned (Management of Nameri Tiger Reserve 2003-04 to 2007-08).

In 1925, colonial FD introduced operation of timber to meet the requirements of the Local Board and the tea gardens. In 1928, the *sal* forests of Balipara RF were operated departmentally. In 1933, the construction of the Rongiya-Rangapara section of the Eastern Bengal Railway was completed. With this, there was a significant increase in the extraction of timber from the Balipara forests. After the expiry of Coventry's Plan for *sal* forests in 1915-16, the first Working Scheme of all the reserves of Darrang Division was introduced in 1935 under the supervision of Dr. Bor. Working Plan by Jacob (1941-42 to 1950-51) was done with proper survey of the area. Plans for the regeneration of economically viable forests were also laid down. In this Working Plan, working circles were divided into different categories of forests:

(a) *Sal* bearing areas of Balipara RF and other forests of Darrang District,
(b) The soft wood forests of Naduar and Balipara RFs,
(c) Forests comprising of mixed evergreen and deciduous varieties,
(d) Mekahi-Amari Working Circle: The forested tracts between Potasali and Bhalukpung extending to Jia Bhoroli of Balipara RF were under this circle. The Silviculture was also practiced in order to re-generate the forests for timber extractions

(Management of Nameri Tiger Reserve 2003-04 to 2007-08).

The present NNP was a part of the erstwhile Naduar RF. Earlier most part of the present PA was used as a firing Range by the defense personnel for which a large part of the area remained unsurveyed by the Working Plans. Prior to the constitution of Nameri WLS in 1985, the area was exploited for timber and NTFPs, mainly cane. Boulders were also extracted from the river beds of Jia Bhoroli and Bordikarai Rivers for construction and developmental works. Earlier, the present fringe areas around NNP were full of forests. Now, due to heavy anthropogenic pressures, these areas are devoid of any forest covers.

Most of the areas of the Balipara RF have been now converted to agricultural fields and human habitations.

3. Administrative Set-up: Forest and Wildlife Divisions

The NNP and the Balipara RF come under the Chariduar (also known as Charduar during the colonial period) Revenue circle, in Western Sub-Division of Sonitpur District in the state of Assam. It is under the jurisdiction of Rangapara Police Station. The District Administration which consists of both civil and police administrations looks after the matters relating to law and order, checking of illegal activities, and so on in the park area. Close coordination is generally maintained between the District and the Forest Administrations (Management Plan of Nameri Tiger Reserve 2003-04 to 2007-08).

The core area of the NTR, that is NNP, is under the administrative control of the Western Wildlife Division of the state FD. The Nameri Wildlife Range office is situated in the West buffer at Potasali which looks after the NNP. The anti-poaching camps are maintained at various places inside the core area of the Tiger Reserve for effective management and protection. These camps perform protection, anti-poaching duties and other developmental works in the PA. These camps are located at places stretching from Bhalukpong to Rangajan along the bank of Jia Bhoroli River and from Seijosa to Dikarai along the bank of the Dikarai River. There are 18 anti-poaching camps in the core area of NTR (Management Plan of Nameri Tiger Reserve 2003-04 to 2007-08).

The Balipara RF is under the supervision of the Range Office (Territorial Division of the Forest Administration) at Chariduar. Thus, the West buffer of the NTR including the FVs comes under the administration of the Range Officer at Chariduar. He keeps records and looks after the needs of the forest villagers in this area. This Range Office coordinates and takes the charge of all JFM activities in the FVs.

The Forest Administration looks after the protection, preservation and growth of the forest resources including all flora and fauna. The forest villagers pay their annual land revenue (*Khajana*) to the FD at the rate of Rs.3/- per *bigha.* The tasks of raising new

plantations, checking of illegal encroachments and illicit felling of trees by timber traders, monitor and control trespass through the forest areas, looking after the needs of the forest villagers, etc are managed by the Sonitpur West Division of the Territorial Wing of the state FD of which the headquarter is located at Tezpur.[11] The Divisional Forest Officer of the West Sonitpur Territorial Division is assisted in the tasks by a Range Officer whose office is situated at Chariduar. The Beats and the camps in west buffer of the NTR (Balipara RF) under Chariduar Range are:

(i) Bhalukpong Beat
(ii) Sotai camp
(iii) Gamani Sub-Beat
(iv) Tarajan Sub-Beat
(v) Dharikati camp

The Forest Protection Force personnel who are posted in several Camps and Beats located in the NNP area are mainly responsible for tasks relating to forest protection.

4. Structure of the NTR and the Balipara Reserve

The extent of the NTR (both core and buffer) is from Balipara-Bhalukpong Railway line within Balipara RF on the West to the Ghiladhari River (Eastern boundary of the Naduar RF) on the East. Thus, part of the Balipara RF and the entire Naduar RF fall under the buffer of the Tiger Reserve. The forest area of the Tiger Reserve is contiguous with the adjoining forest area of Chariduar reserve on the West, Bishwanath RF on the East and Pakhui WLS, Papum RF and Doimara RF of Arunachal Pradesh on the North. The core area consisting of 200 sq. km. includes the NNP excluding the area marked for tourism zone of the PA. The objective of core zone is to protect habitat, key areas and wildlife from human disturbances. It is to be mentioned that there are no human settlements inside the core area. The human settlements are located in the buffer areas of the PA (Management Plan of Nameri Tiger Reserve 2003-04 to 2007-08).

[11] Discussion with A.K. Deb Choudhury, Ranger, Chariduar Range Office (Territorial Division)

The total areas under the NTR are:

Core Area :		200 Sq. Km.
		(Consists of the NNP)
Buffer Area :	East Buffer: --	80 Sq. Km.
		(Remaining part of Naduar RF)
	West Buffer: --	64 Sq. Km.
		(Part of Balipara RF)
	South Buffer: --	44.70 Sq. Km.

5. Formation of Human Settlement during the Colonial Period

The history of peasant migration to the area and the beginning of the formation of the villages therein dates back to the early twentieth century. The early settlers of the present FVs migrated from the nearby areas of Balipara and Chariduar who had lost their small landholdings on account of either river erosion or shortage of land owing to population increase[12]. The coming up of a number of tea plantations in the area also critically affected the local peasants' access to new land. The arrival of more such peasants subsequently resulted in the growth of villages and clearance of more forest land facilitating agricultural expansion (for detail on the formation of FVs in Assam, see Sarma 2012a).

Like other RFs of the state, in this area too, the British administration driven by its colonial economic interests allowed the peasants to settle in the vicinities of the forests in the form of temporary settlements. Later on, these temporary settlements were converted into FVs. The erstwhile colonial FD created these FVs inside the notified areas to meet the demands of regular supply of man-power to work in various forestry programmes. The villagers, thus settled were landless and flood affected local peasants. At the same time, the department encouraged more agrarian expansion into the forest areas by settling these poor peasants. The villagers were given cleared up patches of forest lands for agricultural activities in return of their physical works rendered to the colonial FD and a

[12] Discussions with the villagers in Gamani and Sopaloga.

small amount of revenue (*khajana*[13]). Accordingly, each adult forest villager was required to render 20 days of manual labour annually to the FD at the prevailing rate of wage. Like other forest villagers, in the FVs of Balipara RF too, it was fixed for 20 days in a year. Locally, this system was known as *begari* (*begar services or unpaid labour*). However, the villagers were allowed to collect firewood, bamboo, cane and thatch from forests free of cost. They were also allowed to remove sufficient building materials to maintain their dwelling units. In the erstwhile Balipara Reserve, the villagers provided their services free of cost to the FD[14]. In return for their services, they were given the above mentioned necessities and not cash. While in other such FVs, the villagers were paid the prevailing ordinary wages in return for their services (Saikia 2011, 102 ; Handique 2004, 76).

In the Balipara RF, except these rights and privileges, the FD exercised its monopoly control over the forest villagers. Though the villagers were permitted to settle in forest land, they were not given any tenurial security. The FD allotted 10 *bighas*[15] of cultivable land (*rupit mati*) and 5 *bighas* of homestead land (*bari mati*) to each family in the village. The 'revenue' on these officially allotted lands was fixed at Rs.5/- (that is, 6 *annas* per *bigha*) on each family per annum. The department maintained its strict control over the forest villagers. The forest officers maintained records to monitor the work of the forest villagers. Any outsiders coming to the village had to first take permission to enter, at the office of the Assistant Political Officer (APO)[16], Chariduar. During one of the discussions, one of the villagers in Sopaloga shared some of his views thus:

---

[13] Rent on land.

[14] Discussions with some of the elderly villagers in Gamani and Sopaloga.

[15] One Bigha = 0.13387 Hectare and 0.33058 Acres

[16] In 1914, the British brought the present day Arunachal Pradesh under the jurisdiction of the North East Frontier Agency (NEFA) which was divided into three Frontier Tracts (FT), namely, Sadiya, Balipara and Lakhimpur. Each FT was placed under the jurisdiction of a Political Officer (PO). The PO was responsible for maintenance of law and order, assessment and collection of revenue and other administrative matters. The office of PO continued well beyond independence. Later on, to assist the PO, Assistant Political Officers (APOs) were also appointed. An APO was posted in Chariduar which also looked after the forest administration of the area.

> The rules laid down during the 'political days'[17] were stringent but far better than today. The administration was such that no outsiders were allowed to enter the forest area including the FVs without permission. Visitors to our village had to make entry at the main gate located at Chariduar. Hence, nobody was allowed inside the forest and the village without the consent of the Political *Sahab*. This strict vigilance discouraged indiscriminate deforestation by outsiders. Even the forest villagers had to take permission from the forest officer, for timbers collection for building or repairing of dwelling units.[18]

It is pertinent to mention that the nature of *begar* services rendered by the villagers/local communities varied from region to region. In the Western Himalayan region, Tucker observes,

> We must not overlook the composition of the workforce for the timber harvest: which groups were recruited for the labour, and how the relatively highly differentiated tasks of felling, dressing, and transporting the timber functioned. Through the nineteenth century, labour for timber operations was primarily local in origin. Peasants who owned their land, as well as the landless service castes, the Doms, traditionally were required to provide *begar*, or unpaid labour for transport and trail maintenance. They were the primary wage labour available for timber operations, and anyone who owned land would resist timber work at crucial times in the agricultural cycle. (2012: 83)

Further, Tucker is of the view that,

> *Begar* was the north Indian term for corvee labour, which had been required of all landowning peasants in lieu of money taxes. In the Kumaon hills a vast majority of the male population were landowning small peasants, living in a rather more egalitarian society than in the plains below. In a region where there were almost no motorable or all-weather roads, *begar* was demanded by the British to meet the needs of both government officials and private travelers on tour...Villagers were required to provide unpaid *begar* whenever it was demanded, regardless of the point in the annual agricultural cycle". Thus, the FD officials used the coolies, both on official tour and on holiday. (2012: 99-100)

However, by 1915 the Nationalist leaders of the Kumaon began to question the prevailing *begar* services. It was called forced labour and demanded the end of the 'feudal' system. In 1916 an organisation was founded in the hills which established teams of coolies to work for set wages. By 1919 the first Congress political spokesmen in Nainital and Almora joined the struggle to abolish *begar*. Govind Ballabh Pant was one of the spokesman who later became the first Chief Minister of U.P. after independence. The

[17] The local people refer to the PO as 'Political *Sahab*' and the period of his rule as 'political days'.
[18] Mukheswar Deka of Sopaloga FV.

provincial government responded quickly, organising a new system of paid coolie labour in 1921 (Tucker 2012, 100).

Gradually, the situation in the FVs of the Balipara RF changed with the villagers learning to negotiate their interest with the forest officials resulting in the reduction of the fixed 20 days of annual *begar* service to 10 days and then to 5 days. Finally, a new consciousness gained ground among the villagers that since they were already paying 'revenue' to the FD, the continuation of *begar* service was an exploitative practice. Thus, the villagers gradually stopped the *begar* service to the FD with the effect that the system does not exist today. Interestingly, the FD also made no attempt to enforce the system.

It is relevant here to mention that, like Sopaloga and Gamani, there are a number of FVs in the surrounding areas inhabited by both tribal and non-tribal peasantry for years now. However, even after independence, the forest villagers have remained deprived of their tenurial rights over their land and this issue started assuming serious anxiety among the villagers in the present times. This background has to be kept in mind in order to understand the history of formation of FVs in the Balipara RF.

6. Gamani and Sopaloga Forest Villages

Although the early settlers had migrated into the area during 1920s-30s, in official records, the villages were mentioned much later in the year 1962. It is already mentioned that Sopaloga and Gamani are non-tribal FVs located in the west buffer zone of the NTR. Sopaloga consists of 98 households with a population just above 500. It has an area of 99.33 hectares of land. Gamani on the other hand, consists of a population of 721 with 132 households. It has an area of 133.333 hectares of land. All the villagers of Sopaloga and Gamani belong to the Koch community, an Assamese peasant caste recognised as the Other Backward Classes (OBCs) by the Indian Constitution. Almost all the families in both the villages are entirely dependent on agriculture though a few families in the villages also have other sources of income besides agriculture. There are also variations in the amount of landholdings among the villagers.

The present villagers[19] do not exactly remember the dates when their forefathers had migrated to these areas in search of agricultural land. However, the elderly villagers can relate to some important events in the past such as the World Wars, Indian independence in 1947 or the Indo-China war in 1962 when they had already settled here. They further point out that their predecessors (mostly fathers and uncles) came to settle in the area. In the absence of any historical records about human settlement here, I have had to depend mainly on the narratives of the villagers. However, I have found receipts of *khajana* payments of the years 1941, 1942, 1951-1952 in Sopaloga and 1937-1938 and 1946 in the contiguous village of Gamani in the possession of some families. Other documents also have been found which state that the human settlements in these villages started around 1920s. In a petition addressed to the President of the erstwhile Darrang District Lok Samiti in 1975, the villagers of Eraliloga, Sopaloga and Gamani mentioned their ancestors settled there in 1920.[20] The past narratives of the elderly villagers also reveal enough evidences to show the period of migration of their predecessors during mentioned period. An elderly villager[21] states that when he had come to this area during the British rule in 1947, peasant villagers were already settled here, but in small numbers. However, the population in the village grew with the passage of time. He was the first to start a primary school in 1947 in Eraliloga.[22] During the fieldwork, I spoke to many of his students (now villagers) who are now in the age group of 55 to 65. All these villagers belong to the third generation of settlers.

Further, Rajani Bhuyan and other elderly persons in the village narrated interesting histories on the relations between the hills tribes with the forest villagers. Sopaloga and

---

[19] The present residents of the village mostly belong to their third generation; while very few of them are also from the second generation.

[20] The petition requested the President of the erstwhile Darrang District Lok Samiti for allotment of more land to the forest villagers. They mentioned that their ancestors came to the area in 1920 who had been engaged in agriculture in the forest land. They provided begar service of 10 days to the FD and got an annual *kheraji* (revenue) *patta*. In 1955-56, this system was changed, land was newly surveyed and the FD took over most of these lands after giving only 10-15 bighas of land according to the size of the families which created serious problems for the forest dwellers later on as their family size was increasing. The petition also mentioned about the assurance of the state minister of forest regarding allotment of more land to the villagers when on 28 August 1970 the villagers met him. However, they complained that this distribution of land did not take place till the writing of the petition.

[21] Rajani Bhuyan, a 95 years old villager from Sopaloga.

[22] Eraliloga is a tribal forest village adjoining Sopaloga. Both the villages are connected by a single parallel road.

Gamani FVs lie on the border of the Assam valley and Arunachal Pradesh. These villages constitute the foothills. The Daflas (now called the Nyishis) and Akas (now called the Hrussos) used to come down once or twice in a year, during the winter to the villages on the foothills with their hill products to exchange or collect essential items from the villagers. They had to depend on the villagers (or people in the plains) for their various necessities. They used to come down through the *duars*. The Chariduar or four *duars* were held mainly by these tribes to enter the foothills for trade. These fours *duars* or trades routes were: Bhalukpong (north), Gormora, Bogijuli (west), Lakara (previously called Lokra) (east) and Balipara (south).

The hill tribes came down with products such as *ganja* (marijuana), *gomphu-guri*, ginger, chilly powder, chillies, *zabarang*, *kosu* (arum), bamboo shoot, turmeric, etc. and carried up cloths, blankets, utensils, rice, dried fish, salt, and the like. Often, they used to sell their products in the weekly *haats*[23] at Amaribari, Phulbari, Bindukuri, Lakara, and khelmati. During winter season, the Daflas descended from the hills along with their *Gaums* (the Chieftain) to the foothills of Nameri area and used to live with the local villagers in an atmosphere of cordiality and called each other *mitir-kutum* (friends and kins). Some also made their temporary rest camp near the *Sonai Nadi* (or the *Sonai* River) flowing along the border of Gamani FV. In the process, the hillmen had developed close relations with the villagers in Sopaloga, Gamani and other nearby FVs.

Historian H.K. Barpujari also writes in this regard, "(T)here had been regular traffic between the people of the plains and the hills. The hillmen had to depend by and large on the neighbouring plainsmen for their requirements of foodstuff and other necessaries" (Barpujari 1992, 113). He further mentions that the *duars* or the passes acted as the trade routes for the hill tribes. The *duars* along the northern boundaries of Assam with Bhutan[24] and the hills of the present day Arunachal Pradesh (erstwhile NEFA) had been

[23] Periodic markets, usually weekly or bi-weekly

[24] Along the frontier with Bhutan contained seven *duars*, five in Kamrup and two in Darrang at the time when British occupied Assam. The Kamrup *duars* were Bijni, Chapakhamar, Chapaguri, Baska and Ghorkala and the two *duars* in Darrang were Buriguma and Kalling.

operating since the days of the Ahom[25] rule and they served as transit points for trade and commerce as well as cultural exchange between the peoples of hills and the valley. But the Daflas and other hill tribes often used to disturb peace in the foothill villages by engaging themselves in raids and plunders. As a result, such relationships sometimes turned hostile leading to clashes between the Daflas and the plains. However, throughout the Ahom period, the rulers' main concern was to contain the frontier tribes in their hills and forests. As such, the Ahom policy of conciliation is best exemplified by its relations with the Daflas. Later on, in order to obtain enduring peace in the foothills and to subjugate the hill tribes, the Ahoms formally granted a *posa*[26] right to the Daflas and certain small hill tribes. In fact, it was regularised with a condition that they shall show allegiance and pay tribute to the king. Thus, the system of *posa* entailed compensation to the hill tribes in lieu of the dues they were entitled to in the conquered territories (Sharma 2009).

However, the advent of the colonial administration in the region marked significant changes in the interactions between the hill and the plain people. The British imposed restrictions on their entry into the *duars* to collect *posa* from the foothill villages. Apparently, this was done with a view to securing peace and stability in the foothills, in fact, its primary objective was to bring the foothill regions under the colonial control by putting limit to the traditional area of movement of the hill tribes and making them dependent on the British (Sharma 2009). The Daflas were forced to forgo their practice of collecting the *posa* and instead to receive their articles from a single revenue officer. In 1952, the Daflas had to surrender their rights of collecting *posa* in lieu of a fixed payment in cash (Barpujari 1992, 245). The almost dependence of these hillmen upon the *duars* made them extremely vulnerable to that form of coercion. The Daflas of Chariduar were entitled to visit the plains every year and levy on every household *posa* consisting of 1 seer of salt, 5 seer of rice, and cash of 1 anna and in addition a village 'tax' of 7 rupees

[25] The Ahoms ruled in Assam for six hundred years from 1228 till the year 1826, when the government of the kingdom passed into the hands of the East India Company by the Treaty of Yandaboo. The territory occupied by them consisted of considerable part of the Brahmaputra Valley, though the territorial limit kept fluctuating.

[26] Its literal meaning is a tribute, or a contribution, either in cash or kind or both. The *posa* system played a most vital role in the politics of the Ahom administration, especially in the relationship of the Ahoms with their neighbouring hill tribes.

and 10 annas on every 22 houses. The *posa,* and the *duar* tribute were least satisfactory of David Scott's[27] arrangements (Barpujari 1992, 140). Eventually, the British introduced the 'Inner Line' in 1873 to demarcate the boundary of its territory with that of the hill areas outside its jurisdiction. The inner line put serious restrictions to the traditional hill-plains relationships.

7. Administration of Forest Villages

The administration of the FVs is, however, in the hands of the FD. The villagers are under the strict control and vigilance of the FD. They are given sufficient amount of homestead and agricultural lands for survival in the vicinities of the forest areas. Since the land belongs to the FD, the villagers are not given tenurial rights on land (*patta*). In the recent times, the issue of land rights has been a cause for much insecurity among them. The issue of *patta* is also central to the socio-economic as well as political dynamics of the interactions between the forest villagers and the forest. The lack of tenurial security on land has been responsible for many problem for the poor villagers. According to them, their greatest difficulty is to obtain government or banking loans since they do not possess any official land documents (*pattas*). Because they are under the control of the FD, they cannot mortgage or sell their land even in times of emergencies. However, it is seen that needy villagers do mortgage their land to the fellow villagers informally for cash without the knowledge of the FD. This also speaks of internal economic differentiation within the village.

The FD enjoys the sole proprietary rights over the land. Each family in the FVs are officially allotted fixed amount of homestead and cultivable lands. They are not allowed to encroach upon forest lands over and above the stipulated official limits which is 15 *bighas* per family as mentioned above. Any member found doing so is considered punishable offence by forest laws. Generally, it is observed that now most villagers own agricultural lands over and above this fixed official limit. The present household landholding pattern of the villagers in Sopaloga and Gamani are shown in the table 2.

[27] David Scott was the Governor General's Agent in Assam from 1826 to 1828. In 1828, he was appointed as the Commissioner of Assam, subordinate to the Governor of Bengal.

The FD undertakes different conservation programmes implemented at the village level. The JFM scheme as well as the FD has initiated various afforestation programmes in all deforested tracts in the fringe areas of forests. In the FVs, the *gaonbura* (headman) plays an important role in representing the villagers' needs to the authority. There are no set rules and norms for the selection of the *gaonbura,* but he is selected by the villagers from among themselves. In case of any dispute in the village or with another FV, the villagers resolve it through the instrumentality of the *mel* (assembly) of the villagers which is an Assamese traditional practice. However, in case of disputes between a Revenue Village and a FV, the Ranger has to be immediately informed as police cannot directly intervene in matters pertaining to forest villagers.[28]

Today, Sopaloga and Gamani have schools, Primary Health Centres (PHCs), Anganwadis, electricity, Village Panchayat, community prayer hall (*naamghar*), village club and library, etc. The villagers also receive benefits of various government schemes/provisions such as Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), *Kalpataru Scheme*[29], Rajiv Gandhi Rural Electrification Scheme, Indira Awaas Yojana (IAY), Below Poverty Line (BPL) cards, Public Distribution System (PDS), etc. Different government schemes have been implemented in the FVs in order to help the rural poor by giving them access to basic needs. Some programmes and camps are also organised by the FD from time to time for the villagers.

Looking at these FVs in Nameri, it is not possible to distinguish them from any ordinary village. In Assam, a typical feature of the FVs is that they do not imply human settlements established deep inside forests. Rather they are located in the fringe areas around forests. Sopaloga and Gamani are now full-fledged FVs with people having different occupational engagements (Appendix 4 and 5), different government schemes are operating at the village level, government offices (post office, health centres,

[28] Information received from discussions with the forest dwellers and the A. K. Dev Choudhury, Ranger, Range Office Chariduar (Territorial Division).

[29] The Assam Government introduced this scheme in 2003-04 to provide direct self-employment to the unemployed youths from below poverty line (BPL). Under the scheme, a few unemployed youths of the FVs of Balipara received loan of Rs.7500/- to start small businesses - poultry, dairying, grocery shops, etc.

anganwadi centres, panchayat office, etc.) and schools are also there in the villages (Appendix 6). The villagers do go out to work in search of decent livelihoods. This is seen mostly among the youths, though small in numbers.[30]

In spite of all these, there are still insecurities among these villagers that they do not have land *pattas.* Initially, when the early settlers had migrated into the RF areas of Balipara, they did not even know that they had moved into a reserve. As already discussed, the loss of land due to natural calamities (floods and erosion) and take over of large-scale land for tea gardens had compelled the people to move into any areas with secured land and livelihood. The colonial FD allowed the people to settle in this reserve, provided them land for cultivation in return for their *begar* services rendered for forestry operations. However, with the passage of time, the conditions of these villagers remained unchanged till now in the absence of tenurial and livelihood securities. Other than agriculture, they have no alternative means of livelihood. In such a situation, forests are bound to face increasing human pressures. Like Sopaloga and Gamani, other FVs in Assam show similar features.

8. Demographic Profile

8.1 The Communities

As mentioned above, Sopaloga and Gamani FVs consist of non-tribal population. These are exclusively non-tribal villages. These FVs have their own traditions of religion, culture and festivals. There are no marked hierarchies of castes or traditional occupations. Basically, it is understandable that the villages represent class based divisions in terms of their economic possessions, that is, land. There are variations in the amount of landholdings owned by the families in the villages as pointed out earlier. Moreover, the social structure of the tribals and the non-tribals mark similarities. It is also interesting to mention that particular elements of culture, especially occupations are same for both tribals and non-tribals in this area.

[30] My field assistant, Nayanmoni Das's younger brother, Nijan Das who is in his early 20s has gone out to work in Delhi. He is engaged as a security guard in a hotel. Like Nijan, there are some youths in Sopaloga and Gamani, who have gone out in search of livelihoods, since they know that back home they have no earning opportunities. They are mostly engaged in petty jobs like security guards, factory workers, and so on.

Gamani and Sopaloga are adjacent FVs connected by a single parallel road. Both the villages have same settlement structure and also the types of houses are similar. The structure of settlement is dense and houses are built close to each other. There are few villagers those who are little better-off, own more agricultural land and earn good income by selling rice and have concrete Assam-type houses. Whereas most families in these villages have traditional houses made of bamboo and mud rubbed walls, that are roofed with tin or thatch. The villagers revealed that, earlier timbers and thatch for house building were procured from the forest free of cost (that is, in return for their *begar* services). Now, the forests have nothing for them, except firewood. They buy bamboo, cane, thatch, timbers, etc from outside traders, because the forests have hardly any worthwhile NTFPs. A typical characteristic of a village house is that it has a big courtyard (*sotal*) in the front and a backyard (*bari*) where beetel nuts, beetel leaves, coconut trees and vegetables are grown. A portion in the corner of the front courtyard is used for cattle-shed and a granary (*bhoral ghor)*.

