UNIT 13 PARTICIPATORY FOREST RESOURCE MANAGEMENT

Structure

13.1 INTRODUCTION

Forests with large global biodiversity constitute home for forest-dependent communities and peoples. Forests cover about one-fifth of the earth's land area. Humans in some or the other way manipulate more or less all these forests. Most people are dependent on forest for several purposes like fuel wood, food, fodder, and medicine etc. This makes forest protection more important than even before. Forests constitute an important component of natural resources that need to be managed prudently so as to meet the increasing population's demands, without depriving the future generations, as well as preserve the ecological balance and biodiversity. The task is so great that the Government alone cannot do it. Local community's voluntary agencies have to play an important role in the management of forests.

Therefore, participatory forestry emerged as a new worldwide practice for forestry development and was promoted by international organizations. Participatory management involves working together with the beneficiaries, various government and non-governmental organizations and is broadly accepted as the most appropriate strategy for implementing programmes for sustainable development of natural resources. Although the types of interventions are diversified, the profession continued to embrace those traditional practices of forestry that were dominated by the twin dogmas of timber primacy and sustained yield. Participatory forestry is claimed to be the unique vehicle by which the needs of local people could be met and the quality of rural lives enhanced.

In India forest communities have faced increasing marginalization for several centuries. Though forest departments have grown in size and numbers, their financial and human resources remain woefully inadequate to ensure proper management of nearly one-quarter of the Indian subcontinent classified as public forest land. Forest departments are firmly entrenched in institutional procedures and regulations and

attitudes on both sides are often hostile towards each other. But in participatory management forest departments have to help local communities in building institutional management capacity and must approach the task in a supportive, rather than directive, top-down manner.

Unfortunately, current governance systems and political-economic arrangements at national and international levels ignore the rights and abilities of communities in managing forests thus continuing to support the destruction of forests. Even to conserve biodiversity we need to consider both the future of the forests, and the security of the communities that live in them.

This unit provides a critical analysis of the strengths and weaknesses of these new approaches and considers whether participatory forestry provides a new paradigm for forest management or whether it is another fashionable, soon to be marginalized, development trend. We have also described participatory forest management in India that is based on co operative-management and a give and take relationship with Forest Department, mediated in most cases by a non-governmental organization.

Objectives

After studying this unit, you will be able to:

- define the term forestry and describe its types,
- explain the concept of participatory forestry, and trace the origin of this new approach,
- appreciate the paradigm shift in forest management from centralization to decentralization, and
- describe the recent trends in participatory forest resource management in India as well as in South Asia.

13.2 WHAT IS FORESTRY?

Forestry is the science, art and practice of managing and using trees, forests and their associated resources for human benefit. It is the scientific answer for the question we have asked but a more elaborate explanation will be that all the operations in the forest such as plantation of trees, their protection, monitoring, proper and sustainable utilization and any other aspect of management constitute forestry. It also includes scientific, socio-economic and legal aspects.

There are three functional divisions of the forest sector, which come under state governments in India.

i) Territorial sector – which involves raising forest, its protection and utilization of forest land hold by State Government (as forest land is owned by State Government)
ii) Social forestry – in which trees are grown on road side, canals, barren land, waste land, village land with the help of farmers.
iii) Wild life – Conservation of wild life that is flora and fauna in forest through bio-reserves, parks and sanctuaries. Tourism also constitutes important part of wild life. Sustainable tourism also brings conservation of wild life as discussed in Unit 11, Block 2 of MED-006.

Forestry Research: Forestry Research has become important part of forest. There is necessity to strengthen the research base as well as new priorities for action. Research disciplines required for the support of forestry which include; economics, microbiology, history, increasingly political science, anthropology, sociology, law ecology, chemistry, soil science, zoology, botany among many others. Forestry, alone among the professional disciplines, derives its power base from ownership of large areas of land. It is highly centralized with a diversity of roles and products, where

internal conflicts and contradictions often dominate. Its practice requires the development of multi-disciplinary skills and their accommodation within a framework that allows their full expression.

Some broad areas of research and development that need special attention are:

i) Increasing the productivity of wood and other forest produce per unit area per unit time by the application of modern scientific and technological methods;
ii) Revegetation of barren/marginal/waste/mined lands and watershed areas;
iii) Effective conservation and management of existing forest resources (mainly natural forest eco-systems);
iv) Research related to social forestry for rural/tribal development;
v) Development of substitutes to replace wood and wood products; and
vi) Research related to wildlife and management of national parks and sanctuaries.

Forestry Education: Forestry should be recognized both as a profession and a scientific discipline. In Agriculture University there should be courses for imparting forestry education and research. Specialized orientation courses for developing better management skills, and in service training need to be encouraged because of the latest developments in forestry and related disciplines.

Forests and the Forestry Scenario in India

Resources: India's forest cover is estimated to be about 64 million hectares, or 19.5 percent of the country's area. The per capita availability of forest land in India is one of the lowest in the world, 0.08 ha, against an average of 0.5 ha for developing countries and 0.64 ha for the world. Dense forests in almost all the major states have been reduced and forest degradation is a matter of serious concern.

Fires destroy about 35 million hectares of forests, some 55 percent of the forest area, annually. Other factors leading to forest degradation are transfer of forest lands for other uses – encroachment on forest lands for agriculture and other purposes, grazing, and pests and diseases.

Products: Forests formally contribute 1.7 percent to India's GDP. India produces a range of processed forest (wood and non-wood) products ranging from saw wood, panel products and wood pulp to bamboo, rattan ware and pine resin. The paper industry produces over 3 million tonnes of paper annually from more than 400 mills (however, the raw material to produce that volume comes substantially from non-wood fibre) (Fig. 13.1).

Total industrial wood consumption by wood-based processing industries is about 30 million cubic metres. This, however, accounts only for about 10 percent of total wood consumption; 90 percent is consumed in the form of small timber and fuel wood. An important cause for sub optimal wood use is its relatively low price because of subsidies on wood raw materials and free fuel wood supply.

India is world's largest consumer of fuel wood. The country's consumption of fuel wood is about five times higher than what can be sustainably removed from forests. However a large percentage of this fuel wood is grown and managed outside forests. Fuel wood meets about 40 percent of the energy need of the country. About 70 percent of the fuel wood is used by household and the rest by the commercial and industrial units. Around 80 percent of rural people and 48 percent of urban people use fuel wood.

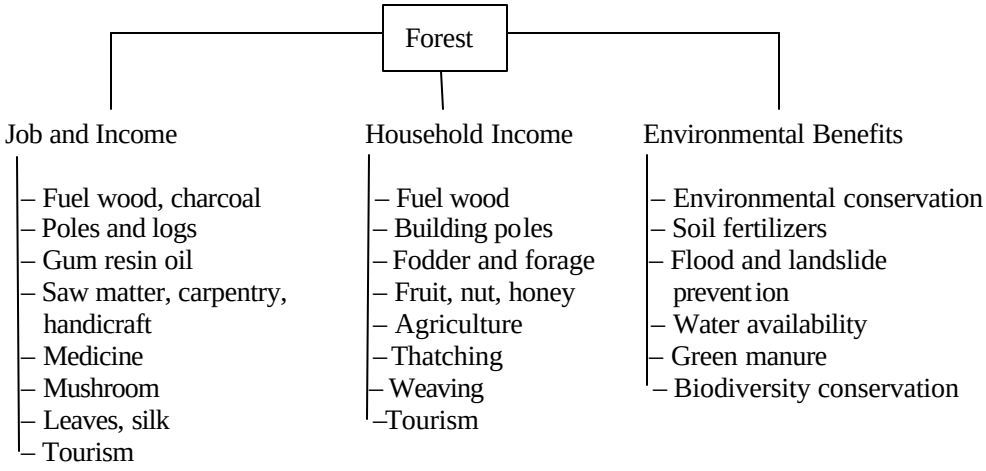

Fig. 13.1: Benefits of Forest.

Forestry Options in India

Revegetation of degraded lands could be aimed at one or more of the following goals:

- to meet the biomass needs of local communities and industries; demand factors;
- to conserve soil, moisture and biodiversity: local and national ecological factors;
- to sequester carbon: global ecological factors; and
- to generate employment, income and reducing the burden of balance of payments: macro-economic factors.

The natural resource management and conservation efforts are at cross-roads today. The sustainability of ecological processes and life support systems is threatened in the forests and also the security and dignified livelihood of the people living in or on the outskirts of forest and protected areas.

There are a host of forestry organizations contributing to various aspects of forest management issues including the Forest Survey of India, the Indian Institute of Forest Management and the Wildlife Institute of India.

Forestry encompasses (Table 13.1) many objectives, such as commercial and rural development (poverty alleviation, employment creation, empowerment of marginalized groups (in particular, women), tourism and amenity, and conservation. Often conflicts arise between these objectives and the priority assigned to each in a given area. The power base derived from its landholdings has made it vulnerable to attack by a number of environmental and human rights groups who contend that this power has been wrongfully wrested from those local groups whose livelihoods are deeply associated with the forests (Fig.13.2).

Fig. 13.2: Forests are life line of people living on its edges.

Timber, logging concession, government officials, local forest users, democratic institutions, corruption – all these words link up in different forms of open and hidden relationships (fig13.3). As early as 1975, Jack Westoby, reflecting on 20 years of development assistance to the forest sector questioned its contribution to the economic and social life of underdeveloped nations. Still, in many countries of South-East Asia, the nexus between timber merchant, the state, and the trade is seriously undermining the development of any form of local democratic institution for the management of forest resource. The practice of dealing out logging licenses to members of the state legislature to secure their allegiance is commonplace currency. Thus the potential impact of decentralization on the formal and informal institutions is dramatic.

Fig 13.3: Timber is one of the most significant produce of the forest.

Together with the global climate of decentralization and bureaucratic divestment, this has led to the current situation where forestry (so long impervious to the decrees of the outside world) has been forced to response to these changes and examines its own institutional framework. This framework for democratization now contains responsibility for a wide range of often-conflicting local management objectives as indicated above. Structures, which were established to fulfill the primary objective of revenue maximization, are now redundant in a world that insists that forest lands be managed for a multiplicity of benefits. The debate about decentralization is by no means confined to the developing world but is a live issue in every country.

The change from primary objective of revenue maximization to multiple objectives ranging from conservation management to development of local organizations for forest management has profound consequences across the forestry sector.

