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CHAPTER 13

Community Based Forest Management in India

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ABSTRACT

In India, forest and natural resource management have been practiced by local communities since time immemorial, but emerged into the consciousness of government and many donors in the late nineteenth century. Currently, community forests and forestry has taken central place in national politics because of their importance in rural livelihoods, environmental protection and state revenues. In order to promote and develop the sector various schemes and laws have been implemented from time to time, keeping in view the community as well as political

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interests. Although most of the schemes have shown positive outcomes, failures were also a part. The present paper addresses the processes pertaining to the current status, people's dependence and circumstances that led to the progression of community forestry in India, and reviews and analyses the rising policy issues in the current scenario confronting the programme. Hence, describes both the optimistic and pessimistic faces of the programme.

Key words: Community forestry, JFM, sacred groves, social forestry, traditional knowledge.

Introduction

Throughout the world slowing down the deforestation and forest degradation remained an enormous challenge with concomitant social, environmental, and economical implications (Uriarte *et al.* 2010). While forest cover continues to shrink globally (FAO 2010), strategies to revert this trend are often controversial (Geist and Lambin 2002). Nonetheless, a general conformity exists that a mix of different forest conservation strategies are desirable which integrate public-private and community-managed areas (Bray *et al.* 2008). The debate partly originates from the fact that forests considered important for biodiversity conservation have traditionally been, and still are, inhabited and managed by local people (Heckenberger *et al.* 2007), and that even include forested areas considered under strict protection regimes (Nagendra *et al.* 2009). Studies have found that within the same region, forests managed by local communities for the production of goods and services can be equally effective in maintaining forest cover than those managed under solely protection objectives (Bray *et al.* 2008). Therefore, it is commonly documented that plans for the management of protected areas should take into account the needs and aspirations of those living within these areas, called community forests. This refers to those forests, where multiple uses takes place under a variety of tenure, benefit sharing and governance schemes involving local, rural, and/or indigenous groups, either independently or with outside support (Pagdee *et al.* 2006). There is a growing recognition of community forests and acknowledgement of their role in the conservation of biodiversity. It has been demonstrated that areas of high biodiversity overlap with places where traditional communities maintain control over resource management (Maffi 2005). Worldwide, out of the 370 million ha of forests conserved by indigenous communities, almost half, 170 million ha, is in Asia (Molner *et al.* 2004). Some governments have integrated them into their official Protected Area Systems, and the 5th World Parks Congress (IUCN 2003) and the Programme of Work on Protected Areas of the Convention on Biological Diversity (CBD) in conference of parties 7 accepted them as legitimate conservation sites that deserve support and, inclusion in national and international systems.

One of the main causes for deforestation is the use of plants for energy generation in rural areas. In India, biomass constitutes 85% of the rural energy and with a per capita consumption of 1.0 ton/year, of which about 50% is being collected from nearby forests (Hall and deGroot 1985), sustaining almost 40% of population partially or fully (Ojha 2006). Though there is no official census figures for the forest dependent population in the country, different estimates put the figures from 275 million (World Bank 2006) to 350- 400 million (MoEF 2009). Since long, India has been known for its traditional forest management and conservation, however, with the increased biotic pressure from growing human and livestock populations, lack of technical skills, poor investments and change in the ownership these forests have depleted rapidly. This led government to support and increase the involvement of rural communities in forestry development, with the prime objective of generating employment, protecting the environment while ensuring basic needs of fodder, fuel and timber. However, in most of the states especially with reference to northeast India, it was the traditional wisdom of the communities that enforced necessary rules and regulations on the local people for sustainable management of their forests. This traditional management system is functional till now (Tiwari *et al.* 2013). Therefore, it becomes imperative to study the condition of community forestry in the country. Hence, the present study documents the current overview, changing trends and potential benefits of the community forestry, in Indian context.

Results

Rise and Trends in the Community Forestry in India

In India, community forestry and natural resource management have been practiced by local people on the basis of traditional knowledge since time immemorial, with everybody having equal rights over them, though it assumed the form of a mass movement only in the last 10-15 years (Singh *et al.* 2005). However, this traditional framework of forest use and governance were overridden in the second half of the nineteenth century, when the Britishers realized the commercial value of India's forest and imposed control over them in the name of scientific forest management (Agarwala 1985). The first move in this direction came in 1855, in the form of 'Charter of Indian Forests', and in 1864 some legal constraints were put by the establishment of the forests department in the country, followed by formulation of 'Forest Act' in 1865. This Act empowered the government to declare any land covered with trees or brushwood as forest and gave it the right to control over it (Pathak 1994). This approach of the British policy had depressing impact on forest dwellers, resulting in spreading poverty in tribal society. However, it could not affect the far flung areas of the country, where the indigenous communities continue to manage their resources traditionally.