All the FVs, both tribal and non-tribal, in the buffer of the NTR share amicable relationships. There is no instance of inter-community feud and dispute. It is worth mentioning that the socio-economic systems of these tribal and the non-tribal FVs hardly present any significant difference. Agriculture is the dominant activity for the both tribals and non-tribals and dependence on forests is only supplementary. In contrast to the situation in the Nameri area, forest dwellers in other parts of India are basically gatherers who depend on the collection of a variety of NTFPs for their survival. In this context, Lele writes, "(S)ocially in India, the livelihoods of 100-250 million people are intertwined directly with the forests. These people live in close proximity to forests, and most of them have a long tradition of forest use, and therefore of a sense of customary rights and of how a forest should be..." (2011, 96).

8.2 Religion, culture and festivals

The non-tribal forest villagers of Sopaloga and Gamani are followers of Assamese Vaishnavism which in the village has two major divisions. They are:

(i) Shankar Sangha:- This group of people are the exclusive devotees of Srimanta Shankar Dev[31]. The special occasions like *Bhaona,*[32] and annual birth anniversary of Srimanta Shankar Dev are celebrated in the *naamghar.* This group is the staunch believer of Sankar Dev's teachings. Celebration of any forms of puja[33] (like Diwali and Durga puja) and entering temples are generally forbidden for them.
(ii) Sanatan Sangha:- Unlike, the above group, this section of people go to temples and celebrate annual festivals like Durga puja and Diwali.

Despite the divisions, festivals like Bihu, community feast after harvest, annual *Bhaona* strengthen village solidarity. Bihu is celebrated by both tribal and non-tribal forest villagers. Besides, Bihu, other festivals like Holi, Raas, etc are also observed.

However, a typical characteristic feature of Sopaloga, Gamani and all other FVs (both tribal and non-tribal) in the area is that the practice of plant or animal worship is totally unknown to the communities. They do not have indigenous systems of propitiating forest deities and celebrating elaborate religious rituals associated with nature. Moreover, there are also no customs of maintaining and protecting sacred groves by the communities. A researcher mentions that these villagers neither have any history of cultural and religious ties with the forest nor do they possess any customary forest rights and traditional knowledge (Bose 2009) of forest management. This is a commentary which applies to all FVs in Assam.

---

[31] Srimanta Shankar Dev (1449-1568) is the great Neo-Vaishnavite preacher and social reformer of medieval Assam.

[32] Neo-Vaishnavite folk-popular drama tradition of Assam. It is a traditional form of entertainment with religious message which is prevalent in Assam. It is the creation of Mahapurusa Srimanta Shankar Dev. Men and Women play out different characters, generally using fictitious or mythological kings, queens, demons, gods, soldiers, etc. The entire drama is performed in the middle of the open space in the *naamghar*, surrounded in three sides by audience, having the sides toward *Manikut* kept open. The main drama is proceeded by a performance of *Gayan-Bayan.* It is musical, performed with traditional instrument, like khol, taal, doba, nagara, all created by Srimanta Shankar Deva.

[33] Religious observance.

TABLE 1
NUMBER OF HOUSEHOLDS, MALE-FEMALE POPULATIONS IN THE FOREST VILLAGES OF BALIPARA RESERVE

FOREST VILLAGES	NO. OF HOUSEHOLDS	POPULATION		TOTAL
		MALE	FEMALE	
Sopaloga	98	267	234	501
Gamani	132	380	341	721
Dharikati	335	948	894	1842
Tarajan	104	288	298	586
Eralilоga	194	490	466	956
Sotai	334	977	922	1899
Bogijuli	711	2595	1839	4434

(SOURCE: Provisional Population Census 2011, Collected from the Circle Office at Chariduar)

9. The Socio-Economic Life

9.1 The Economic Activities

The economic dominant activities in Sopaloga and Gamani revolve round agriculture. Most villagers are either wholly or partly dependent upon agriculture in one or more than one of the following roles: landowner, sharecropper and labourer. The entire population in both villages can be divided into five major categories on the basis of landholdings:

A. The villagers who own more than 20 *bighas* or more of cultivable land. Some of them also lease out and lease in land for sharecropping (*adhi*). A few of these villagers also have government jobs while some others have small businesses (such as grocery shops, tea stalls, hair cutting salon, etc) within the village.

B. The villagers who own 15-20 *bighas* of cultivable land. Some of them are sharecroppers while some also supplement their income as wage labourers under various schemes of the government such as MGNREGS and the JFM schemes under the FD.

C. The villagers who own more than 7 *bighas* of cultivable land. They also work as wage labourers like those under B.

D. The villagers who own 7-1 *bigha* of cultivable land. These category of villagers also work as wage labourers as the categories B and C.

E. The landless villagers. Their livelihood mainly depends on daily wages that they earn within the village and occasionally under MGNREGS, JFM Scheme and any other works under the FD. As a landless villager recounts:

> I own only half a *bigha* of homestead land (*bari mati*) where I grow potatoes. I take the potato seeds from a fellow villager and later on...share the produces with him. Since I have no bullocks, I cannot lease in agricultural land for sharecropping. I also work as a daily wage labourer in the village. At the time of sowing and harvesting of rice, I earn relatively better. This is how we make our living.[34]

Landlessness in the villages can be attributed to a number of factors. Initially, the colonial FD had allotted 15 *bighas* of land to each peasant family. Some families, however, got lesser amount of land as the measurement was not very strict and sometimes even arbitrary. Nevertheless, that amount was enough to meet the livelihood requirements of the villagers. However, the expansion of families led to fragmentation and eventually the shortage of land. Hence, there is an increasing need for more cultivable land in the village. As a villager narrates:

> Officially I own 10 *bighas* of land which is part of what was initially allotted to my grandfather during the political days. Now, 10 *bighas* of land cannot meet our needs as the size of our family has grown...That is why, we are forced to clear up patches of forests for more cultivable land. FD collects *khajana* only on the official 10 *bighas* of land and not on the extra amount which we have encroached upon. However, such encroachment has become difficult now.[35]

The category of landless villagers mostly hires themselves as agricultural wage labourers in the villages. The system of sharecropping *(adhi)* is practiced by most of them. There

[34] Discussion with Mukuta Das of Sopaloga FV.
[35] Discussion with Bhadra Saikia of Sopaloga FV.

are number of villagers who are only lessees of land. They pay the owners an agreed quantity of rice per *bigha* after harvest. The quantity might vary in each case.

TABLE 2
HOUSEHOLD LANDHOLDING PATTERN IN SOPALOGA AND GAMANI

SERIAL NO.	LANDHOLDING (In *Bigha*) *(Rupit and Bari Mati)*	NO. OF HOUSEHOLDS IN SOPALOGA	NO. OF HOUSEHOLDS IN GAMANI
1.	More than 20	11	07
2.	15-20	25	07
3.	More than 07	20	48
4.	07-01	24	63
5.	Landless Villagers	18	07

(SOURCE: My survey in Sopaloga and Gamani, May, 2012)

Indeed, for the forest villagers, encroachments into the forest land have now become difficult as the FD has demarcated forest land for specific conservation schemes. Any act of infringement would only invite reprimand from the FD which would result in loss of other privileges to get from the latter as forest villagers. Possibility of such punitive action, however, does not deter the new immigrant encroachers who do not have to lose such privileges.

The crucial economic activity of the villagers, the cultivation of rice, determines how most villagers spent their time during the year. The cultivation of rice is accompanied by considerable anxiety. Crop raids by wild elephants are regular occurrence in these villages and no villager can afford to take things easy till the harvest is over. In the buffer areas around the NTR, conflicts between man and elephants have intensified over the years. Incidences of elephant attacks on villagers are common. Earlier, cultivation of *sali,* a traditional late maturing variety of rice and sugarcane was practiced by the villagers. Regular elephant raids on crops have compelled the villagers to completely abandon sugarcane and *sali* cultivation. While the villagers are not anymore ready to risk sugarcane cultivation which involves much more hard labour and manpower, today almost all the villagers go for early maturing varieties of rice so that they can protect and harvest the crop together. When the crop is ready for harvesting, the fields are protected from elephant herds at nights continuously till harvesting is over. Male members from the

1. Office of the Ranger (Wildlife Division), Potasali

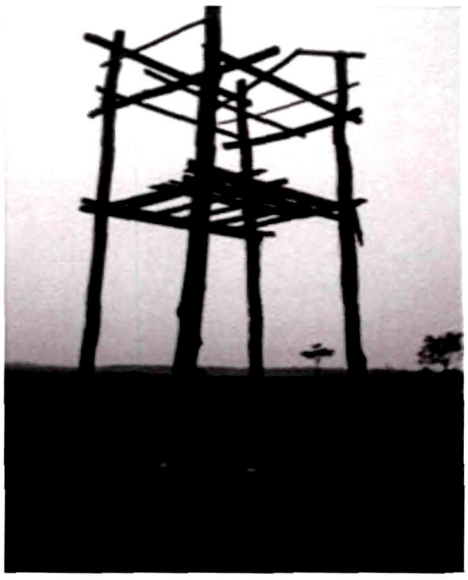
2. Office of the Ranger (Territorial Division), Chariduar

3. A tea plantation in the Balipara area

4. Approach road to Sopaloga and Gamani from Chariduar

5. The passenger vans at Balipara centre which carry passengers to Chariduar

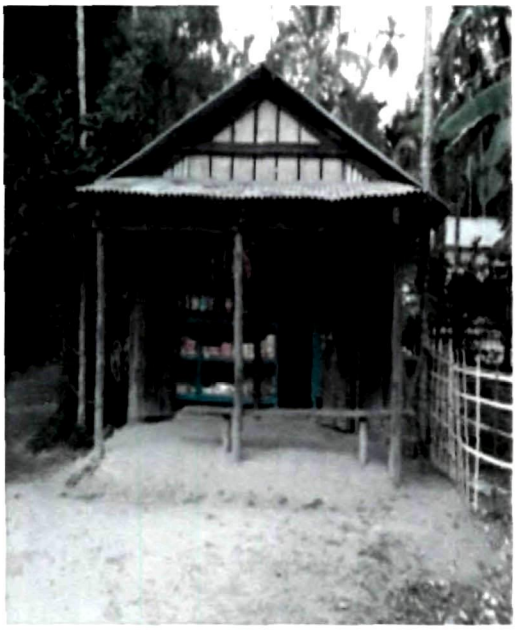
6. A traditional house in Gamani



7. The frame of a *Tangi Ghar*

8. A traditional Granary
(Bhoral Ghar)

9. The shades of the weekly *haat* at Chariduar



10. A grocery shop at Sopaloga

11. A Public Distribution Shop at Sopaloga

12. Standing crops in a paddy field in Gamani in the background is the *Gui-Nejia* hills under the Balipara Reserve

13. Women wage labourers in the village

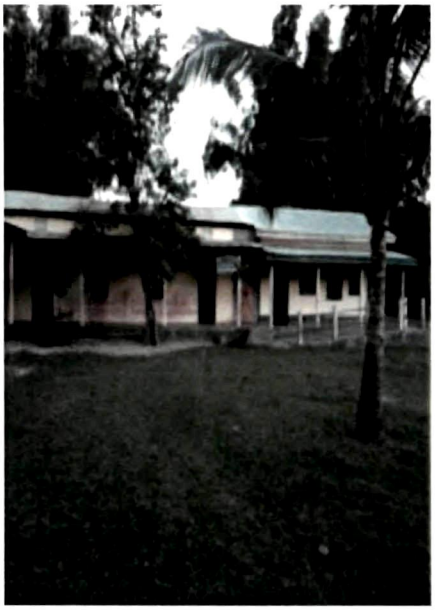
14. A village prayer hall *(Naamghar)*

15. A woman in her loom

16. The women folk of Gamani celebrating Bihu in a paddy field

17. School going kids in the village

18. Middle and High Schools, Gamani



19. Primary school, Sopaloga

families make groups and spend the nights in the *tangi-ghars*[36] in the paddy fields. Throughout night they keep shouting, beating the drums and firing the crackers to chase away the elephant herds. These few months are extremely difficult and hectic when the villagers remain tied up with agricultural works.

The rice season starts from May to January or February. Most villagers have pushcarts in their houses and there are one or two tractors in the villages. Pushcarts are generally used to carry the heaps of grains from the fields after harvest. Most of the villagers use bullocks for ploughing the fields. Nevertheless, tractors are also hired by villagers at the rate of Rs. 350/- per hour in order to make their tasks easier. This is generally done by those villagers who can afford to pay for the tractor. Rice is sown in May, before the rain. Agricultural plots are prepared for transplantation of rice seedlings. Harvesting generally starts towards the end of October to November. Sometime in case of late maturing varieties of rice such as *sali*, harvesting is done till January. The rice season is the rainy season, and it is only around harvest time that the peasants do not need rain. For these rice-growing villages, rains are essential at certain stages of the crop's growth. Thus, the fields in the villages are watered by rain and natural streams flowing down from the surrounding hills. There is no system of canal irrigation. Since the land is naturally very fertile, people do not use chemical manures and fertilizers.

The major part of the income of the villagers is earned from the sell of grains. They sell coconuts, betel nuts, varieties of vegetables, and sometimes livestock in either the local *haat*s or to the local/outside traders who buy the village products. Grains are sold to the local traders or at the weekly *haat*s at Lakara and Chariduar on Saturdays and Wednesdays. However, the local traders give lesser price for the grains that varies between Rs. 350/-to Rs.450/- per 40 kgs (40 kgs is equal to one *mound* in vernacular term). Whereas the villagers get good price for the cleaned de-husked grains sold directly at the weekly *haats* that varies between Rs. 600/- to Rs. 800/- per 40 kgs. *Joha* variety of rice is high-priced ranging from Rs. 900/- to Rs. 1200/- per 40 kgs.

---

[36] A *tangi ghar* is a small temporary structure which can accommodate one or two persons built upright on the top of a tree or a wooden or bamboo platform in the midst of paddy field to chase away wild elephants.

TABLE 3
CROPS AND VEGETABLES GROWN IN DIFFERENT SEASONS

SERIAL NO.	CROP SEASONS	CROPS GROWN
1.	End of May to Mid-September	Sowing of paddy
2.	End of October to January	Harvesting of paddy
3.	November to February	Mustard, pulses, cabbage, cauliflower, spinach, potato, onion, ginger, garlic, turmeric, beans, raddish, eggplants, peas, carrot, potatoes, tomato, coriander, green pepper, pumpkins, gourd, cucumber, ladies finger, arum, etc.
4.	March to May	Beans, eggplants, arum, tomato, green pepper, etc

The villagers generally own different types of land, namely, low-lying agricultural land (*da-mati or rupit mati*) which is suitable for wet rice cultivation and upland (*baam mati*) where seasonal vegetables such as chillies, potatoes, mustards, cucumbers, arum, eggplants, spinach, pumpkins, gourds, ginger, garlic, tomatoes, ladies fingers, radish, beans, coriander, lemon, onions, cabbages, cauliflowers, pulses, etc are grown. The cultivation of these crops is locally known as *'baam kheti'*. Some of the vegetables are also grown in the homestead land for domestic consumption.

Agriculture is not only a means of earning a livelihood but also a way of life. Though land is the most important source of wealth, the villagers supplement their incomes in varieties of ways that will be discussed later in the next section. Land is the most important object of acquisition for both tribal and non-tribal forest villagers. Now, there is an increasing pressure on land, since the populations in the FVs are multiplying. My discussions and interviews with the local people revealed the fact that villagers are more concerned with land rather than conserving forest resources. Being forest villagers, they have failed to develop their stake in forest conservation. This is because the state and its forest administration have not been able to provide these poor villagers any other alternative sources of livelihoods. Moreover, the state-initiated conservation measures implemented in the park do not include any benefits for them. Amazingly, that state is still seen to be indifferent towards making conservation approach more people-friendly.

The Chapter Six provide examples from different PAs to show how livelihood benefits from forests enhance their participation in conservation.

9.2 The Supplementary Income

It is clear from the above discussion that the villagers of Sopaloga and Gamani are primarily agriculturists with minimal dependence on forest produces such as NTFPs. This also applies to the other forest villagers, tribal and non-tribal, in Assam. During the agricultural lean seasons the poor villagers in Gamani and Sopaloga are engaged as daily wage labourers (*din hajira*) under various government schemes (such as construction of village roads, renovation of schools and *naamghar*, etc) in the villages. Besides, they are also engaged in planting of new saplings (locally known as *paleng*), cleaning of the plantation areas, etc under the FD. Many poor villagers also work in the households of the better off villagers as daily wage labourers.

The MGNREGS was introduced in the FVs in the year 2008. Many villagers in Sopaloga and Gamani have received job cards under the scheme. However, at the same time, there are many who have not received the job card. The scheme ensures 100 days of work to the villagers. But during my conversation with them, it was noticed that most of them have worked for only 7-14 days in a year. Various schemes under the same are approved by the *gaon* panchayat. Only one small road in Sopaloga village was constructed by the villagers under the scheme. The wage rate is Rs. 100/- per day. The landless villagers are earning their livelihood by engaging themselves as wage labour.

Nonetheless, the villagers also earn money by selling livestock such as hen, pigeon, goat, duck. Other homestead products such as coconuts, beetel nuts, beetel leaves, and few seasonal vegetables in small quantities are also sold either to the local traders or at the weekly *haat*. This way, the villagers make their living in a number of ways.

It is worth mentioning that the traditional caste-based division of labour is absent in both the villages. However, the villagers are engaged in different tasks as shown in the (Appendix 4 and 5) in order to earn a living. For example, in case of the village barbers,

hair-cutting is not their traditional occupation. They have learned it in order to make their living. However, it is very interesting to note that there is one barber named Munindra Hazarika in Sopaloga who plays multiple roles. He is a barbar, gives tuition to the school going children in the village as well as he is a well trained *xatriya*[37] dancer. He performs *xatriya* dance and sings in *Bhaona* celebration in the village. There are some who weave bamboo products in their pass times such as *saloni, doli, dola, jakoi, paasi,* etc which are mainly for useful for storing grains, de-husking, catching fish and so on. Likewise, the tasks of carpenter and the *naamgharia* are also not their traditional occupation. The duties of a *naamgharia* are assigned to a person who is older in age and possess a good understanding of the religious texts.

9.3 The Self-Help Groups (SHGs)

In Sopaloga and Gamani FVs, both men and women form their individual SHGs. Each SHG includes 10 to 15 members who deposit a fixed amount of money each month in the name of their group and for that matter to assist this potential business venture. A group has a President and a Secretary who coordinate tasks and they are selected from amongst the members.

It is interesting to mention that like men, the women are also actively engrossed with various activities of the group. For example, they engage themselves in weaving, work as daily wage labourers in the paddy fields at the time of harvest and transplantation of rice. By working in the paddy fields, they are helping the villagers in getting labourers while earning income. The profit they earn is deposited in group's account. My interaction with the women in the villages revealed that they never sit idle. After doing the tiresome household works, they get engaged in activities like weaving at their homes. They mainly weave *gamocha* and other such traditional stuffs which are sold by the group.

Each and every SHG regularly hold meetings in their respective villages, where the members discuss future strategies and deposit their monthly amount. The monthly amount and the earnings made from different sources as mentioned are deposited in the

[37] The dance form that evolved within the *xatras*, the Neo-Vaishnavite monasteries of Assam.

group's common bank account. These groups also earn substantial income by giving loans to the villagers at times of need. The interest rate is Rs. 3/- for the group members and Rs. 5/- to Rs. 10/- for other villagers.

TABLE 4
WORKING SHGs IN SOPALOGA AND GAMANI

SERIAL NO.	SOPALOGA NAMES OF SHGs	GAMANI NAMES OF SHGs
1.	Bonoshree	Milanjyoti
2.	Sanghamitra	Prerona
3.	Manikanchan	Parijat
4.	Nameri Sikha Jyoti	Sagarika
5.	Jeoti	Pragati
6.	Arunodoy	Pratibha
7.	Roopjyoti	Nabajyoti
8.	Neelamjyoti	Jyotirupa
9.	Asha	Nabaprabhat
10.	Jyoti	Pranmoy
11.		Matriaat
12.		Gamani

10. Education

Most of the elderly villagers, especially women, in these two FVs are either illiterate or semi-literate. However, almost everybody below 40 years of age today is literate.

There are Primary schools in each of the villages, while Middle and High schools are situated at Hatigate[38] near Gamani FV. One High school is also located at Sengelimari Centre where the medium of instruction is the Bodo language. The rest of the schools follow Assamese as the medium of instruction.

[38] Hatigate is the main entrance to the Nameri National Park.

TABLE 5
SCHOOLS AND COLLEGES

SCHOOL / COLLEGE	LOCATION	DISTANCE FROM GAMANI (approx.)	DISTANCE FROM SOPALOGA (approx.)
Primary School	Sopaloga	1.5 Km	0 km
	Gamani	0 Km	1.5 Km
	Eraliloga	2.5 Km	1 Km
	Tarajan	1.5 Km	3 Km
	Paleng Gaon	4.5 Km	6 Km
	Sotai Garo Gaon	3 Km	4.5 Km
	Rihajuli	2.5 Km	4 Km
Middle Education School	Gamani	0 Km	1 ½ Km
	Sengelimari	4.5 Km	3 Km
	Sonai Miri	6 Km	7 Km
High School	Gamani	0 Km and	1 ½ Km
	Sengelimari	4.5 Km	3 Km
Higher Secondary School	Chariduar and Balipara	10 Km and 15 Km	08 Km and 13 Km
College	Rangapara and Tezpur	30 Km 35 Km	28.5 Km 33.5 Km

TABLE 6
EDUCATIONAL QULAIFICATION OF VILLAGERS IN SOPALOGA AND GAMANI

EDUCATION	SOPALOGA FOREST VILLAGE	GAMANI FOREST VILLAGE
Matriculates	47	22
Under-Matriculates	18	____
Higher Secondary	18	14
Graduates	05	04
Master Degree	____	01

There are no higher secondary schools and colleges in and around the area. Students from all FVs and Revenue Villages, including Sopaloga, Gamani and Eraliloga go to Chariduar, Balipara and Tezpur to pursue education. The locations and distances are

shown in table 5. I came across families who send their children, both girls and boys to Higher Secondary schools in Balipara and Chariduar as well as to colleges in Tezpur and Rangapara.

Since agriculture is the primary occupation of the villagers, helping in agricultural tasks become more important for the children. By the time, the boys reach the age of around fourteen years, they are full-fledged agriculturalists doing practically every job on the field. The girls on the other hand, do household works, help their mothers in cooking, etc.

11. Women in the Forest Villages

Women in the FVs play significant social and economic role as providers of sustenance. As Sachchidananda writes,

> ...women are the primary gatherers and regulators of biomass in poor rural households playing key roles not only in collecting but also in processing; ...(their) roles and responsibilities are pivotal not only to the management of natural resources but also to the management of the domestic economy. Researches have revealed that women spent longer hours at work, pool more of their income into the household budgets, regulate the day-to-day consumption and cash flow needs. In areas, where natural resources have been most degraded, male migration is typically high. Women are permanent residents whereas men are intermittent dwellers and the onus to carry on the business of living lies on them, even with the decline in support from the forest. (2004: 184)

Large numbers of forest dwellers residing in the Scheduled V Areas of India are dependent on gathering of minor forest products. This is largely done by the women and children. They collect edible roots, beat, fruits, pot herb, leaf and oil seeds for self consumption and sale. In Jharkhand, the women produce oil from oil seeds, gathered from the forests by locally developed indigenous devices. In Kurumgarh village in Jharkhand, the women do not have rights over immovable family property. They may keep the income earned from the sale of the minor forest products. These tribal women work hard and they do all the work in the house and outside. Sometimes they also sell forest collected materials to the weekly market and return home with goods of daily use. Brooms, cup-plate, rope, etc are also made by them from forest collected materials either in their own houses or under the supervision of some NGOs. They are also engaged as wage labourers in various afforestation schemes and other forestry operations of the FD

such as, nursery development, sapling plantations and irrigation, tendu or kendu leaf collection, etc. Women also work in the fields, carry water from distant springs in the forests mostly during the lean season. They collect fuel wood from the forests and in fact headloading of fuel wood is done by them. This holds true particularly in all Scheduled V areas of the Indian states (Jharkhand, Orissa, Chhattisgarh, Madhya Pradesh among others). In fact, women in these forest areas maintain a living link with the forests. They spend most of the leisure time in the forests, gathering for forest products to supplement their income. The tribal women resent any interference by the forest guards to protect their free access to forest. That is why, there is always a relationship of animosity between the tribal women and the forest guards (Sachchidananda 2004, 186-191).

The women in most of the PAs in India show a close interface with the forests. Unlike, the situation in other parts, however, women in the FVs under the present study or other PAs of Assam show somewhat different relationship with the forests. Their dependence on forests is only supplementary which is limited to the collection of firewood, done mainly by their male counter-parts. They do not have the customary rights of going to the forests in search of food, firewood and other such forest products. This is in contrast to most PAs in other parts of India as pointed out above where a majority of the forest produce collectors are women who often face the ire of the forest officials and harassment by the forest guards (Prasad 2008, 228).

However, the forest villagers in the Nameri area do not have a long tradition of forest use. Women in these villagers are mainly engaged in a variety of day long and tiresome household chores such as cooking, cleaning, de-husking the grains, looking after the livestock, etc. The large size of the families make the works of women all the more demanding in the domestic sphere. They get hardly any time for leisure. It is only during special occasions in the villages (example, *Bihu, bhaona*, and other religious activities in the *naamghar*) that they get sometime spare for leisure and enjoyment. Weaving, for most of the women is their favourite pastime. All of them have the traditional loom (*taat saal*) in their houses.

During the peak agricultural period of sowing and harvesting of paddy, the work load on the women members of the families is more than that of their male counterparts. Apart from their routine household tasks, they carry food for the men working in the paddy fields, they also go to the fields to harvest. Sowing and transplantation of paddy is mainly done by the women.

