CHAPTER - V

Relevance of Nordic Forest Management in India
Political geography has been traditionally involved in the study of two sets of problems. First one is concerned with the study of the influences of physical environment on political activities, particularly those relating to man's political organization of space. The second one is related to the analysis of how political organization of space modifies the landscapes of the area upon which the given political organization impinges.135

In the present chapter the influence of government as an agent of geographical change will be well established. Apart from this the participation of people outside the government can be seen. The state of Indian environment in general and forestry in particular is not showing a bright picture influencing the quality of life.

The story of development has gone a long way in destroying and damaging the environment. The need to develop faster has sidelined the issue of protection of forest and the beautiful Mother Nature.136

Standing from the grazing lands to the forested tracts all have been affected in a race to develop economically faster. The environmental problems created by the neglect of India's policy makers clearly shows that the current compartmentalisation of management of India's natural resources need to be changed and a holistic concern should be developed.

If we see in particular the spread of temperate forests then we would find that they are concentrated in the Himalayan region. The Himalayan

region spreads over 12 states and covers a total land area of 61.5 million hectare. Out of this 17.8 million hectare is covered by dense forests and another 1.7 million hectare by alpine pastures, over two thirds of which are in the state of Himachal Pradesh alone.

Although India can be said one of the wettest county but the problem is that the rainfall is uneven, both space and time wise. But, India was only a tenth of the rainfall it receives annually and even 40 years from now will be using a quarter only. One of the important reasons for it is the deforestation.

In the current years deforestation has received the maximum public attention. Polices for afforestation has attracted the maximum criticism in comparison to other sets of environmental programme in India. Social forestry programme have been launched by several states to promote afforestation on essentially non-forest lands.\textsuperscript{137}

The national commission on agriculture in 1976 favoured tree-raising programmes to supply firewood fodder, small timber and minor forest produce to rural populations.\textsuperscript{138} Decades later, it is emerging as the most controversial initiative of the Indian Government. This is justified by the satellite data, which has finally confirmed that what environmentalist have always feared that India is losing forest at an extremely rapid rate, which blatantly contradicts the figures presented by the forest department. The data made public in mid 1990s by the national remote sensing agency (NRSA) shows that India lost 1.3 million hectares of a forest every year in the approximately seven year period between 1982-85 to 1989-90. Although

\begin{itemize}
  \item \textsuperscript{138} K.N. Prasad, Four Decades of Indian Agriculture, (NewDelhi, 1989)
\end{itemize}
government claimed that 23% of the country's land area is under the control of the forest departments, satellite pictures revealed that during 1972-75 only 16.89% of the land area actually had forests. The report points out that Andhra Pradesh, Manipur and Andaman and Nicobar Islands are the only areas, which fulfil the stipulation of 60% forest cover in hill regions laid down by national forest policy 1952. The maximum deforestation has occurred in Madhya Pradesh, which lost approximately two million hectares; Maharashtra over one million hectares; Orissa, Jammu and Kashmir approximately one million hectares, Himachal Pradesh and Rajasthan lost over half a million hectares.

Atmospheric pollution was regarded an unimportant problem here in forested tracts as they are considered as the lungs of the earth, but the indoor pollution created due to fuel wood burning has been creating lot of health problems. According to a study conducted by WHO where a case study of Gujarat was taken it was seen that women while cooking inhale 40 times the volume of suspended particle considered safe by WHO. The vehicles on the road are creating a health hazard due to CO2 emissions is causing such a menace that Delhi has got the dubious recognition of being the third most polluted city in the world.139 Industries are next in creating the environmental burden and the factors responsible for the unsustainable development are -

- Resource Crunch
- Energy Crisis
- Deforestation
- Soil Degradation
- Pollution

139 T. N. Khoshoo, *Environmental Concern and Strategies*, (New Delhi, 1990)
Since the most important ingredient of any industry is the raw material, which faces the burden of over exploitation. And thus, the environment is unsustainably managed.

Wood in essential for forest-based industries like paper, rubber, lac, timber etc., which makes very useful for small scale and household industries. As these industries are depended on forests there has been tremendous deforestation in large parts of the country.

Moreover the expansions of agriculture especially towards the frontier zone, the slash and burn agriculture all are contributing towards the deforestation. Studies show that once Rajasthan desert used to be a densely covered green tract. But due to unscientific agricultural practices it has changed into desert full of sand dunes.

There are a large number of agro-based industries, which support millions of people in the country. And due to a large number of factors like cultural, physical, social and economic there has been rapid land degradation in the form of gully erosion, salinization, alkalisiation, water logging etc.

The unscientific use of the vital resources like the forests has led to the need of sustainable management for the benefit of the future generations. To attain this goal there is a need for reorientation in government policies, strategies, methodologies, research programme, education and extension of the developed technologies. For this three steps have to be followed -

- Restoration
- Conservation
- Sustainable management with optimal development
For this coordinated efforts are needed from different sections of the society and here comes the need of community forestry. The conservation of forests is necessary to sustain in bio-diversity and utilisation of non-renewable resources. Here there is a need of government intervention at different levels by imposing rules and regulations for maintaining environmental standards, which will ultimately contribute to the sustainable development.

Earlier it was believed that technology transfer and capital transfer would bring all development but all these failed. And it was recognized that development must come from within and not brought out by outsiders. Here local participation has brought in many success stories. The ultimate thing is that if development is to be sustainable it must be participatory and community based. Thus the development initiatives should be based on the needs identified by the local people. By involving them in designing and implementation of the plans using their own indigenous techniques and principals suited to local condition.

As development is for the people and an essential element in the development process is people's participation. So development can be self-sustaining if the need of the locals are focused in particular. Even Aristotle during ancient time has talked about a clean relationship between the extent of participation and creation of good life.

Thus, many policy makers advocate for participation as an essential prerequisite for sustainability of the projects by incorporating the human element, which would make the efforts a success.

The term participation is coined from the latin word “participare”, which means “taking part”. Thus, it means self-activity, which is a product of
collective action in relation to social and economic situation. Cohen and Vdhoft regarded participation as "generally denoting the involvement of a significant number of persons in situations or actions which enhance their well being e.g. their income, security, or self esteem".140 Whereas, M. L. Santham defined participation as "commitment on the part of the individuals towards all from of actions by which the individual can 'take part' or 'play a role' in the operation without being conscious of any socio-economic barriers to achieve certain common goals in a group situation".141 And here arises the need of community forestry.

The plight of forests especially the tropical forests has caused intense international concern during the past two decades. Attention has focused chiefly on resource degradation, declining bio-diversity and the effects of decreasing forest resources on the global climate. But there has been a less international attention devoted to the implications of diminishing forest resources for local people who depend on forests for their livelihood, although national governments in many countries have been developing programmes that address the twin concerns of poverty and environment.

In India, many forest dependent people are among the nations poorest. Because public forest areas tend to be in remote locations, transportation is often difficult, markets are distant, and public service such as schools and health care are limited. Land is usually sloping or otherwise marginally suited for intensive cultivation of crops. These conditions severally limit villagers' economic opportunities. In addition, villagers living in or near forest resources

tend to have little voice or representation in political decision-making. Many are ethnic minorities with a history of strained relations with their governments.

Forest villagers have had few formal legal rights to use forests, let alone a voice in how governments manage forest lands. Forests are generally declared as public lands in order to generate revenue for the state. Government has often referred to people living on public forestland as “squatters” or to accuse them of “illegal use”, even when land rights are in dispute because of an indigenous community’s claims to prior ancestral rights.\(^\text{142}\)

Government forest developments also tend to be highly centralized, top-down structures that focus more on timber production and preserving the forest reserve than on the forestry needs of the local villagers. Historically governments have bought to keep villagers off forestlands, often by using forest guards to patrol protected areas, or by levying fines against “violators” to discourage land clearing and timber harvesting. Since the 1970s growing world awareness of deforestation and increasing pressure for forest conservation have prompted governments to declare large areas to be protected forests providing an additional impetus to polices that exclude local people.