The implementation of decentralization process has brought issues of ownership and control to the forefront of debate. In forestry, the historical development of state control over forestlands has meant that the land base held in trust by the institution for the public good is enormous. 'The following statistics provide an indication of the extent of forestry estates in Asia. In India, Forest Departments control 22% of the national territory (Agarwal and Narain, 1989); in Nepal forests and shrub lands comprise some 4/3% of the total land area (Nield, 1985). In Indonesia, 74% of the territory is controlled by the Forest Department; and in Thailand, the Royal Forest Department administers some 40% of the nation's land (Colchester, 1994). These extraordinary figures underline the fundamental challenge posed to these departments by the call for devolution of some of this control to the millions of people living in forest areas. The means by which this is being done needs considerably more analysis and the form of the linkages between state and people need to be critically assessed.

Table 13.1: Regeneration of trees in India, through various options.

Options	Goals	End uses and features
Natural regeneration (NR)	– promotion of biodiversity – conservation of soil and water – provision of NTFP – Carbon sequestration	– no felling of trees or clear felling – only NTFP and felled wood collection – harvest of grass or controlled grazing – only protection and promotion of NR + planting of a small number of desired tree species (trees/ha)
Enhanced natural regeneration (ENR)	(same as for NR)	(same as for NR) – involves soil and water conservation + protection and promotion of NR + planting of a small number of desired tree species native to that location as desired by local community (100-300 trees/ha)
Community forestry (CF)	– to meet local biomass needs – to promote in situ biodiversity – conserve soil and water – seq. of Carbon – to provide grass for livestock	– sustainable harvest of timber – harvest of grass or controlled grazing – felling of trees to meet local needs – mainly for local needs only surplus if any to be exported – conventional silvicultural practices including soil + water conservation – species choice and density to be left to local communities
Agro-forestry (AF)	– to meet biomass needs of farmers and generate incomes – seq. Carbon	– harvest of firewood – planting trees on crop land bunds, boundary and in between crop rows – species choice and density to be left to the farmers
Shot-term soft (ST)	– to meet industrial soft wood, packaging and other needs (non-structural timber) – to conserve forests and Carbon sinks	– short rotation forestry every year 1/6 of area clear felled at 6 year rotation for soft wood industry – standing woody biomass to be constant at any given time as 1/6 of area is felled – conventional high density plantation of fast growing tree species -intensive cultivation for high yields (like *Eucalyptus* plantation)
Long-term timber wood (LT)	– to meet timber needs for structural purposes – to conserve forests and Carbon sinks	– timber trees (hard wood) to be felled sustainably – after the trees mature, quantity of wood to be harvested and vested equal to annual C sinks productivity of trees – to ensure sustainable supply of timber and constant standing woody biomass with maturity = 25 years and selective logging – conventional silvicultural practices of timber plantation

13.3 WHAT IS PARTICIPATION?

In recent years, there have been an increasing number of analyses of development projects showing that the participation is one of the critical components of success in irrigation, livestock, water and agriculture forestry projects. As a result, the terms 'people's participation' and 'popular participation' are now part of the normal language of many development agencies, including NGOs, Government Departments. It has become a fashion that almost everyone talks of participation in work. 'Participation' is one of those terms that are very difficult to define because while it is very widely used in today's language the scope and meaning that are ascribed to it is often different and very widely used. The term 'Participation' or 'Participatory' is very often used to cover all terms of action by which citizens 'take part' in the operation of administration. The word 'Participation' is used broadly to refer to the role of members of the general public, in influencing the activities of government or in providing direction to community needs. It may occur at any level – from village to the country as a whole (Fig. 13.4).

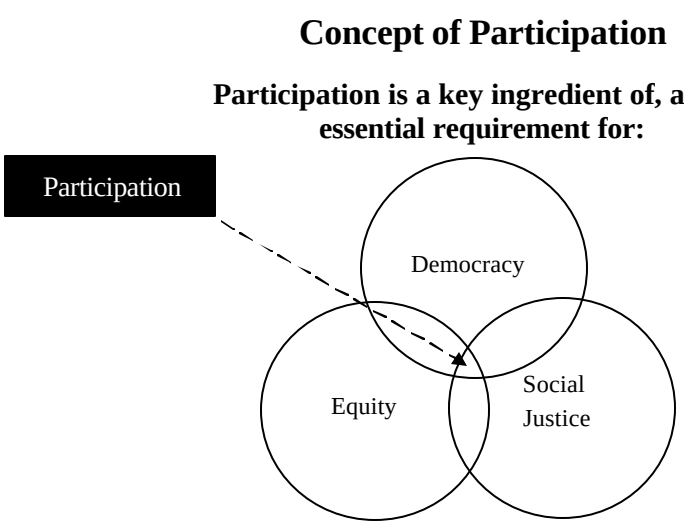

Fig 13.4: Concept of participation.
(Source: nrsp 'participation' workshop: session 1)

Participation in real sense means that rural support institutions must have greater involvement of people and empowerment of diverse people and groups, as sustainable development is threatened without it. But there lies a dilemma of authorities. They need the people's agreement and support but they fear that this wider involvement is less controllable, less precise and will have adverse effect by slowing down the planning process.

The term participation can mean different things to different people. In part, rural development projects, participation has often centered on encouraging rural people to sell their labour in return for food, cash or materials. Yet these material incentives distort perceptions, create dependencies, and give the misleading impression that local people are supportive to externally driven initiatives. This paternalism then undermines sustainability goals and produces results, which do not persist once the project ceases and little effort is made to build local skills, interests and capacity. Local people have no stake in maintaining or supporting new practices once the flow of incentives stops.

Participation may be direct, as in community projects and in the work of private welfare organizations. Thus, participation comprises every kind of citizen intervention in administrative action. Participation gives an ordinary citizen a mean of voicing his opinion and action that he is able to take on responsibilities. Participation may take different forms. It may be in form of voluntary contribution, it may also take a form of

empowering people to gain power to influence the decisions that affect their life and livelihood.

Participation in natural resource management calls for shared ownership, shared management and shared benefits from natural resource management. The main workers in the participatory process are voluntary organizations, government department and the people. (Fig. 13.5).

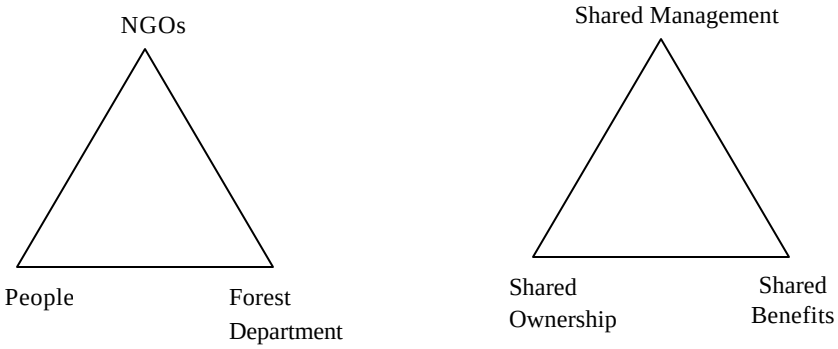

Fig.13.5: Participatory Triangles

The root cause of many of the problems currently being experienced in both India and Nepal can be traced back to the form of participatory practice developed by any project or programme.

13.4 TYPES OF PARTNERSHIP

Now that you have an idea of what is participatory forestry let us discuss about the types of partnerships (Table 13.2). The arguments surrounding the decentralization debate involve discussion of what is an appropriate institutional form to manage forest resources. There is no one solution to these questions, but rather an array of arrangements according to the particular requirements of the forest users. How far the forest bureaucracy can or will divest itself of some of its authority remains to be seen?

However, in an atmosphere of increasing intolerance of bureaucratic inappropriateness there seems little doubt that forest services will be forced to divest some of their authority, at least at the margins of their power base, with the release of some degraded lands to joint management schemes with local people. (Fig. 13.6)

Fig.13.6: Decentralization of power towards - Participatory forestry.

Just as questions are being asked about the role of the state in regulation and management of natural resources, so too are question being asked about the nature of local organizations being developed by governments and the interests of those they represent. Participatory institutions, which purportedly give the village a role in making rural development decisions, are the facilitators of a paralyzing bureaucratization of village procedure, which has replaced the more informal institutions reflecting on community development practices of the 1960's and 70's. It is disingenuous to characterize development as the two simple alternatives – decentralization or centralization, local people versus government together with the contention that grassroots environmental movements are necessarily going to lead to more widespread benefits. The whole process has to be carefully evaluated.

The call for grassroots development brings into question the conditions under which it is appropriate. As the vast literature on collective action shows that there are many conditions under which collective actions have broken down and resources have degraded. The defining features under which such action is appropriate remain elusive in the forest sector, although certain patterns are emerging – most particularly those seen in resource-scare situations.

By identifying and separating out these objectives and forming destine organizations each with primary responsibility for a major objective (Fig. 13.7), conflicts become public (i.e. intra-departmental wrangling is more visible than intra-departmental disputes). Such an approach may also be recommended for South Asia.

Demarcation of territorial responsibility is very necessary which makes accountability easier. As such, the advisory and regulatory functions are the responsibility of the Ministry of Forestry Conservation, a subject that has frequently brought forestry professionals into conflict with environmentalists, and which is considered by many to be irreconcilable with practice of commercial forestry, has been assigned to a Department of Conservation (primary responsible for natural forest conservation). The state-owned Forestry Corporation was made responsible for commercial plantation resource-based forestry activities. In addition, the great power base of a forest service – its land has also been largely privatized.

Fig.13.7: Cooperation of Ministry people and community people is necessary (Source Photo: Government of Orissa Directorate of Soil Conservation)

There is no blueprint for institutional change; the structure of organizations necessary to meet international, national and local imperatives must emerge from the particular circumstance of each nation. The principle of decentralization, although global, does not necessarily lead to a globally uniform response. These responses need to be discussed as this implies transition from public to private sector operation. The degree to which divestment can occur should also be assessed.

Table 13.2: A typology of participation (modified from Pretty, 1994).