Most of the poor women do work as daily wage labourers in the plantations under the schemes of JFM and FD. This category of women villagers also earns good by engaging themselves as wage labourers during the agricultural season in the village. The villagers hire mainly women labourers for sowing, transplantation of paddy and de-husking of grains. The prevailing wage rate for women labour is Rs. 100/-. Earlier, the wage rate for women was less compared to men, since they cannot carry the heaps of grains from the fields after harvest. Now, it is equal for both men and women. Except plouging, women virtually do everything in the field. But women from the economically better-off families never work as wage labourers in others' fields. They do work in their own paddy fields, helping the men in agricultural tasks.

Moreover as mentioned earlier, women are also members of small local SHGs formed exclusively by them. These SHGs play very significant role in both the villages in helping the women to earn on their own. They do participate in their respective SHGs' meetings regularly but they are not seen as active members in any of the meetings with the JFMC and the FD in the villages. The JFMCs and the Forest Rights Committees (FRCs)[39] in both villages consist of two women members respectively, only in name. They neither have any significant role to play nor do they are much aware of different conservation issues and activities of the Committees. They are rather passive actors. I attended a JFM meeting[40] in Sopaloga where it was observed that three women members were present not to participate in the discussion but to provide snacks to the audience. This shows that they are least aware of any issues and concerns outside their domestic

[39] The FRC was formed in all the tribal as well as non-tribal FVs in NNP under the provisions of the Forest Rights Act 2006.

[40] The meeting was organised by the Ranger (Territorial Division) in Sopaloga FV on 8 November, 2010. People from three FVs, that is, Sopaloga, Gamani and Eraliloga were present, along with JFMC members and FD officials.

realm. It is their male counterparts who are active in these matters. My own conversations with the village women on issues of conservation and land rights brought to focus that they are mostly ignorant and reticent. Generally, it is seen that they leave these issues to the men in the households. However, I met a few aged women in these villages who are quite knowledgeable about the past history of the villages. They also showed concerns about the depletion of forest covers and wildlife from the area.

Moreover, some young women are now engaged in various activities of the National Rural Health Mission (NRHM) and Sarva Siksha Abhiyan (SSA). Under the NRHM, a few of them work as Accredited Social Health Activist (ASHA) chosen by and accountable to the Panchayat – to act as the interface between the community and the public health system. A few other women also work in the Anganbadi centres, located in some other nearby villages, under the SSA.

CHAPTER FOUR

ISSUES OF CONSERVATION AND LIVELIHOOD IN SOPALOGA AND GAMANI

This Chapter throws light into the local forest villagers' sources of livelihood, dependence on forests and responses to various conservation initiatives to explicate the specific nature of man-forest interactions in the Nameri area in particular and Assam in general. It also examines discourses of the state, the FD and the forest villagers on the issues of conservation.

Chapter Three provided a detailed account of the history of migration of indigenous peasants into the forest reserves of the area during the colonial period and the formation of the FVs in the Nameri forests. With the passage of time, the increasing population in the FVs led to clearance of more forested tracts for agrarian expansion. The buffer areas of the park have increasingly come under human occupations. The Chapter also pointed out that the indigenous peasant communities (tribals and non-tribals) have lived in the forest areas of Assam for decades without any tenurial security over land. As a result of this, these forest dwellers, including those of Nameri, have failed to develop any worthwhile enthusiasm toward the state-initiated conservation programmes. The community based conservation efforts, such as JFM have not been quite successful in the FVs of the Nameri area, as compared to other parts of the country. The forest villagers refrain from participating and taking responsibilities for forest conservation, since they are not given any benefits in return.

The examples of participatory conservation from various PAs in India show regional variations in terms of its implementation. In some states, the move towards democratisation of forest management has been negligible, while in some others, it has moved on to the politics of negotiation. In West Bengal and parts of Andhra Pradesh, Madhya Pradesh, and Himachal Pradesh it has gone further, embracing the politics of collaboration through the creation of JFM regimes (Guha 2006, 120-121). Kothari et al. comment in this regard,

> In the Harda forests of central India where JFM is relatively successful, the revenue generated by the village-level protection committees (FPCs) from the sale of grass was calculated to be INR 1,00,000 (US $3,000) in one year...Government agencies and NGOs in many places are exploring possibilities of integrating livelihood options with conservation programmes, including PAs (with appropriate zonation to demarcate areas for use and those which are off-limits). In Rajaji NP, northern India, an area of severe conflict between the FD and local communities, a recent agreement is allowing the harvesting of *bhabbar* grass (for rope making) from within the park, by villagers. In turn, recipients will be forming FPCs...(1998: 34)

1. Conservation in the Nameri Area

According to the local forest villagers, the forest resources in the Nameri area, more precisely the Balipara and Naduar RFs and the present day buffer of the NTR have been undergoing quick depletion since early 1980s. They unequivocally attribute this mainly to the slipshod attitude of the forest officials. A villager of Sopaloga rues:

> We realise that our forest resources are dwindling not only because of indiscriminate use by the people but also because of new encroachments. Forest officials are mainly responsible for not putting strict checks on illegal activities. The rules regulating the use of forest resources during the time of the 'Political *Sahab*' were much stringent compared to present times. Therefore, the scope for encroachment and other illegal activities in the forest was extremely limited.[41]

The NTR today faces serious challenges to its existence as its buffer areas are experiencing large-scale deforestation for cultivable lands, illegal timber trade, illicit boulder mining from the river Jia Bhoroli, poaching, etc. These factors have led to rapid depletion of forest cover, erosion of rich biodiversity, fragmentation and shrinkage of animal habitats, and the near extinction of a variety of rare species of animals. Besides, man-animal conflict has alarmingly increased in recent years. Nearly all deforested tracts in the entire buffer area have been converted to cultivable land. The wild animals often come to the villages in search of food. As already mentioned, herd of elephants ravaging crops and houses are a regular occurrence in the FVs of the Nameri area. A nonagenarian villager from Sopaloga says:

> There were once dense jungles all around our village. The original settlers reclaimed forest lands for agriculture. The jungle was the abode for a large

[41] Gangadhar Das of Gamani FV. Villagers in Sopaloga also share his views.

> numbers of wild animals like elephants, tigers, jackals, etc. People would never go out once it got dark. The fire blazes were kept at the cattle sheds to chase the wild animals away. Even during daytime, the villagers were scared to walk down through *sal bari*[42], which was once a dense jungle. Now, the scenario has totally changed, we see no jungles and tigers. The *sal bari* has been destroyed by the outsiders mainly for timbers.[43]

These incidences manifest tragic cases of man-animal conflicts which have increased manifold in the buffer areas of the park.

> The wild animals often come to the villages in search of food. Elephants ravaging of the standing crops, houses of the people and schools buildings are a regular occurrence in the villages. Significantly, dense forest cover in the Balipara RF which constituted the buffer area of the NTR has diminished over the years. Nameri and its neighbouring areas have seen different phases of changing man-forest interface. A striking instance would show us that if past was marked by people being scared of wild animals then the present is marked by an absence of it. In the month of November 2010, a bear was caught in one of the neighbouring villages. Surprisingly, the villagers killed it and ate.[44]

The unsustainable land-use patterns of the villagers are undeniably responsible for widespread destruction of wildlife habitats. Indeed for the poor forest villagers, 'land' is the basic source of sustenance. Since the conservation measures of the FD are not providing the villagers any benefits, they are afraid of taking the risk of conservation responsibilities. Taking on these responsibilities would only incur loss of livelihoods. In the absence of any alternative livelihood sources, they are seemed to be concerned with economic self-interest of acquiring land for agricultural expansion.

Though, in recent times, a number of conservation measures have been undertaken by the FD, Ecological Task Force (ETF) and other wildlife conservation agencies such as Aaranyak, WWF and EcoSystems-India, these measures still seem far short of the efforts necessary for a sustainable conservation policy in the forests of the Nameri area. Though

---

[42] Large patch of forest plantations containing *Sal* trees (*shorea robusta*) of commercial values which has now been destroyed for timber by the outsiders over the last two decades. Whatever left are only the small plants. This patch of plantation, adjacent to Sopaloga FV is locally known as *Sal Bari*. The villagers recounted that the *Sal Bari* was originally planted by their forefathers as part of their *begar* services to the colonial FD.

[43] Rajani Bhuyan of Sopaloga FV.

[44] In November 2010, Dipak Das (My Field Assistant from Sopaloga FV) introduced me to a villager (Ratul Koch) from Uttar Amloga Revenue Village. The village comprises of a mixed population belonging to Bodo and Assamese communities. During the conversation, I was informed about this tragic incidence which took place in the village.

the study is confined to Sopaloga and Gamani non-tribal FVs, I also made a number of visits to the nearby villages (tribal and non-tribal) to study the opinions of the villagers on issues of conservation. In the following I recount the responses of two old villagers regarding tiger conservation which clearly expresses an average villagers' attitude toward conservation:

> Why do we need tigers? They cause menace in the village, killing our livestock. The FD is taking measure for tiger conservation at our cost. Are we even worse than animals?[45]

Another villager response as follows:

> Forest is important. But for us land for agriculture is more important. We need land for our survival.[46]

Indeed, the area is witnessing increasing cases of man-animal conflict leading to killing of wild animals by villagers and outside poachers. Wild animals straying into the village has become more frequent. Growing man-elephant conflict as mentioned above is another predicament that the area is facing.

2. The Ecological Task Forces (ETFs)

The ETF scheme was launched by the Ministry of Defence, Government of India in 1982. Its primary objective is to restore and save the forest ecosystem through the process of afforestation in order to ensure environmental sustainability. The scheme also serves as a mechanism to rehabilitate the ex-servicemen for productive work and to create employment for retired army personnel mainly in the rural areas. One such unit has been raised in the NTR in April 2007 to check the massive degradation of the ecosystem in the area and to transform the deforested tracts with green cover. Essentially, the strategies of the ETF entail two crucial steps towards conservation: (a) to restore biodiversity through the plantation of 'mixed' varieties of valuable trees; and (b) to maintain ecological balance of forests while ensuring people's livelihood needs.

[45] An elderly person from Tarajan FV.
[46] Rajani Das, *Gaonbura,* Tarajan FV.

The ETF (or the Eastern Planters) is raised in the Nameri area with a noble task of transforming the deforested tracts of forest land with green cover. The strategy is to carry out the 'greening programme' in this particular area in a planned way for a specific time bound period of 5 years. Currently, 260 ex-servicemen of the Indian Army are involved in this eco-restoration task in the NTR. Spread over 560 hectares of forestland, the ETF succeeded in planting more than 6 lakhs different varieties of plants in the last two years from 2007 to 2009. The eco-restoration project is capable of planting 25,000 (approximately) trees per day.[47] However, combinations of a number of factors are posing serious threats to this strategy to strengthen the forest ecology.

The ETF has undertaken the plantations of a variety of medicinal plants as well as fruits-yielding trees which are regarded as the NTFPs and which can be sustainably harvested. The Commanding Officer (CO) of the Nameri ETF maintains that by gathering and selling the NTFPs (fruits like mango, guava, orange, jackfruit, etc.) the local villagers can earn a good income. The emphasis on re-greening landscapes largely concentrates on planting mixed varieties of valuable trees, such as – Gamari, Teak, Ajar, Sal, Arjun, Neem, Nahor, Akesia, Chopa, Bhomora, Simolu, Debodaru, khair, Krishnasura, etc. Besides, a variety of trees are being planted which yield fruits within a short span of time, like, Mango, Jackfruit, Amla, Guava, Orange, etc.

The CO expresses confidence that forests and people can co-exist and appears optimistic about regeneration of biodiversity in the area through the implementation of their 'greening programme'. At the same time, however, he revealed that their unit faces many problems. Firstly, the local villagers' support and participation in this project is minimal. On this, our discussions with the local villagers revealed that they acknowledge the good works done by the ETF but simultaneously are concerned with their land being snatched away by ETF. A villager from Tarajan FV says:

> The ETF is doing a good work. But it started plantations in the areas where we were growing mustard seeds. For us cultivation of mustard seeds used to be an

[47] Interview with the Commanding Officer, ETF, NTR.

> important additional source of income. Now, due to unavailability of such fertile land we are forced to scrap off mustard cultivation completely.[48]

Another villager from Gamani expresses the concerns of the villagers in the following words:

> The FD officials are not responsible towards their duties. They allow outsiders to destroy forests. The widespread encroachments and illegal poaching activities inside the forests by outsiders are glaring examples of this. But we were never allowed to take up more cultivable lands. Some of us had been cultivating mustard on lands lying in the outskirt of Gamani FV. That brought us some extra income. Unfortunately, we were evicted from there with the coming of the ETF...what will we do?...our family members are increasing, how will we suffice our day-to-day livelihood needs? Moreover, we cannot cultivate more than one crop a year due to widespread elephant ravages...the whole year we struggle for our livelihoods. Now, land has become serious problem for us. Since the FD has strictly demarcated its forest boundaries...it is all the more difficult for us to reclaim extra agricultural lands. Other than agriculture we have no alternative ways of earnings.[49]

However, though the local villagers acknowledge the good works of the ETF they are indignant that the ETF has snatched away the land in which they once grew mustard. They are not ready to wait for the 'long-term benefit' the ETF promises them. Secondly, the survival rate of plantations is very poor due to various unsustainable practices and disturbances, such as trespassing or grazing of cattle inside the core plantation area. This shows that the 'greening programme' has not generated the local villagers' confidence and thus it needs to adopt a more 'participatory conservation strategy'.

Notwithstanding, challenges and resistance, the ETF continues to move forward in their efforts to restore forest ecosystem through extensive programmes of afforestation and tree planting. Importantly, the way forward for restoration would depend on the acceptance of the changing perspective on conservation: active efforts to rebuild degraded ecosystem and peoples' participation in the whole endeavour. Ecological restoration of degraded land is now regarded as an effective response to reduce and reverse the negative effects of forest loss, degradation, and fragmentation on native plants and animals. The ETF thus, envisages 'greening' the degraded landscapes in Nameri,

---

[48] Muhidhar Das of Tarajan FV

[49] During a discussion with the villagers in Gamani, they talked about a number of problems that they are facing in the wake of population increase and unavailability of agricultural lands to suffice their livelihood needs. People from the neighbouring FVs also share similar views.

together with ensuring livelihood security, sustainable use of the forest resources and ecological stability.

3. The Coming of the Joint Forest Management (JFM)

In India, the experience with the 'exclusionary model'[50] of forest conservation brought about significant changes in the conventional top-down approach of managing forest conservation programmes in India. The implementation of Forest Policy 1988 brought about a significant break from the past with regard to the use and management of forest areas. The MoEF carried forward the concept of involving local communities in the regeneration of forests and initiated a policy of JFM in June 1990. It states, "(T)he National Forest Policy of 1988 envisages people's involvement in the development and protection of forests...It is one of the essentials of forest management that the forest communities should be motivated to identify themselves with the development and protection of forests from which they derive benefits" (Kothari 2003, 8). This reflects the decentralised means of forest protection whereby FD officials and the local forest dwellers are equal partners in the whole endeavour of forest protection. This shift emphasises facilitating local communities' access to the NTFPs such as firewood, fodder, honey, resins, medicinal herbs, tendu leaves, sal leaves, and other such minor produces. The entire idea behind the propagation of the concept of JFM is to evolve a co-management strategy that would maintain ecological security of forests while ensuring enhanced livelihoods.

The JFM was first initiated in the Midnapur district of West Bengal in the 1980s (Saberwal et al. 2001, 81). Taking into account, the success story of Midnapur, the government of India issued policy instructions to all states to introduce JFM in managing the degenerated forests (Sachchidananda 2004, 135). Today, it covers all states of the country involving people in the protection of forests. But its implementation has shown uneven responses across different states. Despite these rigorous attempts of the government, the JFM has failed to emerge as a more viable and people-friendly model of

[50] It implies a conservation regime which solely believes in protecting forests and wildlife by excluding the local forest-dwellers through fences and fines. But such a conservation move is unrealistic in Indian context where protected areas are inhabited by forest dwellers from ages.

conservation. Guha is of the view that though the system of JFM has embraced 'inclusive and dialogic approach' to conservation, there is abundant room for improvements (2006, 121). The JFM as a concept of mutual trust and jointly defined roles and responsibilities with regard to forest protection and development still faces sharp criticisms. The forest dwellers are still seen to be deprived of their basic rights over livelihood resources. True, to a great extent, local people do not have an adequate voice in the process of decision-making and most of the powers are concentrated in the hands of the FD. The system needs to move to a more democratic structure involving a close working relationship between the FD and the forest dwellers. In this regard Lele states,

> Joint management practice meant control by the FD through its official who was always the secretary of the JFMCs, who controlled the flow of funds, the decisions regarding planting and harvesting, and other aspects...While the government was trying to address the question of people's participation in forest management through JFM, the Supreme Court suddenly got involved in forest governance through the now-famous Godavarman case. (2011: 99)

Here, the question being debated was the scope of the Forest Conservation Act (FCA) 1980. The Act itself considered to be a watershed in forest governance in the country that requires any conversion of forest land to non-forest uses...The Supreme Court passed an order in 12 December, 1996 to rectify the anomaly by stating that the FCA is applicable to "all areas that are forests in the dictionary meaning of the term irrespective of the nature of ownership and classification thereof" (Lele 2007, 2379). However, what followed as a reinterpretation of the scope of the FCA ended up in the court taking over a significant part of the day-to-day forest governance, as it now regulates all forest conversion (Lele 2011, 101) without recognising the traditional rights of the communities inhabiting in forest areas. The decade ahead faced the crisis of forest management, which eventually led to the promulgation of the FRA 2006 in January 2008. The Act is considered to be a landmark piece of legislation in the history of forest governance in India.

3.1 The Implementation of the JFM in Nameri

The emphasis on participatory conservation in Sopaloga and Gamani FVs was first brought to popular attention through the implementation of the JFM scheme. The Government of Assam has implemented the JFM scheme in various PAs of the state according to the Assam Joint (people's participation) Forestry Management Rules, 1998[51]. In 2005, the JFM scheme was launched in the FVs of the Nameri area though this concept was introduced in the Indian forest management in 1988. The JFM envisages the protection and management of forests, in exchange for usufruct rights over forest produce for subsistence.

Soon after the implementation of the JFM, village level committees were set in Sopaloga and Gamani respectively. The committees are known as Joint Forest Management Committees or JFMCs.[52] In both the villages, the constituted JFMCs have undertaken afforestation programmes and other developmental tasks. Most of the poor villagers, including women, work as wage labourers under various JFM schemes. These schemes undertake plantations in the deforested tracts and other developmental activities like renovation of schools, construction of village roads, etc. This provides them an additional source of income apart from agriculture. The prevailing wage rate for both men and women is Rs. 130/- per day which was previously only Rs. 70/-. The same applies more or less to other forest villagers of Assam, tribal and non-tribal (for detail Sarma 2012b).

3.2 The Forest Department versus Forest Villagers

The JFM primarily aims to conserve biodiversity by addressing the livelihood needs of the local villagers. In the context of the Nameri area however, there prevails a wide gap between the official rhetoric on the JFM and its actual implementation. In the FVs of the area, working of the JFM under the supervision of the Chariduar Range Office (Territorial Division of the FD) clearly shows poor coordination between the villagers

[51] Government of Assam Notification, No.FRW.8/93/75

[52] The Joint Forest Management Committee in the village consists of a Member Secretary from the FD, a President from the village, a member from Panchayat or the *Gaonbura*, three men and three women members selected from amongst the villagers.

and the FD. There is little that is 'joint' about the management of the forest. A villager in Sopaloga rues:

> We have not benefited from the JFM scheme. We are not even aware of various plans and programmes of the JFMC. The FD officials are working on their own without our concerns.[53]

Though the JFM envisions a people-oriented programme of sustainable development, it faces sharp criticism from the villagers. The villagers in both FVs resent that the JFM follows a 'top-down approach' in terms of decision-making. They allege that the forest officials always take advantage of their illiteracy and ignorance and that most of the official papers are in English and are never translated. The villagers complain that they are mostly unfamiliar with the objectives and provisions of the JFM and cannot locate themselves in the schemes under the same. The only thing they know is that a JFMC has been constituted in each of the villages in collaboration with the FD to undertake afforestration activities and that they can earn wages by participating in the latter. A villager comments:

> We are illiterate and the foresters always take advantage of our ignorance. Most of the written papers under the JFM are in English. The Ranger comes to the village to show us these papers. Since we do not understand the language, we are unable to comprehend many important issues relating to the JFM. In fact, the foresters do not make an effort to read out and translate for us whatever is written in these papers...We cannot locate ourselves in the plans and strategies undertaken by the JFM Committee. We know that the FD has huge funds for JFM but we do not know how the money is being used. The forest officials are the main actors who take all the decisions without our involvement. It is due to their irresponsibility that none of the plantations has been successful.[54]

The process of participatory conservation in the FVs of the area seems to exist there only in name. In fact, there is reluctance on the part of both the local villagers as well as the FD to sustain and reinforce the process of participatory forest management. Indeed, the key concern of the villagers appears to be getting access to cultivable land. They also appear to be indifferent to take up the responsibilities of stopping illegal felling of trees

---

[53] Kamal Das of Sopaloga FV.

[54] Discussion with Purno Kanta Das of Sopaloga FV. Villagers from Sopaloga, Gamani and other nearby FVs (tribal and non-tribal) too shared same views on the working mechanism of the JFMCs.

and illegal collection of firewood by outsiders. Rather, the villagers often empathise with the small illegal fellers. In a JFM meeting[55] of the villagers with the FD, a villager openly stated that the collection of firewood is a source of survival for many poor villagers from the nearby areas. Most of them are well- known to us. It is therefore difficult for us to stop them. In the meeting, the villagers admitted this:

> Not less than 50-60 bicycles carry firewood on a daily basis. It is a source of survival for many poor villagers from the nearby areas. Most of them are well-known to us. It is therefore difficult for us to stop them. Besides, such actions on our part would only create bad blood between them and us.[56]

Discussions with the villagers brought to light a number of interesting issues that need careful attention. The villagers are mostly unfamiliar with the rules and provisions of JFM and participatory conservation. The forest villagers (except few) seem to be totally ignorant as to what does JFM mean and its objectives. This shows the FD's lack of commitment in strengthening the process of participatory conservation. The new Range officer[57] seems to realise this. He has taken up some steps to ensure greater participation of the villagers in the conservation activities. In the above JFM meeting with the forest villagers, he said:

> Owing to tremendous human pressure on forest lands and expansion of cultivable land, there is scarcity of land in the plain areas for new plantations. The FD and JFMC are now forced to plant trees on the slopes of the hill(s) surrounding the villages. The villagers, however, do not show genuine willingness to participate in the process of conservation. They do not look after the plantations. Once saplings have been planted on a certain tract, nobody (the villagers as well as foresters) would go next time either to see or to clean and water the plants. Thus, one barely sees a good plantation in the last five years. The FD is just an agency. The villagers are the main actors and subject of interest of JFM. It is their forest and the responsibility to protect them also lies with the villagers.[58]

However, whether he would be able to mobilise the villagers and the FD staff toward a more participatory process of conservation is anybody's guess.

---

[55] The meeting was organised by A.K. Dev Choudhury, Ranger, Chariduar Range Office (Territorial Division) in Sopaloga FV on 8 November, 2010. People from three FVs – Sopaloga, Gamani and Eraliloga were present, along with JFMC members and FD officials.

[56] Jiten Basumatary, *Gaonbura,* Eraliloga tribal FV.

[57] A.K. Deb Choudhury, the Range Officer of Chariduar joined the office on 17 September, 2010.

[58] Discussion with the Ranger on 8 November, 2010.

Although the JFM schemes in Assam introduced a variety of 'Entry Point Activities' for community welfare such as road connectivity, drinking water, veterinary care, assistance to schools, health camps, etc. JFM fund, as mentioned above, is also used for renovation of *naamghar*, schools, clubs, village roads, etc. Further, it also stresses on income generating activities for the villagers such as distribution of yarn for loom and sewing machines to the women villagers, training to the youths, plantations of short-term rotation crops like medicinal and aromatic plants, fruit yielding varieties, cane, bamboo,[59] and other such NTFPs with the objective of providing the villagers different alternative livelihood avenues and to ensure their support in FD's conservation efforts. However, all these provisions seem to exist only in papers and not in actual implementation. It seems that many such provisions under the scheme are defunct in these FVs. Many of the villagers in both the FVs are totally unaware of these 'Entry Point Activities' under the JFM scheme. The only thing they know is that major functions of the JFMCs in the villages are to carry out afforestation programmes and few developmental tasks like renovation of schools and *naamghar*.

In these FVs, the activities of JFM are limited to the afforestation tasks. Hence, over the years the FD has not been successful in developing forest villagers' stake at conservation, as most of its schemes are top-heavy and not properly monitored or supported subsequently. The villagers are denied of their voices in the decision-making process as discussed above. The conflict of interests, however, has made the participatory conservation initiatives weak in some fundamental aspects.

Mere implementation of policies would not suffice the needs of conservation, there is a need for greater cooperation and dialogues between the communities and the FD officials and effective information flow. In short, there is an urgent need for a complete bottom-up approach to conservation, where the communities will have a voice in decision-making. This would not only help to get the communities into good faith but also make them equally accountable to conservation responsibilities.

[59] An Overview of Joint Forest Management in Assam (2005-06), Director, Forest Communication, Forest Department, Assam.

4. Eco-tourism in Nameri

The recent conservation paradigm shows much enthusiasm about the prospects of Eco-tourism in the PAs. The concept itself is new, since it is basically another term for 'nature' tourism. However, the significance of Eco-tourism has increased, as every PA in the country has opened up avenues for Eco-tourism. It is also considered a key source of earnings for the government and the PAs, and a vital source of economic incentives for people living in or around the conservation area. Furthermore, Eco-tourism initiatives are believed to increase the environmental and cultural sensitivity of incoming tourists (Ghimire and Pimbert 2006, 27).

Eco-tourism has considerably developed in Nameri forests over the last two decades. The Eco-Camp, an accommodation facility in a natural wilderness setting, located at Potasali is just outside the core area of the park. The camp and the Range Office of the Wildlife Division are located close to each other. The NGO -- Assam (Bhoroli) Angling and Conservation Association -- manages the camp. The camp attracts many tourists. The camp is surrounded by FVs in all three sides -- Tarajan, Potasali and Dharikati and river Jia Bhoroli flows by on its west (Management Plan of Nameri Tiger Reserve 2003-04 to 2007-08).

