Community-managed programs in forestry:
A synthesis of good practices

Prepared by
Environment Sector Management Unit
East Asia Region
The World Bank
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## CONTENTS

**ACKNOWLEDGMENTS** .......................................................... vi

**ACRONYMS AND ABBREVIATIONS** ........................................ vii

**FOREWORD** ........................................................................ viii

**EXECUTIVE SUMMARY** ..................................................... 1

### 1. ENABLING COMMUNITY ACTION ........................................ 7

#### RECOGNITION OF RIGHTS .............................................. 7
- Type of rights ................................................................... 8
- Extent of rights ............................................................... 8
- Security of rights ........................................................... 9
- Deciding appropriate level of rights ................................. 11

#### RESPONSIBILITIES OF COMMUNITY GROUPS ..................... 12
- Considering type of responsibilities ................................ 12
- Extent of Responsibilities .............................................. 14
- Deciding appropriate level of responsibilities ................. 14

#### LINKING RIGHTS WITH RESPONSIBILITIES ...................... 15
- Advantages of linking rights with responsibilities ........... 16
- Practical difficulties for linking rights and responsibilities 17
- Potential options .......................................................... 18

### 2. ENHANCING COMMUNITY CAPACITY .................................. 35

#### IMPROVING ORGANIZING CAPABILITY ............................. 35
- Constituting community units and membership ............... 35
- Rights of the members .................................................. 36
- Resource factors .......................................................... 37
- Functional aspects ........................................................ 37

#### OVERCOMING WEAKENING FACTORS ............................... 38
- Multiple local institutions ............................................. 38
- Multiple meetings and visits ......................................... 40
- Elite domination .......................................................... 41
- Power-centered leadership ........................................... 41
- Imposition of institutional arrangements ....................... 41

#### ENSURING BROAD-BASED PARTICIPATION .......................... 43
- Participation of women ................................................ 43
- Participation of indigenous communities ....................... 46
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMPROVING CONFLICT MANAGEMENT CAPABILITY</td>
<td>48</td>
</tr>
<tr>
<td>The options for providing support</td>
<td>48</td>
</tr>
<tr>
<td>STRENGTHENING REGULATORY CAPABILITY</td>
<td>50</td>
</tr>
<tr>
<td>Diverse regulatory mechanisms</td>
<td>50</td>
</tr>
<tr>
<td>Mechanisms for promoting economic rationality</td>
<td>50</td>
</tr>
<tr>
<td>3. IMPROVING FIELD IMPLEMENTING UNIT CAPABILITY</td>
<td>53</td>
</tr>
<tr>
<td>Institutional limitations of field implementing units</td>
<td>53</td>
</tr>
<tr>
<td>Need for continuous learning</td>
<td>54</td>
</tr>
<tr>
<td>Transformation to learning organization</td>
<td>57</td>
</tr>
<tr>
<td>ENABLING LEARNING ENVIRONMENT</td>
<td>58</td>
</tr>
<tr>
<td>Organize compatible work responsibilities</td>
<td>58</td>
</tr>
<tr>
<td>Promote innovation and experimentation</td>
<td>59</td>
</tr>
<tr>
<td>Develop empowering work culture</td>
<td>61</td>
</tr>
<tr>
<td>DEVELOPING PARTICIPATORY LEARNING CULTURE</td>
<td>62</td>
</tr>
<tr>
<td>Interactive learning processes</td>
<td>63</td>
</tr>
<tr>
<td>Prerequisites for success</td>
<td>63</td>
</tr>
<tr>
<td>ENCOURAGING COLLABORATIVE LEARNING</td>
<td>65</td>
</tr>
<tr>
<td>Collaborate with communities and other local actors</td>
<td>65</td>
</tr>
<tr>
<td>Build team-working system at the implementation level</td>
<td>65</td>
</tr>
<tr>
<td>Develop collaboration between core and specialized functions</td>
<td>66</td>
</tr>
<tr>
<td>Develop networks and cross-functional teams</td>
<td>66</td>
</tr>
<tr>
<td>Develop collaboration with line agencies</td>
<td>67</td>
</tr>
<tr>
<td>Develop collaboration with other external actors</td>
<td>67</td>
</tr>
<tr>
<td>COMPETENCE BUILDING PROGRAMS</td>
<td>68</td>
</tr>
<tr>
<td>Limitations of training strategies</td>
<td>68</td>
</tr>
<tr>
<td>Learner-centered approach to building competence</td>
<td>69</td>
</tr>
<tr>
<td>MOTIVATION FOR BETTER PERFORMANCE</td>
<td>73</td>
</tr>
<tr>
<td>What motivates?</td>
<td>74</td>
</tr>
<tr>
<td>What achievement should be rewarded?</td>
<td>76</td>
</tr>
<tr>
<td>Forms of rewards</td>
<td>80</td>
</tr>
<tr>
<td>4. IMPROVING THE IMPLEMENTATION PROCESS</td>
<td>83</td>
</tr>
<tr>
<td>Limitations of current approaches</td>
<td>84</td>
</tr>
<tr>
<td>Extensive implementation strategy</td>
<td>85</td>
</tr>
</tbody>
</table>
5. PHASES OF THE IMPLEMENTATION PROCESS

PREPARATORY PHASE
Step 1. Assess local conditions
Step 2. Decide an appropriate strategy

MOBILIZATION PHASE
Step 1. Know each community well before beginning action
Step 2. Sensitize people about resource degradation
Step 3. Build awareness of new policy measures
Step 4. Facilitate communities in deciding regulatory systems
Step 5. Help managing conflicts
Step 6. Promote gender sensitivity
Step 7. Validate effectiveness of community regulations

FORMALIZATION PHASE
Step 1. Help developing a resource management plan
Step 2. Formalize community institution
Step 3. Clarify rights and responsibilities
Step 4. Formalize resource management agreement

IMPLEMENTATION PHASE
Step 1. Develop a demand driven investment planning system
Step 2. Develop an incentive strategy
Step 3. Help in developing an action plan
Step 4. Sensitize people for fulfilling deficiencies in supply
Step 5. Provide necessary support services