It is not surprising that efforts to deny people access to forests have been largely unsuccessful. The extent and remoteness of forest areas make it difficult for the government agencies to enforce exclusion policies. Today, people living in or near protected areas continue to use the forest as a source

of cultivable land, timber, fodder, fibre and medicine. Their presence may also be less harmful to forests than governments and conservationists have also assumed the same.\textsuperscript{143}

In many cases exclusion of communities from the forest may be, not only unworkable but undesirable. Increasing evidence indicates that forest dependent villagers are well positioned to participate in the protection and management of forestlands, especially when supported by some security of access or tenure and by technical assistance. Established forest dependent communities often have extensive knowledge of sustainable forest systems adapted to their particular environment as envisaged by the Nordic examples of success stories.

5.1 Community Forestry

Community forestry is an all-encompassing operational term. The common denominators in all community forestry programmes are their focus on the role of forest dependent communities in managing resources and in sharing the benefits that flow from those resources.\textsuperscript{144} The programmes falling under this heading engage in a range of activities:

- Sustainable management of large forest tracts
- Reforestation
- Agro forestry
- Roadside plantations

\textsuperscript{143} Danaiya Usher "Beyond a Vision of Homogeneity" \textit{The Nation} April 1991. Bangkok Thailand.

\textsuperscript{144} William archer 1995. 'Communities and sustainable forestry in developing countries'. International center for self -governance, Institute of contemporary studies, Sanfransisco.
An important aim is to promote productive relation between communities and governmental and non-governmental agencies.

Individual countries use terminology reflecting their own social and historical contexts. For example, in the Philippines the term 'upland development' is commonly used. In Thailand many refer it as 'social forestry' and in India 'joint forest management' has become a major community forestry programme. Other terms used in this field include 'co-management', 'rural development forestry', and community based forestry; because of community forestry's broad scope some have suggested 'forestry for sustainable rural development most aptly captures programme aims.

The Swedish international development agencies (SIDA) and United States International Development agency are particularly important contributors in Asia as are multilateral agencies such as UN, FAO, the World Bank and the Asian Development Bank for supporting forestry programmes.145

Interest in forest communities and forest land management in India grew out essentially after green revolution of the 1970s where irrigated lowland areas having little in common with the complex systems of rain fed agriculture, used by farmers in hilly upland areas that were commonly classified by government agencies as forest. Concerns about the equity and ecological effects of the green revolution also led to the increase in attention to poverty, social justice, and environmental sustainability, including substantial attention to the management of irrigation systems.

145 FAO - Forest Trees and People Newsletter, Upsaale, Sweden Department of Rural Develop Studies, Swedish University of Original Scientist.
In India, the promise of community forestry was demonstrated in the 1970s by a series of projects conducted by organisations like Ford Foundation, related to the production of sal, the dominant tree in the low fertility tracts of south western Bengal.146 The sal trees, considered the property of the government's forest department, had become highly degraded as a results of excessive cutting by local villagers using the trees for fuel wood. The projects carried out with Arabari range, revealed that when villagers were motivated to protect 'sal' trees, even those in highly degraded areas were able to regenerate. Forest department officials and village leaders began to work out arrangements under which village forest protection communities took responsibility for protecting the 'sal' trees in exchange for the forest department's promise to give them one fourth of the resources generated from the sale of firewood and timber. Forest officials also promised to help villagers develop forest related income-earning opportunities to compensate poor families for income lost when 'sal' forests were closed to unmanaged fuel red cutting. Soon results of such arrangements were talked about and foresters and villagers began extending the agreements throughout southwest Bengal.

In mid 1980s the Ford Foundation sponsored the publication of the results of this experience. Evaluation revealed impressive returns on investment. In Arabari, over a 14 years period, 1 million rupees had been spent on forest-related activities. That expenditure had resulted in increases in the value of the timber and fuel wood from virtually nothing to more then 12 million rupees. By the end of 1989, it was estimated that community based forest protection communities was protecting 152,000 hectares of forestland in west Bengal. About 100,000 of those hectares were regenerating 'sal' 5 to 10 meters high.

146 Mark Poffenbergen, Joint Management for Forest Lands: Experiences from South Asia, (New Delhi: Ford Foundation, 1970)
Such remarkable achievements when published helped develop significant support for joint forest management. In June 1990, the government of India formalised the lesson of the Bengal experiments into a resolution promulgating joint forest management nation-wide.

The box below provides rough estimates of the land areas and populations that could potentially benefit from community forestry programmes. Although lack of reliable information makes these numbers only broad estimates, they reveal the impressive potential of these programmes to reach the 225 million to 555 million people whose livelihoods depend on these forestlands country.\textsuperscript{147}

<table>
<thead>
<tr>
<th>Country</th>
<th>Potential Land Area</th>
<th>% of Total Area</th>
<th>Potential population (million)</th>
<th>% of total population</th>
</tr>
</thead>
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<td>100,000</td>
<td>62</td>
<td>10 to 20</td>
<td>16 to 31</td>
</tr>
<tr>
<td>Indonesia</td>
<td>1,273,714</td>
<td>67</td>
<td>30 to 85</td>
<td>16 to 46</td>
</tr>
<tr>
<td>Java</td>
<td>23,047</td>
<td>25</td>
<td>20</td>
<td>19</td>
</tr>
<tr>
<td>Outer Island</td>
<td>1,240,667</td>
<td>70</td>
<td>10 to 65</td>
<td>13 to 81</td>
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<tr>
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<td>13,500</td>
<td>8</td>
<td>5 to 10</td>
<td>5 to 9</td>
</tr>
<tr>
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<td>205,246</td>
<td>40</td>
<td>5 to 10</td>
<td>18 to 27</td>
</tr>
<tr>
<td>India</td>
<td>300,000</td>
<td>40</td>
<td>10 to 15</td>
<td>6 to 28</td>
</tr>
<tr>
<td>China</td>
<td>1,500,000</td>
<td>16</td>
<td>90</td>
<td>8</td>
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<tr>
<td>Total</td>
<td>4,666,174</td>
<td></td>
<td>225-555</td>
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</tr>
</tbody>
</table>

Table 5.1

\textsuperscript{147} Ford Foundation Report, Forestry for Sustainable Rural Development, (New Delhi) pp81-98.
5.2 Elements of Community Forestry

Five interrelated aspects of community forestry are addressed here:

1. Strengthening villagers control over their livelihoods, specially through more secure access to public forest lands and greater voice in forest management. Efforts to broker relations between communities and more powerful interests, including government forest departments, have concentrated on increasing the rights of forest communities to forest lands and products and on promoting the sharing of responsibilities for forest land management between governments and villagers.

2. Empowering villagers by establishing or strengthening broad based participatory local organisations capable of taking on management responsibilities for forestlands in the area. Nearly all community forestry programs have included some kind of community organizing. Organizers typically have helped villagers identify members eligible to participate in the organisation, develop or strengthen organisational structures and processes, delineate the lands the organisation will assist in managing, and negotiate with the government regarding the benefits and responsibilities.

3. Improving villagers' incomes and welfare by developing sustainable, productive forestry and agro forestry practices as well as viable alternative income opportunities. Technologies that combine increased production with sustainability ensure villagers' access to valuable forest, soil, and water resources over the long term. These management

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efforts also address national and international interests in the protection of fragile and rapidly disappearing tropical forests. New sources of income give villagers more choices about how to pursue their livelihoods and reduce pressure on forests.

4. Building the institutional capacity of governments, NGOs, and research institutions to support community-based forest resource management. Because government forest departments maintain jurisdiction over public forestlands, encouraging forest agencies to be more responsive to local communities is critical to meeting villagers' needs. Therefore, a primary strategy is to support institutional change within forestry bureaucracies, often with the assistance of NGOs and institutes for training and research. This work is sometimes referred to as "transforming" or "reorienting" the forest bureaucracy.