Typology	Components of Each Type
1. Passive Participation	People participate by being told what is going to happen or has already happened. It is unilateral announcement by an administration or project **management** without any listening to people's responses. The information being shared belongs only to external professionals.
2. Participation in Information Giving	People participate by answering questions posed by extractive researchers and project managers using questionnaire surveys or similar approaches. People do not have the opportunity to influence proceedings, as the findings of the research or project design are neither shared not checked for accuracy.
3. Participation by Consultation	People participate by being consulted, and external agents listen to views. These external agents define both problems and solutions, and may modify these in the light of people's responses. Such a consultative process doesn't concede any share in decision-making and professionals are under no obligation to take on board people's view.
4. Participation for Material Incentives	People participate by providing resources, for example labour, in return for food, cash or other material incentives. Much in-situ research and bioprospecting falls in this category, as rural people provide the fields but are not involved in the experimentation or the process of learning. It is very common to see this so called participation, yet people have no stake in prolonging activities when the incentives end.
5. Functional Participation	People participate by forming groups to meet predetermined objectives related to the project, which can involve the development or promotion of externally initiated social organizations. Such involvement does not tend to be at early stages of project cycles or planning, but rather after major decisions have been made. These institutions tend to be dependent on external initiators and facilitators, but may become self-dependent.
6. Interactive Participation	People participate in joint analysis, which leads to action plans and the formation of new local groups or the strengthening of existing ones. It tends to involve interdisciplinary methodologies that seek multiple perspectives and make use of systematic learning processes. These groups take control over local decisions, and so people have a stake in maintaining structures or practices.
7. Self-Mobilization	People participate by taking initiatives independent of external institutions to change systems. Such self-initiated mobilizaition and collective action may or may not challenge existing inequitable distributions of wealth and power.

SAQ 1

i) List the major causes for deforestation.
ii) How can the participation of root level people help forestry?
iii) How can the devolution of power from bureaucracy help the forestry?
iv) Explain how decentralization of power can become the basis of participatory forestry?
v) Describe the role of participatory approach in forest conservation.

13.5 ORIGIN OF PARTICIPATORY FORESTRY

Throughout last 20 years, international attention has focused on the plight of tropical forests, issues of resource degradation, declining biodiversity and the impact of

decreasing forest resources on global climate. As indicated in many studies, the forest sector has adjusted national policies and practices in response to number of internal and external factors.

At the international level, proportionately less attention has been focused on local issues of decreasing access to forest resources, and the implications for local people dependent on forests for securing their livelihoods. In recognition of this, local forestry programmes have sought to improve the well being of forest dependent villages.

13.5.1 The Eco-crisis and the Basic Needs Debate

The post-war period from the mid 1940s was a period of increasing prosperity, rapid industrialization and full employment within the core countries of the Western world. The economic climate was strongly relaxed in modernization theories, which held that poor countries could follow the stages of growth experienced by developed countries if industrialization and modernization were stimulated by capital investment. The central concerns of modernization theory were the dichotomy between tradition and modernity and the assumption that the advance from tradition to modernity is a simple unilinear progression. The so-called 'Third world' was supplied in the form of large infrastructure packages to develop an economic base from which to promote industrialization and thus economic development in the expectation of diffusion or trickle-down of benefits to urban and rural poor.

Modernization theories permeated all sectors, including forestry. It has been argued by many authors that industrial forestry would stimulate development in underdeveloped countries. They held that forest-backed industries had strong forward and backward linkages with the rest of the economy because they furnished a wide range of goods and services and used mainly local inputs.

The demand for forest products was forecasted to rise rapidly following the rapid industrialization of all economies. This provides a useful critique of the analysis and contends that the drive to an effective economy can only be achieved through the sound development of a productive rural economy rather than by imposition of a modern industrial framework.

These arguments provided the basis for forest policy development in both developed and less developed countries. They strongly influenced the form of forestry development proctored by the new international aid agencies such as the World Bank and the Food and Agriculture Organization, among many others for further references to this era. At this time in Nepal, working plans were being drawn up for the extensive Tarai Sal (*Shorea robusta*) forests. In India too, the increased demand for forest products era met through heavy investment in plantations for the production of industrial wood-based products. Capital was invested in large forest industries supported by the raw material from plantations and intensively managed natural forests. One example was plantation of *Eucalptus* sp throughout India.

The boom in Western economies ended abruptly with the economic crises of the early 1970s. Inflation, fuelled by the United States spending on the Vietnam War, soared further when the OPEC cartel of oil-exporting nations secured a four-fold increase in the price of oil. **The economic crises led to a realization that industrialization did not necessarily lead to the economic or social development of underdeveloped countries.** Rural and urban poverty became the focus of development theory, with sustenance of basic needs forming the objective of development.

The focus on energy forced attention on the rest of the world where most people are dependent on wood as their main fuel for cooking and heating. Research reports were influential in revealing the growing gaps between rich and poor. This showed how the inadequacy of modernization theories and the policies thus derived from theory has contributed to the increasing poverty of many countries, The debates within development theory pursued the path of fulfilling the basic needs of the poorest and

focused on securing the economic advancement of rural populations, This scenario of eco-crisis and livelihood degradation was well developed and has been formative in the construction of forest policy and practice in both India and Nepal.

Participatory forestry emerged as a new world-wide practice for forestry development and was promoted by international organizations and sold in programme and project packages. Although the types of interventions diversified, the profession continued to embrace those traditional practices of forestry which were dominated by the twin dogmas of timber primacy and sustained yield. Forestry was claimed to be the unique vehicle by which the needs of local people could be met and the quality of rural lives enhanced. This was seen as the means by which social change could be affected.

13.5.2 What is Participatory Forestry?

Participatory forestry refers to processes and mechanisms that enable those people who have a direct stake in forest resources to be part of decision-making in all aspects of forest management, from managing resources to formulating and implementing institutional frameworks.

More specifically, community forestry refers to a component of participatory forestry that focuses on local communities as key stakeholders for sustainability.

Balancing the effective, sustainable management of forest resources with economic, social and environmental factors has emerged as one of the key challenges in natural resource management. The environment and forum in which decisions concerning natural resource management are made are evolving as a result of global trends such as: growing awareness of and response to environmental concerns; decentralization and devolution of government control; participatory management, the need for secured property rights etc.

Among the responses to these trends is a greater willingness to consider local forest management as a viable alternative to centralized State control. Throughout the world, a large number of forestry activities (national, multilateral, bilateral and non-governmental) with participatory, local and community forestry components are being implemented. Although much remains to be done, it is increasingly recognized that participatory approaches are essential to sustainable forest management. In India we have several successes cases in forest management.

Although much attention was focused on the drudgery and increasing difficulties of fuel wood collection, the social and political problems relating to resource access and property rights were largely ignored. Let us examine the relationships between Property Rights and Participatory Forestry.

13.5.3 Property Rights and Participatory Forestry

At the heart of participatory forestry lies the battle for ownership of forestlands. Property rights structures have for the last century been skewed in favour of the state, at the expense of local people's needs. Under recent forestry initiatives, new tenure arrangements have been introduced. It is not clear, however, that these changes alone have made a sustainable difference in villagers' well being. In some cases, villagers have de facto use rights to forest lands already (and formalization of these rights has in fact led to a diminution in the benefits available). In other cases, the rights were more short-lived than expected.

Although use rights have been important in increasing the villager's security of access to land, there continues to be debate about whether they should press for full ownership. Advocates of indigenous people's rights feel that these communities should have their original land claims recognized by the state. Such views underpin Principle 22 of the Rio Declaration – a Declaration which guides (or should guide) the approaches of governments to local communities and management of natural resources. The principle is reproduced here as it describes the new philosophy and provides the ideological backbone for interventions in the forestry sector. "Indigenous people and their communities, and other local communities, have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development."

13.5.4 Benefits of Participatory Forestry

The net benefits of promoting participation are manifold and as key elements of sustainability they can be summarized as consisting of four "Es".

- *Effectiveness* – participation allows people to have a voice in determining objectives; supporting project administration; and making their local knowledge, skills, and resources available.
- *Efficiency* – participation allows more efficient use of resources available.
- *Empowerment* – participation increases people's sense of control over issues that affect their lives and helps them to learn how to plan, implement, and prepare themselves for participation in broader terms.
- *Equity* – it ensures an equitable sharing of the benefit.

In the following sections the background to the development of participatory forestry approaches in South Asia is considered, including an analysis of the global content in which policies of decentralization and divestment of public sector authority have become the currency of action.

13.6 THE DECENTRALIZATION DEBATE IN THE FORESTRY SECTOR

Why has participatory forestry become such an important initiative within the forest sector? One of the major reasons results from the desire of the international community to achieve sustainability and efficiency through decentralization and public sector reform. Participatory forestry represents the major attempt to achieve this aim. The new management method talks about clients, stakeholders and interest groups, and asks the private and public sector to identify their client groups and their needs, and to respond with services that will support these groups. This new managerialism is mirrored by political theory, where decentralization also requires interaction with these groups, with government bureaucracies restructuring to support their clients. The institutional change implied by these approaches is far-reaching.

Elements of these changes are still unexplored within the forest sector; forestry projects charged with facilitating institutional change are now beginning to address these issues.

In this section, we will consider the following questions surrounding the impact of decentralization as it is manifested through participatory management practices within the forestry sector.

- What are the impacts of this process on to formal and non-formal forestry institutions?
- Under what new institutional arrangements should forests be managed?
- How central government is restructuring the property rights framework to enable effective decentralization?
- Who are the winners and losers?

13.6.1 Decentralizations versus Devolution

There are many questions still to be addressed about the effectiveness of decentralization as a political tool to ensure devolution of power as many authors indicate:

"Decentralization has been seen as a means by which the state can be made more responsive, more adaptable, to regional and local needs than is the case with a concentration of administrative power and responsibility in the central state… But decentralization of government in itself does not necessarily involve devolution of power. The extension of the state outwards and downwards can equally serve the objective of consolidating the poor of state at the center as well as that of devolving

power away from the central state; it can both extend the state's control over people as well as the people's control over the state and its activities. Decentralization is a two-edged sword and at different levels it has different meanings.

We will describe decentralization at different levels and its meaning. At the level of **designing** decentralization means that a person's knowledge and imagination be allowed to contribute to the making of a programme, be it for employment generation, or for preservation and conservation of nature and forests, or for primary education. This prevents monopoly of knowledge and information, which restricts their access to only a few people.