MONITORING AND IMPROVEMENT
Benefits from monitoring
Some essential considerations
Designing the monitoring process

REFERENCES AND BIBLIOGRAPHY
ANNEXES
1. COMMUNITY FORESTRY APPROACHES IN NEPAL AND INDIA: DISTINCTIONS AND MUTUAL LESSONS
2. A STRATEGY OF INTENSIVE PILOTING TO BUILD CAPACITY FOR INITIATING EXTENSIVE EFFORTS
3. OVERCOMING THE ANTICIPATED PROBLEMS IN IMPLEMENTING EXTENSIVE STRATEGY
4. COMMUNITY PROFILE: DATA SHEET FOR BACKGROUND INFORMATION
5. COMPARATIVE VISUALIZATION: AN EXERCISE FOR MOBILIZING COLLECTIVE ACTION
6. HOW TO INVOLVE PEOPLE IN PLANNING?
7. A SAMPLE OF ACTIVITY SCHEDULE
8. STRATEGY TO MOTIVATE PEOPLE TO ADOPT MEASURES TO FULFILL DEFICIENCIES IN LOCAL SUPPLY
9. EVALUATING THE LEVEL OF COMMUNITY INVOLVEMENT IN RESOURCE MANAGEMENT
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## ACRONYMS AND ABBREVIATIONS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>APSIP</td>
<td>Adaptive participatory strategy for indigenous people</td>
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<tr>
<td>CBFP</td>
<td>Community-based forestry program</td>
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<tr>
<td>FAO</td>
<td>Food and Agricultural Organization of the United Nations</td>
</tr>
<tr>
<td>ILP</td>
<td>Interactive learning process</td>
</tr>
<tr>
<td>ILS</td>
<td>Interactive learning session</td>
</tr>
<tr>
<td>ISFP</td>
<td>Integrated Social Forestry Program</td>
</tr>
<tr>
<td>JFM</td>
<td>Joint Forest Management</td>
</tr>
<tr>
<td>MIS</td>
<td>Marketing information system</td>
</tr>
<tr>
<td>NGO</td>
<td>Nongovernmental organization</td>
</tr>
<tr>
<td>NTFP</td>
<td>Non-timber forest products</td>
</tr>
<tr>
<td>ODA</td>
<td>Overseas Development Administration</td>
</tr>
<tr>
<td>PLIC</td>
<td>Project Level Implementation Committee</td>
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<tr>
<td>PRA</td>
<td>Participatory rural appraisal</td>
</tr>
<tr>
<td>RRA</td>
<td>Rapid rural appraisal</td>
</tr>
<tr>
<td>SLIC</td>
<td>State Level Implementation Committee</td>
</tr>
<tr>
<td>SPWD</td>
<td>Society for Wastelands Development</td>
</tr>
<tr>
<td>VCFS</td>
<td>Village Co-operative Forest Society</td>
</tr>
</tbody>
</table>
FOREWORD

Community-based approaches have shown an immense potential in preventing environmental degradation and sustainable management of forest and other common property natural resources, particularly where the resource degradation problems are rooted in the loss of control and regulation on the access and use. Many developing countries are gradually adopting community-based forestry programs (CBFP) by incorporating policy changes and modifying the prevalent operational modalities to facilitate community participation. These efforts are also stimulated by growing donor support to community-based programs. However, so far only a limited success has been achieved in involving local communities in resource management in most of the developing countries. Overall progress of this approach has had mixed results. Instituting CBFP presents a continued challenge for the future.

Field implementing units have a critical role in ensuring the success of CBFP in all the potential areas facing resource degradation. Ultimately they formulate the policies and develop implementation practices. This synthesis report focuses on understanding the limitations and suggests ways to improve the functioning of the field implementing unit to improve the CBFP performance. Practitioners will hopefully find this a useful assembly of examples gleaned from many sources. It may not answer all questions, but it presents a good foundation to get started or upon which to improve.

The limitations of field implementing units are discussed in relation to four broad aspects which most affect the success of CBFP -- policy framework, community capacity, institutional limitations, and implementation process. Communities are not homogeneous entities and do require support. Ever changing socio-economic and political environment and the past legacy of state control have adversely affected the capacity for collective action. The functional procedures of conventional hierarchical organizations are incompatible with community-based development strategies. The conventional and evolving practices of training and capacity building are not only grossly inadequate, but also have a trainer focus rather than a learner focus.

The main objective of Community-managed programs in forestry: A synthesis of good practices is to improve the understanding and capacity of development practitioners about policy, operational and institutional issues at the field level. These issues need to be considered in an integrated manner for designing and successfully implementing community-based resource management programs. This publication is mainly intended for middle- to higher-level staff responsible for implementing programs for management of forest and other common property natural resources. The publication is equally useful for project and policy planners and the donor agencies. While there are many publications on the subject, this publication captures a broad overview not available in any single document. I trust this effort to synthesize this material will be helpful to its readers.

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EXECUTIVE SUMMARY

The critical considerations in the process of promoting a community-based forestry program (CBFP) need to be understood from the perspective of local communities as well as field implementing units. From the community perspective, providing a favorable policy environment and improving capacity are important to generate the interest of community groups in collective action. From the field implementing unit perspective, enhancing institutional capacity and developing suitable operational procedures are crucial in ensuring the successful implementation of community-based resource management programs.

Enabling community action

Recognition of rights. Collective management of resources requires that communities should have secure, stable and exclusive rights over the resources so that they can be assured of the benefits from its rational management. While recognizing the rights, the type of rights, and their extent should be made explicit. It is very crucial that communities perceive the rights to be secure.

Responsibilities of community groups. Potential activities for which communities can take responsibility varies from mere regulation of access of its members to the complete responsibility of resource use, regeneration, and sustainable management. Communities can take these responsibilities exclusively or the responsibilities can be shared between communities and state agencies. The appropriate level of responsibilities for a community depends on local traditions and capacity, benefits and cost to the community, the risks involved and the assistance provided.