5. Enhancing understanding of villagers' needs and perspectives through the development and application of new social science methodologies. Participatory methodologies, in which villagers are actively engaged in gathering and analysing data, have been used to create greater understanding of differing local needs and opportunities among both villagers and external parties such as NGOs, governmental agencies, and researchers. Process documentation is another social science methodology that has been used to help government agencies understand the effects of their actions at the local level and take steps to improve their interventions.

6. Efforts to increase forest-dependent villagers' rights and access to forest products are fundamental to the community forestry approach. Competition over forest resources can arise between governments and forest users, among different communities of forest users, and among
groups within a forest-dependent community. How the potential benefits of forest resources should be distributed is a key question.

5.3 Distribution Rights Between Government and Forest Users

Governments in Asia have tended to see the state itself as the prime beneficiary of forests, whether forests are managed as producers of timber revenue or as protected national resources. Yet, concerns about deforestation and population growth have encouraged governments in many Asian countries to experiment with ways to provide forest dwellers with legal access to forest lands, and to share responsibility for forest management with local people. Although access has been limited to date, the change nevertheless reflects a fundamental shift in the thinking of forest departments. There is growing recognition that local people can be partners in forest management and have rights to a share of forest resources.

Efforts to give villagers more secure access to forest lands under forest department jurisdiction are rooted in several demonstrated advantages. First, and most simply, these rights benefit local communities. They enable communities to enhance their incomes and collect forest products for household use, without government harassment.

Second, official arrangements providing access or secure tenure encourage villagers to think of the long term and to use forests sustainably to plant trees, conserve protected areas, and adopt agroforestry practices. Local villagers are also in the best position to know the area and provide continual, intensive attention. The recognition that improved management mutually benefits forest departments and local communities has proved essential to each party's participation in these programs. Third, giving villagers legal rights of access to public forest resources advances their autonomy and decision-
making power relative to the state. Legal rights to the forest give people an official, sanctioned voice in forest management. Rights of access are especially important for indigenous communities that view them as a first step in legitimising ancestral claims to forest lands.

Over the last 15 years, changes in government policies in each of the Asian countries have substantially strengthened local users' rights. The measures taken in each country have varied according to the condition of the forest resource, existing tenure and land-use arrangements, and the needs of local people.

Innovative policies have been adopted in India. In 16 states, villagers can participate in joint forest management (JFM) agreements with their state forest department. These agreements entitle villagers to collect non-timber forest products (such as fallen branches, leaves, mushrooms, and grasses) and jointly to receive at least 25 percent of the income from timber harvests in exchange for protection of degraded public forest lands. Following promulgation of the national JFM resolution, individual states established their own resolutions with varying specifications about which forest products are available to local communities and how benefits are to be shared. In 1996 it is estimated that from 12,000 to 15,000 villages, concentrate in eastern India, are protecting 1 million to 2 million hectares of regenerating forest.149

In assessing the effects of forestry programs in Asia, it is clear that use rights are a necessary starting point for any program that seeks to direct the benefits of forest resources to local people. In countries like Bangladesh and Indonesia, where agricultural land is so precious, even limited access has

enabled marginal farmers to use land that is otherwise denied them. And as Thailand's experience shows, government recognition of the rights of local people can be important in reducing conflict over forests.

Much work remains, however, to ensure that new tenure arrangements will make a long-term difference in villagers' well being. In many cases, use rights remain very limited or uncertain. Villagers in several countries have raised questions about the security of their claims in the face of political instability and shifting government policies at the national level. Although use rights have been important in increasing villagers' security of access to land, debate continues over whether villagers should press for full ownership. Advocates for indigenous people's rights believe that the state should recognize the ancestral claims of indigenous communities.

The key question about use rights is whether access actually translates into increased benefits for local people. In some cases, real benefits may be shorter lived than expected. For example, in the Indian state of Haryana, villagers' harvest of Bhabbar grass, an important and lucrative source of income, is declining as the regenerating forest eventually shades it out. Moreover, while the degree of benefit is related to the productivity of forest management methods, it also depends on the power of local communities to negotiate favourable agreements with their governments. In countries that have implemented sharing agreements, questions have arisen regarding the compensation governments should provide to local people for their careful exercise of rights coupled with forest protection. Compensation became a major issue with one group of villagers in India, for example, who believed that the Forest Department had not given them adequate return for their years of protection prior to the establishment of the joint forest management agreement.
Although the short-term returns from forest protection are attractive for some groups, major problems can arise when longer-term returns, requiring greater investment of labour, become uncertain. Forest protection and management by local people require a large investment of time both for protection and management activities and for attending meetings. The return on this investment becomes a potential area for conflict when local people believe that the government is underpaying them for years of their work. This issue is critical to the future of joint forest management.

5.4 Distribution Rights Among Communities of Forest Users

Defining who has a right to forest resources is a major concern for all community forestry programs. To date there has been little analysis of whether the people who participate in these programs include all those who use and need forest products to sustain their livelihoods. For example, is proximity to a forest alone sufficient reason for a community to claim access to the forest's benefits?

With the expansion of the Haryana program in India, for example, in many cases, the residents of adjoining or even fairly distant villages started protesting against joint management agreements that had been negotiated with only one of numerous traditional user communities. They claimed equal, if not greater, traditional rights in the same forest area as those residents closer to it, rights sometimes granted earlier by a different government agency. Although not recognized by the forest department, these rights are accepted and honoured among village groups and effectively determine which groups have access to a particular forest tract to meet their subsistence needs. By overlooking both formal and tacit arrangements, the department may inadvertently deprive one group of its traditional access to a local resource by legitimising exclusive access to another group. In addition to increasing
inequity among different users, this may also sow the seeds of inter group conflict where none existed before.\textsuperscript{150}

The notion of primary, secondary, and tertiary resource users deserves consideration. Primary users may be defined as those who live close to an area of forest and use it on a daily basis; secondary users as those who use the forest on a regular, but not daily, basis as a major source of products to sustain their livelihoods (for example, fuel wood sellers); and tertiary users as seasonal users, such as grazers or collectors of medicinal herbs. The access rights of primary, secondary, and tertiary users should be negotiated together to ensure that alienation of rights does not occur.

5.5 Distribution Rights Within Communities of Forest Users

Complicating the question of the rights of different communities is the problem of imbalances in authority and decision-making power within a community of forest users. Gender, class, and/or caste may stratify communities. Often, those most dependent on forest resources have the least power of access and the most limited role in decision making. For example, Indian women are the primary collectors of non-timber forest products as elaborated later, but the decisions taken under community forestry arrangements are often made by men at public meetings where women have little or no representation. As a result, women's needs and priorities—especially regarding fuel wood collection—are not addressed.\textsuperscript{151}


5.6 The Value of Forest Resources

As forests have started to regenerate and markets for non-timber forest products have improved, increasingly fierce competition has arisen over what was previously a degraded resource. Over time, it may become difficult to prevent more powerful interests from taking over, or reclaiming, forest resources. In India, for example, the very success of the joint forest management program may pose the greatest challenge to its future. Some JFM participants wonder if increasing the value of these resources will lead to inter-village competition for control. Another concern is the future role of the government forest department. When regrowth of tree cover has taken place, will forest departments attempt to reassert their authority over forest resources? The strength of the local community organisation and its linkages with other groups and institutions are likely to be important determining factors in the outcome of such issues of authority.