The core area provides a walking trail for the tourist to observe wildlife. However, elephant riding inside the park to enjoy the wilderness experience is absent. The rafting down the river Jia Bhoroli gives a unique experience to the tourist. The stretch of rafting is about 20 kms upstream from 16 Mile to Potasali camp. The regulated angling is also permitted for research and education on catch, record and release basis in the river Jia Bhoroli within the stretch from 16 Mile point to Potasali bank during the period spanning from 1 November to 31 March. The rush of tourists is high during the open season (October to end of April) and both foreign and local tourists visit the PA (Management Plan of Nameri Tiger Reserve 2003-04 to 2007-08).

The Eco-Camp has generated employment opportunities to some local youths from nearby villages of Potasali, Dharikati and Tarajan. These local villagers are earning their livelihoods by way of engaging themselves in various tasks at the Eco-Camp. However,

the villagers are not very happy with the situation. Although huge sums of money have been spent on Eco-tourism, it has not brought any significant benefit to the villagers. Discussions with the nearby forest villagers revealed their unhappiness with the whole project of 'Eco-tourism' in Nameri. Dilip Das, a villager from Tarajan FV laments:

> Eco-camp in anyway is not helping us (the villagers). It is true that some of the local youths are employed at the Eco-Camp. They are from Dharikati and Potasali FVs. The wage they get is meager. We are poor, but we pay much better to the daily labourers we engage especially during the harvest time.

The road to the Eco-Camp passes through Tarajan FV which is in dilapidated conditions due to constant movements of vehicles to the camp. Over the years, the authorities have made no efforts to repair it and they seemed to be quite indifferent to the problems of the local villagers. As a villager expresses his views:

> Our village road that connects the Eco-Camp is mainly used by tourists and people from the Camp. Daily more than fifty vehicles use this road during the peak season. Yet, the Camp authorities are not doing anything to repair this road. We face the hardship, especially during the rainy seasons...when to walk through the road becomes impossible. This road which was earlier used freely by us...our children used to play...now vehicles' movements have stopped these activities. They are earning huge amounts at our costs. Moreover, the natural environ of our FVs has also undergone changes over the years due to the increase in external human flow.[60]

It seems that the earnings from tourism activities are never utilised for community development. The villagers in Tarajan non-tribal FV expressed that Eco-tourism (locally called Eco-Camp) is not helping in the development of the entire area. They are also of the opinion that the Eco-Camp authorities are making money at the cost of these villages.

The Eco-Camp has now become a centre of attraction for a large number of city dwellers who go in search of untamed nature. Growing numbers of tourists from varied sections of society and many of whom are not necessarily nature lovers have already left some adverse impact on the pristine natural surroundings. It is evident that the activities of the Eco-Camp are neither benefiting the villagers nor in the development of the nearby areas.

[60] Mohidhar Das of Tarajan FV.

Eco-tourism has also not been able to mobilise any kind of effective community based Conservation in the Nameri area. It has not yet developed any healthy economic prospects for the local youths. However, the local communities being the primary stakeholders, without their support conservation is unthinkable. In India, there has been a growing realisation that tourism and its allied activities can generate substantial employment opportunities for the communities. Kothari et al. observe that the conservationists who are against exploitation of resources from within PAs are open to the idea of tourism being one potential way of returning benefits to local people. For instance, in Khunjarab NP in Pakistan, 80 per cent of new employment opportunities are reserved for local people. In India, at Keoladeo and Corbett NPs, local youths are employed as wildlife guides after training (1998, 34-35). A project of this nature has been implemented in the Annapurna Conservation Area of Nepal. This area attracts tourists from all over the world. The project has been attempted to focus particularly on increasing local benefits through tourism, and conserving the fragile ecosystem at the same time. Several activities such as introduction of fuel wood saving technology, basic health services to local community and training of local enterprises in tourism have been carried out (Ibid, 272).

The Eco-tourism project has failed to develop itself as a people-friendly conservation strategy in Nameri. It is quite unsuccessful in generating local support so far. As pointed out above, local villagers seem to be hostile towards this move. This calls for an effort on the part of the concerned agencies (state, FD and NGOs) to integrate the activities of Eco-tourism in the area with the livelihood needs of the community informed by an idea of equitable sharing of benefits.

5. People's Stake and Participation in Conservation

There is a growing recognition to strengthen participatory forest conservation in Assam. However, the top-down official approach to conservation has failed to yield success in conserving forest and its resources in Nameri. The system of JFM has opened up avenues for devolving sustainable resource control to local communities while ensuring conservation responsibility and accountability. Although, the village-level committees have been set up under the JFM, the overall management of the conservation remains

20. A view of the periphery of Sotai forest village

21. A traditional house of a Mishing family in Sotai

22. Deforested Sal forest *(Sal Bari)* in the buffer area near Eraliloga forest village

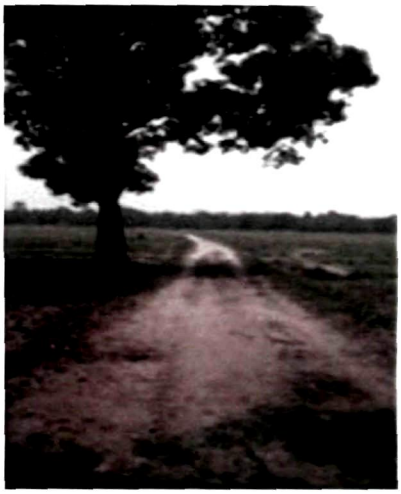
23. Outsiders ferrying out firewood from the buffer areas

24. A plantation in Gamani undertaken by the ETF

25. A nursery of the Forest Department

26. The JFMC Meeting held on 8 November 2010 in Sopaloga is in progress

27. A section of the participants in the Meeting



28. A *kuchcha* constructed by the villagers in Sopaloga under the JFM Scheme

29. The entrance to the Nameri National Park

30. The gate of the Eco-Camp, Potasali

31. A part of the now defunct Chariduar Cotton Mill

32. The erstwhile the defunct Cotton Mill now turned into a camp of a Central Reserve Police Force

exclusively in the hands of the FD as already mentioned. There are no changes in the conventional top-heavy institutional structures (Saberwal et al. 2001, 94) in managing conservation programmes in Nameri.

Conservation in the Nameri area shows little or no meaningful participation of the forest dwellers. As such the state and the FD show unwillingness to improve the system of participatory forest management in Nameri or elsewhere in the state. Since the forest dwellers are ignorant and illiterate, the responsibility falls on the state and its forest administration to make them aware and conscious about various conservation measures. This seems to be at the root of the failure of various conservation programmes implemented by the state to evoke good response from the villagers. The villagers have a lot of apprehensions about the entire notion of participatory forest management. The information flow between the villagers and the Department also appears to be poor. It seems that just for the sake of implementing a particular scheme, the foresters impose the same on the villagers without prior notifications or proper awareness campaigns. The response of a forest official to the attitude of the villagers is as follows:

> These villagers have destroyed forests for cultivable lands. As the family members are increasing, most of the villagers have cleared more forests for agricultural land to suffice the needs of the growing populations. Now, realising the fact that the forest cover is fast depleting due to extension of cultivable land, strict checks are being imposed by the department to stop such activities. These villagers own cultivable land over and above the official limit, which is 15 *bighas* per family. The land where the ETF is now planting trees was also under encroachment by some of the villagers, where they started cultivation. They were evicted from that site. If no limits to the amount of landholdings are set, soon there will be no forests. The villagers do not understand the importance of protecting forests, which is why they never cooperate with us.[61]

On the other hand, the villagers are hostile and indifferent towards the official forest conservation initiatives. Molan Koch, a nonagenarian from Gamani FV laments:

> During the time of the 'Political Rule', the villagers had rendered *begar* services to the colonial FD and in return we were allowed to collect straw, thatch, cane, bamboo, firewood from the forest. Till two-three decades back, collection of minor products from the forest for our day-to-day requirements was possible. Now, forest has nothing for us, no thatch, bamboo, cane, etc. We buy thatch and

[61] Discussions with A.K. Dev Choudhury, Ranger, Chariduar Range Office.

> timber from outsiders to build and maintain our houses. The 'jungle' is no more ours. The 'jungle' has become an enclosure for animals. Nobody is allowed to trespass.

Another villager from Sopaloga FV says:

> Now, we work in the plantations under JFM and FD, but we are paid very less, that do not suffice our needs. Few years back, some of the villagers had occupied cultivable land outside the villages to produce more. That too, has been snatched away from us for plantations by ETF and FD. Above all, since we do not have land *pattas*, we cannot avail government loans to start any business. Other than agriculture, we have no alternative livelihood sources.[62]

The concerns of the FD as captured in the above narrative cannot be denied. At the same time, it largely depends on the strategies of the FD to sensitise the villagers about the importance of conservation and to create alternative livelihood options for them.

Moreover, the new encroachments on forest lands by the outsiders, mainly the Bodo tribal migrants, are also a cause for concern for the non-tribal forest villagers. There is resentment among them that though they put their effort in forest conservation, the FD is totally indifferent to the massive Bodo encroachment that has taken place in recent times in the buffer areas of the NTR. This also seems to have dampened their spirit in conservation. A group of villagers expressed their indignation thus:

> Large chunks of forest covers have been destroyed by the Bodo encroachers. Twelve Mile and Balijuli areas are completely shorn of any forest cover due to such encroachments in the last 15 years. These deforested tracts have been converted to human settlements and cultivable lands. They are involved in illegal activities such as catching of fish from the river Jia Bhoroli, felling of trees, etc from the national park area.[63]

This is a situation which applies to many other reserves of the north bank of Assam which have been made a special target by the leadership of the Bodo homeland movement for creating a contiguous Bodo habitat.

---

[62] Discussion with Gope Koch.

[63] Gunaram, the village headman (*gaonbura*) of Sopaloga raised his concern regarding huge influx of new encroachers and dwindling forest cover. Other villagers also showed the same concern.

6. Employment

The villagers suffer from lack of employment avenues other than agriculture. Agricultural expansion in the buffer areas has also reached its saturation point. They complain that despite plenty of employment opportunities, they are being deprived of these by the government. The village youths who belong to able-bodied workforce are now unemployed. The problem of unemployment is a major concern among the youths. These poor villagers do not have enough capital to start any businesses for income earnings. In this regard, a young villager shows his concerns as follows:

> Unemployment is the major problem that the village youths are facing today. We do work in the plantations under the FD and the JFM but the schemes do not provide us employment avenues all throughout the year. There is hardly any village youths who are engaged in government jobs. Most of the time, we sit idle. The agricultural peak seasons are hectic for us, since we work in the fields during the daytime and spend the whole night in the *tangi-ghars* to chase away the herd of wild elephants. This way we do help our senior member in households. We are also members of SHGs in the village, the groups members earn by working as agricultural wage labourers during harvesting.[64]

There are hardly any youths in both the villages who are engaged in government jobs. A few are working as Primary school teacher and Siksha Mitra under Sarva Siksha Abhiyan of the government of Assam. During the peak season, the village youths work in their agricultural fields and during the off season they are mostly engaged as wage labourers in the plantations under the FD, the JFM and MGNREG schemes. Some of the villagers are given loans under the *Kalpataru Scheme* of the state government to start small businesses in livestock (example, piggery, poultry, diary, small grocery shops, etc) to earn income/livelihood. Under the scheme, villagers below 35 years of age can apply for a loan. They complain that the loan of Rs. 7500/- is not enough to start any business. Therefore, they invest the money mainly in agriculture. On this most of the villagers express:

> Some of the village youths have received loans under the *Kalpataru Scheme* of the government, but the amount is too less to start any business. We are poor and have no accumulated capital...it is extremely difficult for us to do something

[64] Discussion with Dimbeswar Das of Sopaloga FV. Other unemployed youths Munindra Das, Nijan Das, Hiranya Bora, Prafulla Das of Gamani FV also shared his view.

> constructive with the loan. Usually, we invest the amount in agriculture with a view to get better in return.[65]

It is also to be noted that the villagers have little capital to start businesses and lack adequate know-how about investments and market linkages.

Life for the villagers in the FVs is a harsh struggle for survival. Mostly people are only able to harvest one crop a year (mainly paddy), because of elephant raids in the paddy fields. When all the villagers grow and harvest crops at the same time, together they are able to provide maximum protection to their crops against elephant ravages. It is clear that the lack of alternative avenues of livelihood/income has forced many villagers to indulge in activities which pose threat to the forest. Many of the local youths are involved in illegal timber felling under the patronage of the timber traders from outside[66]. The job pays little to the youths in comparison to the risk it involves. Yet, they do it to earn at least something. On this issue, a poor villager from Gamani FV rues:

> We do not want to destroy our forests...we know forest covers have reduced over the years. But some of us get engaged in illegal felling of tress only for livelihood. The growing livelihood insecurities compelled us to get indulged in illegal activities...for instance timber felling.[67]

It is felt that generating alternative sources of livelihood can significantly bring down such practices. It may be mentioned that ever since the neighbouring Chariduar Cotton Mill was shut down in 2001, many people from the nearby forest villages became jobless who found employment, direct or indirect, because of the mill. Local people maintain that the closure of the mill has had a direct bearing on the increasing illegal activities in the forest.

> With the closure of the Cotton Mill, many villagers became jobless. Not only villagers from Gamani and Sopaloga were engaged in the Mill, but there were also numbers of villagers from the surrounding areas. Now, agriculture has become the only source of livelihood for us...whatever we produce...a major portion of it, we keep for our domestic consumption and rest we sell at the weekly *haat* in order to fulfill our day-to-day requirements. Most of us also work as wage labourers in the plantations under the FD and the JFM for additional

---

[65] Discussions with some of the loan recipients in Sopaloga and Gamani FVs.

[66] During one of the discussions in Sopaloga, the village *gaonbura* raised this concern. He is of the opinion that the generation of employment opportunities for the youths in particular can bring a halt to such illegal practices.

[67] Discussion with Giridhar Bora

> income. There are some families who can barely manage to grow paddy for self consumption. There are still others who are landless.[68]

7. Interface between Forest Villagers and Forest Department

It is pertinent to mention that the relationship between the forest villagers and FD in Nameri is relatively less antagonistic unlike many other forest areas in Assam or in other parts of the country. Sachchidananda (2004) writes extensively on the conditions of forest dwellers, based on fieldwork conducted in four states of middle India, viz., Orissa, Madhya Pradesh, Chhattisgarh and Jharkhand. He tries to delineate the impact of forest laws on livelihood system and the culture of the tribals living in these areas. The above mentioned states have highest concentrations of indigenous populations or forest dwellers dependent mainly on forest products for sustenance. The forest policies have virtually curtailed their traditional access over the forests. In Jharkhand, forest has become a major issue of contention due to commercial exploitation of forest resources, ecological degradation, tribal unrest, and so on.

The phenomena of conflict and clashes between the tribals and the FD took place as the forest policies and developmental programmes were against the interests of the tribals. For instance, certain actions of the government went against the interest of the tribals and led to worsening of their living conditions. The FD Corporation and the State Tribal Co-operative Development Corporation took over the trading in all the Minor Forest Products (MFPs) such as tendu leaves, kusum, palas, mahua, amla, lac, tassar, chironji, etc. The tribal forest dwelling communities are denied minimum wage fixed by the government. The women are also discriminated in wage payment. The tribals have the customary rights to collect the MFPs, but marketing is the main problem for them. They have to sell MFPs at cheaper rates. Moreover, there is lack of processing and storage units for the MFPs (Sachchidananda 2004).

The attitude of the forest officials towards tribal inhabitants has not been friendly. The forest officials harass and exploit them. Often the forest guards forcibly take away their grains, chicken, vegetables, and even money. Moreover, the tribals do not get any help

[68] Tularam Das of Sopaloga FV.

from the forest officials. The customary rights of the tribals are routinely misinterpreted by the officials. The tribals report that officials always assert that forest is property of government and that they have no rights in it. Now, these kinds of exploitations have reduced in some areas due to active engagement of the NGOs (For details see Sachchidananda 2004, 156).

On the contrary, the situation in the FVs of Nameri is somewhat different. Since the entire area has a distinct ecological history as already discussed, the nature of friction between the dwellers and the foresters is also at variance with the all India perspective. There exists latent conflict of interests between the villagers and the FD. The villagers' resentment and disregard for the FD persists because of the FD's inability to convert these FVs into RVs. It also stems out of villagers' need for more agriculture land as the existing landholdings are becoming insufficient to feed the growing family members. They are more concerned about their subsistence needs than that of forest conservation. The FD's resentment on the other hand, is over the issue of villagers' lack of active participation in conservation programmes. The present land-use practices of the villagers have resulted in large-scale degradation of forest lands for agriculture.

But the FD never interferes into the day-to-day activities and affairs, the villagers are free to carry on with their routine tasks. Moreover, there have been no such recorded cases of serious harassment and exploitation of the forest villagers by the FD officials. The Ranger, Chariduar Range Office (Territorial Division of the FD) visits these villages from time to time and whenever called upon by the villagers. The villagers are of the view that being the forest villagers they also avail certain benefits such as:

(a) the FD has distributed 1 or 2 search lights to every FVs (both tribal and non-tribal) to chase away herds of elephants at night, especially during the months of harvest. If required, the officials also come to help them whenever they are called upon;
(b) the annual fees (or *Khajana)* on the land is very less (Rs. 30/- for 10 *bigha* per annum). They pay *Khajana* amount only on the agricultural land (*Rupit mati*) and the homestead land (*Bari mati*) is free;

(c) collection of firewood from the forest for day-to-day requirements. They are also allowed to collect sufficient amount of firewood for occasions such as marriage and festivals, with prior permission from the Ranger;
(d) under the JFM scheme, poor villagers earn supplementary income by working as daily wage labourers in the plantations, although the amount is not sufficient for a decent living;
(e) the FD provides free vaccination to livestock in the villages. It also organises free health check-up camps for the villagers every year;
(f) it intervenes and helps the villagers in matters of quarrels and conflicts;

It is important to note that the prevailing situation in the FVs of Nameri does not necessarily resemble other FVs in the state in all respects. In some reserves such as Doyang and Tengani, the forest dwellers have faced intensive eviction drives from time to time. As noted earlier in the Chapter Two, unlike the FVs in the Nameri area, these reserves have seen much larger and too many waves of flood and erosion affected peasants migration from different parts of upper and lower Assam. The government's move to evict these native landless peasants have resulted in a number of protests and peasant mobilisations, the most prominent is the one led by KMSS in recent period. KMSS demands rights over land and livelihood security for the forest dwelling indigenous peasants. But the FVs in Nameri have not seen any kind of strong peasant mobilisations. Presently, Doyang and Tengani reserves are devoid of any forest cover. They are completely converted into human settlements and agricultural fields. The NTR has not yet faced these challenges, as the core area of the reserve (that is, the NNP) has a good forest cover and it is protected. Unfortunately, the forest cover in the entire buffer area of the NTR has diminished due to growing anthropogenic pressures as discussed earlier. Growing livelihood insecurities among the forest villagers have also compelled them to reclaim more forest land for agrarian expansion. Besides, new encroachment, illegal boulder mining, timber extraction, etc are also contributing to the progressive depletion of the forest cover in the buffer areas. The pressure on forests of Nameri is bound to increase in near future if these unsustainable practices are not curbed immediately.

The administration of the FD in Nameri has been largely a unilateral affair without any meaningful participation of the local villagers. As discussed above, the crisis of conservation in the Nameri area, and indeed in other PAs of the state, today stems mainly from the exclusionary and unilateral nature of the present conservation regime that have failed to recognise the livelihood needs of the forest villagers. For long, the government sought to conserve the PAs by ignoring both the local specificities and the survival needs of the local forest villagers. That is why, these policies have also failed to develop latter's stake in conservation who feel that the FD has only snatched away their agricultural lands in the name of conservation.

8. The Role of NGOs in Conservation

NGOs have been working in various PAs of the country with major focus on creating mass awareness for an overall development of the society at large. A scholar comments,

> NGOs have taken up many issues relating to ecology and environment, safeguarding natural resources, protection of human rights, exploitation and oppression, economic backwardness, ill-health and women's issues...In the beginning when FD had started functioning, there was little participation of NGOs in the forestry works...The need for NGOs was felt when JFM programme was started...Now many NGOs have been working with the FD. Ministry of Environment and Forests (MoEF) also encouraged many NGOs in the forestry works. In many States, NGOs have been playing a vital role in the collection and marketing of Minor Forest Produce. Madhya Pradesh is the good example. In Karnataka, progress has been made in promoting a working relationship between the various government departments and the voluntary agencies in the areas of Social Forestry and Wasteland Development for meeting the basic needs of the rural people, such as fodder, fuel, small timber and fruits and also raw materials required for rural artisan. (Sachchidananda 2004: 194-195)

In Nameri, the NGOs which have worked or are working with different focus mainly are: Aaranyak, World Wildlife Fund for Nature (WWF), EcoSystem-India, and Kalpavrish. It is seen that most of these NGOs engaged in conservation confine their efforts only to the core forest area. They are not generally seen to have engaged with the local villagers. Often the works of the NGOs do seem to only replicate the role of the FD. It seems that the NGOs' conservation strategies must also incorporate a community sensitisation component so that their efforts bring dividend in the long run. In this context, it may be mentioned that Aaranyak, a leading environmental NGO of Assam, while implementing a

tiger conservation-related programme during 2007-08 incorporated such a community sensitisation component under which it organised a number of environmental awareness campaigns and livelihood training programmes in the FVs of Nameri as well as in the neighbouring areas. Kalpavriksh has not been directly involved with the forest villagers, but has carried out small studies on the implementation of the FRA 2006 in NNP and nearby Sonai Rupai Wildlife Sanctuary in 2009.

Dulong Ajon Samajik Kendra (DASK) is a local NGO. WWF and EcoSystems-India are mainly concerned with wildlife conservation. DASK, located in Dharikati tribal FV is doing some pioneering work in the area. It mainly focuses on awareness building and imparting trainings on alternative livelihood options. It has an interesting goal behind its establishment. On 28 January 1999, a small health center was started by North-East Network[69] in Paleng Gaon adjacent to Dharikati. This center, though small, catered to the needs of the nearby villagers. In 2004 Anita Bhande visited the park as a tourist from Belgium. Through her interactions with the villagers, she found that the villagers in the area were ignorant and majority of them suffered from malaria. She had upgraded this small health center to provide good health care facilities as well as create awareness among the villagers.

Since 2007 DASK has been organising and conducting awareness campaigns in different villages with different targeted groups of people. It not only works in the FVs and Revenue Villages of the Nameri area, but also outside it. It works in the fields of community health and sanitation, environment and forests, women and children, training for farmers, training to SHGs, training to ASHA, horticulture (herbal gardening, nursery development, mushroom cultivation, etc.), weaving, dairying, poultry, among many others. It has also taken up a large numbers of Government Project mainly on health and sanitation funded by Department of Public Health and AIDS Control Society, Government of Assam.

It is observed that the villagers actively participate in some of these training programmes. However, they rarely choose these livelihood options. This may be attributed to the fact

[69] A women's rights organisation, working in the North-East India.

that the villagers feel somewhat uncertain and insecure to shift to a different source of livelihood from agriculture. It appears that the villagers are not much conscious of their unsustainable land-use practices that would result in severe land and ecological crisis in the coming years. Mere conducting of training programmes therefore will not serve the purpose. More follow-up programmes to support the villagers' need are to be undertaken as a coordinated effort among the FD, NGOs, and the civil administration.

9. Official Apathy

It is clearly evident from the field experiences in the FVs of the Nameri area that the practices of conservation in Assam have shown little concerns for the livelihood security of the forest dwellers. This has led to undermining of the state initiated conservation measures by the forest villagers. In this context, it is important to understand the official discourses on conservation in the state. During the fieldwork, the discussions were carried out with the officials at different levels: the top FD bureaucrats, Rangers, and other staffs. Amazingly, even the top FD bureaucrats appeared to be ignorant about various issues of conservation in the state. Saberwal et al. in this regard rightly contend that there are no formal or systematic ways of learning and information percolation through the departmental hierarchies (2001, 77). The opinions reflected their reluctance to devolve conservation responsibilities to the local communities. This attitude of the officials has hindered its true conservation goals and generating communities' support. The FD's desire to maintain old mechanism of control (Baviskar 2003, 286) acts as strong disincentives for the communities to develop their stake at conservation. For instance, the working strategies of the JFM in the FVs of Nameri (or in other areas of the state) clearly points to the fact that the entire programme has been reduced to only afforestration activities. The information from the forest villagers apparently shows that the JFM has become just a means to earn wages. These illiterate villagers are hardly informed about the provisions under the scheme. It is always the FD officials who play major role in the process of decision-making with minimal level of communities' involvement in conservation. The JFM which is actually supposed to be a way of making local communities equal partners in forest conservation has rather created conflict and mistrust between the FD and local communities. Moreover, the JFMCs so constituted in

the FVs of Nameri have remained defunct in terms of organising regular meetings and monitoring activities. Implementation of the schemes essentially continues to remain in the hands of the FD without proper devolution of responsibilities to the local communities. Thus, the true spirit of the JFM has largely been subverted by the FD. Moreover, the FD officials (barring few) are seen to be mostly ignorant about the crucial provisions of the FRA 2006. They interpret the Act in their own ways which is often arbitrary. The Chapter Five discusses the Act in detail.

The failure of state initiated conservation programmes in Nameri may be attributed to several factors such as: (a) lack of dialogues and coordination between various agencies like, the FD, NGOs and the local forest villagers; (b) the top-down conservation approach of the state in deciding how the forests are to be governed, how the forest lands are to be used, etc; (c) weak knowledge-base of the FD officials regarding the provisions of various Acts and policies and the conservation spirit behind them; (d) state's indifference towards the needs and aspirations of the forest villagers.

The FD fails to generate local support and to make them primary stakeholders in the entire endeavour of forest conservation. It seems that the FD concentrates most of the powers into its hand rather than devolving it to the communities. It is apprehensive that surrender of its power would result in loss of augmented benefits and control over the conservation regime. The communities and the park are thus become the subjects of state control (Kothari et al. 1998).