Decentralization of **implementation** implies that the process of translating an idea into action and activities are to be the responsibility of all members of a group who have designed it. Accordingly, this group distributes responsibility and work-tasks equally. Each person has the freedom to take decisions and plan the process of institutionalization. This prevents bureaucratization and ensures team administration. It dissolves the repression and domination that normally accompany the process of accountability. Each person is simultaneously accountable to one's own self and to the group. This makes a person aware of his or her limitations and opens the door to finding out ways of overcoming them.

Finally, at the level of **monitoring**, decentralization implies that the group of persons, who have engaged in designing and implementation, must also be engaged to monitor a programme. For themselves they are 'experts', when this occurs, criticism tends to be mutually beneficial. Further, the group comes together as a collectivity in the course of sharing the burden of each other's limitations and benefiting from each other's capabilities. This spirit of criticism could prevent corruption and also work towards creating appropriate conditions for **transparency**. Further, the process of decentralization provides people a feeling of confidence in them. We may say that confidence in one's ability, granting everyone human dignity and operating in an open and honest manner are the main principles of decentralization.

Although the calls for devolution of power to the local level are pervasive across the international community, and all recognize the central role of local users of resources in management, how effective has this devolution been? As discussed, in the earlier section is it necessarily such a good thing? Since much of the experience gained with the implementation of new forms of forestry is relatively recent, it is perhaps too soon to be able to pronounce definitively on success or otherwise. Although major donor organizations and international agreements may all subscribe to the following view, the reality of such a goal is still distant.

The pursuit of sustainable development requires a political system that secures effective participation in decision-making. This is best secured by decentralizing the management of resources, upon which local communities depend, and giving, these communities and effective say over the use of these resources. It will also require promoting citizens, initiatives, empowering people's organization and strengthening local democracy. (See Box 13.1 Aravali Project).

Box 13.1: Aravali Project – Successes of decentralization of power.

The Aravali afforestation project was started with the target of revegetation of 115,000 hectare and distributing 75 million saplings of different species to farmers in ten districts. The project was based on a partnership between NGOs, local people and the forest department. To encourage involvement of the village community, the idea of "Community Controlled Regulated Access Management System" was adopted to replace the "Open Access System" where people were free to exploit the resources. Slowly villagers accepted the idea and became willing to participate in the programme. The Aravali Project has already achieved most of objectives and in several areas even exceeded expectation. This is a case of decentralization of power in participatory management to fulfill the objective of the project.

Do decentralization and devolution lead to greater equity? Is this an obtainable goal? Divestment, privatization is an appropriate response to the needs of villagers wanting to gain greater control over the use of and access to natural resources. Some influential commentators on the political economy of countries such as India question the validity of a direct transfer of Western ideology (Ghosh, 1994). In the following section we have tried to assemble some evidence to indicate the complex nature of the impacts of decentralization (whether partial or total) as Forestry approaches should match the complexity of environments in which it is being developed.

SAQ 2

Give your views on the following statements:

i) "Participatory Forestry will be only successful if the property rights of forest lies with the people living in it".
ii) Does participatory management fulfils it objective of decentralization or devolution of power?
iii) Describe how participatory management can fill the void created by eco-crisis and basic needs of the people in developing countries.
iv) Describe the benefits of participation, using the example of a forest and explain its benefits.

13.7 PARTICIPATORY FOREST MANAGEMENT IN INDIA*

India offers excellent opportunities to learn about past and future methods of forest management. Under British colonial rule, the nation was one of the world's first countries to establish a national forest service in the mid-nineteenth century.

Forest Management under British Rule Natural resources have always been an integral part of the Indian economy and culture and are held in high esteem. Even today, some of these so-called self-initiated forest protection groups have survived or have been re-invented in response to the need of the hour to conserve community forest. Given this context, it is necessary to point out at the outset that participatory/joint forest management is not new to India. It is a re-invention of the successful forest management practices of the past.

For management purposes, the British administration divided the forests into four classes, as described in the National Forest Policy of 1894. Using forests to meet people's needs was not a priority consideration for the British administration. People's requirements were to be met by the third class of forests – minor forests that yielded only inferior timber, fuel wood or fodder – and by the fourth class of forest 'pastures and grazing grounds' to which certain restrictions were applied.

To conclude, people's interests were made subservient to the state's commercial interests with regard to forests during colonial rule.

13.7.1 People Resistance against the State

An analysis of the National Forest Policy, 1894 and the Indian Forests Act 1927 suggests that the rights of people to forests under erstwhile rulers in the pre-colonial era were further limited. It is also evident that many of the informal forest management institutions that operated at the grassroots level collapsed after the takeover of the forests by the British administration. However, in some cases people actively opposed the state take over and demonstrated against the curtailment of public rights.

With the passage of time, the tribal communities were marginalized and their traditional usufruct rights were restricted or eliminated. These forest-dependent communities were further affected by worsening ecological conditions resulting from conversion of forests for Sal (*Shorea robusta*) logs to meet the demand for railway network. Even after independence, the living conditions of tribal communities and other low caste people further deteriorated in this region. Tribal community revolted violently and there has been number of protests.

T wo such cases of resistance by local communities in the state of East Bengal (Poffenberger 1995) and Uttaranchal (Guha 1983; Ballabh and Singh 1988; Ballabh et al, 2002).

As a result of such protests, the Forest Grievances Committee was set up by the state to look into the matter. Realizing that further efforts to impose forest regulations were likely to be met by stiff resistance and thus strengthened calls for independence. The committee recommended reclassification of state forests. In consequence, the status of reserved forests of low commercial value but of high livelihood value to local people was rebuked and Van Panchayats were instituted for their management. Van Panchayats were instituted on the principle of participatory forest management and gained the full legislative support of the state. This is a classic illustration of how the concept of participatory forest management originated well before the independence of India in 1947 as an outcome of popular resistance to state management regimes.

The tribal communities reacted violently to the British administration in a series of armed revolts. The first of these, popularly known as the Chur Rebellion, lasted from 1767 to 1800.

13.7.2 Genesis of Joint Forest Management

Continuous deforestation and the degradation of forests leading to a decline in forest cover have long been sources of concern for policy makers in India. Indeed, had there not been such large-scale deforestation and forest degradation in India, it is unlikely that any policy maker would have given serious thought to the 'participatory forest management' model (Fig. 13.8). The need of the hour and the backlash of policy failures have led to the emergence of a new institutions and rationale for the origin of a 'participatory forest management' model within the Indian forestry sector. This section discusses why the government commenced participatory forest management in India. (Fig. 13.9).

Today, the state of Uttaranchal has more than 4,800 Van Panchayats managing 244,800 hectares of forest area spread over six districts.

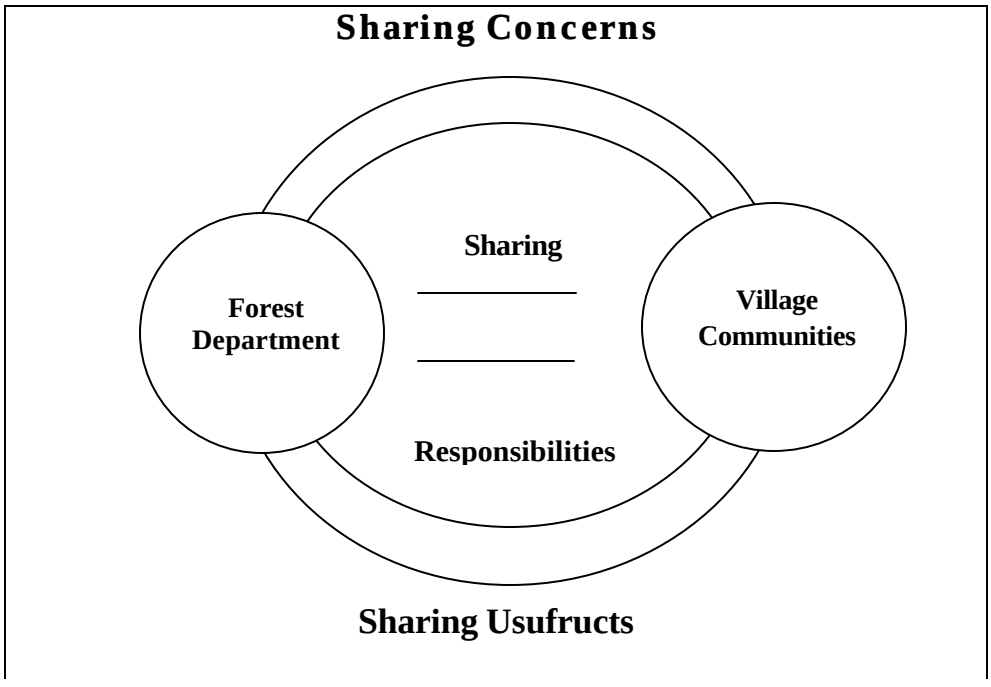

Fig. 13.8: JFM concept in India.

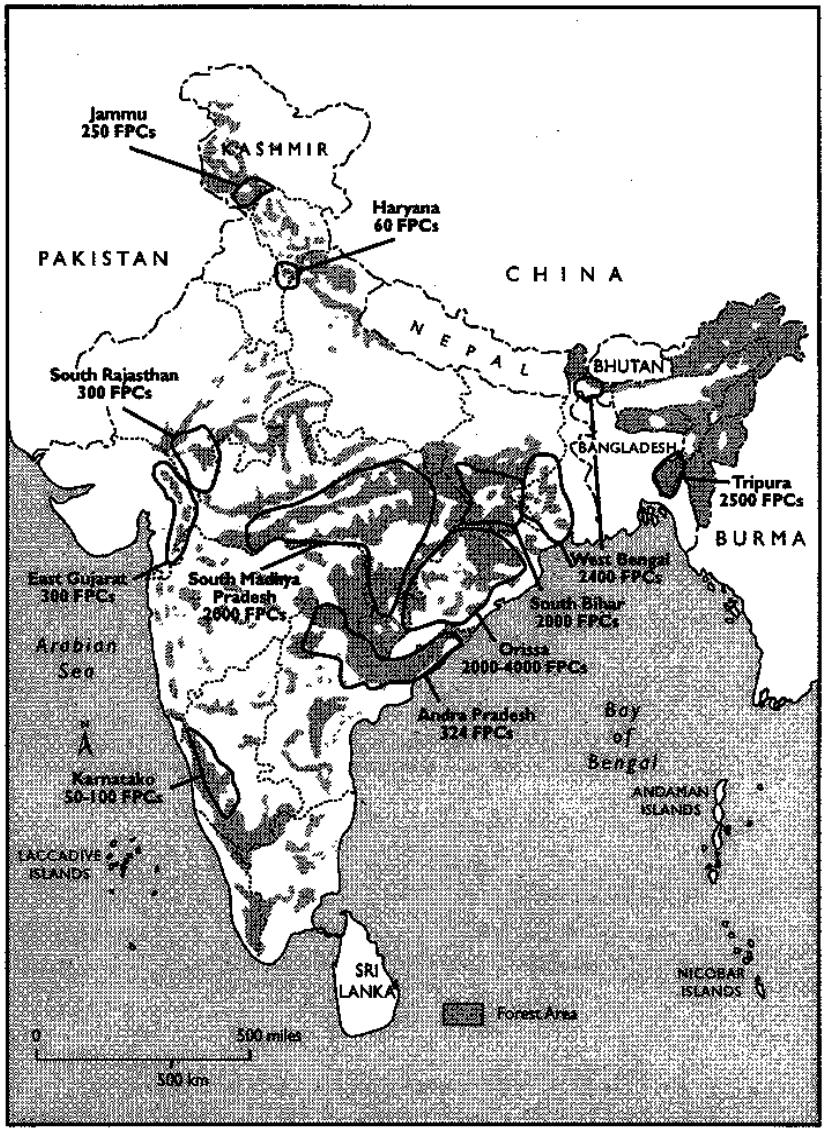

Fig. 13.9: Estimated distribution of India's forest protection committees (Source: Asia Forest Network)