5.7 Neighbouring Communities and Forest Department

A village in Gujarat had actively protected a degraded teak forest for the last five years. Regular patrols of five families in a shift walked the boundaries of the forest every day and night, passing on a bamboo staff with five knots to the next shift as a symbol of their responsibilities. One night, the patrol discovered a group of 13 people from a neighbouring village cutting bamboo poles and teak trees in the middle of the night. An alarm was raised and several dozen Forest Protection Committee (FPC) members set out to apprehend the poachers. A chase ensued, and two of the offenders were caught. Their hands were bound with rope and they were marched 20 kilometres in the dark to the home of the Range Forest Officer (RFO) at two o'clock in the morning. The startled RFO questioned the two poachers and fined them each 100 rupees the next morning before letting them go. It
seemed a small contractor in the neighbouring village had hosted a party, fuelled a group with drinks and good meat dishes, and sent them over to cut some wood from the increasingly attractive JFM forest nearby. The RFO began to contact the other 11 wood poachers to collect fines from them, and was working on filing a report on the contractor.152

Meanwhile, a group of FPC members became quite upset with this chain of events. They felt slighted that the RFO had handed out his sentence without consulting them, as they were now protecting the forest and had caught the culprits. Furthermore, they felt that 100 rupees was much too low a fine, considering that several thousand rupees worth of bamboo and teak had been cut. “What is to stop them coming again?” they wondered. A FPC meeting was called four days later when the FPC leader returned from a trip and tempers had cooled. At the meeting, representatives of a local NGO working with the FPC encouraged people to air their views and opinions. They urged the RFO to repeat some very complimentary things he had said about the villagers: “This is the first time in my 12 years of service that villagers have themselves captured someone cutting wood and brought the culprits to my house for punishment. While foresters are sleeping in their beds, people are bringing in offenders.” He clearly had developed new respect for the resolve and ability of FPC members to protect their forest.

The villagers were encouraged by the NGO staff to raise their objections to the fines and the lack of consultation. In the course of a very open discussion, the RFO explained his position. He said that if he had consulted the village before imposing the fines, it would have appeared as if one village was directly punishing a neighbour, which might have further

increased the conflict between the two. The RFO explained that he preferred to take swift and moderate action rather than impose a very large fine that either would not be paid or would be reduced to a small fine long after the event. This way there was at least a direct link between infringement and punishment. This was grudgingly accepted by the visitors, with anew appreciation for the complexity of the RFO's position. He was urged, though, to be tough on the contractor, whom many felt was ultimately responsible. The leader of the FPC then spoke philosophically about the problems ahead. He wondered aloud about the results of their actions. By protecting what was essentially a barren common land they had created a resource that was growing in value and increasingly coveted by neighbours. Would this lead to conflict between villages? How could they avoid this? Was it worth the trouble? They had to consult more with their neighbours and develop a better understanding of the implications this held for the future.

5.8 Community-based Organisations for Forest Management

A fundamental building block in community forestry programs is the creation of a community organisation to which government can devolve important aspects of forest management responsibility. In some areas local organisations are self-initiated, while in others community organisers deployed by NGOs or by the forest agency strengthens such organisations. Many programs give considerable attention to the steps by which local organisations are established. For example, in the Philippine participatory forestry program, organisers are trained to work with villagers on a variety of tasks, such as delineating lands and recruiting organisational members, a practice that encourages the emergence of natural leaders prior to any formal election of organisational officers. Attention is also given to including marginal members of the community and to strengthening the voice of women. The goal is to
build an organisation that includes all those who have a stake in the management of the forest resource.

Once established, the community organisation becomes the unit that enables villagers to contribute to forest resource management, undertake problem solving, and generate effective demand for government responsiveness and accountability. In most programs, the organisation negotiates with governmental agencies and is the mechanism through which those agencies provide technical, material, and financial assistance. Generally, the organisation has specific rights and responsibilities for a designated area of forest lands and is charged with helping its members manage that area, often under restrictions intended to promote equity and conservation. Such organisations commonly divide responsibility for sub-areas to particular members, households, or sub-village units. Successful community organisations evolve mechanisms to ensure accountability of members and leaders, and to resolve conflicts.

5.9 Differing Levels of Autonomy

The degree of autonomy from the government that is achieved by community organisations varies substantially. In India, Madhu Sarin has delineated organisations that have emerged from local initiative and those promoted by forest departments. Thousands of locally engendered community organisations are reportedly protecting more than 200,000 hectares of forests on both state and community lands near their villages in the states of Orissa, Bihar, Rajasthan, Gujarat, Karnataka, and Punjab. The forest departments of those states apparently have played only a negligible role in the organisations' development, regulation, or operations. Most of the

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153 Madhu Sarin, From conflict to collaboration, op.citnote 150
groups have arisen in response to the hardships caused by the nearly total destruction of forests in their area. Among the groups, there is great diversity: some are small and informal; others large, with more formalized rules and regulations. Leadership structures vary from a single "natural" leader to a collective leadership selected from sub-groups, hamlets, or neighbourhoods.\textsuperscript{154} Community organisations of the second type are those promoted by India's forest departments to encourage villagers' cooperation in rehabilitation of degraded state forests under JFM programs, which have proliferated in recent years. The majority of these are regulated by rules and directives specified by the forest departments and the state, with the former having unilateral powers to disband the organisations at will. While representing an important initiative to involve local villagers in forest management by traditionally insular and unresponsive forest departments, many of the initial state government resolutions creating these organisations show little sensitivity to the basic principles on which democratic community organisations are founded or to the dynamics of the participatory processes through which they must evolve to be sustainable.

Many fear that community organisations fostered by forest departments to encourage local participation in JFM in India and elsewhere will be subjected to the kind of centralized and inflexible prescription of rules and regulations that has characterized conventional, top-down forest planning and management. Such an approach is contrary to the spirit of nurturing healthy partnerships in which both parties are equally and actively involved in negotiating mutually binding agreements. If followed, it would undermine the real potential of JFM.

\textsuperscript{154} "Joint Forest Management; Concepts and Opportunities Proceedings of the National Workgroup at Surajkund, August 1992. Society for the Promotion of Wasteland Development, New Delhi."
An example from the Indonesian island of Java illustrates the kinds of practical consequences that can arise during program implementation when local farmers do not have autonomy from top-down government planning structures. A forest farmer group in Cianjur asked for cardamom seedlings to plant under the third-year canopy. The mantri (forest guard) asked for a variety that would sell at a high price. The forest district manager sent a “local variety” rather than a hybrid currently bringing four times the local variety's price in local markets. Forest villagers did not learn of the lower market value until they had planted and maintained the seedlings and brought the seeds to market. The next planting season, they asked for the improved, higher-value variety. Rather than learn from a past mistake, the same forest district administrator instructed them to use seeds derived from the cardamom plants they already had. The villagers had no means of complaining about this.

A primary strategy of the donor agencies has been to support external facilitators like NGOs to address imbalances of power both between governments and local communities and within communities themselves. One limitation of this strategy is that it is not possible to provide outside support to every village needing assistance. Furthermore, even experienced and committed NGOs cannot generate local empowerment. Ultimately, the impetus to form and maintain organisations, and to use those organisations as a base of power, comes from communities themselves.

As reported by Ajay Mehta, director of Seva Mandir, an NGO in India, developing “empowered” groups is difficult. Despite some successful experiences, groups formed to demand accountability from their representatives in the village councils and to put pressure on state institutions were not able to generate sufficient momentum to enlist growing and broad-based participation of the people. Staff at Seva Mandir concluded that people
were not ready psychologically to eschew the economic and political benefits of existing power relations. For change to happen, people would have to build horizontal ties of solidarity among themselves and dilute their vertical connections, which often are patron-client relationships. One difficulty is that vertical relations, because of the access to power, are more likely to secure short-term benefits and provide a sense of security to poor people.