Soon after independence, within the agenda of forest management, the country adopted the Annual National Festivals of Trees Plantation (*Van Mahotsava*) in 1950, with intensions of creating mass awareness about the value of forests in human well being (Lal 1989). After realizing that forest protection is not possible alone without the active co-operation of local forest dependent people, the government of India started call for people participation (Kannan 1983). The first move in this direction was National Forest Policy of 1952, which accounted for sustainable management of forests, clearly stating that local wellbeing and priorities should be subservient to the broader national interest. In order to cover up the society in broader perspectives, the National Commission on Agriculture in 1976 introduced the concept of '*Social Forestry*', starting heavy plantation drives, in order to encourage those dependent on fuel wood, fodder and other forest products, to meet their own needs as well as to reduce the pressure on the forests (Arnold 1991). Primarily seen as an effort to bridge overly constricted disciplinary benefits by taking a farmer rather than a sectoral point of view, it was followed by a change in the development paradigm emphasizing decentralization and community participation in decision-making and afforestation irrespective of land ownership (FAO 1978). This was followed by formulation of '*National Wastelands Development Board*' in 1985 to promote the production of fodder, fuel and minor timber on wastelands, by involving local communities and voluntary agencies. The main goals were the rehabilitation on degraded lands, strip plantations, village woodlots, farm forestry, agroforestry, homestead plantations and decentralized nurseries.

The first ever important move in the history of community forestry came in the form of National Forest Policy 1988, under which security of the rights of tribal's and other forest-dwelling communities was given emphasis by granting them access to forest resources. It was also agreed that forest cannot be exploited to meet the raw resources for industry, not even for earning revenue for the government at the cost of local inhabitants (Subash 1985). However, the policy had to face some of the failures, because of the poor management and less governmental attention, meager people's participation and the poor tenure security (Arnold 1991). In general, insecure tenure is correlated with weak forest management, the rationale being that insecure tenure fails to provide local forest users with sufficient incentives to manage forest sustainably (Blaser 2010). In this regard, the programme of Joint Forest Management (JFM) evolved in 1990, which is seen as a partnership between communities and Forest Departments in the management of local forests. However, there was no institutional mechanism which could forge synergy at village level JFM institutions with higher level institutions and formal state institutions in order to maximize investment and production in the vast stretches of hitherto degraded forests (Joshi 2000). Under such circumstances, the National Afforestation Programme (NAP) was formulated

by merger of four ninth plan centrally sponsored afforestation schemes by the Ministry of Environment and Forests, The NAP was implemented through two tier set up viz., the forest development agencies (FDAs) and joint forest management committees (JFMCs).

The JFMCs were largely involved in the plantation and other forestry activities and getting benefits of wages as workers. In many areas, JFM programme had generated many positive outcomes by improved protection and increased availability of Minor Forest Produce as well as fuel wood (Anonymous 2005). But the lack of integration with developmental activities has been found to limit the reach of JFM (Sethi and Singh 2001). Although most of the communities participated and enhanced their support in the scheme, but the programme did not show the expected results. As most of the farmers were illiterate, hence involvement of local leaders, members of the village *Panchayats*, school teachers and voluntary agencies was most effective in ensuring better people's participation and adoption of new technologies (Hegde 1993). Therefore, to obtain this the Government of India enacted the Panchayat (Extension to the Scheduled Areas) Act, 1996. But, the empowerment of Gram Sabha with ownership of minor forest produce (MFP) under Panchayat Raj (Extension to the Scheduled Areas) Act 1996 created conflict between JFMCs and Gram Sabhas. Later on, the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) popularly known as 'Forest Rights Act' 2006 was enacted to fully protect the rights of indigenous communities. As per the provisions of the FRA 2006, even the sizable area which is around 35-40 million hectare is likely to fall under the category of Community Forest Resource (CFR), where forest dwelling communities will exercise the community forest rights to protect, regenerate, and conserve the forest. The salient features of the schemes and acts enacted from time to time are given in table 13.1.