Linking rights and responsibilities. Since the appropriate level of rights and responsibilities would differ according to local circumstances, providing options to communities for appropriate level of rights and responsibilities becomes very important. Linking of rights with responsibilities has several advantages over using fixed options in which communities do not have any choice. It encourages the communities for taking higher responsibilities and abiding by them. It also improves the clarity of message and rights are not perceived to be a ‘free good’. Since the continuance of rights depends on the abidance with responsibilities, the process becomes demand-driven and this also provides an effective control instrument.

Market as motivator. Numerous factors related to market regulations, community rights, knowledge of marketing practices and other technical aspects affect the benefits of communities. The market effectiveness and community benefits can be improved by developing marketing information systems, strengthening market regulatory practices, enhancing marketing capability of communities, building appropriate institutional and infrastructural support, and ensuring effective coordination among various actors involved in market services.

Rewards for positive action. If initiating regulated use of resources leads to immediate loss in the availability of products for meeting subsistence needs or causes disproportionate impact on marginal
sections, additional incentives can be used to compensate for this loss. The additional incentives can also be used to make the direct or indirect benefits from regulated use become visible when resource degradation is not so severe to cause local scarcity.

Enhancing community capacity

Improving organizing capability. The formal and procedural norms that need to be followed in the formation and functioning of community institutions have direct influence on the organizing capability of communities. The unit of organization of community groups should be based on social-territorial relationships rather than on politico-administrative boundaries.

Overcoming weakening factors. The implementors of CBFP should be aware of various factors which either make it difficult for local communities to organize or weaken their institutions. Some of them such as elite domination and social inequalities are rooted in local socio-economic conditions while many other factors are a result of the mode of operation of various rural development programs.

Ensuring broad-based participation. A variety of social and economic factors limit the participation of all the sections or members in the functioning of community institutions. Special attention by implementors of CBFP is required on promoting equitable participation of the poor and marginal sections including women. Because of significant socio-cultural differences, participatory strategies for indigenous communities need to be specially adapted according to local circumstances.

Improving conflict management capability. Depending on the nature and complexity of conflicts, the efforts required for their resolution will differ. To develop local capacity, the responsibility of resolving conflicts should be felt by communities. Leaving it for people to resolve the conflicts should be always a priority choice.

Strengthening regulatory capability. The diverse regulatory mechanisms used by different rural communities indicate that different mechanisms may be more appropriate in different local circumstances. Communities could be facilitated by improving their awareness about such mechanisms. Ideally, the regulatory mechanisms should lead to economically rational use of scarce resources, which can otherwise be promoted through user fees or such other cost inducing means.

Improving field implementing unit capability

Enabling learning environment. Several organizational-level decisions affect the learning environment in an field implementing unit. The work should be so organized that the implementing staff feels the complete responsibility for an activity from its start to end. This implies that the staff should have area-based responsibilities for resource management units over which particular communities have or can have exclusive rights. Overlapping responsibilities should be avoided. Innovation and experimentation should be promoted at all levels by gradually delegating decision-making powers, tolerating genuine mistakes, and appreciating achievements. An atmosphere of inquiry and dialogue should be promoted within the organization so that knowledge and skills of all staff levels can contribute to the overall growth of the organization.

Developing participatory learning culture. Power-centered hierarchical relations of conventional organizations inhibit an atmosphere of mutual sharing and learning. Therefore, building a regular system
of interactive learning processes within the organization can be helpful in promoting a participatory learning culture. The interactive processes provide an opportunity to participants to interact in a highly participatory, non-restrictive, and informal setting to facilitate free flow of ideas and mutual exchange of views. Such interactions can be built at all levels in an agency with appropriate vertical and horizontal linkages to spread learning in the whole organization.

**Encouraging collaborative learning.** Collaboration between core functions of implementation activities and specialized functions such as research, training, monitoring, and policy or project formulation is very essential for forestry agencies. Collaborative learning can be promoted by building networks and cross-functional teams to periodically monitor and suggest improvements on specific issues.

**Competence building programs.** The commonly used training strategies have target-oriented, centrally planned approach with a greater focus on the trainer rather than the learner. The learner-centered approaches can be more effective in building competence at all agency levels in which the emphasis is on encouraging learning through experience sharing, means of distant education and using training strategies to facilitate learning. The training activities should be divided into small and measurable goals for which interactive processes could be used effectively. These training activities can be supplemented with specific programs for special needs and practical demonstrations or hands-on experience. Training activities should be followed-up with monitoring the performance of trainees and providing necessary support for covering the field difficulties.

**Motivation for better performance.** Because of difficulty in monitoring diverse activities of the staff in CBFP, it becomes important to provide incentives for better performance to motivate the staff for making the most sincere effort. The motivation is affected by both what one gets by accomplishing a task with utmost sincerity and what one loses by doing it inappropriately. When learning is rewarded, it motivates the staff to learn through self-efforts or improves the sincerity in the training programs. The incremental learning can be assessed through tests at regular periodicity. The rewards can be in non-monetary form such as recognition, or in the form of special privileges such as facilities for housing, transport, communication, etc. Nevertheless, in developing countries, because of low salaries and lack of other facilities, the monetary rewards become the most effective.

**Improving the implementation process**

The process of implementing CBFP has evolved over time and gradually a system of developing resource management plans has become a medium for entering into agreements with communities. With a few exceptions, commonly adopted approaches suffer from several limitations. The efforts are generally focused in selective areas based on favorable attributes or guided by financial targets, whereas the community involvement is desirable in all the potential areas to prevent further degradation. To overcome the limitations, an extensive implementation strategy encompasses a learning process approach. Each front-line staff is made responsible for a cluster of 10 to 15 communities. Efforts are initiated in all the clustered communities but the assistance and the process of formalization of rights is extended only in those communities which demonstrate expected progress. The implementation process has been divided into four phases and each phase is divided into steps. Each phase has a distinct purpose and the move into next phase is made only when this objective is achieved. Steps within each phase can be altered as required by the existing or lack of community regulatory systems and the condition of the resources.
Preparatory phase. The front-line staff collect preliminary and basic information to understand various local and external factors in the areas of their responsibility. The emphasis is mainly on making a broad assessment of the resource conditions, various pressures on the resources, local socio-economic conditions, and the past efforts by communities, as well as by government agencies. The information on resource-user relationship is collected to understand the inter-community issues. Based on the analysis of the information collected, a strategy is decided for each community.