10. Other Administrative Problems and Impact of Insurgency in Nameri

The NTR and its surrounding areas are affected mainly by insurgent activities of the National Democratic Front of Bodoland (NDFB), a Bodo militant group. During the hayday of Bodo statehood Movement in Assam in the 1990s, the NDFB militants took shelter in the forested areas in various parts of the state causing large-scale destruction of forest resources. The buffer areas of NTR also have been seriously affected by their activities. The militants sometimes forced the villagers for food and shelter. Most of the tribal inhabitants were afraid of them and supported them out of fear. Their disturbances were more concentrated in the Bodo inhabited areas such as 12 Mile, Koilajuli, Bogijuli

tribal FV[70], etc. However, the implications of such militant disturbances have affected the rest of Nameri area till the recent times.

The discussions with various focus groups[71] on the issue also reveal that the militant activities have created problems in the proper and effective administration of the FD mainly in the Bodo inhabited areas. The FD is unable to execute the forest laws and evict the encroachers in the 12 Mile and Balijuli areas. Even in the Bogijuli FV, the FD has been unable to execute any such laws. The Ranger rues that the extremist activities have resulted in rampant exploitation of natural resources in the forests of Nameri. These militants are allegedly involved in illegal timber trading in nexus with the timber traders from outside the area. Their activities have also instigated the local Bodo youths to indulge in illegal activities. In spite of being conscious of all the illegal activities, the police and the FD do not intervene in these areas fearing retaliation on forest officials, guards and other patrol parties. The FD neither has any effective control over these areas nor are they capable of setting set up any forest camp and conducting patrolling duties.

These tensions in Nameri have made it difficult for the FD to run its administration effectively. The government also has not taken any steps necessary to curb various illegal activities in and around the park. On the other hand, the FD has not been able to address the concerns of the forest villagers in order to ensure their participation in matters of conservation. Most of the initiatives of the FD are clearly result of a top down approach. As a result, widespread indifference as well as disgruntlement is extant among the forest villagers toward the conservation initiatives of the state posing serious challenge to the ecological landscape of the area in the near future.

[70] Bogijuli tribal FV consists of a majority of Bodo and a small Assamese population.
[71] Discussions with the Ranger A.K. Dev Choudhury, Chariduar Range Office (Territorial Division) and some villagers in Gamani and Sopaloga FVs.

CHAPTER FIVE

THE FOREST RIGHTS ACT 2006 AND THE FOREST DWELLERS OF NAMERI AREA

1. Introduction

This Chapter makes an assessment of the implementation of The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006, briefly known as FRA 2006, in the FVs of Nameri area in particular and Assam in general. Although the Act is hailed as a historic piece of legislation for the restoration of traditional rights of the forest dwelling communities in India, it has attracted serious contestations regarding its potential implications in Assam. No doubt that the Act has a sensitive approach and a broader framework for recognising the long denied rights of the forest dwelling communities. However, certain definitional problems in the Act have raised questions and concerns about its prospects in the state and indeed in many other areas of India. The Act has been criticised for being too much informed by the central and eastern Indian experiences to the exception of experience in other regions.

The FRA 2006 came into force on 1 January 2008 after a long sustained struggle by forest dwellers and forest rights activists for justice and restoration of traditional rights over forests (Upadhaya 2009; Aiyar 2008, 5-6; Kothari 2008, 138; Ramakrishnan 2008, 4). Crucially, the Act for the first time acknowledged the 'historic injustice' done to the tribals and other forest dwelling communities (Kothari 2008, 138; Updahyay 2008, 14). Most of the customary rights of the local communities were ignored at the time of declaring many forests in the country as PAs initially by the colonial government and later by the post-colonial Indian state (Aiyar 2008, 5). In India, the failure of the 'exclusionary model' of forest conservation through the creation of 'people free zone' in and around the PAs has eventually resulted in the promulgation of the Act.

Chapter Two has discussed the ecological and social crisis resulting from the exclusionary conservation policies in the country. It explained how the exclusionary

policies of the state during both colonial and post-colonial periods displaced a large number of forest dwellers from their livelihood resources. These policies which always treated the forests as an 'isolated entity' have severely curtailed the access of the traditional forest dwellers to the CPRs for livelihood. The result of this dilution of rights has caused severe hardships for these communities resulting in alienation from their forests and outright hostility towards state-initiated conservation measures (Kothari et al. 1998, 49). As a result, the communities living in and around forest areas for ages have become strangers in their own habitat. Importantly, going strictly by the provisions of various forest Acts in independent India, their status in the forest land have become similar to that of encroachers, since they do not possess any legal documents to prove their rights on the forest land. State monopoly control over the forests has caused serious discontentment among the forest dwellers (Aiyar 2008, 5-6).

In that context, the implementation of the FRA 2006 is seen by many as a saviour of forest dwelling communities and is hailed as a historic endeavour to 'undo' the wrongs committed against them, providing rights to land and resources within the forests. This Act has been described as a significant piece of legislation for it goes beyond the 'exclusivist view'.[72] Nonetheless, right from the promulgation of this Act, it has been facing a lot of contestations centering round a range of its positive and negative impacts (Kothari 2008, 138). Noticeably, a number of questions could be raised about the efficacy of this 'landmark legislation' as to what extent the Act would succeed in bringing about democracy in India's forest governance and how far the Act will be able to bring about a halt to the indiscriminate destruction of the forest resources and make the forest dwellers genuine partners in conservation.

In such a backdrop, this Chapter makes an attempt to understand the significance of various provisions of the Act and its implications in Assam through the study of the experiences in the FVs of Nameri. The Chapter first recounts the process of implementing the FRA in the FVs (especially the non-tribals FVs) in Nameri and

[72] It implies a conservation regime which solely believes in protecting forests and wildlife by excluding the local forest dwellers through fences and fines. But such a conservation move has been criticized as unrealistic in Indian context where protected areas have been inhabited by forest dwellers for ages.

responses of the people and FD to the Act. The experience in Nameri is then sought to be understood in the larger context of Assam. It explicates the different social, official and political voices and positions that have unfolded in response to the FRA and the challenges that its implementation is faced with in the state.

2. Rights over Land and the FRA 2006 in the Forest Villages of Nameri

The promulgation of the FRA 2006 created new possibilities of entitlements in so far as the rights of the forest dwelling communities on their land and forest are concerned. The Act broadly aims to recognise and vest the forest rights and occupation in forest land in the forest dwelling Scheduled Tribes and Other Traditional Forest Dwellers who have been residing in such forests for generations but whose rights could not be recorded (Upadhyay 2009). One of the most significant provisions of the FRA recognises the "rights of settlement and conversion of all forest villages, old habitation unsurveyed villages and other villages in forest, whether recorded, notified, or not, into revenue villages."[73]

The Act brought new rays of hope to the villagers of Sopaloga, Gamani and other FVs in Nameri when initiatives for its implementation in the area were undertaken in December 2008. The information on this new legislation reached the villagers through their former local MLA[74] who distributed the copies of the Act in Assamese. The villagers were happy that the Act would provide them permanent *pattas* on their land and that they would no longer have to live under the control of the FD. Locally, the FRA came to be known as *Mati Patta Aain* (Law for Land Rights). The villagers in Sopaloga and Gamani expressed that they wanted revenue land. Being FVs deprived them of many benefits of government developmental programmes. They complained that in the absence of any official documents confirming their rights over land they could not obtain bank loan to start off any business (for details on the implementation of the FRA in Assam, see Sarma 2012b).

[73] Section 3 (h) of FRA
[74] Paneswar Basumatary

As per the Act, along with other FVs in the Nameri area, Forest Rights Committees (FRCs -- *Bon Adhikar Samitis*) were constituted in Sopaloga and Gamani, and the claimants were asked to pay Rs. 50/- as a fee for claims verification process and to meet the material costs. The villagers readily paid the amount. For them what lied ahead was more important. The FRCs in both villages laid down the procedures for the recognition and settlement of rights of the villagers. It consisted of 15 members selected from amongst the local villagers. The Assam government had fixed 28 February 2009 as a deadline to submit all claims under the FRA. Later, it was extended to 7 April 2009. The process of submission of claims was carried out with great enthusiasm in Sopaloga and Gamani. The FRCs' meetings were held in the villages in the early part of January 2009. Owing to the villagers' unfamiliarity with the claims process, a lot of confusion occurred during the verification process. It was found that the claimants were required to submit maps showing amount of their landholdings along with claim forms. Finally, the FRCs could accumulate claim forms from all the villagers in the first week of April 2009 (Bose 2009). A villager from Sopaloga FV who spearheaded the process of submission of claims comments:

> Many of us worked hard since the time *Mati Patta Aain* has been implemented in Sopaloga. We contributed money to form the FRC in our village...members were selected from amongst the villagers and the committee was formed. As per the Act, all claimants were required to submit maps showing amount of landholdings along with claim forms. Since our villagers are mostly unfamiliar with the entire claim process, I prepared maps showing the amount of landholdings for each and every family and helped most villagers to fill up the forms...[75]

However, at the time of submission, the forest officials declared that Sopaloga and Gamani FVs had not yet completed 75 years and thus were ineligible to get the benefit under the FRA[76]. Though the FRA makes provision for the recognition of the existing FVs as revenue villages, this was either entirely suppressed or ignored by the local FD. It is noteworthy that according to the FD, Sopaloga, Gamani and several other neighbouring villages were recognised as 'FVs' in 1962 though this date is contested by the local villagers. What is significant here is that the local forest officials focused only on that

[75] Ranjit Das of Sopaloga FV.
[76] Discussion with Ranjit Das of Sopaloga, who spearheaded the claim submission process under the FRA.

provision in the FRA, which is applicable to the forest dwellers outside the FVs. The section 4 (3) of the FRA pledges to recognise the rights of the forest dwelling Scheduled Tribes and Other Traditional Forest Dwellers (OTFDs) inhabiting a forest land prior to 13 December 2005. However, as per the section 2 (o) of the Act, the OTFDs are required to have, for at least three generations (that is, 75 years) prior to 13 December 2005, primarily resided in and depended on the forest or forest land for bona fide livelihood needs (Upadhyay 2009, 31-45).

Such a twist in the implementation of the Act by the forest officials dealt a body blow to the optimism of the local communities to get rights on their occupied forest land. While the prevailing oral history suggests that the history of human penetration in this area is more than 75 years or three generation old, the lack of proper supporting written evidence now becomes the root of all problems. A villager in Gamani FV rues:

> The 75 years of occupation for the non-tribal forest villagers as enshrined in the Act has become a problem for us. The FD says Gamani and Sopaloga would take another 10 to 15 years to complete 75 years. Unfortunately, we have nothing in our hands, we have to wait till time comes.[77]

Another villager from Tarajan FV laments:

> All the villagers have submitted claim forms in April 2009. We are hoping to get ownership rights over land where we have been staying for long. But possibility of conversion of our village to revenue village is rather less...if it happens we will become the owner of our own land. Whatever we have grown in the homestead land, will be ours.[78]

The villagers contend that the records regarding the formation of the early human settlements in the area during the colonial period were kept in the APO office at Chariduar which was also in charge of the forest administration in the area. However, with the change in the administration in 1962, many important historical records and documents were either lost or perished. The office of the APO was also eventually abolished in 1978. These documents, the villagers maintain, would have proved critical in ascertaining their legal rights on the forest land under the FRA. The forest officials also

[77] Podoram Koch.
[78] Muhidhar Das.

deny having any records in their possession prior to 1962, the year in which they were declared as 'FVs'.[79] They maintain that it has the *Khajana* records of the FVs in the Nameri area only since 1962. Amazingly, neither the villagers nor the forest officials could give a satisfactory answer to as to why the villages of the area were declared as FVs again in 1962 if they were already recognised as such. Indeed, the villagers assert that their villages were referred to as FVs in official records since much before and that they have been paying *Khajana* to the FD since much earlier. As mentioned in Chapter Three, I found a *Khajana* receipt of as early as 1937-38 which clearly defines Gamani as a FV. In Sopaloga FV, a few *Khajana* receipts were also found. The elderly villagers state that they used to pay *Khajana* at a Forest Beat Office at Amaribari and the records were kept at the APO office till early 1960s. After that this Beat Office also became the custodian of the *Khajana* records. This continued till the time when a Range Office came into being at Chariduar in 1984.[80] When asked about these records, the present Ranger expressed ignorance about them. However, he said that some of such records might be kept at the Beat Office at Amaribari.[81] When the Ranger of the Beat Office, Amaribari was asked about the records, he said:

> We do not have those records in our possession at the Beat Office...I do not know much about the early history of *Khajana* collection in this office. Even if there may be some kept at the Divisional Forest Office, Tezpur, it will be extremely difficult to find them.[82]

When the villagers were asked as to whether they have produced their *Khajana* receipts at the FD during the claim submission process under the FRA to prove their occupation they narrated their disappointing experience with the process. Ranjit Das of Sopaloga FV laments:

> Whatever evidences we could gather in the village...mainly the old *Khajana* payment receipts and a few applications which also show our occupation on the forest lands...were all produced at the Divisional Forest Office, Tezpur. Unfortunately, the officials did not recognise these records. The Divisional Forest

---

[79] Vide sanction nos. FG 18/3 (a) to FG 18/3 (G) dt. 23.4.62, B/7533 dt. 7.10.55 and B/3650 dt 22.5.56.

[80] As stated by A.K. Dev Choudhury, Range Officer of Chariduar. Amazingly, nobody could give us definite information as to when the APO was closed down, and since when the villagers have been paying the *Khajana* on land.

[81] Ranger, Range Office, Chariduar (Territorial Division).

[82] Karmananda Sharma, Range Officer, Beat Office, Amaribari.

33. The Building of the erstwhile APO Office, Chariduar

34. Molan Koch and Rajani Bhuyan: The nonagenarian villagers in Gamani and Sopaloga respectively

35. New settlements in the outskirts of the Nameri National Park

> Officer told us that since the FD has no records showing our occupation in this forest area...it cannot issue *patta* just relying on the records that we had produced.

This only shows the lackadaisical approach of the FD in keeping records in its custody which would have been so critical in providing tenurial rights to the forest villagers of Nameri under the FRA. Thus, an atmosphere of enthusiasm and hope soon turned into one of despair. As a villager rues:

> We do not know exactly when our forefathers had come to these forest areas in search of cultivable lands. Though we do not exactly remember the dates of migration, our earlier two generations had provided *begari* to the Political *Sahab* and paid *Khajana* on their lands as forest villagers. To our dismay, now the FD does not acknowledge us as eligible to get our due settlement rights on the land that we have been occupying for generations. Just because we are unable to produce records of our occupation on the land, we are suffering today. We (all villagers) had never thought that this kind of a situation would come someday and *Khajana* receipts would prove to be so crucial in ascertaining our rights.[83]

However, it is important to state that these FVs in Nameri are actually eligible for land ownership rights under the FRA. Firstly, Sopaloga and Gamani are already declared FVs and secondly, the *Khajana* payment receipts clearly testify that these villages have completed more than 75 years now. This way, these villages fulfills both criteria to get ownership rights over land under Sections 2 (o), 3 (a), and 4 (3) of the FRA. However, the state government seems to be deliberately ignoring the issue of granting land rights, especially to the non-tribals in Assam.

The villagers now seem to be totally unsure of their next step. Interestingly, one does not witness any mobilisation among the forest dwellers of Nameri area on the issue of land rights although a popular peasant mobilisation sweeps across contemporary Assam led by the KMSS on this question. This may be attributed to the fact the forest villagers of

[83] Purno Kanta Das of Sopaloga belongs to the third generation of present villagers. An illiterate person, he does not know his present age. However, he seems to be in his late 50s. During the discussion, he recalled the situation in the area at the time of the Indo-China war in 1962. He has some faded memories of that time since he was child. Since most of the elderly villagers are either illiterate or semi-literate, I often had to rely on their memories to ascertain many information about the past. They could well relate their narratives to certain past events but failed to tell the exact dates. Such narratives definitely helped me to understand many crucial issues of the colonial times and the period just after the Independence in 1947. But cross-checking their narratives were a problem. The FD officials literally neither possess those information nor any written records either to validate or negate these narratives.

Nameri area live in recognised FVs and do not want to risk their existing privileges by challenging the forest authorities. The fact that there has been no peasant or political organisation, like the KMSS to take up their cause unlike other such cases in Assam has also not given them the required confidence to fight for their entitlements as dwellers of FVs.

There is no doubt that the proof of 75 years of settlement in forest for non-tribal forest villagers is a very difficult condition enshrined in the FRA. This also dashed the hope of such villagers of Nameri of getting land rights as promised by the AFP 2004.[84] It is indeed a tall order to expect the villagers (a majority of them were illiterate till a couple of decades back) to keep their settlement records (the *Khajana* receipts) for such a long time what even the FD has failed to do.

This unfolds a very complex situation where contesting discourses with regard to a not-so-ancient historical fact have emerged within the context of a RF area. The situation betrays a typical cavalier attitude of the FD which is supposed to be the repository of all important records and acquainted with the important developments pertaining to the FVs. The villagers lament that they never thought that this kind of a situation would arise one day and that the *Khajana* receipts would be so crucial in ascertaining their settlement rights. Indeed, the issue of regularisation of *patta* is not new in Assam. The AFP 2004 spoke of regularising the pre-1980 encroachers on forest land. But with the coming of the FRA, the AFP became redundant.

However, the tribal forest villagers around Sopaloga and Gamani are set to get the tenurial rights over their land under the FRA. This has created some discontentment among the non-tribal forest dwellers who have assumed that the recent tribal encroachers would also get land rights while they would not under the FRA. It may be mentioned that most of the new tribal encroachers in the Nameri area, mainly the Bodos, became forest dwellers only as an "accidental by-product of a political movement" (Bose 2009). This is part of a political design by the leadership of the Bodo homeland movement since 1990s to create a contiguous Bodo-inhabited territory in the northern Assam. Although these

[84] Assam Forest Policy 2004, 4.3.1.1.

encroachers themselves are victims of land alienation, such strategic usurpation of forest land adds a new dimension not only to the ecological conservation but also to the socio-political landscape of the state.

Nevertheless, the local Ranger maintained that the FD is issuing the land ownership certificates to only the dwellers of the existing tribal FVs and not to the illegal encroachers. Though this certificate is described as '*patta*' in the local parlance, this entitles these tribal forest villagers only to have rights over land which is "heritable but not alienable or transferable" under section 4 (4) of the FRA.

3. Problems of Implementing the FRA in Assam

It is true that most of the rights and privileges addressed in the FRA are ground-breaking. Yet, it has been found that some of its provisions do not match with the existing ground realities in Assam. For example, the use of the phrase the 'OTFD' in the Act is a vexed one. Section 2 (o) of the Act defines OTFD as any member or community who has primarily resided in and depended on the forest or forest land for *bona fide* livelihood needs (Upadhyay 2009, 31). This definition holds true for a large number of tribal forest dwellers in most of the PAs in India. They are not settled agriculturalists, but 'gatherers' who live in close proximity to forests, and most of them have a long tradition of forest use for sustenance (Lele 2011, 96).

As discussed in Chapter Three, in Assam both tribal and non-tribal forest villagers hardly show any worthwhile differences in terms of their economic life. Unlike other parts of India, in Assam the forest villagers are all peasants and their dependence on forests for survival is minimal and complementary. The existing ground realities in Nameri also clearly show this. Besides, the forest dwellers in Assam cannot be termed as the 'traditional dwellers' because they are neither the traditional inhabitants of forests nor intrinsically dependent on forest products for their livelihood. Only circumstances and natural calamities forced these indigenous poor peasants to move into forests areas in search of land and livelihood. One also does not witness any sacred grove or explicit history of forest protection among the villagers (Bose 2009). In other words, the history

of man-forest relations in the area has its own specificity and varies from the all-India perspective that informed the FRA.

However, as already mentioned, the dwellers of a number of the tribal FVs in the Nameri area such as Dharikati, Eraliloga, Bogijuli and Sotai have recently got land ownership certificates ('*patta*') under the FRA. Earlier the villagers were not allowed to collect NTFPs other than firewood, thatch, fodder, etc. Now, they can collect all NTFPs. But that is almost irrelevant for the forest villagers in Nameri as its forests (that is, the buffer areas of the NTR) now hardly have any worthwhile NTFPs except firewood which the villagers anyway collect from the fringes of the forest. Further, there have been several lapses in the process of providing land rights to the tribal forest dwellers too. A villager from Eraliloga tribal FV shares his view on this:

> The FD has recently distributed *mati patta* to the tribal FVs in the Nameri area. But this *patta* only gives us ownership rights but we are still not entitled to sell or mortgage our land at times of exigencies...we cannot even use this *patta* to avail bank loans.[85]

The discussions with the villagers in both tribal and non-tribal FVs revealed that there is still a misconception among them that land *patta* will make them independent of FD's control and they will be able to sell or mortgage land at times of difficulties. But the Act clearly states, "A right conferred by section (1)[86] shall be heritable but not alienable or transferable and shall be registered jointly in the name of both the spouses in case of married persons and in the name of the single head in the case of a household headed by single person and in the absence of a direct heir, the heritable right shall pass on to the next-of- kin".[87]

Perhaps the major dispute in the FVs in Nameri has been about settlement of land rights, most of the important provisions of the Act are being entirely sidelined. The FD officials are also seemed to be quite reluctant to organise awareness campaigns at the village level to educate the villagers about the important provisions of the Act. As a result, the forest

[85] Discussion with Jishu Brahma in November 2010.
[86] Sub-section 1 of Section 4 confers the power to the Central Government to recognise and vest forest rights in the forest dwelling Scheduled Tribes and the Other Traditional Forest Dwellers.
[87] Section 4 (4).

villagers are totally unaware about the other empowerment and conservation elements of the Act such as the right to community forest resource, right to protect and manage forests and the *gram sabha's* (in local parlance *gram sabha* is known as *gaon sabha*) role in biodiversity, water and forest conservation. When asked about the conservation responsibilities that the villagers should take under the provisions of the Act, a villager vents out his views as follows:

> *Mati Patta Aain* has been implemented to give us land titles and to convert our FVs into revenue villages. We hardly know about any other empowerment and conservation needs of the Act. As far as forest conservation is concerned, we are planting trees (*paleng*) under the JFM scheme on the deforested tracts surrounding our villages.[88]

Thus, the villagers are more concerned with the regularisation of their land settlement rights and tenurial security. The foresters seem to be worried over the issue of distribution of land under the Act. This is because many villagers own surplus land (landholdings under 'actual occupation') over and above the official limit. While many of them are landless or marginal peasants. This situation has made the land tenure systems in the FVs in the buffer areas of the NTR more complex.

4. Public Consultations on the FRA in Assam

The inadequacies in the FRA have also created problems in many parts of the country and the protests and concerns expressed by the affected people and the forest right activists led the government to review the Act by a committee known as the National Forest Rights Act Committee (NFRC).[89] The committee submitted its report after holding public consultations in various parts of the country. The committee found that the FRA has faced challenges even in those states of central and eastern India which consist of largest number of forest dwellers.

---

[88] Umakanta Das of Gamani FV.

[89] The two ministries of Environment and Forest and the Tribal Affairs of Government of India constituted a joint Committee on April 2010 to comprehensively review the implementation FRA, 2006. The Committee members were selected from wide spectrum of retired civil servants, forest officers, tribal department officers and representatives of civil society organisations and NGOs.

In Andhra Pradesh, for example, the Act came under severe criticisms during the initial phase of its implementation (Reddy et al. 2011). The forest rights activists from Uttar Pradesh complain that the government is engaged in subverting the FRA by pitting the Adivasis and the Dalits against each other. Again, the state's *Taungya* community is also finding it hard to get their entitlements under the FRA as the illiterate *Taungyas* do not have the required documents to support 75 years of residential proof. These documents are with the FD which is not keen to part with the land (Tripathi 2011). Besides, the attempts at corporate acquisition of tribal-inhabited forest land in the states of Chhattisgarh and Orissa have already generated much public outrage.

In Assam, these consultations took place during 11 to 14 July 2010 in some select areas of the state. The consultation was carried out in areas like, Kaki (Nagaon, Central Assam), Kaziranga NP, Tengani Reserve (Golaghat), Jagun sub-division (Margherita, Tinsukia District).[90] However, the Nameri area was not included in the list. In addition to the public consultations, the committee also carried out discussions with the officials of the state, forest and civil administration as well as with the local communities. The consultations with the concerned people revealed various procedural lapses during the implementation of the FRA. The conditions of forest dwellers residing in different NPs, Sanctuaries and RF areas of Assam also resemble the forest villagers of Nameri.

In Assam too, the scope and nature of the definition of 'forests' has been grossly misinterpreted by the state government officials leading to non-implementation of the FRA in areas where the definitions of 'forests' has strong implication. The fact that the state underwent through different stages of evolution of modern legal meaning of 'forests', also adds to the problem. Moreover, the NFRC in its report on Assam prepared after its consultations with the concerned public and the government officials notes that like the rest of India, the concerned Assam government officials are also found to be either extremely critical or indifferent to the FRA. Often they are unaware of the

[90] Implementation of Forest Rights Act in Assam, Report of Field Visit, 11-14 July, 2010, MoEF/MoTA Committee on Forest Rights Act.

provisions of the Act and indulge in misinterpretation. In the Nameri area, the forest officials are clearly seen to be engaged in subverting the provisions of the Act.

The Committee finds that the state government is especially critical of the section 3 (h) of the FRA which makes provision for conversion of FVs to revenue villages. The Gauhati High Court ruling in 2009 stating that there are no traditional forest dwellers in Assam has also become a handy tool for the state government for not implementing the Act although scope of the FRA is much larger. Moreover, this ruling despite being factually true clearly has glossed over the specific historical processes of land use and alienation among the local communities and their relationship with forest land and other resources. Interestingly, the Assam chief secretary stated before the Committee that the state government would give rights to the tribals but not to the non-tribals as most of them were encroachers. The Committee also notes that while the government has apparently prioritised the forest villagers and ST populations to be given land rights amongst all other claimants there has been complete lack of entertaining the claims of OTFDs except those areas where there are strong and vested political interests (Kiro et al. 2010). The Assam government is reluctant to process the claims of the OTFDs and it states that if the Act is to be implemented there will be no forest coverage left in the state.[91] The state seems to be engaged in subverting the Act in many ways as it does not want to lose its monopoly control over forests.

Indeed, the resistance to the implementation of the Act is rooted in various political reasons. The FRA is not welcomed by the state government in Assam in its full spirit and there has been little willingness to implement it. It has been received with mixed responses as well as contemptuous criticisms from different groups of wildlife conservationists, activists, forest villagers and so on. For the poor forest villagers, the Act brought a lot of hopes for getting their due rights over the land. The forest rights activists have also been concerned with the tenurial rights for the people living in the forest lands. For them, the FRA opens up avenues for conservation in true sense of the term by providing the communities, rights to land and forest.