More recently, market-based approaches such as payment for environmental services (PES) and Reducing Emissions from Deforestation and Degradation (REDD+) have been started in various states. REDD+ is a global mechanism that aims at sustainable forest management (SFM) through protecting forests and enhancing carbon sequestration, where devolution of power to local communities is one of the important components of the sustainable management of forest. Besides this, REDD+ is also aimed to improve the livelihoods of forest-dependent communities by adding value to the collected forest produce through a public private partnership model that would enhance income and employment opportunities for the local people.

Types and Status of Communal Forests in India

Throughout the country, one generally comes across numerous forest patches that depict a peaceful coexistence between humans and biodiversity.

Table 13.1: Salient Features of Laws and Policies Related to Community Forestry in India

Law/Policy	Features
Forest Policy (1894)	<ul style="list-style-type: none"> • Management of forest directed towards the general wellbeing of the country • Maintenance of adequate forests to preserve the climatic conditions of the country • Classification of forests for better management
National Forest Policy (1952)	<ul style="list-style-type: none"> • Emphasis given to a system of balanced and complementary land-use • Accent on checking denudation of mountainous regions, erosion of river banks and adjoining fields • Supply of timber wood, firewood and fodder for grazing to be increased • Sustained supply of timber and other industrial supplies
National Forest Policy (1988)	<ul style="list-style-type: none"> • Maintenance of environmental stability through preservation and the restoration of ecological balance • Conserving natural heritage of the country by preserving natural forests with vast variety of flora and fauna • Increasing forest cover through massive afforestation programmes • Meeting requirements of firewood, fodder, minor forests and small timber of rural and tribal populations • Creating massive people's movement with involvement of women for achieving above objectives and to minimize pressure on existing forests.
JFM Resolutions (1990)	<ul style="list-style-type: none"> • Forests should be protected by voluntary agencies or village communities, jointly with state forest departments • No ownership or lease over forest land to be given to village community or other voluntary agency • The community is entitled full usufructory rights (over non-timber, grass, firewood and timber products) and partial share in final harvest of timber • Community to prepare micro-plan for forest along with forest department
Panchayats (Extension to Scheduled Areas) Act (1996)	<ul style="list-style-type: none"> • Panchayati Raj extended to tribal areas with state legislation enjoined to give primacy to communities to manage their affairs in accordance with traditions and customs • Gram Sabhas given extensive powers to safeguard and preserve traditions, customs, cultural identity, community resources and customary mode of dispute resolution • To approve the plans, programmes and projects for social and economic development • Identify beneficiaries under poverty alleviation and other programmes • Protect common property resources, including minor forest produce

(Contd...)

Law/Policy	Features
<p align="center">JFM Guidelines (2000) and (2002)</p>	<ul style="list-style-type: none"> • Provides legal status to JFM committees, suggestion for registering forest committees under Societies or Co-operative Societies Act • Increased participation of women in the programme, giving 33% reservation in executive committee • Recognition for self-initiated forest protection groups • A transparent mechanism to compute the income sharing and benefits between different stakeholders. • For the long-term sustainability of resources, it became essential that not less than 25 percent of the revenue earned from the final harvest, where tree felling occurs, should form the share of the village community and be deposited in the village development fund for meeting the conservation and development needs of the forests
<p align="center">Biological Diversity Act, 2002</p>	<ul style="list-style-type: none"> • To regulate access to biological resources of the country with equitable share in benefits arising out of the use of biological resources • Setting up of National Biodiversity Authority (NBA), State Biodiversity Board (SBB) and Biodiversity Management Committees (BMC's) • To respect and protect knowledge of local communities traditional knowledge related to biodiversity • To secure sharing of benefits with local people as conservers of biological resources and holders of knowledge and information relating to the use of biological resources
<p align="center">Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006</p>	<ul style="list-style-type: none"> • Recognizes and grants rights to scheduled tribes and other communities, who have traditionally been living in or depending on forest land for their legitimate livelihoods • A unique opportunity for forest-dependent communities to claim and manage forest resources in order to achieve the twin objectives of biodiversity conservation and sustainable livelihood • The rights to protect or conserve or manage any community forest resource which they have been traditionally protecting and conserving for sustainable use • Right to own, collect, use and dispose of minor forest produce which has been traditionally collected within or outside the village
<p align="center">REDD+</p>	<ul style="list-style-type: none"> • To develop a national forest reference emission level (REL) and forest reference level (RL) • To manage forests for improving and enhancing supply of forest products and ecological and environmental services, benefitting the society leading to increased growing stock and the stored carbon in the forests • To develop appropriate mechanism for channelizing REDD+ funding and transfer the accrued financial benefits to the communities in a fair, equitable and transparent manner • To lay emphasis to address the drivers of deforestation and forest degradation, afforestation of degraded areas, forest governance and gender considerations etc. while implementing the REDD+ programmes