Mobilization phase. The effort is initiated in each individual community to mobilize collective action after developing a better knowledge of local issues and problems. This is achieved through sensitizing people about resource degradation factors and the role of and participation of all groups, especially women. People are made aware of new policy measures and are encouraged to initiate regulation of access and extraction The efforts are also initiated to improve the conflict management capability. Before entering into the next phase, it is ensured that the steps taken by the communities indicate the effectiveness of collective regulation.

Formalization phase. Preparations are made to formally enter into an agreement with communities for resource management. The resource management plan should consider setting locally appropriate goals, selecting regeneration and management options, and developing extraction rules according to resource conditions. The functional modalities adopted by communities are recorded in the form of formal rules of community institution.

Implementation phase. Communities are provided assistance to implement the actions according to the resource management agreement. If additional incentives are to be provided, a demand-driven plan of investment is made and an activity schedule is developed in which responsibilities of communities and state agencies are clearly stated. Communities are sensitized to adopt suitable measures to fulfill supply deficiencies through other common or private property resources. Technical, managerial, and market information support is provided. If any conflicts emerge, all possible help is provided for the resolution of the conflicts.

Monitoring and improvement. Monitoring is not a distinct phase but continues all along the implementation process. It is important for communities to understand the effectiveness of the regulatory systems initiated. For the front-line and the supervisory staff, it reflects the impact of the steps taken by them to motivate the communities. A participatory process of monitoring in which communities as well as implementing staff takes part, can serve both the purposes. Monitoring of CBFPs has two distinct aspects. One is to monitor community response to various efforts which is reflected in the activities and processes within communities. The second is to monitor resource management which is reflected in changing pressure on resources, measures taken for resource regeneration, effectiveness of regulatory measures and the regeneration status as indicated by the response of resources.

All the relevant aspects of implementing a community-based forestry program discussed in this report have been diagrammed for a quick overview in Figure ES.1.
Figure ES.1. Essential considerations for implementing community-based programs

COMMUNITY PERSPECTIVE

Provide favorable policy environment
Enhance community capacity

Community takes initiative
Field Unit provides support

COMMUNITY-BASED MANAGEMENT

Improve Field Implementing Unit capability
Improve the implementation process

FIELD IMPLEMENTING UNIT PERSPECTIVE
1. ENABLING COMMUNITY ACTION

This section focuses on different aspects of an enabling policy environment in which communities will feel motivated to initiate collective action. The rational management of forest resources requires that extraction of various products does not exceed beyond a level which reduces the productivity or regenerative capacity of resources. The main consideration is for unregulated open access of forest or other common property natural resources. being converted into a regulated access. This should ultimately result in achieving the potential productivity and sustainable management of resources. Why should the communities be interested in fulfilling the above objectives? What could motivate communities in regulating access, limiting extraction, and managing resources sustainably? Answers come when communities can derive a continuous stream of benefits from the resources, the perceived value of benefits is greater than the costs, and the benefits are distributed among the members equitably so that no one has a motivation to cheat other members and social control can operate.

Not only the availability of benefits is important but there should also be opportunities to maximize these benefits. Market-related policies and practices should be such that communities are able to get an appropriate share in the market profits. The policy environment should also motivate local communities to make conservative use of scarce resources and generate surplus, not only keeping the national and societal considerations in view but also to derive greater benefits for themselves. The overall policy environment also needs to consider that change from the present pattern of behavior of open access resource use may require some tangible incentives.

Within South Asia, relatively longer and intensive experience in implementing community-based programs is available from India and Nepal. Therefore, most of the examples in this document have been taken from these two countries. While there are broad similarities in the operational practices adopted in these two countries, there are significant differences in the pattern of community rights and state assistance (Annex 1).

RECOGNITION OF RIGHTS

One important reason for degradation of forest resources is open access with no clear rights and responsibilities of any one or group of individuals. In such a situation individuals try to maximize their benefits even at the cost of disadvantages to the other members of the society. In the absence of clear rights, the benefits from resources are not secure and so communities may not have any motivation to manage resources rationally. Clear recognition of rights of community groups over resources will ensure flow of benefits to communities. This should motivate them to manage the resources more rationally. However, the complexity in defining property rights and mechanisms of their operation requires us to have a very clear understanding of various issues involved which need to be considered while recognizing rights over resources in question.
**Type of rights**

Property commonly involves five different types of rights: access, exclusion, usufructs, management, and alienation. While recognizing community rights over forest or other common property resources, these should be clearly spelled out and the extent of rights and restrictions should also be clearly stated with reference to each type of rights. The rights for access prescribe legal entitlement for use of particular designated resources by a particular set of people, often for specific purposes. The rights for exclusion entitle the group having the rights to exclude non-members from using the designated resources. Rights for usufructs allow all communities to use products and services from resources whether or not having legal ownership to resources from which the products and services are derived. Rights for management entitles members to decide and alter management regime and the use to which resources could be allocated. Rights for alienation entitles right holders to lease or sell the property or to transfer the rights through inheritance.

**Extent of rights**

Rights at various times are termed ‘concessions’ or ‘privileges’; these indicate a variation in the extent of rights. The extent of rights could be varied for almost each type of rights associated with forest resources. In the core zones of national parks or other protected areas away from habitation, no rights of local people are generally recognized. If rights or traditions of the use of these areas exist, these are commonly extinguished in the process of formation of protected areas through compensation or grant of rights elsewhere. On the other extreme, communities may be granted full rights including ownership over forest resources. In Papua New Guinea, for example, the majority of forest resources in the country are owned by local communities. Similarly, district and community forest lands are owned by the community and governed through its leaders in most parts of the seven northeastern states of India.