5.10 Federations Empowering Local Organisations

In countries such as India and the Philippines, the emergence of federations of community organisations is beginning to alter the conditions that inhibit local organisations from breaking away from vertical relations of dependence. Although external facilitators may provide the initial linkage, and are still desirable for resolving conflicts and encouraging full participation, community groups increasingly are reaching out to form horizontal relationships. For example, in Gujarat, India, the Vikram Sarabhai Centre for Development Interaction (VIKSA) has facilitated a growing informal association (parishad) of community JFM institutions. This association, which initially convened five village tree growers' cooperatives with whom VIKSA worked, now includes more than 40 cooperatives that meet faithfully once a month. A small newsletter serves the group, and exchanges with village JFM institutions in other parts of the state are beginning to occur. Federations like this one provide an alternative means of organizing and strengthening local institutions. Horizontal linkages among women and others also have the potential to empower groups that are disadvantaged within their own communities.
5.11 Emerging Partnerships for Forest Management in India

While developing this new, innovative forest-management framework, it is important to identify the institutional parameters on which it must be based. Far into the future, partnerships of forest departments and local institutions will remain asymmetrical. For over a century, state Forest Departments (FDs) have wielded enormous power and authority, with no concomitant accountability to forest-dependent villagers. For Joint Forest Management (JFM) partnerships to succeed, they must be rooted in mutual acceptance of clearly defined rights, responsibilities, and accountability by both FDs and local institutions.

For the forest bureaucracy, working with a large number of diverse and scattered local institutions will mean a radical shift from centralized, top-down planning and authority to developing a capacity for decentralized decision making responsive to the diversity of local needs and priorities. Prescriptive working plans based on technical and revenue considerations will have to be replaced by flexible planning sensitive to socio-economic concerns and processes for nurturing collaborative partnerships. This implies challenging reforms in the forest departments' orientation, training, internal structure, decision-making processes, and priorities. Given the variation in the availability and capabilities of local institutions in different regions, combined with the institutional imperatives of their expected roles in JFM, the FD as the larger institutional partner will also have to play the role of guiding and nurturing the development of strong, sustainable, and autonomous local institutions. For their part, forest dependent villagers will have to make a commitment to strengthening or developing institutions with the capacity to sustainably manage forest resources according to principles of equity and accountability, where individual interest is curtailed for the common benefit of
all members. Participatory decision making and decentralized management are unfamiliar concepts for forest departments. Few forest officers or field staff, or even many of the NGOs involved in JFM, are familiar with the basic principles upon which strong, stable, and democratic local institutions must be founded and with the nurturing and empowerment they are likely to require before being able to undertake the resource management tasks expected of them. This is particularly crucial in areas where there are no strong surviving traditions of community organisation to build upon. In such situations, new traditions of collective resource management will have to be cultivated and tested, a process likely to be slow and to yield uneven results. Unfortunately, the poor performance of externally imposed organisational structures on non-cohesive, diverse groups of villagers, which includes gram panchayats covering anywhere from 1 to 22 villages in different states, has eroded the credibility of “village institutions.” It should be emphasized that the generally inadequate performance of government-sponsored local institutions in India has largely been due to their not being founded on sound participatory and democratic principles. Only through such a covenant can the credibility and effectiveness of village institutions be re-established.155

5.11.1 Multiple Use Management of the Forest Resource

A key goal of community forestry is the long term conservation of forest resources. Nevertheless, conservation goals must be integrated with efforts to generate a steady flow of products that meet the needs of local people. Increases in the productivity of forestlands are necessary to meet the twin objectives of conservation and rural development. The success of resource-sharing agreements between government agencies and forest users, and among forest-user groups, also, depends on the existence of sufficient

155 Madhu Sarin, From conflict to collaboration, op.cit note 150
output. The need to provide benefits to all those involved in forest management and to ensure a reasonable return on expended labour has driven community forestry programs to search for new land-management systems. Increasingly, organisations involved in community forestry are exploring technical innovations that facilitate sustainable, multiple-use management.

The movement toward a multiple-use management strategy poses a challenge to the technical orthodoxies practiced by forest departments. For a century or more, forest departments followed principles that assumed a homogeneity of ecological and social conditions and that did not adapt to local environments. Now, the demand for sustainable increases in production benefiting communities means that management practices must be tailored to local ecological and social needs. This requires a change away from the pervasive revenue-and-timber orientation, toward strategies allowing for the production and harvest of a variety of products and environmental services from state forestland. These may include grasses for fodder and thatch, small diameter fuel wood, timber for house construction, and a whole range of non-timber forest products.

A multiple-use management strategy requires methods that increase both the productivity of forests and the diversity of forest products. Because many forest-dependent people have developed forestry practices that encourage product diversity for their own needs, one approach is to study traditional community-based forestry management models and to pursue the possibility of incorporating them into regional land-use planning. Techniques that seek to combine improved productivity, diversity, compatibility with community practices, and long-term sustainability include agro forestry, natural forest management, and the development of non-timber forest products.
5.12 Agro-forestry

Agro-forestry is a land-use approach that seeks to improve productivity by planting crops and trees simultaneously or sequentially on the same plot. It is most useful on lands not suited to mono crop cultivation. A prominent feature of most agro-forestry systems is the cultivation of multi-use tree species. Depending on the species, trees may enrich the soil with nitrogen, serve as a source of livestock fodder, control erosion, provide firewood and building materials, and produce fruits or nuts. Thus, the addition of trees to the agricultural system can help to rehabilitate degraded lands, enhance farm productivity, and contribute directly to household income.

In the Philippines, the Mag-uugmad Foundation has created an innovative program to develop and share knowledge about the upland agro-forestry systems. Mag-uugmad development workers and farmer-members have introduced new techniques in contour farming with intensified vegetable production, hedgerow construction, and green manuring that have increased both the productivity and the stability of upland farming. Since its experience shows that farmers are more likely to adopt methods learned from other farmers, Mag-uugmad sponsors direct farmer-to-farmer-training in these techniques.

5.13 Natural Forest Regeneration

In many Asian countries, attention is turning toward natural forest management as a way to increase forest productivity while preserving biodiversity. Natural forest management is a strategy for enhancing the productivity of a forest as it grows naturally, instead of relying on artificial planting. Because these methods do not depend on heavy doses of costly external inputs, they are well suited to community-based management efforts.
And because forests are naturally diverse, a management model based on natural forests encourages variations in forestry practices in different parts of a forest and promotes the growth of multiple forest products.

In South Asia, there have been significant flows of forest products to local people from previously highly degraded and unproductive forestlands without recourse to artificial planting. Protection of Sal forests has demonstrated that, for trees that naturally produce new sprouts, denuded lands can regenerate with relatively little additional labour or other inputs. In many areas of West Bengal, Sal trees protected from harvest for more than 10 years have flourished, during which time production of non-timber forest products has also increased. Similarly, in Bangladesh, community groups have successfully regenerated degraded Sal forest by protecting them from illegal woodcutting, while obtaining firewood from annual tree pruning.

5.14 Non-timber Forest Products

Non-timber forest products (NTFPs) are a particularly important part of multiple-use strategies because they increase the range of income-generating options for forest dependent villagers while avoiding some of the ecological costs of timber cutting. NTFPs include a range of products with both subsistence and market value, such as foods, fodder, gums and resins, oilseeds, medicinal plants, and building and crafts materials. In contrast to timber-only or timber-first harvesting regimes, many NTFP harvesting activities are less destructive of forests and involve products that are annually renewable. In addition, NTFP-based activities often are small in size, managed by households and by women described below, involve a diversity of products, provide supplementary income during lean seasons, are labour intensive, use simple technologies, and are accessible to low-income and socially disadvantaged groups.
• Women's Involvement in the Collection,
• Management, and Marketing of Non-timber
• Forest Products in West Bengal

The results of a study carried out in West Bengal show the importance of Non-timber forest products to women:

• Three times as many women as men are involved in the gathering of NTFPs.
• Consumption of NTFPs is equal by women and men.
• Processing of NTFPs is exclusive to women.
• Twice as many women as men are involved in the marketing of NTFPs.
• Seventy-one species are collected exclusively by women, 23 exclusively by men, and 10 species by both.
• NTFPs account for 20 percent of household income.
• Women are mainly responsible for the manufacture of plates made from sal leaves.
• Women are mainly responsible for about 75 percent of the marketing of mushrooms, fruits, mahua flowers, and liquor.
• Men are mainly responsible for marketing of leaf plates, kendu leaves, and mats.