From time to time there has been a changing paradigm in the biodiversity governance system in the country, which gave rise to varied governance systems, where communities manage forests independently or with the help of government. These key streams of biodiversity governance are given in figure 13.1. In order to achieve good forest governance, continuous changes have been made in these systems, which led different states to have different types of community conserved forests. Broadly, these forests may be classified as following:

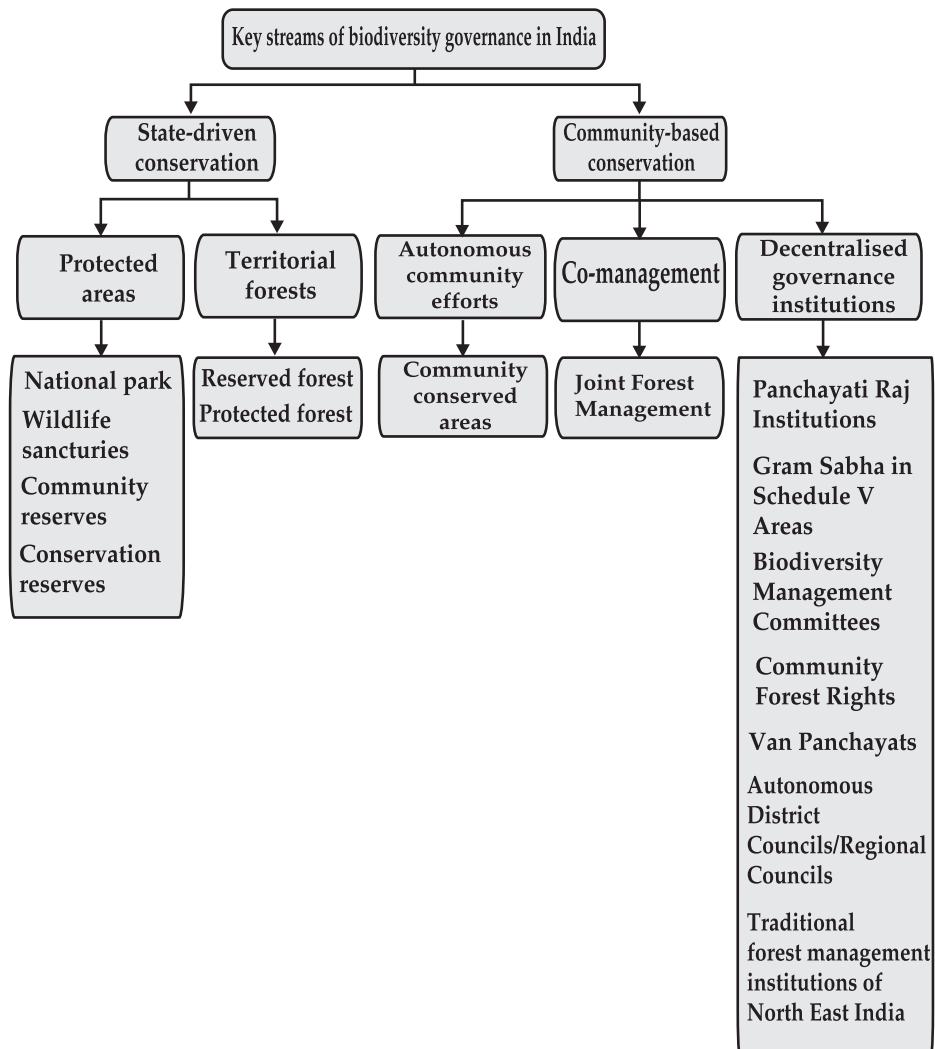


Fig. 13.1: Key streams of biodiversity governance are given in India

Sources: Modified after Krishnan *et al.* 2012)