Many types of variations are available in between these two extremes. These variations include a particular type of right not being recognized at all. In the approach of Joint Forest Management (JFM) in India and Community Forestry in Nepal, communities are not granted the rights for alienation. The rights to products and services are recognized, but the rights to land for lease, sale, and conversion to different uses are forbidden. In community forestry, rights for access are usually defined for a group (although membership of the group could be restricted or subjected to certain conditions) and the non-members are excluded. Traditionally rights have not always been clearly defined to prescribe exclusive rights for a group. However, proximity of resources and traditional patterns have led to use by only neighboring groups. The exclusion can be partial for a certain type of products, and at certain times e.g. use by migratory users in a particular season.

The extent of rights is more commonly varied with regard to the rights for usufructs and management. The rights for usufructs define the products that can be extracted by local communities and could be varied by attaching certain conditions or prescribing time and quantity of removable produce. Rights for management prescribe the decisions that can be taken by the right holders. These decisions affect the quantity and quality of products and services that would be available from resources, including use of different areas for different purposes such as grazing, timber, fuel and/or fodder production, watershed protection etc.; time, quantity and manner of extraction of different products; cleaning, thinning, pruning and other such operations to improve production; and regeneration and protection measures for reviving the areas.
Development of community-based approaches in recent years has added a variety of patterns of rights to the variation which has already been existing. These patterns provide potential options for recognizing rights in different situations (Box 1.1).

<table>
<thead>
<tr>
<th>Box 1.1. Prevalent patterns of rights of communities over forest resources</th>
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<tbody>
<tr>
<td>Common rights are granted to communities in any combination below:</td>
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<tr>
<td>• for meeting local needs with restriction on selling any produce for commercial gains,</td>
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<tr>
<td>• grazing rights with or without a fee,</td>
</tr>
<tr>
<td>• all non-timber products but no timber products,</td>
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<tr>
<td>• timber for local needs on payment of some (often nominal) fee,</td>
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<tr>
<td>• extraction with seasonal restriction, often to ensure maturity of produce or seed setting to help regeneration,</td>
</tr>
<tr>
<td>• collection with the restriction to sell to state-authorized buyers only,</td>
</tr>
<tr>
<td>• full or partial rights only for some products, while other products from the same areas are auctioned e.g. grass from pasture lands, bidi leaves from forests, bamboo, gum, resin and other products,</td>
</tr>
<tr>
<td>• full rights to some products while shared (or partial) rights to others, and</td>
</tr>
<tr>
<td>• full rights for all the products.</td>
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Security of rights

Well-intentioned efforts in recognizing rights and motivating communities may fail if communities do not feel secure about the recognized rights. To have the impact of rights that are recognized, these must be perceived by communities as stable and secure. The sense of security is affected by many factors.

Clarity of rights

Rights should clearly define what is and is not permissible and what are the mechanisms of operation. Exclusion of non-members is widely regarded as a necessary condition for a community group to take interest in rational management of resources. However, most of the state resolutions of JFM in India, except that of Gujarat, do not make any mention of this. The clarity of rights could be ensured if the type of rights and extent of these rights are clearly spelled out. Often the rights imply restrictions also. Stating the restrictions explicitly makes the rights more clear.

Avoiding conflicting rights

In many instances conflicts occur because pre-existing rights are not considered while deciding rights of community groups. In India a variety of customary rights exist for local communities. In many areas the rights are not yet settled. In the same areas entering into new agreements without settling, the earlier rights would make these arrangements highly insecure.

Legitimacy of rights

Many of the rights are exercised by communities in de facto sense over state property resources, even without any recognition. Legitimization of rights could make such rights more secure. The instances from Orissa in India indicate that when community groups protecting their resources prohibited outsiders from exploiting their resources, the court litigation was filed against the group or the leader of the group.
Signing formal agreements and issuing legal documents or certificates to communities protecting resources may make the process more legitimate.

**Transparency and openness**
The mechanism of operation of rights should be clearly spelled out and efforts should be made to enhance the awareness of community members about these processes. In the absence of awareness of rights among users, the motivation for collective action would be limited. For example, surveys in Nepal indicated that even after complete ‘handing over’, the community members considered forests to be government resources. The low awareness of rights under JFM arrangements is also a common limiting factor in India. Many of the rights need to be protected by state agencies through providing enforcement support in case of violations, especially by outsiders. If the conditions attached to rights provide arbitrary powers to state agencies, the communities may perceive such rights to be insecure. Therefore, the transparency of such conditions and processes and its awareness among all the members of a community is equally important.

**Long-term stability**
The length of period for which rights are recognized also has implications for the perception of security. Short periods make the rights more insecure and may lead communities to derive maximum benefits in the short run rather than maintaining resources for long term sustainability. The uncertainty about extension of rights recognized only for a short period often conveys a sense of insecure rights. The bureaucratic processes involved in renewal may make it cumbersome not only for communities but also for government agencies (Box 1.2).

**Autonomy of community groups**
The community groups should have autonomy to exercise the rights and develop their own rules of governance. Locally devised rules and regulations through internal group processes are more likely to be owned by communities to effectively govern the behavior of members. Therefore, the powers of community groups should not be subjugated to local formal or informal government bodies. The experience from India and Nepal indicates that when left on their own, villagers prefer to organize around small community groups and maintain their independent autonomy from the elected bodies - formal or informal.