NTFPs also serve as a base for alternative sources of income through small-scale processing enterprises. Value-added processing can dramatically increase the income derived from forest products while reducing direct dependence on forest resource extraction. In the Philippines, for example, Philippine Business for Social Progress has developed a program to provide upland farmers with financial assistance, training in product processing, and analysis of market opportunities for rattan. PAKISAMA, a farmers'
organisation, is working with coconut tenant farmers in the southern Philippines to develop products for use in mattresses, upholstery materials, erosion control mats, and fibreboard.

In West Bengal, the Centre for Women's Development Studies (CWDS) has helped establish a network of village women's societies that are involved in a range of forest-based or wasteland-based, income-generating activities. The first group began by reclaiming a few hectares of barren land with mulberry tree plantations, leading to a viable silkworm-rearing project. Under the emerging JFM program, members of women's societies and forest-protection committees hope to increase income opportunities in the forests they now manage. CWDS has begun expanding the silk project and is introducing several intermediary-processing steps to increase the value added at the local level. CWDS groups are also working with simple machines to produce plates made from Sal leaves.

Other means of generating value from forests without increasing forest extraction may include decreasing the marketing costs of transportation and middlemen, promoting eco-tourism and parks from which fees or employment can be generated, and institutionalising royalties for genetic prospecting.

Multiple-use management has profound implications for the wider social and economic environment surrounding forestry practice. It will require trade-offs for all stakeholders: urban and industrial users, foresters, and local community users. Urban and industrial users and their suppliers will have to adjust to having more of their needs met from sources outside designated forest lands-whether private or community lands. If increased responsibility is given to community institutions to process and trade in forest products, new
market linkages will be needed, threatening the role of existing intermediaries. Foresters will have to accept a reduction in yield in certain prized tree species in exchange for a diverse menu of forest products. They will have to change their management time horizon to include monthly, seasonal, annual, periodic, and short- and long-term rotations at different stages in the cycling of a variety of harvests.

Foresters may also have to change their ideas about who controls the sale and revenue from these harvests and to think creatively about how to increase community involvement in management, harvesting, processing, and trade. Local community users will have to agree to participate in more formal management and control—possibly involving a compromise of such traditional practices as open grazing, or a modification of open access harvesting systems, as well as a reduction in illegal commercial fuel woodcutting.

Such deep changes in management and ownership practices have widespread implications for the institutions charged with forest management. The next section examines the process of institutional change that has been set in motion by the advent of community forestry.

5.15 Institutional Change and New Collaborative Relationships

Efforts to secure changes in land tenure that give more rights to forest-dependent people and changes in management practices that benefit local users depend upon transformations in the institutions charged with implementing community forestry. Specifically, forest departments must develop their capacity to decentralize in order to achieve a shift in power and authority to local users. Because formal authority and jurisdiction over public forestlands currently rests with government forest departments, a primary
strategy of community forestry programs is to encourage institutional and policy changes within forest departments to increase the scope of local empowerment. A corollary strategy is to strengthen the capacity of NGOs and research institutions to undertake new roles in support of people-oriented forest management.

These strategies rest on the view that each sector of society has a distinctive institutional competence to contribute to community forestry. Local organisations manage day-to-day activities and negotiate with external actors such as government forest departments, businesses, and NGOs. Governments can provide resources and formal authority to local organisations; NGOs help strengthen local organisations and mediate between government and communities; and research organisations generate knowledge and methods needed in planning and in bringing about institutional change. The initiatives supported by many donor agencies have sought to orient these distinctive capacities toward community-based management. Support to government agencies has sought to create processes for developing programs and policies that institutionalise people-oriented approaches. NGOs have learned to work with governments to effect policy and structural change, and with communities to provide technical assistance and organizing skills. Support to universities and research institutes has enabled them to develop participatory methods and provide project analysis and documentation. The development of institutional capacity in each of these sectors helps to ensure the long-term viability of community forestry.

One theme that runs through efforts to achieve institutional transformation is the importance of informal and formal relations among government agencies, universities, NGOs, and communities. Collaborations strengthen the institutional base of community forestry by bringing together
diverse talents and experience from each sector of society. Collaborations also help orient organisations toward community forestry by exposing each sector to the perspectives of the other sectors and by providing coalitions for change. Working together, often on the same projects at the same sites, has helped members of different institutions develop mutual respect and understanding. Cooperation also facilitates practical coordination of forestry programs; integrates the efforts of researchers, practitioners, and educators; and enables organisations to link field experiences with reforms at the policy level.

Collaboration among organisations pursuing different lines of work has sometimes been compared to constructing a "three-legged stool." All three legs of the stool—policy formulation and agency reorientation, research and training, and community action—are necessary to achieve meaningful social change. Building relations among government agencies, research institutions, NGOs, and communities helps this integration occur.

Any one agency or organisation may assume multiple roles in contributing to the three lines of work. For example, forestry departments and NGOs, in addition to providing resources and technical assistance, have commonly played essential roles in organizing communities and in conducting research; and universities, in addition to conducting research, have assisted in implementing programs and in contributing to policy recommendations.

The following sections examine some of the activities undertaken to support the transformation of government agencies, NGOs, and academic institutions.
5.16 Forest Departments' Role in Community Forestry

In all of the studies reviewed, the community forestry programs focused on the government forest departments because those agencies have the greatest potential to promote or impair the success of community forestry initiatives. The forest departments have the authority to establish policy frameworks conducive to the growth of community forestry. They also have the financial and technical resources to implement programs and, eventually, to expand them to have regional or national impact. Finally, forest departments provide a base of staff expertise and decision-making capacity accountable to the public.

At the same time, however, government forest departments, as large bureaucracies, have organisational characteristics that can inhibit the development of community forestry programs. One problem concerns the capacity to innovate. Channels of communication and authority in bureaucracies tend to be top-down and inflexible. Thus, there often is little upward communication of field experiences that could inform policy change, and it can be risky for staff at lower levels of the institutional hierarchy to innovate. Agency leaders who are in a position to innovate often are too caught up in immediate tasks to devote time to a long-term vision for change.

5.17 Institutional Change by Working Groups

Working groups foster innovation in government agencies by bringing together individuals across agency divisions and from outside organisations to develop and make operational long-term institutional goals. Working groups facilitate communication between field-based government staff and regular agency personnel. They also connect government agencies with outside
resource institutions that have the skills and time to produce high-quality documentation and dissemination of practical experience.

Generally, working groups follow a process of identifying field-level needs, experimenting with innovative solutions, extracting the lessons of those experiments, and disseminating and promoting their use within the agency. Experience with working groups has identified several key principles underlying their success. First, key people within the lead agency must be dedicated to bringing about change, have appropriate decision-making power, and be able to devote their time and energy to the group. Outside resource persons must understand the organisational problems and constraints faced by the lead agency in order to offer constructive suggestions for improvement. The data they present must be readily accessible and closely related to the needs of agency decision makers. Frequent meetings help to develop common ground among the participants, enabling them to devise strategies that make a positive contribution. A working group should also be flexible in its structure, focusing on specific program needs and changing as those needs are met.