The Arabari experiments in JFM

The relevance of the 'give and take' principle between the Forest Development (FD) and the community surfaced in the early 1970s. A group of FD personnel realized the importance of 'peoples participation' in regeneration of degraded Sal (*Shorea robusta*) forest in Arabari Range of Midnapur district in the state of West Bengal. This forest rejuvenation started was stated as an experiment and later on replicated on a large scale first in this state followed by its adoption in different parts of country.

This successful experiment led to the development of a new forest management strategy known as "Joint Forest Management" (JFM). The village communities involved in the management of government forests in their vicinity under the JFM became known as forest protection committees. This is the first recorded case of co-management of forests by FD and village communities in India (Yadav et al 1998). It is important to note that the forest protection committees formed in Arabari have emerged out of a persistent conflict between people and the goverrment for control over forest resources as in the case of Van Panchayats in the state of Uttaranchal.

Joint forest management is the sharing of products, responsibilities; control and decision, making authority over forest department and local user groups. The basic philosophy of JFM is "**Care & Share".**

JFM is the sharing of three basic things:

i) Sharing the concerns
ii) Sharing the responsibilities
iii) Sharing the usufructs

At present, there are 63,618 forest protection committees (joint forest management committees) in India spread over 27 states managing about 14.09 million hectares of forest. This means that 22 per cent of the total forest cover of 63.73 million hectares in India is being managed under JFM. There are also a number of tree growers cooperatives and numerous self-initiated forest protection groups (SIFPGs) managing forests in India on the principle of participatory forest management. They are still surviving, in the states of Orissa, Bihar, Gujarat, Rajasthan, Karnataka, Madhya Pradesh and Andhra Pradesh, and are protecting areas of state forests (Fig. 13.9).

Subsequently, the government of India launched a social forestry programme, including farm forestry on private lands and established community self-help woodlots on community lands on a large scale during the 1970s and 1980s to reduce pressure on the government owned forests and also to incorporate people in the afforestation programme.

13.7.3 Facilitative Role of NGOs

In the development of participatory forest management initiatives, active involvement of non-governmental organization (NGOs) in promoting participatory forest management at the grassroot level is very important (Fig. 13.10). In most cases, NGOs are facilitating the village communities as well as the FD in the formation of JFM committees. In many cases, NGOs and tree growers' cooperatives have developed their own participatory forest management models for JFM based on the policy directives of the government.

Fig. 13.10: Collaborative work of NGOs with community members (Source: Asia Forest Network)

Over the last decade, however, the state of affairs has changed in favour of NGOs, which may be mainly attributed to the change in mind set of FD personnel towards forest management. Now, substantial rural developmental funds earmarked by the government of India are routed through NGOs for the participatory forest management programmes.

According to Sarin (1998), JFM has gone through three phases since the late 1980s. Primarily idealistic and democratic NGOs and a few liberal officers led the first phase. In the second phase NGO learnt from practical experience an exposure to ground realities. The present third phase is dominated by donor funding with forest departments becoming the major implementers, whereas NGO and community efforts have been pushed to the sidelines. Nevertheless, NGOs remain a major stakeholder in forest policy formulation in the country.

13.7.4 Policy Trends in Joint Forest Management

I) Policy Directives

First forest policy has to emphasize the role of people's participation in forest protection and management. National Forest Policy 1988, the second forest policy after India's independence, has in the last decade changed the face of the Indian Forestry sector (Resolution No. 3A/86-FP, dated 7th December 1988, Ministry of

Environment and Forests, Government of India). It is both conservation and production-oriented. The basic objective of this policy is the maintenance of environmental stability through preservation of forests as a natural heritage. It also places emphasis on increasing substantially the forest/tree cover and the productivity of forests in the country to meet national needs. This policy had been conceptualized in the wake of the success of the participatory forest management scheme in the country, albeit on a small and localized scale (Fig. 13.11).

Fig 13.11: NGOs interacting with men and women of village community (Source: Asia Forest Network)

II) Creating a people's movement

The distinctive feature of this new policy was mention of creating a massive people's movement with the involvement of women for achieving the above-mentioned objectives and to minimize pressure on existing forests. This is a complete departure from the previous National Forest Policy of 1952 as it envisages people's participation in the development and protection of forests. The National Forest Policy is a harbinger of management change i.e. from government managed to people-managed forests (Also see Box 13.2).

Sites for National Forest Policy, 1988. http://www.rupfor.org/htm.india.htm.

In some ways, this Act has helped in facilitating the implementation of the JFM programme on forest land, as generally encroachment takes place on land otherwise suitable for JFM management typically at the periphery of existing forests.

III) Establishment of a JFM monitoring cell

Realizing the importance of the ongoing JFM programme for the effective management of forests in the country, the ministry of environment and forest created a JFM monitoring cell within the ministry in 1998. This cell was created with the objective of monitoring the impact of JFM being carried out by state governments for the improvement and protection of forests.

IV) Expansion of JFM to non-forest areas

In India besides the forest land owned and managed by the State Forest Departments, there is a large area (around 76 million hectares) which is non-agricultural and non-forest land, such as barren and uncultivable wastelands, cultural wastelands, permanent pastures and other grazing lands. The revenue department and other government departments own such lands de jure, though in some cases they are de facto common property resources. Mostly such lands are open access resources. Though these uncultivated lands are highly degraded having suffered the tragedy of commons, they nonetheless hold the potential for the expansion of JFM in the country.

V) Sharing of experience

Each state in India has passed its own resolution on JFM to fit local socioeconomic, political and geographical conditions. It is vital that experiences of its implementation both successes and failures be shared with one another. Thus it becomes essential to find ways and means for the sharing of experiences between various states. With this in view, the government established a committee comprising of forest officers from six states and a member of the JFM cell in November 1999. This committee was also given the responsibility of preparing formats for monitoring JFM programmes and identifying items of the JFM programme for systematic funding, with due regard to long-term sustainability.

For example when forty Saora tribal families in Mahapada village began protecting 25 hectares of denuded hillside on Rupabalia hill in Orissa in 1981, higher caste groups ignored them. Fifteen years later, all ten communities surrounding the hill are involved in protecting over 2000 hectares of healthy mixed deciduous and secondary Sal trees. (Fig.13.12)

Fig 13.12: Mixed deciduous secondary sal trees
(Source: Andhra Pradesh Forestry Project VSS members at work)

Box 13.2: Some examples of Community Conserved Areas in India.

- Protection of 1,8000 ha of reserved and protected forest, for more than two decades, by Gond tribals in Mendha (Lekha) village, Maharashtra. This is an offshoot of the struggle towards tribal self-rule.
- Regeneration and Protection of 600-700 ha of Reserved Forests and grasslands, struggle against limestone mining, and *in-situ* conservation of hundreds of varieties of indigenous crops by the villagers of Jardhargaon village, Uttaranchal.
- Protection of sea turtle eggs, hatchlings and the nesting sites by fisher folk community in Kolavipalam, Kerala.
- Traditional conservation of Painted Stork and Spot-billed Pelican nesting sites by villagers in Kolkkare Bellur village, Karnataka.
- Six hundred hectares of regenerated village forest in the Loktak Lake catchment's by Ronmei tribe in Tokpa Kabui village, Manipur. Here hunting ban on endangered Sangai deer (Brow-antlered deer) is self-imposed.
- Thousands of sacred groves across the country, though fast depleting, are still being preserved by the local communities.
- Regeneration of forests, revival of traditional water harvesting structures, regulated use of water and forests resources; ban on hunting of wild animals by villagers in and around Sariska National Park in Rajasthan, under the leadership of an NGO Tarun Bharat Sangh.

VI) Creating a JFM network

In order to give added impetus to JFM in India, the government instituted a JFM network at the national level in February 2000. The JFM network act as a regular mechanism for consultation between various agencies engaged in JFM work and also obtains constant feedback from various stakeholders on the JFM programme for proper policy formulation and suitable directions to states.

Given the mammoth size of the ongoing JFM programme on a national level (Fig. 13.13), promoting feedback and exchange including the views and reactions of different stakeholders through the establishment of a JFM network is considered an appropriate step.