**Conflict resolution mechanisms**
In case of any conflicts over the rights, low cost and transparent resolution processes should be locally available. The mechanisms to settle conflicts should be clearly stated and the community members should be made aware of these processes.
The government initiatives for turning over forest management responsibilities and granting rights to local communities emerged mainly in the last two decades. However, such efforts were initiated in India even before independence. Through government orders, forest management by communities were legalized in parts of the states of Uttar Pradesh in 1931 and hilly tracts of Punjab (which are now parts of Himachal Pradesh) in 1941. In Himachal Pradesh, the formation of Village Co-operative Forest Societies (VCFS) was initiated in Kangra district under the Kangra Forest Society Rules issued on September 26, 1941. By the time of independence in 1947, 52 VCFS were formed and by 1953, when the last society was formed, some 70 societies were in existence covering a significant proportion of the forest area of the district.

The rules of these societies prescribed involvement of forest department to provide technical guidance and financial assistance. The cooperative department was to look after the business aspects of the societies, including conducting regular elections, audit of accounts, and distribution of income. This dual control led to the problems of coordination affecting the effective monitoring of functioning of VCFS. The problem of coordination could not be resolved due to bureaucratic reasons, even though efforts were made to amend the rules and bylaws of cooperatives. With the changing emphasis in government programs, the financial assistance was also discontinued. The government notification regarding the continuation of the VCFS scheme lapsed in 1973 and was not renewed.

The VCFS are still in existence but without any legal rights over the income which they were entitled from the share in sale of timber and resin and through government grants. They have also lost the right to enforce sanctions and collect fines for infringements in the forest. In the absence of any assistance and legal rights, the community-based system which once became well established, is slowly losing its effectiveness.

Source: Agarwal and Singh, 1996.

Deciding appropriate level of rights

For effective involvement of local communities, a certain minimum level of rights need to be recognized to generate interest of communities in rational management of resources. Rights have to be exclusive, although this could include mutual rights. Meeting local needs should be given priority over rights for sale to outsiders. All the members of a community need to have equitable rights in order to cooperate in collective regulations. The rights could be varied over and above this minimum level of rights. Some important considerations in the process of deciding appropriate level of rights are given below.

Traditional patterns

If communities have traditionally been availing certain rights, in most circumstances, it may not be appropriate to reduce these rights. Nevertheless, if resources are degraded because of changing circumstances, such as rising population, outside pressure, etc., the local communities will have to be sensitized to the changed situation to motivate them to use their rights for sustainable management of resources and gain greater benefits.

Local dependence, local benefits, local capacity

If local dependence on resources is high or the resources are scarce, the rights may need to be higher than when resources are abundant and the population density is low. Who gets the maximum benefits from resources and can rights be modified to ensure greater benefits to local groups over the external...
users/traders? What is the existing or potential capacity of the community to avail benefits from rights such as options for and execution of management operations?

**Burden of regulation**

What would be the burden of regulation on state agencies by prescribing restrictions directly or which are implicit in the process of recognition of rights? By prescribing rights only for local use, it becomes a burden of forestry staff to control movement of produce. Costs and benefits of such restrictions should be considered before deciding such rights and restrictions.

**Interest of other stakeholders**

In any particular resource, a number of other stakeholders may have interests. Conservation of biodiversity, meeting recreation objectives, protecting watersheds for ensuring regular supply of clean drinking water to nearby urban areas may all be in conflict with the interest of local communities. An amicable solution should be worked out before recognizing community rights.

**Level of exclusivity**

Exclusive rights form the necessary requirement for community management because only then benefits from designated resources could be ensured to a particular community group. When traditional neighboring groups have used resources in common, keeping these groups together may be an option. Alternatively, groups should mutually agree upon division of resources. When some resources are used by distant groups who do not possess any alternative sources, it may be difficult or undesirable to have exclusive rights, as also when seasonal migratory groups use the resources. Degradation of resources especially poses a serious problem when local groups attempt to revive the resources through regulation of access and regeneration efforts.

**RESPONSIBILITIES OF COMMUNITY GROUPS**

Recognition of rights is a necessary prerequisite for community groups to take on any responsibility for rational use of resources. What responsibilities should be transferred would depend on several factors such as capacity of community groups, local socio-cultural and economic circumstances, state of resources, and other local conditions. The options for deciding responsibilities to be assigned could be better determined by exploring the potential activities in which communities can be involved. Similarly, considering the extent of responsibilities is also important.

**Considering type of responsibilities**

A number of activities are involved in resource use regulation, regeneration and management for which responsibilities can be transferred to communities.

**Regulating access by community members**

- Defining the members who will have the rights for access to designated resources.
- Defining the non-members who will be excluded and for what purposes.
- Deciding rules and norms of controlling the access.
- Penalizing violators of the decided norms.
Regulating extraction of resources
- Deciding permissible level of extraction, which should be non-destructive and does not hinder the process of regeneration.
- Deciding the time and quantities of products that could be extracted by the members, which may be differentiated based on the need for bona fide local consumption and the surplus available for commercial use or sale to outsiders.

Protection from illicit and outside users
- Once the access and exclusion rights are defined, the mechanisms of watch and ward become necessary to ensure that community members follow the regulations and that non-members are excluded. This may require regular patrolling and systems of catching offenders and taking actions against them.
- Informing the field implementing staff in a timely manner when enforcement support is required to deal with outside organized threat to resources; or when there are other forms of violations from local and external actors.
- Ensuring that there is no encroachment or indulgence in setting fire. Cooperating in extinguishing fire in case of such incidences.

Deciding a plan of development
- Assessing resources and their potential capacity of production.
- Allocating resources into different units for regulating use and development such as for fuel, fodder and grazing purposes or for watershed protection.
- Deciding development strategy for each of these units in terms of time and management activities.

Regeneration measures
- Closing the areas for regeneration through social or physical (biological or mechanical) fencing.
- Carrying out operations for supplementary regeneration measures such as artificial seeding or planting.
- Building structures or taking other measures for soil and water conservation.
- Carrying out after-care and other necessary operations for assisting regenerating plants.

Measures to enhance productivity
- Tending operations--thinning, pruning, weeding, hoeing, cleaning and cultural operations.
- Measures to prevent hazards (e.g. fire lines).