Forest department staff training -often conducted NGOs and academic institutions-is an important focus for efforts to institutionalise change. In most countries, a handful of talented and committed individuals have driven the initial work in community forestry. Yet a dependence on individual talents also means the change process is subject to individual frailties and to the risk that programs will not outlast if (the departure of a specific individual. Staff-training programs have sought to broaden the base of understanding and support for community forestry approaches, both among officials who have decision-making authority and among the field personnel who work most closely with villagers.
Revisions in monitoring procedures are another critical means of institutionalising program flexibility and innovation. Instead of producing reports on success in meeting pre-set targets, new monitoring systems attempt to establish channels of communication that continually expand agency knowledge of local conditions and program developments. In this way, project monitoring becomes apart of the forest department's learning process. NGO members of working groups assisting state or national forest departments often conduct the research and analyses of field-level experience. The information generated then provides a basis for further policy and structural change. For example, the state governments of both Haryana and West Bengal have radically revised their original joint forest management resolutions based on monitoring and experience gained with JFM. In Haryana, for example, the state working group constantly updates the base of information about developments in JFM. Substantial contributions are made by the NGO participants who have been documenting the experience in pilot projects and conducting ecological studies. In light of the new knowledge generated, appropriate changes have been made by the Haryana government to smooth the working of the locally based Hill Resource Management Society (HRMS). Some of the changes are summarised below.\(^\text{156}\)

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providing technical and managerial inputs</td>
<td>Building technical and managerial competence in the local people</td>
</tr>
<tr>
<td>Rigid allocation norms for forest areas to be protected by the forest protection committee</td>
<td>Forest areas defined on the basis of natural features and after consultation with neighbouring village representatives and intra-village groups</td>
</tr>
</tbody>
</table>

\(^{156}\) Joint Forest Management; Concepts and Opportunities, opcit note 155
<table>
<thead>
<tr>
<th>Each household is a member of the forest protection committee</th>
<th>Every adult in the village is a member, ensuring equal representation by gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>An umbrella policy regarding sharing benefits between the Forest Department and the HRMS</td>
<td>Share percentages differentiated by commodity</td>
</tr>
<tr>
<td>A sharing arrangement of fixed percentages between the Forest Department and HRMS</td>
<td>As an incentive for protection, 75 percent of the yield above the baseline production goes to the HRMS</td>
</tr>
<tr>
<td>Only the Haryana Forest Department has the right to fine</td>
<td>HRMS given the right to levy fines and introduce regulations</td>
</tr>
</tbody>
</table>

As commitment to community forestry grows, forest departments must develop the capacity to enlarge upon relatively small-scale activities and to support much larger programs. The programs that were established earliest, namely those in India and the Philippines, are now at a stage where they are expanding to reach larger numbers of people. Yet expansion—especially rapid expansion—can make even more acute the structural obstacles to social forestry that bureaucratic organisations face. As programs grow to encompass larger geographical areas, the need to respond to a wider variety of social, ecological, and economic conditions also grow, intensifying the constraints posed by uniform guidelines and centrally driven targets. Further, when funds must be disbursed quickly to a large number of sites, decision making tends to become more centralized, hindering the agency's flexibility.

In addition, the effort required to organize activities in a single community can be extremely demanding on the financial and human resources of the implementing agency. With rapid expansion, forest departments are learning that both time and capacity for effective staff training at the local level often are lacking. Agencies are now grappling with the challenge of
expanding community forestry programs without sacrificing their essential character: namely, the capacity to respond to local social and eco-logical diversity and the capacity to give adequate attention to implementation.

5.18 Nongovernmental Organisations and Research Institutions

5.18.1 Working with Forest Dependent Communities

NGOs have often played critical roles in strengthening local institutional capacity through community organizing, establishing local organisations, and developing management skills. In addition, external facilitators have helped ensure representation of marginalized groups within village organisations. They have also helped organisations develop methods for managing the forest area productively and sustainably. In addition, NGOs have assisted local organisations in negotiations with the government and have provided a voice for villagers in forums to which they would not otherwise have access. Related roles have included conflict mediation and the provision of advocacy and legal services.

5.18.2 Changing Forest Department Orientation

Nongovernmental organisations and research institutions are important players in the development and acceptance of community forestry approaches within government departments. As members of working groups, they conduct research, assist in project monitoring, and work to institutionalise changes in forest department orientation. One of their primary roles is to conduct training programs for forest department staff. An NGO in Indonesia, Yayasan Bina Swadaya, won State Forest Corporation confidence to such an extent that it offered regular training courses for SFC staff at all levels and maintained an office inside SFC headquarters.157 In India, the Institute of Bio-

Social Research and Development (IBRAD), the Vikram Sarabhai Centre for Development Interaction (VIKSAT), the Tata Energy Research Institute (TERI), Mysore Resettlement and Development Agency (MYRADA), and others were responsible for developing innovative in-service training courses for forest department staff. These courses, emphasizing learning-by-doing rather than through lectures, were highly successful in introducing new ideas and skills that had not been taught in formal forestry training programs. IBRAD, for example, developed ways to reorient staff from their usual top-down approaches, strategies that combine behavioural psychology with role playing, case study materials, and field exercises to expose officers to the personal rewards of participatory planning and management. IBRAD has become a national expert in this area, sought after by many states and by the Indian national government to help set up training programs for joint forest management.

NGOs have also made important contributions in working with field-level forest staff. A national NGO in India, the Society for the Promotion of Wastelands Development, disseminates information about joint forest management to local forest department workers, providing access to ideas and experiences previously only available to staff at more senior levels. VIKSAT, in Gujarat, has concentrated on training programs for field-level forest officers, who are at the front lines of implementation and who typically have the least access to new ideas and experiences.

5.18.3 Institutional Linkages

Experience has shown that horizontal and vertical linkages are critical in developing sufficient institutional capacity to support community forestry. NGOs and universities are especially well placed to affect these linkages. In countries where strong collaboration among different sectors is not yet
established, networks promote relationships among individuals and institutions working in a common area. Networks also provide a means of communication among groups that are physically isolated or unaware of the work of organisations operating in disciplines ostensibly outside their frame of reference; Such was the case in China, where the Chinese Academy of Forest Sciences established the Forestry and Society Network in early 1993.

5.19 Conclusion

People whose lives have been directly affected by those programs number in the millions, and participating agency staff, researchers, and NGO personnel number in the thousands. Thus these Nordic community forestry programs represent a rich mine of experience from which to draw lessons, identify future challenges, and guide priorities in the worldwide search for a path to sustainable development.

5.19.1 Important Lessons

The experiences reviewed point to a number of positive lessons applicable to community forestry programs and more broadly to the many other programs related to sustainable development throughout the world.

Local people can be an asset to conservation. In the search for ways to protect the environment, some strategies emphasize excluding people from ecologically sensitive areas. Indeed, such exclusion was the basis of longstanding policies throughout Asia that declared forest lands off-limits to people. The experience reviewed here indicates that local people can be an important resource in conserving and restoring forest lands. In country after country, when given the opportunity, local people, many of them extremely
poor, have been willing to invest tremendous amounts of their scarce time and resources to conserve forests and restore degraded lands.

Community organisations are essential. In every program examined in this report, the formation of local community organisations was critical to the program's success. In some cases, the villagers themselves formed the organisation; in most cases, an outside agent, an NGO or a government agency, played a catalytic role. The community organisation enabled villagers to negotiate with government officials and provided a forum for airing the many and often conflicting needs of the people dependent upon the natural resource. As new rules and plans developed, it was the community organisation that enforced agreements and provided members with the information, guidance, and coordination to implement the plans.

Policy is important. In each program reviewed, changes in the policies governing forest lands were required to counter incentives to use forests in unsustainable ways and thereby contribute to their destruction. Although the new policies varied in each country, they all enabled local people to benefit directly from sustainable forest management. They also broadened people's view of the types of benefits forests and forest lands can provide—beyond timber, which government forest departments typically concentrate on. For villagers, Non-timber forest products like grasses, fruits, resins, and leaves were often as important as wood, and in many cases the ability to plant cash and subsistence crops in agro-forestry programs was critical to the villagers' sustained interest in land restoration and soil conservation. The policy changes that enabled villagers to gain these varied benefits also transformed the relationship between villagers and government agents. Instead of merely representing the state's police powers, government personnel became people
villagers could learn from, negotiate with, and call on for technical and financial assistance.