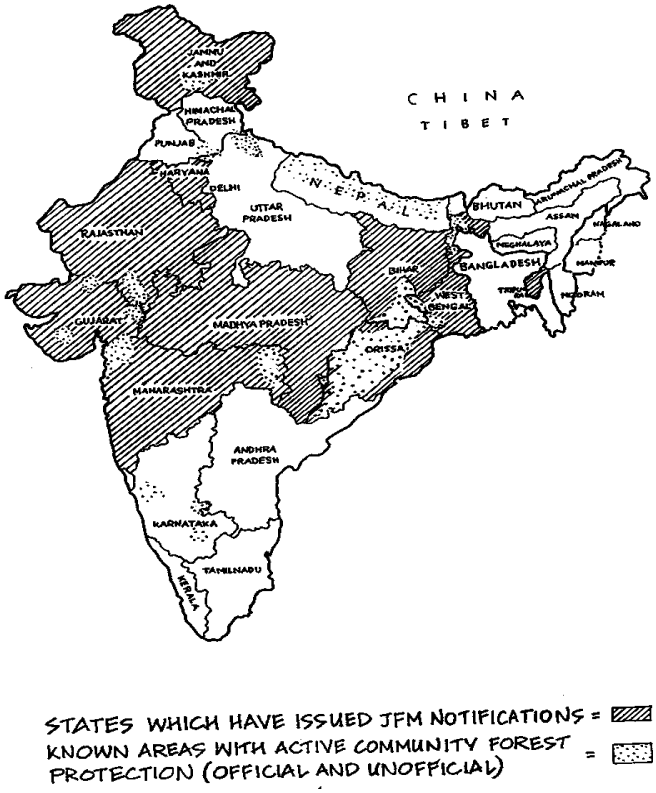

Fig. 13.13: JFM in Indian states.
(Source : http://www.asiaforestnetwork.org/pub/pub23.htm**)**

VII) Issuing guidelines for strengthening JFM

The government has developed guidelines for strengthening the JFM programme based on past experience. Almost a decade after the first governmental notification of JFM was issued in June 1990. These guidelines represent the latest JFM policy directives, and present a structured and broad framework for implementation of JFM in India.

The guidelines set forth a number of measures for strengthening JFM in India, including increased legal support for JFM committees, promoting of women's participation in JFM programmes, the extension of JFM into good forest areas, the preparation of micro plans in JFM areas conflict resolution and the official recognition of self-initiated forest protection groups (SIFPGs). The guidelines also highlight the need to plough back a minimum of 25 percent of the revenue earned on products harvested by village communities into meeting the conservation and development needs of the forests.

VIII) JFM in afforestation schemes

Government's emphasis on participatory forest management, investments in afforestation under the five year plans are being revamped in order to promote people's participation in project formulation and implementation. After the independence of India in 1947, the successive government launched a series of five year plans with targeted budgetary allocations for the development of various sectors. The first five year plan was implemented during 1951-1956. At present, the tenth five-year plan (2002 – 2007) is underway. In short, the purpose of the National Afforestation Programme is to make JFM a central and integral part of all the afforestation projects in the country.

Policy issues and challenges ahead

The emergence of new policy directives from time to time as summarized in the preceding section also implies that JFM is not bereft of problems. The inception of the JFM programme in India was a daunting task for the FD, NGOs and other stakeholders. The state governments issued their own JFM resolutions to set the guidelines for their implementation. However, it was not possible to visualize at the outset the range of problems that would be confronted in each situation and at the different stages of JFM implementation.

Equity in participation

Equity in participation in a JFM context refers to the participation of all stakeholders/users with an emphasis on weaker/under-privileged societal elements (such as the landless labor force, marginal and small scale farmers, scheduled castes, tribal groups and women as defined in the nations forest policy of 1988. JFM programmes also create employment for poor people and up to 60% of money is spent on the wages. It is important to emphasize here that it is primarily the weaker sections of society that are involved in the plantation and protection activities in JFM.

The government resolutions on JFM in India advocate active participation by women in the decision-making process and in determining forest management priorities. In the state of West Bengal, a woman automatically becomes a member of JFM committee by virtue of her husband being a member, but even then the husband is regarded as the primary member (Agarwal 2001).

A recent study undertaken by the government suggested that the FD should recruit female staff at all levels and also increase the number of women extension officers to reach out to women more comprehensively. Nevertheless, it is difficult to speculate when the much needed and veritable participation of women in JFM in India will be ensured.

Equity in benefit sharing

Equity in the sharing of benefits derived from protected forests managed under the JFM programme is as important as equity in the participation in the JFM programme itself. This is one of the major challenges affecting the sustainability of JFM in India.

Problems regarding benefit sharing have also been confronted by participatory forest management schemes in neighboring countries, such as Nepal (Shrestha 1996) and Sri Lanka (MacKenzie 1998). In the case of India, two sets of problems can be discerned: that relating to the distribution of benefits amongst the users themselves, and those relating to the distribution of benefits between users/village communities and the FD. For example economically, the forests of Sarangi range are most important for Orissa's village women (Fig. 13.14). Fuel wood head loading can bring Rs. 15-30 each day to low income families, while thousands are employed making leaf plates and thus JFM are helping in the family income of poor families.

Fig. 13.14: Women from Orrisa village benefitted through JFM (Source: Asia Forest Network)

In overcoming this problem, it is important for policy makers to examine the history of past settlements during the colonial rule, wherein forest users were granted certain rights (Hobley 1996). These rights should not be abruptly extinguished by imposing new benefit sharing arrangements under participatory forest management, as that will determine the response of local people to JFM. The policies have also to ensure that poor families and women get equal entitlements in benefit sharing.

Institutional finance

The National Bank for Agricultural and Rural Development (NABARD), an apex development bank in India, supports and promotes agriculture and rural development including tree plantations on private and community lands. Inter-institutional cooperation is a pre-requisite for the future success of this strategy. Unless constraints are overcome, the NABARD cannot by itself play any effective role in speeding up the funding of JFM in the country.

Moreover, in recent years the amount disbursed by financial institutions to afforestation programmes, mostly for farm forestry projects, has declined considerably (Government of India 2001a). In 1998-1999, the figure was INR 90 million as compared to INR 290.5 million in 1990-91

Most of the funds for JFM come from government sources and donor agencies.

Institutional impediments

With the wide acceptance of JFM in India, the need to overcome various institutional impediments, which result in high transaction costs, is being increasingly realized. The JFM programme lacks legislative support even when it is based on administrative orders (Sarin 1998).

For the continued success of JFM, village communities need to be provided with enough flexibility to build institutional arrangements that are sustainable. As such, there is a pressing need to unify policy in at least the more important aspects of JFM structure across the country in order to achieve better coordination among the states and for efficient monitoring and evaluation.

Marketing of forest products is often affected by institutional impediments. For example, in several states, provisions of the Forest Law impose restrictions on felling, transportation and sale of timber.

Lack of appropriate marketing infrastructure for forest produce has always been a serious constraint in the Indian forestry sector, in contrast to the well-developed marketing infrastructure that exists for agricultural produce in the country. It would be a mistake for policy makers to watch and wait rather than to resolve this important issue, as in many states JFM is still in its infancy and marketing has not emerged as a serious constraint.

Conclusions

With the passage of time, policy makers have realized the need for new policy measures for expanding JFM programmes together with the need for overcoming the constraints in their implementation.

Furthermore, the present analysis of forest policies on participatory forest management in India reveals the government of India's determination for the successful implementation and expansion of JFM throughout the country. Nonetheless, such a resolve is insufficient on its own without the collective effort of all stakeholders, encompassing governmental and non-governmental organizations. Development of any successful doctrine is likely to be beset with failures also. JFM programme in India currently confronts several teething problems inherited from the past. It is also facing the range of challenges that normally crop up when an institution begins to take root. A sound forest policy is necessary in order to overcome these issues and challenges.

Now, the time has also come to streamline the plethora of forest policies, rules and regulations inherited from the colonial period as well as those formulated since independence, in view of JFM as a major forest management model .To sum up, these issues and challenges to the JFM programme in India require in-depth study and analysis for their expeditious resolution.

It seems reasonable to predict that all forests in India will eventually be managed under the principles of JFM, given the government's resolve to expand the programme to good forests, rather than keeping it confined to degraded forests only. The recent policy initiatives on participatory forest management by the government of India have set an example to be emulated by other countries in South Asia as well as other parts of the World.

13.8 DEVELOPMENT OF SUSTAINABLE FORESTRY CONTEXT: SOUTH ASIA

South Asia has been witness to a series of dramatic experience in the participatory management of forest resources. Since the 1970s social and community forestry programmes in both India and Nepal have attempted to transform the relationship between a powerful state bureaucracy and local people directly dependent on forest resources. There is failure of traditional custodial management of forests by government. There will be no halt to the loss and degradation of the sub-continent's forests, without the active participation of local communities.

The inadequacy of government based approaches to forest protection and management led to the search for alternatives, and experimentation with a number of approaches. These can generally be classified into social forestry, farm forest, community forest, joint forest management and rural development forestry. In this unit, the umbrella term used to refer to all these approaches is participatory forestry, accepting the diversity of interpretations of participatory. Although as some have contended the use of the word participatory is probably more problematic than some of the more clearly focused terms such as collaborative or good forest management.

13.8.1 Advent of Social Forestry

The earliest mention of social forestry was in India where several States pioneered tree-growing programmes outside the traditional forest boundaries. For example, in India, the State of Gujarat in 1970 set up a community Forestry Wing in the Forest Department and Tamil Nadu started a tree-planting programme for local employment generation on tank foreshores and village wastelands as early as 1956. After 1973 half of the proceeds from these plantations were given to local panchayats (the lowest unit

of local government administration) and local people were allowed to collect fodder from the plantation areas.

Social forestry-practice is of raising tree to fulfill the basic needs of fuel wood, fodder, small timber and medicinal plants for local populations (Box 13.3). Under some interpretations of social forestry it could be considered that its formal origins lie in government programmes of the late nineteenth century where village forests were demarcated. However under other interpretations this would be considered to have been a programme of removal of local people's rights to manage forests. Indeed many commentators in both India and Nepal would assert that participatory forestry has been implemented, informally and unrecognized, by local people over many decades and generations, and that the so-called new approaches are merely reproducing (often badly) indigenously derived systems of forest management.

Box 13.3: Bio biodiversity enhancing practices in tribal people.

Kol people (Fig. 13.15) in Satna and Panna districts of Central India , interesting members of the community visiting different places for various purposes collect land races or ethno cultivars currently not available with them. They plant this germplasm near the traditional orchards. Ten such mango orchards were surveyed at Sarai, Amraiha, Barha, Khagaura and Lakhaha villages in and in district Satna, Sugaraha and Dadwaria village in district Panna in Madhya Pradesh. These orchards held 162 types of trees, supposedly landraces, bearing unique fruits. These differed in shape, size, taste, aroma, pulp content, period of ripening, colour of epicarp and other traits. Seeds and vegetative materials of a large number of medicinal plants are also collected and planted near settlements and courtyards. Similarly, people in southern Aravalis plant trees along the fencing around their huts (See Table 13.1). All these practices contribute to landscape heterogeneity and biodiversity enhancement.