[91] The Report of the Forest Rights Act: Undoing of historical injustice withered, A Report by Asian Indigenous and Tribal Peoples Network, April 2012. P 16.

The public consultations on the FRA in Assam and my own discussions with the top-ranked bureaucrats and officials (both at the state level and FD) revealed their cavalier attitudes towards the implementation of the Act. It is observed that there has been serious lack of awareness about the provisions of the Act even among the officials of both civil and forest administration. Awareness campaigns pertaining to the local people's rights and privileges as per the Act also have not been carried out. As a result, people hardly know about the major empowerments and responsibilities towards forest conservation conferred on them by the Act. The only thing they know is that the Act is implemented to provide them tenurial land security. One glaring lapse in the implementation of the FRA in Assam has been the non-constitution of *gram sabhas*. The situation in the FVs in the Nameri area clearly testifies this.

Moreover, there has been no flow of information among various implementing agencies such as FRCs, FD, Sub-Divisional Level Committee (SDLC) and District Level Committee (DLC). The FD also seems to presume that granting of tenurial land rights will only encourage more encroachment leading to more deforestation. As pointed out earlier, the OTFDs are facing resistance from the state government in getting tenurial land rights under the FRA. The prevailing opinion is that the OTFDs are encroachers on forest lands and hence they are not entitled for land *pattas*. Moreover, the question of three generations for them to be able to claim their rights on forest land has become a major problem for them. For instance, the case of the OTFDs in Nameri resembles other areas in the state. The fieldwork in Nameri also reveals that the OTFDs do not have evidences to support their three generations habitation in the forest lands. The FVs have provided crucial information and strong oral history supporting their occupation on these forest areas for more than three generations (or 75 years) now. Amazingly, the FD has not acknowledged the local oral history.

In the FVs of Nameri area and other PAs, the process of entitlements over the community forest resources is not dealt with as per the provisions of the Act. According to the Section 2 (a) of the FRA,

> Community forest resources (CFRs) means customary common forest land within the traditional or customary boundaries of the village or seasonal use of

> landscape in the case of pastoral communities, including reserved forests, protected forests and protected areas such as Sanctuaries and National Parks to which the community had traditional access.

Discussions with the villagers brought to light that they were asked to claim their rights only over the individual landholdings. The provision of customary rights for the forest villagers has been ignored totally by the FD. The lack of knowledge and absence of proper awareness campaigns stood in the way of the villagers' claims to their rights over the community resources. The public consultations on the FRA also state that there has been lack of awareness about the implications of the CFRs in the state. In some PAs in the country, claims over community rights have been filed but the no action is taken by the government till now. The NGOs and concerned agencies must impart awareness to the people on the importance of community resources.

Another serious violation of procedure under the Act is seen in areas of quick or no mapping and measuring of land boundaries, improper verification of evidences and so on. For instance in Dharikati tribal FVs[92] in Nameri, the process of distribution of land *pattas* were haphazardly and hurriedly completed. The areas of landholdings of each family was not strictly demarcated and measured as laid down in the Act. As a result, each family now own land over and above the limit (4 hectares) as per the Act.[93] This is also the case with other FVs in the state.

At the implementation level, the role of the Nodal Agencies in monitoring the FRA is crucial. At the Centre, the MoTA is the nodal agency for the implementation of the Act. The MoTA has also nominated the Secretary in charge of the Tribal Welfare/Social Welfare Departments in the various states to be the nodal agency under section 11 of the FRA for its implementation. In fact, the role of the Nodal Agencies at the state level is pathetic. Officials are not aware about the provisions of the Act and often misinterpret the Act in order to deny the rights to the tribals/OTFDs. In Assam, the Social Welfare Department's (nodal agency) structure and presence at the field level is very weak. The department had not been able to provide sufficient inputs and support, facilitating filing

[92] It is one of the largest FVs in Nameri in terms of its population and area. The population mainly belong to the Mishing community.

[93] Discussion with the Ranger A. K. Dev Choudhury, Chariduar Range Office.

of form, etc. The senior officials do not cross-check the work being done at the SDLC or at the DLC level.[94] My field experiences in the FVs of Nameri area also substantiate this. There has been a complete neglect on the part of the concerned authorities and awareness campaigns for the villagers have not been carried out so far in the Nameri area. The other FVs in Assam also show a similar situation.

The implementation of this new legislation, thus widely reflects varied responses of governments, communities and other concerned agencies across the country. As discussed, the over-interference of the FD in different states has threatened the very spirit of the Act. Gopalkrishnan discusses three-fold problems on the implementation of the Act: large-scale FD interference, wrong *gram sabha* formation and violation of community rights. Across Rajasthan, Madhya Pradesh, Gujarat, Chhattisgarh, Maharashtra and other states, show widespread violation of the FRA provisions. The Act specifically provides that *gram sabha* should be called at the level of revenue villages, and in Scheduled Areas, at hamlet level, but never at the panchayat level, where the meetings would be large and make democratic functioning impossible. But in most areas, except where agitations have forced the government to change its stand, *gram sabhas* are being called at the panchayat level (2011, 66-67).

Kothari (2011) also points out that the community rights under the FRA have been seriously violated by the FD. Gopalkrishnan further contends,

> The truly radical part of the FRA is the provision for recognising community rights and powers over forests. The government has consistently tried to dilute these, first, by insisting that the community's powers of forest protection are 'duties'...and second, by ensuring that community rights are neither publicised nor recognised when applied for. The rules also provide no clear procedure for community rights, including property rights such as the rights to minor forest produce, etc...In many areas -- for example, all parts of Tamil Nadu -- rights to minor forest produce have been conferred along with illegal restrictions, such as requirements for Forest Department permission or bans on sale of produce (which constitutes a major source of income for adivasis). Grazing rights and rights to water bodies have been entirely ignored. (2011: 67)

[94] The State of the Forest Rights Act: Undoing of historical injustice withered, A Report by Asian Indigenous and Tribal Peoples Network, April 2012.

5. The Way Forward

Despite these serious shortcomings of the FRA as discussed, the progressive steps for forest governance implicit in the Act cannot be ignored. The public consultations in Assam while taking note of the misinterpretation of various provisions in the FRA also suggests that there is an urgent need to amend some of its provisions taking into consideration the specific history of man-forest relationship in the region. A historian in this regard comments,

> The Act nowhere suggests that the term 'forest-dweller' is equivalent to 'banavasi'[95] in the classical anthropological sense. The legal meaning as spelled out in the Act draws our attention to the historically and anthropologically relevant subjects of 'habitat' and 'dependence'. These notions are widely explained keeping in mind the key features of the eastern and northern Indian historical transition. Essentially such explanations skip the nuances of historical transition of societies in Assam. Similarly, no efforts have been made in public or academic debates to explain these issues in the context of Assam. (Saikia 2011)

In the light of the above, a vigorous awareness campaign along with suitable amendment of certain provisions of the FRA seems necessary in order to create a sustainable forest conservation regime vis-à-vis livelihood needs of the poor forest dwellers. Any conservation policy for Assam must incorporate its local historical and livelihood specificities. It is of utmost importance that the FRA 2006 formulates a more practical deadline for providing land rights to the OTFDs in Assam as its present term of 75 years before 13 December, 2005 seems at odd with the reality in the state. Simultaneously, the FD must enforce stringent measures, indeed in collaboration with the forest dwellers, to combat illegal encroachments and commercial activities inside the PAs.

Interestingly, on the basis of the results of the public consultations from various parts of the country on the working of the FRA, the erstwhile Union Minister of State for Environment and Forest, Jairam Ramesh advocated a complete 'paradigm shift' in the management and governance of forests in the country from a model based on the primacy of the state to a three-fold model of state, communities, and partnership between the two (Ramesh, 2011). He called for a three-fold model of state involvement, community engagement and partnership between the two for an effective governance of forests. He

[95] Here the author makes a distinction between the legal and anthropological (banavasi which means forest dwellers) meaning of the term 'forest dwellers'.

further emphasised that for effective implementation of forest policies, different regions in the country needs diversity of models such as, state-centered model, state-cum-community partnership and community-led model. However, though activists and environmentalists widely welcomed this new official thinking, no action toward bringing this thought into reality has been witnessed ever since.

CHAPTER SIX

CONCLUSION

The objective of this work has been to study the complex dynamics of the man-forest relationship in terms of the conflict between the conservation initiatives of the state and the livelihood imperatives of the forest dwelling communities in Assam. The empirical foundation of this work is informed by the field study carried out in two FVs located in the west buffer of the NTR. It historicises the man-forest interactions in the area in the context of the overall background of forest conservation and emerging livelihood issues in Assam. In doing so, this study also seeks to understand the changing demographic patterns in the area over the years and its impact on the livelihood patterns of the local forest villagers in the light of the emerging status of and competing claims around the forest resources in the area.

1. Brief Summary of the Chapters

Chapter One discusses the major theoretical perspectives on the relationship between forest conservation and the livelihood of the forest dwelling communities in India. It briefly discusses the emergence of Environmental Sociology as an academic discipline during the 1960s and explores the contribution and relevance of the sociologists, from classical to contemporary times, in the study of environment. The Chapter then gives an account of the dynamics of man-forest relationship in India in pre-colonial, colonial and post-colonial periods. It explicates how the advent of the British colonialism to India marked a watershed in the history of forest conservation by introducing dramatic breaks in the way forests in India had been perceived and used in the pre-colonial period. The perception of forests as a sacred abode of deities and as fulfilling diverse needs for food and shelter was superseded by the commercial exploitation of forests during the colonial period. The imperial legislations had transformed the CPRs into resources for revenue and profit generation through the establishment of monopoly rights and control of the state. In this process of revenue maximisation, the rights of the local communities were severely curtailed.

Significantly, the post-colonial Indian state continued with the same colonial paradigm of forest management. Forest policies and Acts have been promulgated to create 'forest' as an isolated entity restricting the local communities' access to forest resources for sustenance. India's independence did not bring about radical shifts in the structures of these forest laws. The laws that served the purpose of the colonial government continued to serve the similar purpose for the independent government with the result that the PAs have now become much more contested site between the local communities and the state. The Chapter then gives account of the changing man-forest interactions in the context of Assam during different historical periods. It also provides a detailed review of literature relevant to the present study. It then discusses the objectives, methodology, significance and the field-setting of the period.

Chapter Two explicates the nature of man-forest interactions in India in historical as well as contemporary perspectives. It recounts how people had remained inextricable part of the forests for ages in India. During the pre-colonial times, the forest dwellers had nurtured the forests through a prudent system of management of natural resources. This system was destroyed when the British had abolished the 'commons' of the people, converting their rights into mere privileges. The ever increasing interventions of the colonial regime with the natural resources had resulted in a severe curtailment of the customary rights of the community triggering a conflict between the latter and the forest administration over access to the natural resources.

The most vivid picture of the transformation in the existing ecological landscape during the colonial period was wrought by the railways. Great chunks of forests had been destroyed to meet the demand for railway sleepers without any supervision exercised over the felling operations. Ever since the first forest Act of 1865 (which later culminated into the Indian Forest Act, 1878), a plethora of rules and provisions were introduced in the utilisation of forest resources. The reservation of forests paved the way for greater hold of the colonial state over the forest resources. It also set the stage for creation of game parks. Vast tracts of forests were also cleared for development of tea, coffee and rubber plantations. All these brought about massive changes in the forest landscape of the country along with the nature of livelihood of the common people.

The Chapter then highlights the process of formation of PAs in the post-independence period by driving people out of nature reserves, NPs, sanctuaries and the like continuing and perpetuating the colonial legacy of conservation informed by the belief that the only way of preserving wildlife and forests is by removing humans from these areas. Over the years, this view of conservation has resulted in intense local dissatisfaction and conflict of interests. The Chapter argues that such exclusionary policy of forest conservation is fraught with serious implications in India where almost all PAs have remained the habitats for a large numbers of indigenous populations for centuries.

Informed by this understanding of the historical accounts of the man-forest interface in the Indian context, the Chapter delineates the complex man-forest interactions in Assam in a historical perspective. It delves into the unique ecological history of Assam and shows how its people, forest and land have been inextricably related throughout different historical periods. It highlights the important role that CPRs played in the pre-colonial period in the semi-tribal, largely non-monetised society of Assam. However, situation changed dramatically with the British annexation of the province in 1826. The extremely rich and dense forest covers of the region opened up avenues of commercial exploitation for the colonial state. Large tracts of forests had been cleared to make way for agrarian expansion. Moreover, the discovery of tea plants in 1834 posed another threat to the forested landscapes of Assam.

Simultaneously, the colonial state tightened its control over the forests by the process of its reservation which lent a body blow to the prevailing system of CPRs and the livelihood options of the indigenous population of Assam. The advent of a large number immigrant to the region under the patronage of the colonial government had further put the native peasantry (both tribal and non-tribals) under heavy pressure for access to land. Further, escalating natural calamities such as flood, erosion, etc in later years also caused serious land alienation among the indigenous people. The latter had no option but to migrate to the reserved forest areas in search of land and livelihood triggering a new conflict between them and the forest administration in the subsequent years.

Chapter Three presents a comprehensive account of the field setting of the study. It first provides a geographical background of the Nameri area and then a detail description of the forest reserves in the area and their administrative structures. It provides a profile of the two FVs of the area, namely Sopaloga and Gamani, on which the study is primarily focused. The Chapter also provides a historical account of the migration of the peasants to the forest areas of Nameri in the first half of the twentieth century in search of land and livelihood. The British administration driven by its colonial economic interests allowed the peasants to settle in the vicinities of the forests in the form of temporary settlements. Later on, these temporary settlements were converted into FVs. The erstwhile colonial FD created these FVs inside the notified areas to meet the demands of regular supply of man-power to work in various forestry programmes. The villagers, thus settled were landless and flood affected local peasants. The villagers were given cleared up patches of forest lands for agricultural activities in return of their physical works rendered to the colonial FD and a small amount of revenue (*khajana*).

The Chapter discusses the present day administration of these FVs, local communities' dependence on forests and their day-to-day subsistence. It finds that the forest villagers are still overwhelmingly dependent on agriculture. However, they enjoy no tenurial and livelihood securities on their land. In the absence of dependable alternative means of livelihood, however, human pressure on the forest land is growing.

Chapter Four throws light into the local forest villagers' sources of livelihood, dependence on forests, and responses to various conservation initiatives to explicate the specific nature of man-forest interactions in the Nameri area in particular and Assam in general. In doing so, it delineates various state-initiated conservation measures and then makes a critical evaluation of their achievements in Nameri. It also examines discourses of the local FD officials and the forest villagers on conservation. Though, in recent times, a number of conservation measures have been undertaken by the FD, Ecological Task Force (ETF) and other non-governmental wildlife agencies such as Aaranyak, WWF and Ecosystem India, these measures still seem far short of the efforts necessary for a sustainable conservation policy in Nameri. The study shows that these measures have not been successful in adequately addressing the local people's stake at conservation. The

state-initiated participatory approach to conservation or JFM also has not succeeded in this regard.

The forests in the Nameri area, especially the buffer of the NTR, today faces serious challenges to its existence from factors such as large-scale deforestation for securing cultivable lands, illegal timber trade, illicit boulder mining from the river Jia Bhoroli, poaching, etc. The entire deforested tracts in the buffer areas have been converted to agricultural lands. The man-animal conflict has alarmingly increased in recent years.

Chapter Five makes an assessment of the FRA 2006 to understand the significance of its various provisions and their implications for Assam through the study in the FVs in the buffer area of the NTR. Some crucial provisions of the FRA draw serious criticisms from many environmental activists and scholars as being unsuitable to the existing ground realities of the region. Thus, they are poised to leave out the forest dwellers of Assam from the benefits of the Act. Unlike other parts of India, in Assam all the forest dwellers are peasants and their dependence on forests for survival is only complementary. The situation in the FVs of Nameri also clearly shows this. Besides, the forest dwellers in Assam cannot be termed as the 'traditional dwellers' because they are neither the traditional inhabitants of forests nor, as mentioned above, intrinsically dependent on forest products for their livelihood. Historical circumstances and natural calamities forced these indigenous peasants to move into forests areas in search of land and livelihood. Thus the history of man-forest relations in the area has its own specificity and varies from the all-India situation that informs the FRA. The Chapter underscores the need for revisiting the relevant FRA provisions to see that they can address the concerns of the forest dwellers more effectively.

At a more general level, the study argues that the state-centered, top-down approach to conservation has been the root cause of a number of social and ecological problems. A growing body of empirical researches in the country indicates that this exclusivist approach to forest conservation indeed has adverse impacts on livelihood security of people living in and around the PAs as pointed out in Chapters Two and Four. This approach to conservation has been always exclusive of local communities' specific

livelihood patterns and their traditional institutions, practices and beliefs. It is largely a continuation of the exploitative colonial paradigm of forest conservation which treated local community's rights with much disdain (Kothari et al. 1998: 47-48). Such an approach to management of PAs, however, has come under severe criticisms by social activists, local communities, and many others as being unsustainable and unjust (Saberwal et al. 2001, 3). There has been an increasing realisation that local dissatisfaction of communities stemming from their alienation (Ibid, 9) is the basic cause for continuous degradation of forests.

As discussed in Chapter Two, the Forest Policy of 1988 was the first coherent attempt that set the stage for participatory forest management in the country (Sudha and Ravindranath 2008, 231) through the introduction of the JFM. It was supposed to be a way for decentralisation of decision-making into the hands of the local community, so that they could manage it for meeting their diverse needs sustainably and enhancing livelihoods. But JFM has never given the kind of autonomy and coverage required to achieve this. Often, such control by the foresters highlights the absence of any democratic thinking underpinning forest management (Lele 2011, 99).

The more recently enacted FRA 2006 draws attention from various quarters about its future prospects for country's democratic forest governance as pointed out in Chapter Five. No doubt it has brought about a significant shift in the way forests are to be managed by the local communities. The foresters and the traditional conservationists however, are opposing the Act. Even now, the FD does not seem to be ready to devolve rights to the local communities. They continue to believe that giving the communities control over the forests would render FD irrelevant (Lele 2011, 101).

The field observations during this study clearly show this top-down attitude of the FD while implementing the FRA. The FD seems to be apprehensive of the fact that providing land to the forest dwellers would actually result in depletion of forest lands. It is true that ever-increasing populations in the FVs are certainly a major cause of concern in the present times. The most contentious issue is their present land-use patterns. In the absence of alternative livelihood opportunities and negligence of the state in creating so,

the land-use patterns of the forest dwellers have resulted in large-scale conversion of forests into cultivable land.

The study finds that the indigenous communities inhabiting the wider region around Nameri have their own history of land alienation during both the colonial and post-colonial periods who settled in the forest land in search of livelihood. The man-forest interfaces here thus vary significantly from the central or eastern Indian situation. Considering the unique and complex social and ecological history of the region, the challenge before the FD today lies in accommodating these complexities in its conservation paradigm. Concerns about conservation and local community's involvement are increasingly embedded in questions such as: What kind of a conservation regime would be viable to the existing ground realities of the region? What prospects does the FRA 2006 have for the region? Will it be successful in introducing new forest governance? What kind of a pro-active role does the state agencies need to play to save the fast dwindling forest cover? What responsibilities do the local communities need to take to make conservation a sustainable effort? What is to be done to strengthen local communities' support in conservation? What kinds of mechanisms are required by which such participation may be better achieved? What kind of forest polices do we need for an inclusive development? What kinds of alternatives can be devised to reduce anthropogenic pressures on forest lands? How to tackle inequalities in decision-making? How to share the benefits of conservation equally with the communities? And so on.

2. Critiquing the State Conservation Approach

As pointed out in Chapter Two, today the PAs in Assam presents a dismal picture of widespread degradation of forests and fragmentation of wildlife habitats mainly due to growing anthropogenic pressure. The commercial exploitation of the forests to feed the ever-increasing industrial needs is no less. Moreover, forests are increasingly becoming the homes for a large number of new encroachers who have migrated from outside as well as from within the state in search of secured land and livelihoods, especially after 1980s. In the absence of available land, forest areas became their main targets for settlements. Even the forests along the foothills of inter-state boundaries with Nagaland,

Arunachal Pradesh, Assam and Meghalaya have faced rapid shrinking of forest cover due to encroachments. The effective implementation of policies to put a halt to these illegal practices is non-existent. The state government is neither checking the illegal occupation on forestlands, nor is it giving due rights to the eligible forest dwellers. As population is growing, the demand for agricultural lands is mounting (Saikia 2011a, 356) intensifying the struggle for livelihoods.

Further, forest scholars have noted that even the forest conservation programmes in India have been directly or indirectly responsible for loss of biodiversity. For example, the plantation scheme under the social forestry programme of the state FD has led to growing monoculture over sizeable tracts by gearing up commercial plantations for industrial needs in most states. Although social forestry was meant to cater to the needs of the rural poor, in reality its implementation seems to have gone against their interests. For instance, in states like Karnataka, production for industrial needs has grown significantly under the social forestry programme. Though the scheme was meant primarily for waste lands, many farmers seen to have planted eucalyptus on land on which *ragi* (millets) was grown. The production of the relatively low-priced, nutritionally rich *ragi* has decreased. Moreover, the seasonal jobs have mostly disappeared since tree plantation requires very little labour. Because of monoculture and high price of eucalyptus, the availability of fuelwood and fodder has also decreased. In fact, landowners have been able to increase their profits since growing soft woods like eucalyptus ensures them regular income with somewhat low investment and little labour (Fernandes 1983, 6-7).

In Assam, the social forestry programme has been incorporated within the JFM scheme. The state FD mainly implements this scheme in the FVs. As observed in the field, the plantations under the programme are carried out mostly in deforested forest tracts around the FVs. Most poor villagers do work as daily wage labourers in these plantations for livelihoods. These are mostly seasonal works (See Chapter Three and Four). However, these plantations have mainly led to monocultural practices which eventually are likely to affect the natural ecological setting of the area. Furthermore, in many areas in the central and upper Assam, this programme has also encouraged people to take up small tea plantations on private lands. State-sponsored small tea plantations are seen to be

accommodated within this forestry programme (Saikia 2011a, 356). This agenda of the state has essentially pushed for commercialisation of forest resources.

Experiences suggest that the programmes of reforestation in Assam are never addressed from the perspective of biodiversity and ecosystem, rather these are seen to be enmeshed in the nexus of the politicians-bureaucracy and the industrial lobbies. Despite being aware of the fact that forest tracts have diminished considerably, the state government has remained indifferent towards these critical issues. It has never raised the concern for a specific regional forest conservation policy to tackle these local problems.

The pressure on forest lands in Assam is only bound to increase. The threats to forested landscapes for ever-increasing needs for agrarian expansions in a growing agrarian society have only intensified with time. Firstly, the populations in the FVs are increasing. In the absence of any alternative ways of livelihoods, agrarian frontiers are expanding over and above the official limits of land holdings. Secondly, the forest tracts in the foothill areas are diminishing due to agrarian practices of the encroachers. Most of the hill people have cleared extensive forests in the plain areas for agricultural lands. Saikia (2011b) observes, "...(I)n the northern bank (of Assam) traditional agricultural practices have changed. Many non-sedentary peasant communities have taken to sedentary agrarian practices. They require more agricultural land. They have already traveled long distances in search of agricultural land. In the neignbouring hilly states, sedentary agrarian practices have gained popularity. They are also in search of plain agricultural lands". The fallout of this transformation in agrarian practices has led to large scale denudation of forest covers in the entire foothill areas of Assam and conflict between the hill tribal communities seeking plain land for agriculture and the plains communities and the FD over control of such land.

Thirdly, despite of the rigorous implementation of a regime of forest conservation, based on rigid enforcement of forest legislation, traditional peasants from outside the forest areas under pressure due to landlessness also have asserted claims over the forest and other natural resources, leading to intense competition between the state and peasants in recent times seriously affecting the forest ecology of the region. This tension has found

its manifestation in a large scale mobilisation of the forest dwelling peasantry for tenurial rights on the forest land in contemporary Assam (Sharma 2010). While Nameri has not been touched by this mobilisation in any significant way, it has been witnessing considerable encroachment by poor and landless Bodo tribal peasants, mobilised by the leadership of the Bodo homeland movement aiming to create a contiguous Bodo habitat in the north bank of Assam as discussed in Chapters Two, Four and Five.

This situation warrants that the state government acts meaningfully to address these critical issues. In this regard, the FRA 2006 is expected to serve as a very effective piece of legislation. The Act has the potential to resolve the century old conflict between forests and the expanding agrarian frontier in Assam along with other parts of India. The Act opens up the opportunity for providing tenurial land rights to the eligible forest dwellers and making them responsible stakeholders in the task of forest conservation. However, as pointed out above, the Act would be effective only if the required amendments to it based on the local specificities are made at the earliest.

The most fundamental question facing the conservation efforts in Assam today is as to how to generate sustainable alternative sources of livelihood beyond agriculture for the forest dwellers to reduce pressure on forests for agricultural lands. As some scholars argues:

> This question is pertinent especially in the case of the PAs, which conventionally have been viewed as non-exploitable, and therefore with little or no 'benefits' to 'share'. However, conservation agencies are realising that in many cases substantial benefits can accrue to local people without sacrificing conservation goals. (Kothari et al. 1998: 33)

3. Towards a Sustainable Conservation Paradigm

3.1 Reorienting Forest Policy

It is evident from this study that a sustainable conservation policy in Assam must integrate the issues of land question, livelihood needs and forest conservation. The state policies so far have been formulated in the mould of the national policies which do not necessarily deal with the specificities of the region. The case of forest dwellers in Assam, for example reflects a somewhat different reality from their counterparts in central or

eastern India where the NTFPs provide main sources of sustenance to millions of people living in and around the PAs. These forest dwellers collect the NTFPs either for self-consumption or for selling them in the local markets fulfilling their subsistence needs and giving employment opportunities mainly in their collection, processing and storage (Sachidananda 2004, 71-77). Unlike the latter, the forest dwellers in Assam state are mainly agriculturalists with minimal dependence on forest products for their sustenance. Since land is their most vital source of survival, alternative livelihood opportunities have to be created beyond agriculture if forest conservation is to be successful. Only that would help divert pressure from forest lands for agricultural expansion. Such regional specificities have to be addressed by the forest conservation policies.