Community Forests Under JFM Programme

These include those types of forests, which are being maintained by partnership (co-management) involving both the state forest departments and local communities, detailed under National Forest Policy of 1988 and the Joint Forest Management Guidelines of 1990. These schemes vary from state to state and are known by different names in different Indian languages. Usually a village committee known as the forest protection committee (FPC) and the forest department enter into a JFM agreement. Villagers agree to assist in the safeguarding of forest resources through protection from fire, grazing, and illegal harvesting and in exchange for which they receive non-timber forest products and a share of the revenue from the sale of timber products. Started first in west Bengal in 1971, for the commercial forest crop of 'Sal' with 612 families managing an area of 12.7 km², the scheme was applied to other states of India in 1990. The states that implemented JFM includes Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Gujarat, Himachal Pradesh, Haryana, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Mizoram, Nagaland, Orissa, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura and Uttar Pradesh. List of JFMCs up to 2001 in different states is given in table 13.2. These types of forests may also include the reserved forests and protected forests. More infrequently, an existing forest may be directly designated as a communal forest. The implementation of JFM and decentralization of forest policies have proven successful for conservation and management of these community forests in many states, with some failures as well (Sudha *et al.* 2004).

Community Forests Under Social Forestry Programme

This includes those types of forests, meant for management of already existing forest land and afforestation on barren lands with the purpose of helping in the environmental, social and rural development. The programme was started in 1976 by National Commission on Agriculture (GOI, 1976). This includes different types of programmes such as farm forestry (individual farmers are being encouraged to plant trees on their own farmland), community forestry (raising of trees on community land and not on private land), extension forestry (planting of trees on the sides of roads, canals and railways, along with planting on wastelands) and agroforestry (growing of food crops together with trees). The social forestry programme was very successful in the country and helped in the conservation by reducing the pressure on the forests.

Forests Under Indigenous Management Programmes

These types of forests include those, which are preserved and maintained by local villagers independently to save forested lands as well as to safeguard their livelihood, without the coordination of government. These types of forests are in vogue since time immemorial and have been found to be very rich in

diversity. Higher forest coverage on private and community lands as compared to government lands, indicates effective management by traditional institutions (Tiwari *et al.* 2013). Though these types of forests do not exist in every state of the country, but there is still a high concentration in some parts including Northeast India and Western Ghats (Davidar *et al.* 2007). Typically, these lands are protected on a social, religious or cultural basis, wherein the responsibility for the protection is often shared by the community together (Sudha *et al.* 1998). Moreover, these forests are conserved by local people based on the principles of providing opportunities for extraction of goods for legitimate needs and ensuring the continued existence of forest resources for future (Chatterjee *et al.* 2000a, 2000b, Davidar *et al.* 2007).

There is a great variability in management practice, which has evolved under different biophysical and cultural environments. For example, in hill regions of Northeast India different management practices have led to the formation, in general, of as many as eleven types of community forests (Tiwari *et al.* 2013) which includes:

- (i) **Group of village forest** (forests jointly owned by a group of contiguous villages, managed by a council comprising the head of the group of villages).
- (ii) **Village forest** (forests maintained for collection of timber and non timber products with village council being responsible to ensure sustainability and equitable sharing of benefits).
- (iii) **Restricted forest** (forests similar to village forests, but with a higher degree of protection, and access to forest resources is restricted, commonly called "law adong" in Meghalaya).
- (iv) **Sacred forest** (forest patches maintained for religious purposes).
- (v) **Clan forest** (forests owned by more than one clan, with all members equally sharing benefits).
- (vi) **Cemetery forest** (forests for cremation of dead bodies).
- (vii) **Regeneration forest** (forests for regeneration only and extraction of trees prohibited).
- (viii) **Bamboo forest** (bamboo forests for local uses).
- (ix) **Recreation forest** (forests maintained only for recreation, with no extraction of forest products).
- (x) **Village reserved forest** (forests reserved by the people to retain green cover for environmental benefits, with no extraction of goods and are maintained under village authority) and
- (xi) **Medicinal plantation** (for preservation of medicinal plant germplasm for future).