Table 13.1: Five most preferred trees for traditional courtyard and farm planting by tribals of Aravalis

No	Species	Traditional use for subsistence
1.	Ber (*Zyzyphus mauritiana*)	Food, fodder, fuelwood, fencing material, grass storage larder
2.	Sandesada (*Delonix elata*)	Food, fodder, fuelwood, grass storage larder
3.	Bamboo (*Dendrocalamus strictus*)	Small timber, fodder, fencing, thatching
4.	Aam (*Mangifera indica*)	Shade, fuelwood, timber, food
5.	Neem (*Azadirachta indica*)	Shade, timber, fodder, fuelwood, medicine, grass storage larder

Fig. 13.15: Kol tribal people restored Kudada forest.
(Source: Asia Forest Network)

Thus, by the early to mid-1980s it is was possible to make some assessments of the social and community forestry programmes. Dichotomy of understanding the meaning

of 'social' in social forestry has interesting and long-running consequences for participatory forestry. In the early years external funding was given on the basis of poverty alleviation where forestry was seen to be the appropriate entry point to reach the more marginal groups in society. However, as evidence from India indicates this ideal was far from realized through the social forestry programmes and in many instances poorer groups are dispossessed from the land they had been using, particularly those groups whose livelihoods were dependent on access to grazing lands. This was also the cause of people s' conflict in participatory forestry.

Although there is evidence to indicate that farm forestry in certain parts of India proved to be immensely successful in the initial stages, as demonstrated by the demand for seedlings which for outpaced projects or supply. Private tree growing on a large scale was confined to parts for North-western India, Gujarat and Karnataka, resulting in localized over-production of poles and a consequent depression in prices, Perhaps because of falling prices and local surpluses, the initial boom in farm forestry has slowed.

13.8.2 Drawbacks of Social Forestry

Reviews of social forestry programmes, which had objectives of developing the common property resource, have been far less positive. One of the common factors identified in their failure was the absence of people's participation in planning and management, which led to poor survival rates and the reluctance of community institutions to take over responsibility for the management of plantation (Table 13.3).

Furthermore, even though both these programmes shared the common objective of reducing pressure on forest lands through creating alternative sources of fuel, fodder and forest products, degradation still continued. The intense focus of funds and energy on private and common lands in India, has redirected attention away from investment and management of natural forests.

While community forests are being managed in Nepal, joint forest management arrangements are being explored in India between local people a State Forest Departments, in the process many self-initiated and indigenous forest management systems are being documented and are gaining recognition. Social forestry and farm forestry were the first new practices in recent history to bring foresters out of the forest and into the villages and farms of the people who are the forest's primary users. New community forestry programmes seek to stop further, degradation recognizing the role of these users in the management of natural forests – bringing the people back into the forests.

13.8.3 Challenges of Social Forestry

Experiences of practitioners of social and community forestry in India and Nepal suggested that, although there were many similarities in experiences, there were also some major differences. Although these two nations may have many points of interaction there has been little or no sharing of experiences in the forestry sector (Fig. 13.16). Large sum of money is invested yet these new forestry experiments are still evolving, and their focus on local institutions and equity make them more process-oriented, and less amenable to rigid target-based development planning.

People's participation, reorientation and training of forest staff, building local level institutional participatory micro planning, equitable benefit sharing, and gender-sensitive programming have all become new development imperatives. Community forestry in Nepal and joint forest management in India are beginning to take on these challenges in different ways. The nature and extent of the shift of control from State/national to local/ community level also differs considerably.

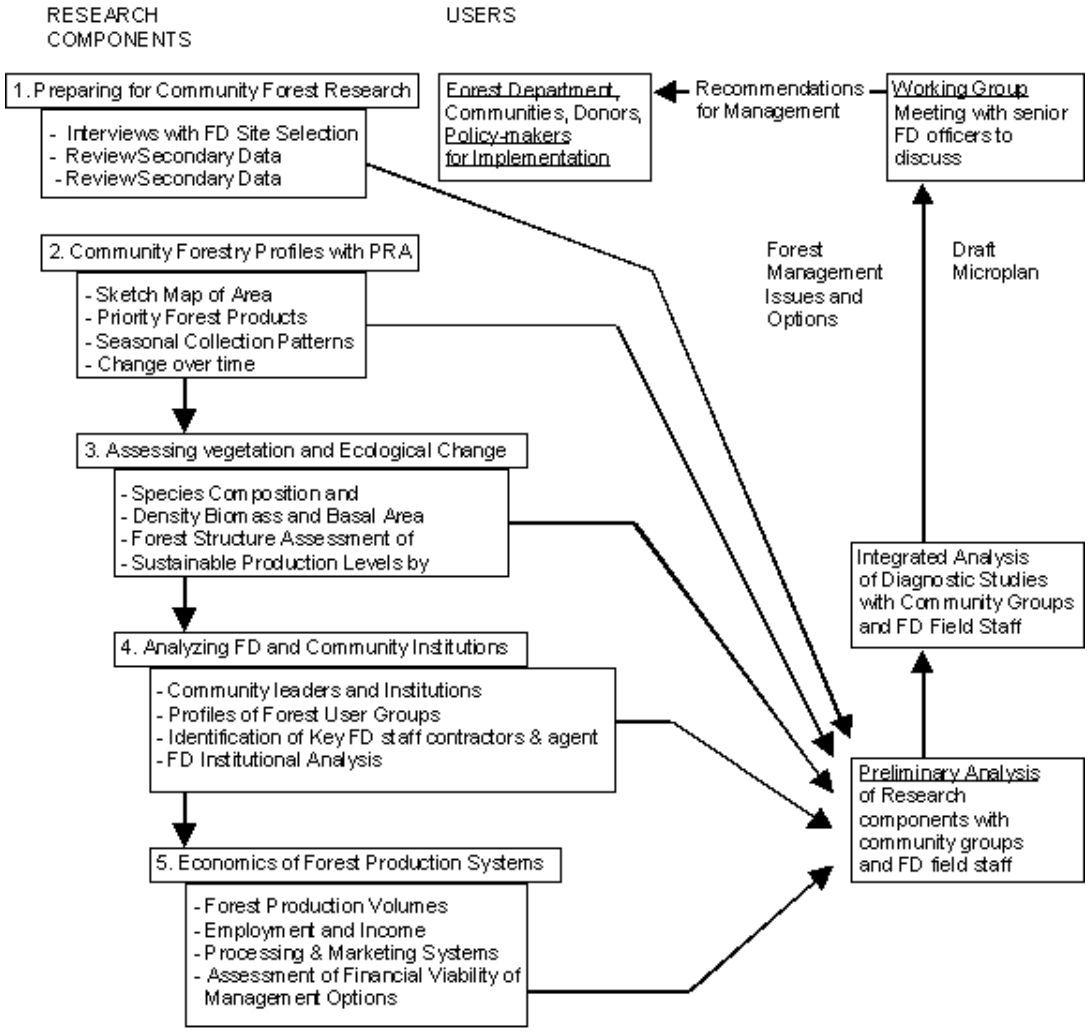

Fig. 13.16: Flow chart of diagnostic research activities, analysis in community forestry

Ironically, the programmes in both countries have focused more attention on initiating community protection (India) (Fig. 13.17) or simple operational plans (Nepal) than on making the more dramatic shift to active co-operative forest managing and to addressing the technical social and economic issues which accompany such a transition. Many of the problems, faced by both countries, are therefore very similar.

Fig. 13.17: Nursery developed by community for social forestry

Table 13.3: Various types of forestry their benefits and short comings.

Alternatives	Strengths / potential benefits	Shortcomings/ potential risks
Traditional forestry	Primary objective was management of timber resources	Environmental and social concerns did not receive attention. Biotic interference continued to degrade the forests
Social forestry	Pressure on state owned forests for meeting requirement of pulp for forest based industries, small timber and firewood for general public likely to be eased. Optimum utilization of waste lands. Small and marginal farmers targeted.	Pressure on forests by local communities for their domestic and livelihood not addressed. Activities too scattered to have impact. No holistic approach to management of forests. Activities were planned and managed with little sustainability considerations.
Joint Forest Management	Improvement in forest density and quality. Community participation leading to better appreciation of forestry issues and better management of forests. Targeted to forest dependent and vulnerable groups.	Forest management driven more by economic considerations. May not be sustainable in long run. Productivity issues inadequately addressed. Community ownership concerns. Initiatives not fully instutionalized and dependent heavily on local leadership.
Community Forest Management	Holistic development of all natural resources. Improved environmental management. Increased forest productivity. Sustainable management of forest and other natural resources. Environmental and social management plans integrated into planning at the village level.	Potential conflicts in big and heterogeneous VSS. Still untested.
Without Project Scenario		Continued degradation of forests, acceleration in run off, and increase in soil erosion; limited recharge of ground water; inadequate fuel wood and fodder supply; limited availability of NTFP; greater biodiversity loses; less sustainable forest management; poverty among the forest dependent communities not likely to be addressed; limited community empowerment; limited women's empowerment; increase in incidence of conflicts.

India's experiences indicate that community forest protection can be highly effective in regenerating degraded natural forest. Government planners in many developing nations increasingly recognize the need, to devolve management downward from forest agencies to local communities. More interaction among planner's, forest administrators and rural communities will provide learning ground, which would accelerate change towards sustainable growth and development.

Sustaining well-being of people in developing countries, particularly in the tropics, can be achieved by bringing people back into the equation and promote community involvement in forest management, through collaborative, strategic and applied research and through the transfer and adoption of appropriate new technologies and social systems for national development. Helping local communities and small

farmers gain their rightful share of forest resources, while increasing the production and value of forest products, can help to conserve forests and improve the livelihoods of people, especially in the tropics.

13.9 SUMMARY

Let us summarize what you have studied so far:

- Forestry, as a follower of development strategies evolved in wider fields, straggled behind the changing modes of development policy. The shift away from industrialization as the vehicle for development slowly percolated through the forestry sectors of aid agencies.
- The wise management of forests is a major environmental priority. Many new plans and programs have been proposed, especially for tropical forests.
- A major goal of forest management is sustained yield; some forests are managed like mechanized farms.
- Indigenous people and their communities, and other local communities, have a vital role in environmental management and development because of their knowledge and traditional practices.
- States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development.
- There is no blueprint for institutional change; the structure of organizations necessary to meet national and local imperatives must emerge from the particular circumstance of each nation.
- The principle of decentralization, although global, does not necessarily lead to a globally uniform response. These responses are the transition from public to private sector operation.