As pointed out in Chapter Five, the provisions of the FRA 2006 are path-breaking for most of the forest dwellers of India. But the ambiguities it created in the context of the forest dwellers in Assam and indeed in some other parts of the country generated a lot of debates bringing to focus a number of issues pertaining to the implementation of the Act. The dominant view emerging from these deliberations emphasises that the forests can be best protected only when the forest dwellers learn to evolve sustainable livelihood practices which go hand-in-hand with forest conservation. Mere imposition of top-heavy conservation strategies without peoples' consensus will fail to work in the long run (Saberwal et al. 2001, 113). It is imperative that conservation strategies are informed by an understanding of the grass root realities.

For this to actually happen, the government has to adopt more people-friendly conservation policies. Without the support of the people, conservation is unthinkable (Shahabuddin and Rangarajan 2007, 5). As a scholar (Sachchidananda 2004, 223) argues that it is imperative for the FD to come out of the 'power-centric' approach to a more 'people-centric' approach of conservation. This calls for an inclusive system of park management in which developmental and livelihood needs of the communities are meaningfully addressed. The challenge, therefore, lies in finding the right model for ensuring healthy conservation as well as the well-being of the forest dwellers.

Evidently, an effective conservation policy for the state of Assam must be informed by an adequate understanding of the historical specificities of the region as already explained. In case of the forest dwellers in Assam, their participation in conservation programmes has to be defined in terms of issues that squarely address their livelihood and tenurial security of land.

3.2 Prioritising Community Based Conservation (CBC)

This study finds that the conservation approaches of the FD in Nameri have not been able to effectively develop local forest dwellers' stake in the forest. It shows that the conservation measures in Nameri are not quite successful in stemming illegal encroachments and other such processes adversely affecting the forests and its resources. The forest villagers in Nameri lament that the FD's conservation measures to which they also contribute in terms of labour are not providing any benefits in return.

Naturally, the forest villagers prefer agriculture over forest conservation due to the livelihood benefits associated with the former. This situation applies to most of the PAs of Assam. It is clear that the villagers are not likely to support the official conservation programmes, unless they receive some benefits in return. Question, therefore, arises as to what kind of development and conservation strategies would address the needs of the local communities. The government and its FD have failed to effectively address the issues of capacity building within the FVs for community based conservation (CBC) efforts. Kothari et al. in this regard contend that the present indifference of the villagers towards FD's conservation programmes can be addressed only if they themselves become the prime recipients of the benefits accruing from conservation (1998, 32). Further, they caution, "(L)ocal communities can be the best protectors of their natural surroundings, they can also be the worst destroyers if there are no stakes involved" (Ibid, 32).

Thus, it becomes imperative, especially after the coming of FRA, to give the forest dwellers a greater role in the process of decision-making vis-à-vis conservation. No doubt, the conservation experiences in the FVs of Nameri suggest that there is an urgent need to devise appropriate strategies for CBC which would address the local community's present land use practices leading to denudation of forest cover in the area.

Lele et al. also maintain that the involvement of community living in and around PAs is critical to the success of the conservation efforts. However, the problems lie in the details of what is meant by the local community's involvement, what initiatives are necessary and sufficient to obtain local involvement, what rights and responsibilities can be and should be devolved to the community, what process and institutions will ensure broad-based participation and sustainability of the arrangements as well as of the ecosystem, and so on. One particular approach being experimented with by several agencies is rooted in the belief that if communities living in and around PAs are to be willing partners, they must develop a direct and substantial economic stake in the biodiversity of the area. The creation of such an economic stake (either by strengthening an existing biotic resource-based enterprise or by creating a new one), is likely to provide the community the required incentive to regulate its activities in the protected area (1998, 449).

The above only underscores the importance of economic incentives from conservation efforts for mobilising the forest villagers of Nameri. The government, FD and NGOs have a much bigger role to play in creating alternative income generation opportunities and integrating them with the necessary conservation needs. Kothari also emphasises on the need to integrate conservation measures and imperatives with livelihood requirements (2008, 289).

It may be added that there are several successful models of CBC in Assam. In the Chakrasila Wildlife Sanctuary[96] in western Assam, the local communities, constituted mainly by the Bodo and the Rabha tribal communities transformed the condition of a once denuded forest with the support of an NGO, Nature's Beckon. The latter built up good rapport with the youths who began confronting the poachers and smugglers destroying the forest cover (Datta 1998). The NGO also concentrated on the economic development of the poor villagers through various conservation programmes. Projects on kitchen gardens and NTFPs helped the villagers improve their conditions of living. The villagers were also encouraged to raise poultry and pigs which helped them earn a little

[96] Located in western Assam's Kokrajhar district, Chakrashila was declared a forest reserve in 1966. It was declared as a wildlife sanctuary in July 1994. It is the second protected habitat of golden langur in India. The sanctuary is mostly inhabited by Rabha and Bodo tribal communities.

extra money. Weaving, which was a vital source of income for the tribal families, was started anew in many poor families. Mass-scale plantation was also taken up on the peripheral area of the forest to meet the fuel and fodder requirements of the villages. Toward the mid 1990s, the sanctuary regained remarkable health which was guarded round-the-clock by villagers without any FD official. Management of the area remained with the villagers and the NGO, though formally it belonged to the FD (Datta 1998). Though this situation in Chakrashila has somewhat changed now after the NGO withdrew evidently owing to some conflict with the FD, the example strongly demonstrates the possibilities of CBC.

Shankarghola, an unprotected reserved forest area in the Bongaigaon district in western Assam, presents another successful case of CBC. Here the community, consists mainly of the Rabha tribal people, has been engaged in conservation of the forest on their own. Later on, an environmental NGO Aaranyak came to provide support to the local community. However, the management of the forest has been fully in the hands of the latter.

Lessons from such successful participatory conservation experience from other forest areas may also be adopted in case of Nameri. Although the reality in Nameri is different and therefore it may need a different kind of approach to CBC from Chakrashila or Shankarghola, the basic lessons from these examples are definitely instructive for Nameri as well. It is striking that many villagers in its FVs have spent their life time without seeing its core forest area. They also hardly show any interest about it which only speaks about their alienation from the forest in which the FD has a rather negative role to play which strangely seems to believe that the villagers' lack of familiarity with the forest is conducive to its conservation.

It is imperative that for ensuring a greater role to the community in the management of forests and its resources, the FD and the NGOs together need to initiate the process of creating more and more awareness among the villagers so that they take up more responsibilities of forest protection. At present, the apparent constraints of CBC in Nameri include forest villagers' lack of trust on the FD officials and their conservation

measures, weak participation and lack of enthusiasm among villagers to participate in conservation, absence of any economic benefits from conservation programmes, uncertain tenurial security of land, preponderance of timber mafias, incidences of illegal poaching, encroachments by new settlers, and so on.

These constraints can be successfully addressed only by proper legislations and a collaborative effort by the FD, the local communities and the NGOs. The general experience shows that because of their day-to-day interaction and dependence on the forest, the local people are often at the forefront of protest against the degradation caused by outside commercial interests. Mining in Sariska Tiger Reserve in western India, for example, was fought against and stopped by the local people through both legal action and on-ground agitations (Kothari et al 1998, 26). Further it is argued that the costs involved in conservation may go down once CBC is in place, as community shares responsibilities like patrolling, fire-fighting and regenerative and protective measures (Ibid, 27). Kothari mentions Sariska Tiger Reserve as a glaring model of the working of CBC. Like other reserves in India, Sariska had also seen conflicts between local people intend on eking out a living inside the forest and government officials who believed their mandate was to stop them from doing so, and between commercial forces intend on short-term profits through mining and poaching. Later, it was realised that laws and policing were not just adequate to conserve forests. Cooperation of the local people was absolutely inevitable. In 2000, a decision was taken to form an overall Sariska Tiger Reserve Committee consisting of villagers, officials and NGOs to jointly take up the task of participatory conservation (Kothari 2008, 282). Kothari believes that conservation is gradually becoming decentralised, participatory, and mass based from a centralised, elitist strategy. From its sole focus on wildlife protection, it is moving towards more holistic biodiversity, integrated with livelihood security of communities, and stretching across landscapes. In doing so, it would naturally encounter pitfalls and hurdles. Participatory conservation, Kothari emphasises, is by no means a panacea nor is it smooth sailing, but as a direction it is inevitable and unmistakable (Ibid, 283).

However, for a successful participatory conservation it really seems to be important to organise effective awareness and training programmes among the forest dwellers as well

as the FD staffs on the importance of adopting CBC. However, simultaneously to this, a critical assessment of the activities of the state forest staff (especially the lower staff) also seems necessary. Their general problems everywhere are low salaries, low incentives, low support, no proper evaluation and no clear-cut posting and transfer policy. Often, as a scholar (Shrestha 2008, 146) mentions in another context, these factors result in low commitment and dedication to conservation tasks, and to the profession and its institution. In such a situation, the responsibility of motivating the community toward conservation remains far-fetched.

The study finds that the forest staffs, not to talk about the forest dwellers, are often unaware of the various conservation schemes being implemented in the park. Greater awareness on different forest laws and their provisions to the stakeholders, especially the forest dwellers, needs to be ensured. Kothari et al. (1998) argue that the foremost pre-requisite for CBC is to make communities aware of a programme before its implementation. Simultaneously, the dwellers have to be convinced of their economic benefits from such participation, which is expected to act as positive incentives in mobilising them to participate in conservation (Bhatt 1998, 270).

Most of the conservation schemes of the FD are unilateral and they are not properly monitored after implementation. As observed in the FVs of Nameri, there are hardly any initiatives from the FD in conducting regular dialogues and monitoring activities in the FVs. For example, as mentioned in Chapter Four, in Sopaloga FV, only one meeting of the JFMC members has been held (in 2010) since the time of its implementation in 2005. No proper and elaborate awareness camps on different conservation projects, newly implemented Acts and legislations are ever carried out. Such approach of the FD negatively influences the attitude of the forest villagers too. This also largely explains the latter's failure to respond positively to the state-initiated conservation programmes.

Further, in order to generate the involvement of the forest dwellers in conservation, it is imperative to address their immediate livelihood problems. As for instance, the current practice in Pakistan is to undertake CBC as part of a wide-ranging integrated rural development programme including employment, health, education, water supply, farm to

market roads, etc (Khattak 2008, 167). In case of Nameri, such an approach may be adopted to foster a sense of commitment among the community toward conservation. Most of the villagers being poor, sustainable developmental activities among them can help build up goodwill among them toward various conservation programmes. Although the FVs in Nameri also have seen some government-sponsored developmental activities, they are too piecemeal and without any holistic longtime vision. Moreover, tenurial rights over land being the critical issue among the villagers, they are not likely to take up conservation responsibilities in the desired way if they are not provided with tenurial security over land. This issue can, however, be well addressed within the broader framework of the FRA 2006.

Finally, it is very important to carry out a cadastral survey of the entire NTR area in order to resolve conflict over land ownership and to demarcate the boundaries of forests and the FVs because a considerable amount of forest area is under encroachment. Besides, a proper assessment of patterns of landholdings, that is, the land-use practices in the FVs has to be undertaken. A ceiling on each family's landholding in the FVs must be strictly followed as per the FRA. Of course, this requires substantial support from the forest dwellers. Here, the main argument is that PAs should not be made open for widespread human use (Saberwal et al. 2001, 46) but to be allowed for certain land-use practices and income generating options for sustainable livelihoods without destroying forest cover and animal habitats.

4. Generating Alternative Livelihood Opportunities

Chapters Three and Four clearly show that the lack of alternative sources of income, out of agriculture, in the FVs of Nameri has been responsible for many a problem among the villages and their attitude toward conservation. It calls for adoption of hands-on conservation strategies which would entail evolving innovative practices of alternative livelihoods for the forest dwellers. This, as Shahabuddin and Rangarajan (2007, 12) have underscored, will motivate the latter to conserve forests out of their self-interests and to create a positive association between the two. The JFM Schemes in Assam has provisions for 'Entry Point Activities' which mainly stress on community welfare activities in the

FVs. These include: distribution of handloom and sewing machines to the women villagers, job-oriented training to the youths; plantation of short-term rotation crops like medicinal and aromatic plants, fruit yielding varieties, cane, bamboo, and other such NTFPs. However, most of these are only in papers as already pointed out in Chapter Four.

It is already underlined above that it is imperative for the FD to take up more innovative programmes that integrate conservation with livelihood needs of the forest dwellers. In this regard, Bhatt (1998) contends that the Integrated Conservation Development Projects (ICDPs) are the best viable option designed to integrate conservation needs with the social and economic needs of the local communities. Development activities are provided in ICDPs as incentives for sustainable management of resources. These often look at more ecologically sound development alternatives, particularly when existing practices are exploitative in nature. Taking instances from other PAs, a range of alternative income generation activities may be adopted in case of the FVs in Nameri and other PAs of Assam.

Biodiversity Based Enterprises (BBE) operating in most PAs of India are providing better livelihoods to the forest dwellers through the collection of NTFPs from forests. These enterprises are generally integrated with CBC that tries to mesh increases in incentives with increases in responsibilities and in capacities (Lele 1998, 453). The PAs such as Biligiri Ranganaswamy Temple Sanctuary[97], Garhwal Himalaya, Sikkim and others, numerous projects under BBE are widely funded by Biodiversity Conservation Network (BCN)[98].

The FD needs to seriously undertake initiatives to create sustainable alternative livelihoods in Nameri. Conservation activities in the FVs of Nameri can generate

[97] The sanctuary is located in the Mysore district of Karnataka state. The inhabitants of these forests belong to the Soligas tribal community.

[98] The Biodiversity Conservation Network (BCN) is a programme attempting to integrate conservation through community enterprises. The BCN which operates in Asia and the Pacific, is a component of the United States-Asia Environmental Partnership (US-AEP), funded by the Asia Bureau of the US agency for International Development (USAID). BCN is administered by the Biodiversity Support Programme (BSP), a consortium of the World Wide Fund, the Nature Conservancy and World Resources Institute (Bhatt 1998: 274).

substantial employment opportunities for the forest dwellers. The local youth can be employed as guides for tourists after training. They can also be trained and employed for patrolling duties in the forests under the Forest Protection Committees. This can help generate support and local responsibilities toward conservation as pointed out in Chapter Four.

Further, eco-development strategies could be adopted for generating income earning ways for the forest dwellers. Such strategies include varieties of employment opportunities like dairying, handicrafts, horticulture, energy-saving devices such as efficient stoves, and market linkages such as roads and transportation, etc (Saberwal et al. 2001, 84). It is true that these have been criticised on the ground that eco-development does not attempt to reverse the historical process of state take-over of land and denial of rights and tenurial security of the forest dwellers. However, despite such criticisms, such strategies may well change the entire scenario in the forest villages if the government and the FD take pro-active stand for their effective implementation. Care indeed has to be taken to see that horticulture does not necessarily lead to mono-plantation in the park area. It should include plantations of wide varieties to protect forest biodiversity. Handicrafts may include weaving of traditional stuffs, making moulded plates, bowl from *sal* (Shorea Robusta) leaves which are abundant in the area, and also bamboo and paddy stalks can be used for making utility items.

Discussions with some of villagers in Sopaloga and Gamani revealed that initiatives for eco-development was taken in the year 2000 and the eco-development committees were also formed in the forest villages. But this happened without the knowledge of a larger section of the villagers. Under the eco-development schemes, a few villagers in both the villages received benefits such as sewing machines, *gobar* (cow dung) gas plant and handloom in Sopaloga. Solar lights have also been provided in both the villages for community uses in the *naamghars*. Though villagers received these benefits, most of them are now hardly aware of the existence of the eco-development scheme and its significance for the forest and the FVs. Such ignorance is also witnessed among the forest officials. This shows lack of engagements on the part of the FD and absence of

transparency in information flow between the FD and the villagers. The eco-development committee is totally defunct now.

Nevertheless, a sustainable extraction of NTFPs (mainly medicinal varieties, fruits, *sal* leaves, etc.) from the plantations under the ETF, JFM and FD schemes can also contribute to the income generation and improvement of livelihoods among the community. The FD can organise training programmes for the villagers on mushrooms cultivation, silkworm rearing and bee keeping.[99] Since, these activities do not need much labour and can be done on the homestead land, these options may be easily chosen. Dairying is also one of the feasible options for the villagers for income generation. For this, small village industries, cooperatives, small food processing units, self-help groups, etc in the FVs with good market linkages may be created to ensure full return of economic benefits. This would substantially contribute to the rural peasant economy and help divert pressure on forest lands from agriculture.

Moreover, the pressure on agricultural land may be addressed if the forest villagers adopt the practice of multiple cropping. This might also take some time, since elephant ravages of crops in the FVs in Nameri (and indeed in most other FVs of Assam) in the winter season is a rampant phenomenon. Therefore, conservation measures have to be undertaken strategically to reduce man-elephant conflict too. On account of their poverty, the forest villagers in Nameri have little capital to take up these initiatives themselves. It was observed that the villagers mostly used the loan received under the government-sponsored *Kalpataru Scheme* in agriculture rather than in small businesses for which the scheme is meant. This is due to lack of capital, motivation, and know-how about market investments. Government initiatives are inevitable in this regard which in turn would create long-term stakes in conservation (See Chapter Four) among the local forest villagers. However, these need proper planning, organisation, consultations, trainings, and orientations among various stakeholders at the village level.

[99] The biodiversity based enterprise activities like silk worm rearing, bee-keeping and honey production are helping local communities in the Garhwal Himalayas.

Thus, it is imperative that a combination of both short-term and long-term conservation measures is adopted to combat the growing population pressure on the forest land in Nameri. It requires, as discussed above, a sensitive and pro-active FD which works in close tandem with the community.

5. Forest Policies for Inclusive Development

The contemporary experience shows that there is an urgent need to incorporate the local historical and livelihood specificities into the broader level policy perspective. The study in Nameri explores the specific nature of man-forest interaction in Assam as compared to those residing in PAs in other parts of India. The Nameri reserve, over the years, saw the migration of peasants in search of land, who lost their land due to floods, erosion, and other factors. The colonial FD had settled these peasants in the area in order to use their *begar* services for forestry operations. This was, more or less, also the case with other forest reserves of the state, where human settlements came up with migrations of the indigenous peasants. Therefore, the forest dwellers in Assam are not the traditional dwellers of forests as in central and eastern India. That is why, the former cannot be described as *'banavasi'* since their dependence on forests is only complementary. They are basically peasants.

The case of man-forest interaction in Assam thus has its own specific character. No policy on forest conservation can succeed in Assam unless it accounts for the unique history of land use and alienation among the indigenous people of the state whether due to natural causes or due to human intervention. The FRA has therefore created new apprehension and uncertainties among the forest dwellers of Assam. Nonetheless, the FRA also offers a broad and flexible framework for addressing forest conservation and livelihood needs of the forest dwellers. Yet, much depends on the pro-active role of the state in this regard. Unfortunately, the Act is being routinely sidelined and subverted by the union as well as the state governments. The FD on its part has allowed various technicalities to take precedence over the spirit of the Act to deprive forest dwellers of their "unsettled cultivation rights and missing forest use rights" (Lele et al. 2011, 107).

The experience in Nameri clearly testifies to this. However, with the pressure on forest land mounting in Assam owing to the expanding agrarian frontier as well as the exigencies of homeland politics, it seems imperative that the traditional exclusivist conservation model gives way to a more inclusive, people-friendly policy so that the intensifying conflict between the community needs and conservation paradigm of the state is meaningfully addressed.

REFERENCES

BOOKS

Barpujari, H.K. (ed.). "North and North-East Frontier" in *The Comprehensive History of Assam.* Vol. IV. Guwahati: Publication Board Assam, 1992. Print.

Barpujari, H.K. (ed.). "Problem of the Frontier: 1822-60" in *The Comprehensive History of Assam.* Vol. IV. Guwahati: Publication Board Assam, 1992. Print.

Barpujari, H.K. (ed.). "Trade: External and Internal" in *The Comprehensive History of Assam.* Vol.V. Guwahati: Publication Board Assam, 1993. Print.

Baruah, S.L. *A Comprehensive History of Assam.* New Delhi: Munshiram Manoharlal Publishers, 1985. Print.

Bhatt, Seema. "Conserving through Community Enterprise" in Kothari, Ashish et al. (eds.). *Communities and Conservation: Natural Resource Management in South and Central Asia.* New Delhi: Sage Publications, 1998. Print.

Bhuyan, S.K. *Anglo-Assamese Relations (1771-1826).* Gauhati: LSB Publication, 1949. Print.

Brandis, Dietrich. *Indian Forestry.* Nadu Public Domain 1923. Reprints.

Buttel, Frederick, H. "Classical Theory and Contemporary Environmental Sociology: Some Reflections on the Antecedents and Prospects for Reflexive Modernization Theories in the Study of Environment and Society" in Redclift, Michael, R. and Woodgate, Graham. (eds.). *New Developments in Environmental Sociology.* Cheltenham: Edwar Elgar, 2005. Print.

Buttel, Frederick, H. and Humphrey, Craig, R. "Sociological Theory and the Natural Environment" in Dunlap, Riley, E. and Michelson, William. (eds.). *Handbook of Environmental Sociology.* West Port: Greenwood Press, 2002. Print.

Das, Priya. "The Politics of Participatory Conservation: The Case of Kailadevi Wildlife Sanctuary, Rajasthan" in Shahabuddin, Ghazala and Rangarajan, Mahesh. (eds.). *Making Conservation Work: Securing Biodiversity in this New Century.* India: Permanent Black, 2007. Print.

Dunlap et al. "Environmental Sociology: An Introduction" in Dunlap, Riley, E. and Michelson, William. (eds.). *Handbook of Environmental Sociology.* West Port: Greenwood Press, 2002. Print.

Dunlap, E. Riley, JR. Catton R. William. "Which Function(s) of the Environment Do We Study? A Comparison of Environmental and Natural Resource Sociology" in Redclift, Michael, R. and Woodgate, Graham. (eds.). *New Developments in Environmental Sociology.* Cheltenham: Edwar Elgar, 2005. Print.

Fernandes, Walter and Kulkarni, Sharad. (eds.). *Towards a New Forest Policy: People's Rights and Environmental Needs.* New Delhi: Indian Social Institute, 1983. Print.

Fernandes, Walter. "Towards a New Forest Policy: An Introduction" in Fernandes, Walter and Kulkarni Sharad (eds.). Towards a New Forest Policy: People's Rights and Environmental Needs. New Delhi: Indian Social Institute, 1983. Print.

Ghimire, Krishna, B. and Pimbert, Michel P. (eds.). *Social change and Conservation: Environmental Politics and Impacts of National Parks and Protected Areas,* London: Earthscan, 2006.Print.

Goswami, Shrutidev. *Aspects of Revenue Administration in Assam: 1826-1874.* Delhi: Mittal Publication, 1987. Print.

Guha, Amalendu. *Medieval and Early-colonial Assam: Society, Polity and Economy.* Calcutta: Centre for Study of Social Systems, 1991. Print.

Guha, Ramachandra and Martinez-Alier, Juan. *Varieties of Environmentalism: Essays North and South.* London: Earthscan Publications, 1998. Print.

Guha, Ramachandra. *How Much Should a Person Consume?: Thinking through the Environment.* New Delhi: Permanent Black, 2006. Print.

Guha, Ramachandra. *The Ramachandra Guha Omnibus.* New Delhi: Oxford University Press, 2005. Print.

Handique, Rajiv. *British Forest Policy in Assam.* New Delhi: Concept Publishing Company, 2004. Print.

Hannigan, John. *Environmental Sociology.* London: Routledge, 1995. Print.

Joshi, Gopa. "Forest Policy and Tribal Development: Problems of Implementation, Ecology and Exploitation" in Fernandes, Walter and Kulkarni Sharad (eds.). *Towards a New Forest Policy: People's Rights and Environmental Needs.* New Delhi: Indian Social Institute, 1983. Print.

Karanth, Ullhas, K. "Sacred Groves for the New Century" in Prasad, Archana. (ed.). *Environment, Development and Society in Contemporary India: An Introduction.* New Delhi: Macmillan, 2008. Print.

Kulkarni, Sharad. "The Forest Policy and the Forest Bill: A Critique and Suggestions for Change" in Fernandes, Walter and Kulkarni Sharad (eds.). *Towards a New Forest Policy: People's Rights and Environmental Needs.* New Delhi: Indian Social Institute, 1983. Print.

Bell, Mayerfeld, Michael. *An Invitation to Environmental Sociology.* California: Pine Forge Press, 1957. Print.

Mills, A.J, Moffat. *Report on the Province of Assam.* Guwahati: Publication Board Assam, 1853/1984. Print.

Mudappa, Divya and Raman, Shankar, T.R. "Rainforest Restoration and Wildlife Conservation on Private Lands in the Western Ghats" in Shahabuddin, Ghazala and Rangarajan, Mahesh. (eds.). *Making Conservation Work.* New Delhi: Permanent Black, 2007. Print.

Podder, Ganeshdatta. *Globalization, Liberalization and Environmentalism.* Jaipur: Rawat Publications, 2009. Print.

Prasad, Archana (ed.). *Environment, Development and Society in Contemporary India: An Introduction.* New Delhi: Macmillan, 2008. Print.

Prasad, Archana. (ed.). "Section III: Forests Wildlife and Co-existence" in *Environment, Development and Society in Contemporary India: An Introduction.* New Delhi: Macmillan, 2008. Print.

Prasad, Archana. *Environmentalism and the Left: Contemporary Debates and Future Agendas in Tribal Areas.* New Delhi: Leftword Books, 2004. Print.

Rangarajan, Mahesh. *India's Wildlife History: An Introduction.* New Delhi: Permanent Black, 2001. Print.

Saberwal et.al. *People, Parks and Wildlife: Towards Coexistence.* New Delhi: Orient Longman, 2001. Print.

Sachchidananda. *Man, Forest and the State in Middle India.* New Delhi: Serial Publications, 2004. Print.

Saikia, Arupjyoti. *Forest and Ecological History of Assam,* New Delhi: Oxford University Press, 2011a. Print.

Saikia, J.P. (ed.) *The Land of Seven Sisters.* Calcutta: N.K. Gossain and Co. Pvt. Ltd, November 1976. Print.