Government agencies can change. One of the most striking findings in the review of the six Asian programs was the degree to which government forest agencies, commonly viewed as entrenched, insensitive, and sometimes corrupt bureaucracies, were capable of change. Each program dealt with an agency that had innovative leaders within its ranks who, at the field level, were inventing new approaches to serving both the needs of villagers and the agency's conservation and production mandates; and who at upper levels were prepared, when given outside assistance, to lead the process of change. The change process was slow, however, generally taking 5 to 10 years to have a significant impact. Furthermore, the process required that agency leaders remain open to an evolving understanding of villagers' needs and capabilities and be willing to adjust policies, agency procedures, and personnel training and evaluation accordingly.

Collaboration provides needed skills and perspectives. In each case reviewed, the community forestry program was developed through close collaboration among government agency personnel, NGO representatives, and academic researchers. NGOs were often critical to providing an understanding of ways to develop community organisations and respond to people's needs. Academics were important in providing a flow of information about the effects of village-level interventions. Government leaders were crucial to changing government policy and procedures. Commonly, representatives from government, NGO, and academic groups formed a working group, which met on a regular basis. The meetings, informed by a continual flow of new information, enabled the participants to follow a
“learning-process” approach to organisational change-continually adapting programs to new opportunities and information.

Donors can encourage constructive collaboration. Donors can magnify the effect of their community forestry grants by providing support simultaneously to a variety of institutions-government, NGO, and academic-and by encouraging those institutions to work together.

5.19.2 Key Challenges

Community forestry programs were developed to help resolve the problems of rapid forest degradation by involving local people in the protection and restoration of forest lands. The research showed remarkable success in achieving that objective. As with any successful program, however, the changes introduced have spawned a range of new problems and challenges that must be addressed as community forestry programs further evolve.

Ascertaining actual village benefits. The programs reviewed revealed that policies have changed substantially in many countries, as have relations between forestry officials and villagers. What is less clear is the actual benefits villagers have received, particularly as compared to the costs they have incurred. When villagers protect or restore a forest, collect Non-timber forest products, create terraced hillsides, or participate in a village organisation, they expend precious time and resources. How does that expenditure compare with the benefits they derive? The answers are particularly important since in many community forestry programs governments are developing arrangements for dividing the benefits of timber and other forest products between the government and the villagers. Ensuring that agreements are based on realistic estimates of costs and benefits will be an important task for the future.
Promoting the equitable distribution of benefits. Community forestry programs have been introduced as part of a quest for more equitable development. Earlier policies that excluded local people from the resource upon which their lives depend seemed an intolerable injustice to many of the advocates of community forestry. As programs are put in place that reverse that injustice, new problems have arisen relating to inequities within and between villages. For example, a forest planted on common property traditionally used for grazing may displace herders who depend on that area for their livelihood. Similarly, increases in the value of Non-timber forest products may lead to women's losing control over their use and sale, as men take over production and marketing. Close attention must be paid to such inequities and to ways to mitigate them while preserving programs' positive effects.

Recognizing issues of power. Community forestry is fundamentally about empowering local people to take greater responsibility for the long-term management of forest resources. Remarkable progress has been made in enabling rural people to negotiate as partners with government agencies. However, the relationship is inherently unequal, raising questions about the degree to which power has actually devolved. Developing more equal relations between village organisations and the government has emerged as an important issue, one that is fraught with difficulties. Moreover, as villagers increase their sale of wood and Non-timber forest products, they are encountering powerful forces in the private sector that jealously guard their own markets. It will be important to ensure that village organisations are capable of negotiating from a position of strength with both the government and the private sector.
Resolving competition and conflict. Local communities, the private sector (especially forest and tourism industries), the state, and environmental groups are among the many parties with an interest in forest management. Balancing those interests is difficult. As community forestry programs succeed in protecting and restoring productive forests, other groups are likely to want a stronger say in forest management, and that could result in considerable conflict. Developing mechanisms to resolve such conflicts in ways that incorporate a variety of perspectives will be critical to achieving equity, productivity, and ecological health.

Responding to new roles for local government. In many countries, national and state governments are shifting authority and responsibility for many activities to local levels, including community forestry programs. The shift creates new opportunities as well as new problems. Local officials may be able to respond more quickly to local needs, but they may also be attached to local power structures that are indifferent to rural people. Furthermore, local government staffs, bearing multiple responsibilities, are unlikely to develop the technical expertise of personnel in national and state agencies.

Developing complementary relations between national and state agencies and local government is an important task ahead. Motivating local governments—generally based in cities—to pay attention to community forestry programs, whose constituents are poor and remote, is another major problem. In some places, putting community forestry in the context of watershed management has proved to be promising. This approach unites city dwellers' need for water with rural communities' interest in maintaining a healthy watershed.
Maintaining quality while expanding. The success of community forestry programs has attracted growing interest from both national governments and such large international agencies as the World Bank and the Asian Development Bank. In many cases, this success prompted too-rapid expansion, which has outstripped the agency's ability to maintain the programs' high quality.

Institutionalising changes that reward agency personnel for quality work and responsiveness to villagers' concerns has proved to be essential. In many countries, working groups have developed a variety of ways to encourage such reward systems, but ensuring their use is likely to remain a continuing problem. The growing momentum of community forestry among villagers may also help, especially if the village organisations develop such mechanisms as federations to give them a strong and united voice.

Finding financing. Donor funds—from private organisations like the Ford Foundation, from bilateral government programs, and from multilateral agencies like development banks—have helped both initiate and expand community forestry programs, but in the long run other sources of revenue must be found.

Tax revenues are an obvious, but probably inadequate source. Some localities are experimenting with such other sources as water charges to downstream users, usually in cities, with the income applied to restoring forest systems that provide steadier water flows in the dry season. Another source are the new funds being made available by governments and private companies in response to excessive levels of carbon dioxide in the atmosphere, which threaten to disrupt the earth's climatic patterns. The funds are earmarked for tree planting and forest restoration, resulting in tree growth.
that reduces the level of carbon dioxide in the atmosphere. Ensuring the continuing application of such varied funding sources to support community forestry programs will be difficult but necessary.

Combining conservation and livelihoods. The concept of community forestry grew out of the fact that local people are the first to suffer from forest degradation, but with appropriate policies, they can gain substantially from sustainable forest management. As in the larger society, however, income-generating programs may ultimately increase villagers' interest in unsustainable extraction, particularly as their need for income rises beyond what can be derived even from improved multiple-use forest management.

It will be important to help villagers maintain a long-term perspective through the idea of stewardship. It may also be necessary to develop other economic activities that do not rely on forestland yet maintain incentives to sustainably manage the natural resource base.

5.19.3 The Path to Sustainable Development

The most important finding of the review is that community forestry has become a central part of forestry policy and practice in Asia. Those living in upland communities as well as socially and geographically marginal areas have been placed on their countries' development agendas. Governments have come to recognize these communities' rights to forest resources, their abilities, and the value of their participation. Greater participation by local people, forestry departments and related agencies has contributed to fundamental shifts in the relationship between governments and their rural citizenry.

In each of the programs reviewed, governments, researchers, and NGOs have come to understand more about the livelihoods of forest-
dependent villagers and how they manage their land, forest, and water resources, Villagers also have a better understanding of how to negotiate with their governments and plan with them to achieve a better life. Moreover, in Asia, community forestry has become accepted as a specialization within the forestry profession.

In demonstrating ways to simultaneously address problems of poverty and the environment, community forestry programs represent a major contribution to our understanding of the path to sustainable development. The means by which the programs were developed provide powerful lessons for what is required to advance that kind of development. They also reveal the challenges ahead and the difficulties inherent in efforts to respond to the growing problems of environmental degradation and social and economic inequity. The India hope is that this distillation of its experiences with community forestry in India will prove helpful to the many people, agencies, and organisations around the world working to advance sustainable development and promote more equitable societies.