13.10 TERMINAL QUESTIONS

1. Study the forest Policy 1988 and discus how it favours the participatory management in India.
2. What is participatory forestry and how it can be used in sustainable development of forest in India?
3. Make a project on JFM of your area describing its successes or failure and why?
4. Make a map of India and show the places where JFM is successes.
5. What measures do you suggest apart from described in unit to make JFM a successes.
6. Discuss your views on Participatory Forest management in relation to gender issues, equity and socio-economic development.
7. Give your views on the word "participation" and its importance in forest sustainable development and management.
8. How participatory management can help the people living on the edge of forest and also helping in the conservation of forest, also give examples by going through magazines, papers and case studies in India.
9. What are your opinion or experiences of JFM in India?
10. Is conservation of forest ecosystem possible without involving local people?
11. Are foresters today equipped to reorient their approach to forest management?
12. How does forest dependent people's relationship with forest under go change with the depletion of forest resources.
13. How do the local village communities find access to forest?
14. What type of property regime is joint forest management?
15. Make a list of major items of wood procured by tribal from the forest in your area.

BIBLIOGRAPHY

Agarwal, B. (1997). Environmental action, gender equity and women's participation. *Development and Change* 28(1) : 1-43.

Anderson, L. 1998. Sustainable development and environmental issues, Module 13, CYP diploma, Youth in development work, Commonwealth Secretariat, London.

*Balooni Kulbhusha (2002). Participatory Forest Management in India - An Analysis of Policy Trends amid 'Management Change', Policy Trend Report.

Cunningham, W.P and Saigo, B.W, 1995. *Environmental Science: A Global Concern*, Wm. C. Brown Communication, Inc.

Ebrahim Alnoor (2004). Institutional Preconditions to Collaboration, Indian Forest and Irrigation Policy in Historical Perspective, Administration and Society, Vol. 36 No. 2, May 2004 208-242.

Hobley, M. (1996). *Participatory forestry - The process of change in India and Nepal.* Rural Development Forestry Study Guide 3. London : Overseas Development Institute.

MacKenzie, C. (1988). The challenges of participatory forest management in Sri Lanka. In *Community forestry at a cross-roads : Reflections and future directions in the development of community forestry* - Proceedings of an International Seminar, held in Bangkok, 17-19 July 1997, RECOFTC Report 16, edited by M. Victor, C. Land and J. Bornemeier, 231-245. Bangkok : RECOFTC.

Pretty, J.N. and P. Shah (1994). A Trainer's Guide to Participatory Learning and Interaction, IIED Training Materials Series No. 2, IIED; London.

Sarin, M (1998). Grassroots priorities versus official responses - The dilemmas facing community forestry management in India. In *Community forestry at a crossroads : Reflections and future directions in the development of community forestry* - Proceedings of an International Seminar, held in Bangkok, 17-19 July 1997, RECOFTC Report 16, edited by M. Victor, C. Land and J. Bornemeier, 19-26. Bangkok : RECOFTC.

Shrestha, M.L. (1996). *Problems in developing private forestry in Nepal.* Community Forestry Case Study Series CR002/96. Bangkok : RECOFTC/FTPP.

Smith, R., Simard, C. and Sharpe, A., 2001. A Proposed Approach to Environment and Sustainable development indicators based on capital. Prepared for national round table on the environment and sustainable development.

For most of the pictures we Acknowledged Asia Forest Network, USA.

Annexure 1

CAMPAIGN FOR PARTICIPATORY FOREST MANAGEMENT IN KARNATAKA

Sharachchandra Lele, 2001

The Concept of Participatory Forest Management, its Rationale and Implications for Karnataka

Background: The JFPM experience

The question of how forests should be managed has been one of the burning issues concerning rural livelihoods and the environment. About ten years ago, mainly due to the sustained and concerted efforts of activists, scholars and rural communities, the government of India accepted in principle the need for the participation of village communities in forest management. The concept was then implemented under various joint forest management programmes. In Karnataka, the initiation of Joint Forest Planning and Management (JFPM, as it is called) in 1993 coincided with the initiation of the Western Ghats Forestry and Environment Project with British funds. Here again, a coalition of activists and scholars, led by FEVORD-K, was responsible for ensuring that the concept of people's participation was incorporated into the project. Subsequently, JFPM was also incorporated into the Eastern Plains Forestry Project executed with a loan from the Japanese Bank for International Co-operation.

The past eight years of experience with JFPM in Karnataka as implemented by the Karnataka Forest Department leaves much to be desired. While JFPM programmes have engendered significant interest and general awareness in forest management from rural communities in the project areas, JFPM has neither made a serious dent in forest degradation or deforestation, nor has it benefited local communities significantly, whether in subsistence or income terms. The main reasons for this, which have emerged from many rounds of discussions, studies, consultation with Village Forest Committees (VFCs) and independent reviews, are:

a) lack of clear and adequate rights over forest produce;
b) lack of sufficient autonomy in day-to-day management and no transparent guidelines for ecological sustainability;
c) lack of attention to existing rights and privileges leading to confusion and often aggravating intra-village inequities in forest access;
d) lack of security of tenure and sustainability of institutions due to the programmatic and project-dependent and funding-oriented nature of implementation;
e) focus on only degraded forest department lands leading to only partial coverage of the public lands used by villagers.

Further, JFPM has not been implemented uniformly in all parts of the state and local communities are not in a position to ensure its implementation.

In short, it is not just the implementation of JFPM that is faulty, but also the very conceptual and policy framework within which JFPM has been set up needs to thoroughly re-examined. Thus, the time has come for us not just to demand Government's support for continuing JFPM and VFCs as they now exist but rather to revitalise the campaign for truly participatory, sustainable, equitable and economically-viable model of people's participation in forest management. This campaign would have to begin by re-stating the basic premises of participatory forest management in the Karnataka context and pointing to the broad directions of policy change that are required. This concept note attempts to do so.

ISEC-ATREE Centre for Interdisciplinary Studies in Environment & Development (CISED)
ISEC Campus, Nagarabhavi
Bangalore 560 072, INDIA
Tel: 080-321-7013, Fax: 080-321-7008
Email: lele@socrates.berkeley.edu

Joint Forest Management in Haryana

TERI
2001

The success of the JFM (joint forest management) in Haryana is manifest in the improved status of its forests, socio-economic development of the people and the evolution of an institutional process of cooperation between the HFD (Haryana forest department) and the HRMS(hill resource management societies). The maximum average yield of bhabbar grass

was 850 kilogram/ha under six years of community protection compared to the yield of 300 to 360 kilograms/ ha in the unprotected areas. The total number of trees/ha increased from a minimum of 700 in unprotected forest areas to a maximum of 3960 in case of 10 years of protection. The number of shrubs/ha is maximum in unprotected forest areas 13,885 whereas in areas protected for 10 years, it is as low as 3247. Water-harvesting structures help villagers to increase their earning from farming through diversifying the agricultural activities. Supply of bamboos to Bhanjda community at concessional rates provides employment and a source of income. Leasing out of forest areas to HRMS for extraction of bhabbar contributed to the development of village infrastructure and also economic betterment of the local communities, especially Banjaras. Leasing out of forest areas to HRMS for extraction of fodder grasses helped the pastoral community to re-stock their livestock with more productive breed.

Forests in India have continued to deteriorate under pressure from the growing population, both human and livestock. A growing number of foresters, economists, social scientists, public administrators, and policy-makers now acknowledge that unless local communities are effectively involved in establishing sustainable forest management systems, deforestation will continue at a rapid rate. Therefore, the challenge for forest regeneration and protection is to develop a management practice that combines the economic interests of forest users and their active involvement in forest regeneration and conservation.

The area under the Shivaliks, which was once covered by dense forests with a variety of flora and fauna, reached its worst form of degradation in the early 1970s. Reckless felling of trees, frequent forest fires, and increasing biotic pressure destroyed the vegetation in the area. Large tract of lands was cleared for agriculture. The problem of grazing was so serious that in heavily grazed areas, 4-6 cm of topsoil used to disappear after just one heavy shower. On the other hand, because of the poor economic conditions of the people, forest laws and traditional methods of forest regeneration proved ineffective. Against this background, an intervention has been designed with three criteria, namely ecological viability, economic feasibility, and social desirability (social and political acceptability).

The programme site is located in the Himalayan foothills (Shiwaliks) of northern India covering about 3000 square kilometers of north and north-eastern Haryana. The tract is hilly with rugged and undulating topography. The slopes are gentle to very steep. The seasonal torrents, which originate from the hills and get wider as they enter the plains, are a peculiar feature of the drainage system of the area. The area falls under two territorial forest divisions, namely Morni Pinjore and Yamunanagar, on the forest administration map. The local population consists of to Gujjar, Jat, Ramdaisya, Rajput, Banjare, and Bhanjda castes. The economy of the area is primarily dependent on agriculture and livestock. However, agricultural productivity in the area was beholden to the whims of nature in the absence of irrigation . Livestock, the other main source of livelihood, consisted of mainly unproductive stocks because fodder was scarse. The Bhanjdas (the basket-making community) and Banjaras (those who make ropes from a grass locally known as Bhabbar) are directly dependent on availability of such NTFP(non-timber forest products) as bamboo and 'bhabbar'.s

An integrated approach to rural development has been adopted to elicit people's participation in regeneration and conservation of forests. The stress is on fulfilling the social, economic, and human development needs of communities in the belief that a self-reliant community is essential to sustaining forests and should be the basic philosophy for community Forestry Programmes.

TERI began a programme of JFM (joint forest management) support programme in the Haryana Shivaliks in July 1990 in collaboration with the HFD (Haryana forest department), with financial support from the Ford Foundation. The programme envisages people's participation in the management of forest resources of the state jointly with HFD. TERI has been providing all the necessary backup support in developing and implementing the programme.

Saif Alauddin, Information Analyst
Information Dissemination Services - Tata Energy Research Institute
Darbari Seth Block, Habitat Place
Lodhi Road, New Delhi -110003, India
Tel: +91-011-468 2100/ 4682111(Extn.2213)
Fax: +91-011-4682144 / 4682145
http://www.teriin.org
email: allaudin@teri.res.in