Schaniberg, Allan. et al. "The Treadmill of Production and the Environmental State" in Redclift Michael R. and Woodgate Graham. (eds.). *New Developments in Environmental Sociology.* Cheltenham: Edwar Elgar, 2005. Print.

Shahabuddin, Ghazala and Rangarajan, Mahesh. (eds.). *Making Conservation Work: Securing Biodiversity in this New Century.* India: Permanent Black, 2007. Print.

Sharma, Aparna and Kabra, Asmita. "Displacement as a Conservation Tool: Lesons from the Kuno Wildlife Sanctuary, Madhya Pradesh" in Shahabuddin, Ghazala and Rangarajan, Mahesh. (eds.). *Making Conservation Work: Securing Biodiversity in this New Century.* India: Permanent Black, 2007. Print.

Sheth, Pravin. *Environmentalism: Politics, Ecology and Development.* Jaipur: Rawat Publications, 1997. Print.

Shiva, et al. *Ecology and the Politics of Survival: Conflicts Over Natural Resources in India.* New Delhi: Sage Publications, 1991. Print.

Singh, Chhatrapati. "The Framework of Environmental Laws in India" in *India's Environment: Myth and Reality.* Dehradun: Natraj Publishers, 2007. Print.

Sundar, I, Muthukumar, P.K. *Environmental Sociology.* New Delhi: Sarup Sons Publications, 2006. Print.

Tamuly, Laxminath. *Bharator Swadhinata Sangramot Asomor Abodan (Sanghat Aro Sahajogitar Itihas.* Jorhat: Rupohi Prakashan, 1988. Print.

Upadhyay, Sanjay and Kothari, Ashish. *National Parks and Sanctuaries in India: A Guide to Legal Provisions.* Allahabad: Print World, 2001. Print.

JOURNAL ARTICLES

Basurto, Xavier. "Bureaucratic Barriers Limit Local Participatory Governance in Protected Areas in Costa Rica." *Conservation and Society.* 11 (1). (2013): 16-28. Print.

Das, Smriti. "The Strange Valuation of Forests in India." *Economic and Political Weekly.* Sameeksha Trust Publications. Mumbai. February 27. Vol. XLV. No. 9. (2010). Print.

Foster, Bellamy, John. "Marx's Theory of Metabolic Rift: Classical Foundations for Environmental Sociology". *American Journal of Sociology.* The University of Chicago. Vol. 105. No. 2. September. (1999): 366-405. Print.

Jena, Milind, Ranjan. "The Wood for the trees." *Seminar.* February 426. (1995): 51-54. Print.

Kothari el.al. "Conservation as if People Also Mattered: Policy and Practice of Community-Based Conservation." *Conservation and Society.* 11 (1). (2013): 1-15. Print.

Lele, Sharachchandra. "A Defining Moment for Forest". *Economic and Political Weekly.* Samiksha Trust Publications. Vol. 25. No. 42. June 23. Mumbai. (2007). Print.

Munshi, Indra. "Environment in Sociological Theory." *Sociological Bulletin.* Vol. 49. No. 2. September (2000). Print.

Phukan, Hem. "Bon Niti aro Bonanchalbasi" in *Mukti* (A Krishak Mukti Sangram Samity Periodical). Kaki. Nagaon. March. 2008. Print.

Prasad, Archana. "Forest Encroachments: Guidelines and Implications of Recent Orders." *Peoples' Democracy, Weekly Organ of the Communist Party of India (Marxist).* Vol. XXVII. No. 1. June 5. (2003). Print.

Rangarajan, Mahesh. "The Raj and the Natural World: The war against the dangerous beasts in colonial India." *Studies in History.* Sage Publications. New Delhi. Vol. 14. No. 2. July-December. (1998): 265-300. Print.

Reddy et.al. "Issues Related to Implementation of Forest Rights Act in Andhra Pradesh." *Economic and Political Weekly.* Sameeksha Trust Publications. Mumbai. Vol.XLVI. No.18. April 30. (2011). Print.

Saikia, Arupjyoti. "State, Peasants and Land Reclamation: The Predicaments of Forest Conservation in Assam 1850s-1980s." *The Indian Economic and Social History Review.* Sage Publications. New Delhi. Vol. 45. No. 1. (2008): 77-114. Print.

Saikia, Arupjyoti. "The Kaziranga National Park: Dynamics of Social and Political History." *Conservation and Society.* Vol.7. No. 2. (2009): 113-129. Print.

Sarma, Indrani. "Forest Villages in Assam: Emergence and Evolution." *Social Change and Development.* OKD Institute of Social Change and Development. Guwahati. Vol. IX. (2012a). July. Print.

Sarma, Indrani. "An Assessment of the Indian Forest Rights Act 2006 in Assam". *Journal of Alternative Perspectives in the Social Sciences.* Vol. 4. No. 2. (2012b). May. Print.

Sharma, C.K. "Assam: Tribal Land Alienation: Government's Role." *Economic and Political Weekly.* Sameeksha Trust Publications, Mumbai. Vol. XXXVI. No.52. (2001): 4791-4795. 29 December. Print.

Sonowal, Chandrajyoti. "Demographic Transition of Tribal People in Forest Villages of Assam". *Studies of Tribes and Tribals.* 5 (1). 47-58. KRE online Journal. (2007). Print.

Sonowal, Chandrajyoti. "Forest Villages in Assam". *Economic and Political Weekly,* Sameeksha Trust Publications. Mumbai. September 27. (1997): 2441-2443. Print.

Stevens, Stan. "National Parks and ICCAs in the High Himalayan Region of Nepal: Challenges and Opportunities." *Conservation and Society.* 11 (1). (2013): 29-45. Print.

Thapar, Valmik and Manfredi, Paola. "Saving our forests." *Seminar.* February. 426. (1995): 28. Print.

Visvanathan, Shiv. "From Dudhwa, with Love." *Seminar.* February. 426. (1995): 15-18. Print.

Wani, Milind and Kothari, Ashish. "Globalisation vs India's Forests." *Economic and Political Weekly.* Vol. XLIII. No. 37. September 13. (2008). Print.

ARTICLES IN MAGAZINE

"The State of India's Forest". *Geography and You: A Development and Environment Magazine.* Vol. 9, Issue 57. November-December. New Delhi. 2009. Print.

Aiyar, Mani, Shankar. "Recognising the Rights' of Forest Dependents". *Yojana: A Monthly Magazine.* Yojana Bhawan. New Delhi. September 2008. Print.

Bora, Dhrubajyoti. "Aaranya Aro Manuhar Adhikar-1" in *Mukti* (A Krishak Mukti Sangram Samity Periodical). Kaki. Nagaon. March. 2008. Print.

Bunsha, Dionne. "Conflict of Interests." *Frontline.* Chennai. Vol. 25. No. 4. February 16-29. 2008. Print.

Gogoi, Akhil. "Natun Bon Niti: Pratyasha aro Hatasha" in *Mukti* (A Krishak Mukti Sangram Samity Periodical). Kaki. Nagaon. March. 2008. Print.

Kothari, Ashish. "A Long and Winding Path". *Frontline.* Chennai. 29 February. 2008. Print.

Kothari, Ashish. "A Revolution in the Making?: The Untapped Potential of Community Forest Rights." *The Hindu: Environment Survey 2011.* Chennai. 2011. Print.

Lele, Sharachchandra. "Rethinking Forest Governance: Towards a Perspective beyond JFM, the Godavarman case and FRA." *The Hindu: Environment Survey 2011.* Chennai. (2011): 96. Print.

Lele, Sharachchandra. "Rethinking Forest Governance: Towards a Perspective beyond JFM, the Godavarman case and FRA." *The Hindu: Environment Survey 2011.* Chennai. 2011: 96. Print.

Pallavi, Aparna. "Unsafe Heaven (Tadoba Sanctuary disturbs tigers and drives away villagers)." *Down To Earth.* Centre for Environmental Communications. New Delhi. May 1-15. 2008: 24-27. Print.

Ramakrishnan, Venkitesh. "Hope and Fear." *Frontline.* Chennai. 29 February. 2008. Print.

Upadhyay, Sanjay. "Co-existence: Myth and Realities". *Yojana: A Monthly Magazine.* Yojana Bhawan. New Delhi. September 2008. Print.

ARTICLES IN NEWSPAPER

Ramesh, Jairam. "Ramesh Calls for a Paradigm Shift in Forest Management." *The Hindu*, Chennai. 4 January. 2011. Print.

Saikia, Arupjyoti. "Why Ignore History to Stall the Forest Rights Act 2006?" *Seven Sister's Post.* Guwahati. 29 November 2011b. Print.

WEB PUBLICATIONS

Tripathi, Ashish. Bonded Labourers get freedom, land titles after 70 years. 17th May 2011. Accessed 31 May 2011. http:// www.timesofindia.com.

Assam Forest Policy 2004. http://www.govassam.nic.in.

Prasad, Archana. Forest Encroachments: Guidelines and Implications of Recent Orders. 3 January 2003. Accessed 10 September 2003. pd.cpim.org/2003/0105/1052003_forests.htm

REPORTS AND DOCUMENTS

Asian Indigenous and Tribal Peoples Network *"The State of the Forest Rights Act: Undoing of historical injustice withered"*. New Delhi. 2012. Print.

Asom Forest Department. *Asom Forest at a Glance*. Director Forest Communication. 2005-06. Print.

Bose, Urveeja, Arshiya. *'Tracking The Forest Rights Act in Nameri National Park and Sonai Rupai Wildlife Sanctuary: An Investigative Report'*, Kalpavriksh Environment Action Group. 2009. Print.

Department of Environment and Forests. *"Management Plan of Nameri Tiger Reserve (2003-04 to 2007-08)"*. Western Assam Wildlife Division, Tezpur. Government of Assam. Print.

Kiro, Vasavi. et.al. *Implementation of Forest Rights Act in Assam.* MoEF/MoTA Committee Report on Forest Rights Act (Report of Field Visit, 11-14 July 2010). 2010.

UNPUBLISHED SEMINAR/ CONFERENCE PAPERS

Sharma, C.K. "Reclaiming Foothills from Colonial Discourse: Space, Settlement and Strategy in North East India." International Seminar on Region Formation in Contemporary South Asia. Indian Formation Research Society. University of Delhi. 25-27 November. 2009.

Sharma, C.K. "The Krishak Mukti Sangram Samity and the New Peasant Assertion in Assam." Paper Presented in a National Workshop on Social forces and Politics of Regionalism in North East India. Department of Political Science. North Eastern Hill University. Shillong. March 11-12. 2010.

APPENDIX 1

IUCN's CATEGORIES OF PROTECTED AREAS

The International Union for Conservation of Nature (IUCN) has devised six categories of Protected Areas (PAs). They are:

Category I	Wilderness Area/Nature Reserve: Protected Areas manage mainly for science or wilderness protection.
Category II	National Parks: Protected Areas managed mainly for ecosystem protection and recreation.
Category III	Natural Monument/Natural Landmark: Protected Areas managed mainly for conservation of a specific natural feature.
Category IV	Habitat or Species Management Area: Protected Areas mainly for conservation through management intervention.
Category V	Protected Landscape/Seascape: Protected Areas managed mainly for landscape/seascape protection and recreation.
Category VI	Managed resource Protected Areas: Protected Areas managed mainly for the sustainable use of natural resources.

(Ghimire and Pimbert 2006: 10)

The IUCN has also spells out seven objectives of PAs. These are to:

1. Safeguard the world's outstanding areas of living richness, natural beauty and cultural significance as a source of inspiration and an irreplaceable asset;
2. Maintain the life-supporting diversity of ecosystem, species, genetic varieties, and ecological processes;
3. Protect genetic variations and species which are needed to meet human needs, for example, food and medicine;
4. Provide homes to human communities with traditional cultures and knowledge of nature;
5. Protect landscapes reflecting a history of human interaction with the environment;
6. Provide for scientific, educational, recreational and spiritual needs of societies;
7. Provide benefits to local and national economies and as models for sustainable development to be applied elsewhere.

(Ghimire and Pimbert 2006: 10)

APPENDIX 2

DIRECTIONS AND BOUNDARIES OF NAMERI NATIONAL PARK AND TIGER RESERVE

	NAMERI NATIONAL PARK (NNP)		NAMERI TIGER RESERVE (NTR)
NORTH	Pakhui Wildlife Sanctuary of Arunachal Pradesh with well demarcated inter-state boundary of Assam And Arunachal Pradesh.	**NORTH**	Doimukh Reserve Forest, Pakhui Wildlife Sanctuary and Papum RF of Arunachal Pradesh, southern fringe of the Doimukh RF and the Papum RF. These three forest areas on the north belong to Arunachal Pradesh and are well demarcated by the Inter-state Boundary pillars between Assam and Arunachal Pradesh.
EAST	The old course of Bor Dikarai River	**EAST**	The Ghiladhari River (The eastern boundary of Naduar RF)
SOUTH	The old course of Bor Dikarai River and the Sikam Taungya village	**SOUTH**	Southern boundary of the Naduar RF from the Ghiladhari River and the southern boundary of Balipara RF upto the point where it touches Balipara-Bhalukpong railway line
WEST	The right bank of Jia Bhoroli River from Arunachal Pradesh to the Southern Boundary of Balipara RF. Thence along the left bank of Jia Bhoroli River till it meets Southern Boundary.	**WEST**	Balipara-Bhalukpong railway line from the southern boundary of Balipara RF upto Arunachal Pradesh border

(SOURCE: Management Plan of Nameri Tiger Reserve (2003-04 to 2007-08), Western Wildlife Division, Tezpur, Assam Forest Department)

APPENDIX 3
FOREST AND REVENUE VILLAGES IN THE BUFFER AREAS OF THE NAMERI TIGER RESERVE

(A) EAST BUFFER

SERIAL NO.	NAME OF FOREST VILLAGE
1.	Selaikhaiti Karbi Forest Village
2.	Selaikhaiti Bangali Forest Village
3.	Selaikhaiti Kachari Forest Village
4.	Morisuti Mishing Forest Village
5.	Sikam Taungya Village

(B) WEST BUFFER

SERIAL NO.	NAME OF FOREST VILLAGE
1.	Gamani Forest Village
2.	Sopaloga Forest Village
3.	Eraliloga Forest Village
4.	Tarajan Forest Village
5.	Potasali Forest Village
6.	Sotai (Garo and Miri) Forest Village
7.	Dharikati Forest Village
8.	Bogijuli Forest Village

SOUTH BUFFER

SERIAL NO.	NAME OF REVENUE VILLAGE	LOCATION
1.	(i) Sonai Miri Village (ii)Sonai Pam Village (iii) Sonai Nepali Village	Mouza- Chariduar Circle- Chariduar Sub-Division- Tezpur District- Sonitpur
2.	(iv) Bhoroli Chapori Village (v) Baligaon Miri Village (vi) Bokagaon Miri Village (vii) Kalabari Gaon (viii) Buragaon village	Mouza- Balipara Circle- Chariduar Sub-Division- Tezpur District- Sonitpur
3.	(ix) Towbhanga Village (x) Bamungaon Village (xi) Patgaon Village (xii) Bordikarai Miri Village (xiii) No. 2. Bordikarai Balichapori Village (xiv) Purani Bordikarai Village (xv) No. 4 Bordikarai Village (xvi) Morisuti Village (xvii) Christian Basti Village (xviii) Balijuri Village	Mouza- Murhadol Circle- Naduar Sub-Division- Tezpur District- Sonitpur

(SOURCE: Management Plan of Nameri Tiger Reserve (2003-04 to 2007-08), Western Wildlife Division, Tezpur, Assam Forest Department)

APPENDIX 4
VILLAGERS' OCCUPATIONAL ENGAGEMENTS, SOPALOGA

SERIAL NO.	TYPES OF OCCUPATION	POPULATION		TOTAL
		MALE	FEMALE	
1.	Government Services: (a) Indian Railway	1. Minaram Das 2. Khogen Das		02
	(b) Indian Army	1.Bankhidhar Das 2. Sarat Das		02
	(c) Teacher (Primary School)	1. Raju Bhuyan		01
	(d) Siksha Mitra (Sarva Siksha Abhiyan)	1. Jogesh Das 2. Bidyut Kumar Das		02
	(e) Panchayat	1. Durlav Das (Computer Assistant at the village Panchayat Office, Gamani)		01
	(f) Health Workers: Asha		1. Tarulata Bora	01
	(g) Anganwadi		1. Upama Koch 2. Baby Das 3. Dipti Bhuyan 4. Rushna Deka	04
	Forest Department	_____	_____	
	Others: LIC, Sahara Insurance Agent	1. Jogesh Das		01

2.	Shop-keepers	1. Dhan Das 2. Arun Das 3.Rupnath Das 4. Tankeswar Das 5. Puran Koch 6. Arun Bhuyan 7. Bubul Das 8. Benudhar Koch 9.Ratneswar Koch		09
3.	Barbar	1. Munindra Hazarika 2.Ganesh Das 3. Pramod Koch		03
4.	Construction Worker	1. Dulu Hazarika		01
5.	Carpenters	1. Thaneswar Das 2. Lati Koch 3. Dumbe Koch 4. Benudhar Koch		04
6.	Basket-makers	1. Benudhar Koch 2. Purna Kanta Saikia 3. Dumbe Koch		03
7.	Tutors	1. Durlav Das 2. Munindra Hazarika 3. Munu Bhuyan		03
8.	Electricians	1. Deukon Koch 2. Pranab Koch 3. Raju Bhuyan		03
9.	Traders There is only one local trader	1. Joychandra Koch		01

	from the village who buys paddy, beetel nuts, beetel leaves, coconuts, goats, duck, pigeons, hen, etc from the villagers and sell them outside.			
10.	Village Priest (locally known as *'Naamgharia'*)	1. Purna Koch		01
11.	Driver There is one driver in the village who can drive a tractor. He is hired by many villagers at the time of ploughing the fields and to carry heaps of paddy from the field during the time of harvest.	1. Dulen Das		01
12.	Traditional physician (locally known as *Bez*) The Bez acts as a village doctor who uses traditional methods of treating ailments. He uses herbal medicines for pain, pneumonia, jaundice, etc. He also chant mantras (locally called 'jora-phuka') to cure small ailments.	1.Tarun Das 2. Dulal Barua		01

APPENDIX 5
VILLAGERS' OCCUPATIONAL ENGAGEMENTS, GAMANI

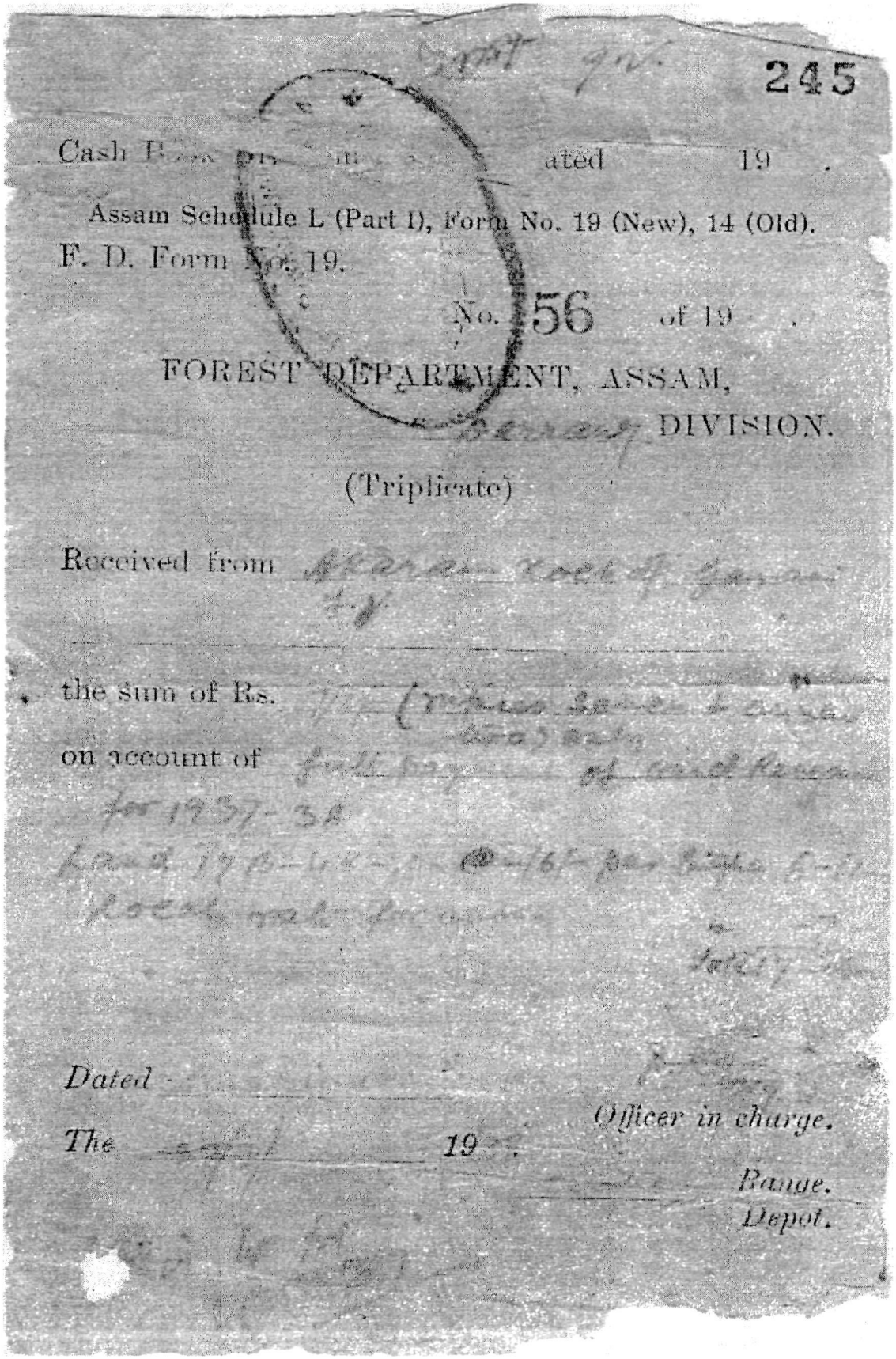
SERIAL NO.	TYPES OF OCCUPATION	POPULATION		TOTAL
		MALE	FEMALE	
1.	Government Services: (a) Indian Railway	1. Nandeswar Das 2. Khiromoni Das 3. Nagen Das 4. Uma Kanta Das		04
	(b) Indian Army	1. Bipul Chandra Das 2. Sonmoni Das 3.Sambhuram Gogoi		03
	(c) Teacher	1. Numal Chandra Das 2. Karameswar Das, 3. Chandan Bharali 4. Narayan Bora 5. Pabitra Das		05
	(d) Siksha Mitra (Sarva Siksha Abhiyan)			
	(e) Panchayat			
	(f) Health Workers: Asha			
	(g) Anganwadi	1.Malati Barman Das 2. Golapi Das 3. Rekha Bharali 4. Bhugeswari Das		04
	Forest Department	1.Anuram Das 2. Cheniram Das 3. Anil Das 4. Gulok Das 5. Kamal Das 6. Theporam Das	-	06

	Others: LIC, Sahara Insurance Agent			
2.	Shop-keepers			
3.	Barbar	1.Atul Chandra Das 2.Hareshwar Das		02
4.	Carpenters/Construction Workers	1.Phanidhar Das 2.Ranjit Das 3.Krishna Bhumish 4.Dhananjoy Das 5.Kiripa Deka 6.Bogai Saikia		06
5.	Basketry-makers			
6.	Tutors		1. Malati Das	01
7.	Electricians			
9.	Tailor	1.Ghanakanta Das 2.Sonjeet Das		02
10.	Traders There is only one local trader from the village who buys dhaan, rice, beetel nuts, beetel leaves, arecanuts, coconuts, goats, duck, pigeons, hen, etc from the villagers and sell them outside.			
11.	Village Priest (locally known as *'Naamgharia'*)			

APPENDIX 6

INSTITUTIONS IN THE FOREST VILLAGES AND NEARBY AREAS

SERIAL NO.	INSTITUTIONS	LOCATION
1.	Post Office	Gamani FV Sengelimari RV
2.	Library (non-governmental)	All FVs
3.	Panchayat Office	Gamani FV which cater to the needs of all the FVs. Chariduar Panchayat Office located in Sengelimari RV
4.	Village Club (non-governmental)	All FVs
5.	Anganwadi Centres	All FVs (Sopaloga- 2 Centres and Gamani 1 Centre)
6.	Primary Health Centre (PHC)	Balipara
7.	Sub-Centre	Gamani FV
8.	Community Health Centre (CHC)	Sengelimari RV
9.	Dispensary	Sengelimari RV



245

Cash R... ... ated 19 .

Assam Schedule L (Part I), Form No. 19 (New), 14 (Old).

F. D. Form No. 19.

No. 56 of 19 .

FOREST DEPARTMENT, ASSAM,

... DIVISION.

(Triplicate)

Received from ...

the sum of Rs. ...

on account of ...

for 1937-38

Dated ...

The ... 19 .

Officer in charge.

Range.

Depot.

The *Khajana* receipt of Shri Akaram Koch of Gamani Forest Village for the year 1937-38

Assam Schedule L (Part I), Form No. 26 (New), 17 (Old).
F. D. Form No. 26.

F. D. Form No. 26.

FOREST DEPARTMENT, ASSAM.

Darrang Division, Centr Range

Annual Patta for the year 1942-43

Book No. 13 Patta No. 4/45/13

Name of reserve.	Name of village.	No. of fields or plots.	Area.	Class of land.	Rate.	Revenue.	Local rate.	Remarks.
	TOTAL ...							

Dated ...

The ... *19*

(See conditions on the reverse)

Range Officer.

... *Range.*

The *Khajana* receipt for the annual patta for the year 1942-43 of Shri Chengram Koch alias Chokbor Gaonbura (Village Headman) of Sopaloga Forest Village

CONDITIONS.

1. No permanent or heritable right is ceded to the *patta-holder* by this *patta*. The land is also not transferable.

2. The land revenue to be paid before the 31st March of each year.

3. *Patta-holders* wishing to resign land should submit an application in writing before the 31st December of each year.

4. No reserve trees growing on the land of the *patta-holder* may be felled without the previous sanction of the Divisional Forest Officer.

Lal Chand & Sons, Printers, Calcutta—No. 2676—27-12-37—50 Bks.