Future sustainable management
- Regulating extraction during regeneration.
- Determining and regulating extraction at maturity.
- Designing and carrying out harvesting operations appropriately.
- Undertaking post-harvesting regeneration plan.
Equitable distribution of benefits

- During the process of regeneration as well as on maturity, the distribution of benefits equitably among the members remain highly important for maintaining the interest of all the members.

Extent of Responsibilities

With respect to almost each type of activity, the responsibilities could be varied depending on what is expected from community groups and what remains for state agencies:

- Exclusive responsibility -- exclusively borne by communities or state agencies;
- Shared responsibility -- between community and state agencies;
- Assisted responsibility -- when communities need some assistance from time to time.

The evidence indicates that a varied level of responsibilities have been taken by communities. The responsibilities may be assigned or can be assumed by communities by themselves. This may be due to traditions or a response to resource degradation. If protection responsibility is taken over by communities, they may need assistance when they have to face organized commercial users trying to damage or exploit the community resources. In the eastern states of Bihar and Orissa in India, realizing the impact of environmental degradation due to loss of forest, many community groups undertook self-initiated responsibility to protect, regenerate, and regulate the use of resources. On the contrary, in most of the state-initiated joint management programs, the state continued to hold the responsibility of protection, regeneration and management. Similarly, when state-developed plantations under many social forestry programs in India were to be handed over to community groups for management, communities refused to take control over resources because organized institutional mechanisms were not developed. In some cases, when the resources were handed over, these were subjected to unregulated use leading to rapid degradation of the developed resources.

In the approach of JFM in India, the responsibilities assigned mainly confine to regulating access and extraction and protection of resources from illicit use. The responsibilities for management and investment in regeneration of resources is largely borne by the state. In the community forestry program of Nepal, communities are being given greater responsibilities to contribute labor for regeneration measures. The contribution of the state in terms of investment is being gradually reduced.

Deciding appropriate level of responsibilities

Following are helpful considerations for deciding feasible and appropriate levels of responsibilities for particular communities:

- local traditions of resources use and regulation or customary practices;
- capacity of community in regulation resources use and extraction and effective leadership;
- cost to community in terms of time, labor or other forms of contribution;
- benefits to community;
- risks and challenges involved; and
- need for shared responsibilities for technical or economic activity.

The potential options for handing over responsibilities to community groups vary from the responsibility of regulating access of its members to full responsibility of regulating access, protection, regeneration and management. Community groups could be motivated to undertake greater responsibility by ensuring
higher benefits by increase in responsibility. This could also be ensured by linking rights with responsibilities or by providing rewards based on performance. Both these aspects are discussed in the next chapter.

For collective management of resources, a minimum level of responsibilities need to be taken by communities. This includes regulating access and extraction by community members and ensuring equitable distribution of benefits from resources without which the members would not be interested in establishing regulated use. Irrespective of any local circumstances, communities will have to be motivated to undertake such responsibilities for implementing CBFPs. The responsibilities could be varied above this minimum level depending on local circumstances.

LINKING RIGHTS WITH RESPONSIBILITIES

The approach of linking rights with responsibilities imply that the rights to communities should depend on the responsibilities taken over by the communities. Continuation of rights should depend on continued abidance with responsibilities. It may be more appropriate to provide more rights to those communities which take over greater responsibilities. This will motivate communities to take up more responsibilities if they feel greater advantage in securing more rights (if the rights secured in return for additional responsibilities add more benefits compared to costs).

A hypothetical scenario is provided in Table 1.1 to illustrate how rights can be linked with responsibilities. In this scenario, Level I is the minimum level of rights and responsibilities that need to be accorded to communities for any collective management arrangement. Levels II, III, and IV are incremental. These levels can be used to provide communities a choice for deciding level of appropriate responsibilities for the level of rights being granted. Any particular rights or responsibilities as well as the levels may be added and removed considering the feasibility for an area and the local socio-cultural circumstances.

<table>
<thead>
<tr>
<th>Level</th>
<th>Responsibilities</th>
<th>Rights</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>• Regulate access of community members,</td>
<td>• To exclude non-members,</td>
</tr>
<tr>
<td></td>
<td>• Ensure non-destructive use,</td>
<td>• For all the bona fide local needs,</td>
</tr>
<tr>
<td></td>
<td>• Ensure equitable distribution of benefits.</td>
<td>• To some non-timber products.</td>
</tr>
<tr>
<td>II</td>
<td>• Protect from illicit outside users,</td>
<td>• To all the non-timber products with the exception of a few that are auctioned.</td>
</tr>
<tr>
<td></td>
<td>• Decide regeneration and management plan,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Assist natural regeneration through restricting extraction or use from the intended area.</td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>• Contribute labor or sharing cost of supplemental operations, such as artificial seeding, planting, soil and water conservation,</td>
<td>• For all the non-timber products and share in timber or major forest products.</td>
</tr>
<tr>
<td></td>
<td>• Undertake tending operations and other measures to enhance productivity.</td>
<td></td>
</tr>
<tr>
<td>IV</td>
<td>• Complete responsibility for regulation, protection, regeneration, and management</td>
<td>• Complete rights to all products, and to decide appropriate management, except for converting land for other uses.</td>
</tr>
</tbody>
</table>

In most of the state forestry policies in India and those of other countries, only fixed rights and responsibilities are prescribed. Often these are decided at a much higher levels of administration and
local field staff does not have flexibility to provide options to communities. As a result, the communities not taking any responsibility as well as those which have taken full responsibility have almost equal rights. Numerous examples are available from eastern India where local communities decided to protect local forests, ensured regeneration, and carried out cleaning operations as required to improve the productivity. State agencies in many such cases did not need to incur any expenses in regeneration and protection. However, they are not being granted any greater rights than those communities which have not taken such steps.

Advantages of linking rights with responsibilities

Encourage abidance
When continuation of rights depend on the abidance with responsibilities on a regular basis, it motivates communities to abide by the agreed responsibilities. This also creates a peer pressure on the violators.