The most famous communal forests are the "sacred groves", which include areas recognized as sacred by indigenous and traditional peoples as well as

recognized by institutionalized religions or faiths as places for worship and remembrance (Oviedo *et al.* 2005). These areas are left untouched by the local inhabitants (Malhotra *et al.* 2007). These spiritual ties with prime patches of forests ensured not only the long-term subsistence interest of local people (Chiabai *et al.* 2011), but also protected the dynamics of local ecosystems, therefore recognized as one of the most efficient and sustainable use of natural resources by modern scientific community (Ray and Ramachandra 2010). India has the highest concentration of sacred groves in the world. At least 13,720 sacred groves have been reported in various parts of the country (Malhotra *et al.* 2001), but estimates suggest that there might be around 100,000 and 150,000 (Malhotra *et al.* 2007). Most of these groves are spread across the Western Ghats, Central India and Northeast India (Gadgil and Vartak 1976, Tiwari *et al.* 1998). Highest concentration of scared groves in India is found in the state of Kerala (2000) having an area of 500 ha, but area-wise Meghalaya with 79 sacred groves are perhaps the largest in the country, with an area of about 26,326 ha (Tiwari *et al.* 1998). The number and area of sacred forests in different states of the country is given in table 13.2.

Table 13.2: Number and Area (ha) of Sacred Groves (SG) and Joint Forest Management (JFM) Committees in Different States of India

State	No. of SG (Area, ha)	No. of Conservation Reserves/Community Reserves	No. of JFM Committee (Area, ha)
Andhra Pradesh	800	–	7606 (1679084)
Arunachal Pradesh	101	–	13 (5810)
Assam	40	–	245 (6970)
Bihar	–	–	296 (504602.5)
Chhattisgarh	600	–	6412 (3391305.31)
Goa	–	–	26 (13000)
Gujarat	29	1	1237 (138015.19)
Haryana	248	2	471 (65852.42)
Himachal Pradesh	329	–	914 (111247.2)
J & K	–	34	1895 (79546)
Jharkhand	21	–	1379 (430463)
Karnataka	1424	2	2620 (185000)
Kerala	2000 (500)	–	32 (4994.7)
Madhya Pradesh	275	–	9203 (4125837)
Maharashtra	1600	1	2153 (686688)
Manipur	365	–	58 (10500)
Meghalaya	79 (26,326)	28	–
Mizoram	–	–	129 (12740)
Nagaland	–	–	55 (150000)

(Contd...)

State	No. of SG (Area, ha)	No. of Conservation Reserves/Community Reserves	No. of JFM Committee (Area, ha)
Orissa	322 (50)	–	12317 (783467)
Punjab	–	1	188 (97193.4)
Rajasthan	9 (158)	3	3042 (309336)
Sikkim	56	–	158 (600)
Tamil Nadu	503 (127)	1	799 (299389)
Tripura	–	–	160 (23476.79)
Uttar Pradesh	6 (5500)	–	502 (45025.44)
Uttarakhand	18	2	7435 (606608)
West Bengal	670	–	3545 (488095)

Sources: Srivastava 1994, NAEB 1995, Rajendraprasad 1995, Rao 1996, Deb *et al.* 1997, Malhotra *et al.* 1997, Amrithalingam 1998, Sinha and Maikhuri 1998, Jha *et al.* 1998, Chandran and Gadgil 1998, Tiwari *et al.* 1998, Gupta *et al.* 2000, Marine Carrin 2000, Chatterjee *et al.* 2000a, 2000b, Saigal 2001, DTE 2003, Khumbongyam *et al.* 2004, Waghchaure *et al.* 2006, Anthwal *et al.* 2006, Khan *et al.* 2007, MOEF 2014)

Conservation and Community Reserves

A recent development related to community based conservation in India is the establishment of Conservation and Community reserves. They are protected areas that act as buffer zones or connectors and migration corridors between established National Parks, Wildlife Sanctuaries and Reserved and Protected forests. These protected area categories are created as per the provisions of Section 36C of the Wildlife Protection Act 1972 (as amended upto 2006). In Meghalaya, 28 community forests have been converted to Community reserves. The area of these community reserves ranges from 0.67 ha to >210 ha covering a total of 925 ha. This has brought in a new paradigm in the management of community forests of the state. Though the concept of Conservation- and Community- reserves is new but it would help in conservation of biodiversity. However, it is not well understood, how this change in management would affect or improve the livelihoods of forest dependent people of the country.

Role of Community in Conserving the Forest Resources

Local people are the chief users and guardians of the world's ecosystems, and they make the vast majority of daily environmental decisions with their land use and investment choices. Over generations, they have used their traditional knowledge to manage natural resources, conserve ecosystems, and adapt to environmental changes. Several studies have documented the extensive ecological knowledge regarding forests that many local and indigenous populations maintain, and forest management practices that are ecologically sound (Malla *et al.* 2003). Mostly these communities manage these forests for variety of reasons, including resource enhancement and/or

maintenance, countering ecological threat, expressing religious sentiments, cultural concerns and/or continuing traditional systems, political expression and managing biodiversity concerns. The Indian experiences have showed that the most common reasons for maintaining forests have been resource enhancement, livelihood and biodiversity conservation (Pathak 2009). There are several documented examples where conservation efforts by communities have been ecologically effective, e.g. Sendenyu village community of Nagaland has totally banned hunting and started regenerating their forests under various forest management schemes (Krishnan *et al.* 2012). Other examples include protection of 1,800 hectares of forests by Mendha (Lekha) village in Maharashtra by the Gond tribal community, conservation and sustainable use of more than 5,000 hectares of forest land for collection of NTFPs by 95 villages in Budhikhamari area of Mayurbhanj district in Odisha and daikong *bolong* forest management system of Jamatia people of Tripura (Poffenberger *et al.* 2007). In addition, several cases of successful management of natural resources with positive results for biodiversity conservation by Panchayats have been obtained. For example, in Kolhapur district of Maharashtra, Panchayats have engaged in tree plantation drives and watershed development by forming forest protection and conservation committees in villages. In Nandurbar district, Panchayats have planted a million trees and are implementing watershed development projects. Soute and Padvalwadi Gram Panchayats are taking steps to stop land degradation and cutting of trees (SOPPECOM 2011). Studies have found JFM areas with very high tree density compared to the unprotected areas, suggesting effective conservation measures by co-management (Tiwari and Kayenpaibam 2006). In Northeast India, the community forests have been in vogue since time immemorial and are viewed as traditional and cultural identity of the different tribes. These forests has not only helped in conserving the resource as evident from the presence of large patches of well protected forests and ensuring its sustainable use but also has been a source of common good and 'safety net' for the communities (Tiwari *et al.* 2013).

The sacred groves viewed as one of the most effective platforms for conservation have been found to have higher species diversity than surrounding areas and, in some cases, even more than government-protected areas in similar regions (Ormsby and Bhagwat 2010). They contain many primary species due to their antiquity in origin (Jamir and Pandey 2003). Several rare, threatened and economically important species are found in these forests, which are perhaps the last refuge for those vulnerable species (Tiwari *et al.* 1998, Khumbongmayum *et al.* 2005). These sacred forests may be the only climax vegetation remaining in many areas but majority are now disturbed due to human activity (Khiewtam and Ramakrishnan 1989). Most forest management institutions have instituted a system of penalties for violations. These penalties could be monetary or nonmonetary – such as

social sanctions, confiscation of equipment or fines in kind. These are largely based on customary practices that may or may not invoke government law. Interestingly, in some areas, especially in many sacred groves, the community believes that the violator/ offender will be punished by divine power. Sophisticated institutional mechanisms (traditional or new) exist in several areas to resolve intra-village, intervillage and inter-community conflicts. In cases where such institutions do not exist, the villagers depend on government agencies, in particular the Forest Department (Pathak 2009). All these community efforts have helped in the conservation of forest resources of the county.

Conclusion

Community or participatory forest management has become a popular model for sustainable resource management over the last decade and also empowers the poor people. Local communities are not mere spectators, but active managers of ecosystems. Collaborative management (JFM) with clear roles, responsibilities and rights of partners has offered a way forward. The success of co-management depends on issues of tenure, access, ownership and institutional capacity to manage. Communities will be reluctant to participate fully unless they receive adequate benefits or returns as an incentive to conserve. A huge network of the forests has been protected in the country using this approach. A lot of progress has been achieved in the development of the indigenous communities. While decentralized approaches to forest governance are becoming increasingly common, there is still limited knowledge with regard to how local people can effectively participate in forest governance policies and practices. Moreover, there is a lack of explicit policy provision to support the livelihoods of the poor. Co-management can be effective if there is sufficient incentive for communities to invest in conservation within a framework acceptable to policy-makers. In any case, many resource extraction practices have a strong cultural basis in addition to their economic value and thus cannot be easily compensated for or substituted.

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