Motivate for higher responsibilities
Communities will be motivated to undertake higher responsibilities if they are made aware of its linkages with the incremental rights and if they feel this can bring them greater benefits.

Control instrument
Such arrangements provide better options for taking corrective actions such as lowering or suspending some of the rights when communities do not follow the decided regulations. Carefully established relationship of incremental rights with increasing responsibilities and vice versa can provide an instrument for signaling punishment for violations of responsibilities. Such instruments remain effective, even if they need to be used only occasionally.

Demand-driven
When communities follow responsibilities in order to get rights, the approach becomes demand driven in which communities have to demonstrate the performance in terms of effective abidance with responsibilities for continually maintaining the rights.

Clarity of message
The evidence indicates that when such arrangements provide clear signals of advantages in following regulations and disadvantages in ignoring them, the message is more clearly received compared to when such linkages are absent (Box 1.3). Communities more clearly understand the importance of abiding by the responsibilities. The share cropping arrangements prevalent in most Asian villages indicate the capability of villagers in understanding such arrangements clearly. In such arrangements often the landowner shares a proportion of the output based on a number of factors such as contribution in cost of labor or inputs or the share is varied based on the quality of land.

Provides choice
The arrangements of linking rights with responsibilities provide options to communities to select the level of responsibilities, they feel appropriate. A rural community close to a large urban area, may opt for taking less responsibilities for such activities which require their labor, because they have access to
Box 1.3. What happens when rights are not linked to responsibilities?

The villagers of Sukhomajri in Western India were persuaded to stop grazing and foraging in the catchment areas to minimize sedimentation of Sukna Lake in the nearby city of Chandigarh. The villagers agreed that if a dam is built to supply the community with irrigation water and rights to water were granted to the community, the villagers shall stop grazing their animals in the watershed. Later villagers were also granted rights for bhabbar and grass through leases, which were earlier granted through auction or were given to paper mill through a long-term lease. Over the next seven years (1976-82), using the same concept, nine dams were built in four villages. Through intensive interactions with project staff, all participating communities established management societies, developed irrigation distribution systems, and obtained rights for bhabbar and grass leases.

This program was later extended by Forest Department and between 1983 and 1988, 57 new dams were built in 39 communities. Nevertheless, Forest Department lacked the capacity for organizing communities and no clear responsibilities for managing resources were assigned. As a result, only 30% of the communities were able to establish effective management societies and facilities for distribution of irrigation water. The communities did not feel the responsibility of regulating access to watershed catchment areas, even though rights to irrigation water were granted to them. As a result the watershed areas could not regenerate and the dams got quickly silted, leading to loss of irrigation capacity of these dams.


Practical difficulties for linking rights and responsibilities

**Insecurity**

When there remains an uncertainty in recognition or withdrawal of rights, it might cause a sense of insecurity among communities, whereas a feeling of security of rights is necessary for motivating communities to initiate collective regulation.

**Arbitrariness**

It might provide more arbitrary powers to the agency staff to decide the level of rights and responsibilities, since it may be difficult to objectively assess the local conditions or the violations of responsibilities. The flexibility may be used to exploit the villagers rather than helping them.

**Multiple factors**

Often when responsibilities are not followed by communities even in response to recognition of appropriate rights, it may be due to several other factors. Rights may not have been adequate to ensure that benefits are more than the costs in bearing the responsibilities. The support required to protect the rights may not have been provided. Responsibilities may be too cumbersome or challenging to follow. People may not have been sensitized enough to institute regulations. Corrective steps need to be taken against such and other related situations before considering to reduce the rights.

Community-managed programs in forestry: A synthesis of good practices 17
Procedural problem
When the case of each community needs to be examined independently for determining appropriate level of rights and responsibilities, it is administratively more cumbersome compared to when uniform rights and responsibilities are used. It may require a lengthy process of evaluating the claims of each community to assess the capacity and commitment.

Potential options

It is important that options are accompanied by appropriate administrative and operational measures to overcome the limitations of linking rights and responsibilities. This would include measures to develop openness and transparency in which the criteria and procedures used are made widely known to the people to eliminate the scope of arbitrariness in the decision-making process. The decision-making process should be participatory and the efforts should be made to spread awareness about the provisions and mechanisms of linking rights and responsibilities. This will also eliminate the feeling of insecurity of rights and chances of exploitation of communities. An effective system of monitoring will also become necessary. The main objective of suggesting the options is to minimize the procedural difficulties and induce objectivity in decision making. These options can be used individually or in any combination together depending on the local circumstances.

Develop zoning of resource areas

The forest areas should be divided in zones based on resource conditions, pressure of directly dependent population, socio-cultural factors and such other relevant considerations. The zones should be formed considering such aspects so that a more or less similar type of responsibilities for management activities could be applied, although it may not always be possible and even the close and adjoining areas may differ in terms of resource conditions, population pressure and management needs. For each zone, an appropriate combination of rights and responsibilities could be used. The criteria for deciding rights and responsibilities have been discussed in the last two chapters and considering these, a suitable combination need to be arrived at for each zone.

When any of the significant factors implies that a different level of rights and responsibilities would be more appropriate for different areas, these should be placed in different zones. For example, the indigenous communities having traditional rights may need to be placed in a different zone from non-indigenous communities, even if the resource conditions are similar. Thus, formulation of zones would require systematic studies of various factors. The decision for rights will need to be made while considering that benefits to communities by following responsibilities would outweigh the costs to them.

The level of responsibility that may be feasible for local communities would depend on the resource factors, socio-cultural and economic conditions and such other aspects which generally vary in different areas. A habitation of 30-40 households would not be able to take the responsibility of all the management activities required in 500-1,000 hectares of relatively good forest area. Therefore, the linkages of rights and responsibilities will have to be different for such areas compared to a degraded area having higher population density.

A strategy of zoning has been traditionally followed by dividing forests into different categories such as protected areas (national parks, sanctuaries), reserved forests and protected forests in most of the South Asia. In each of these categories different levels of rights have traditionally been recognized. However, these did not have clear linkages with responsibilities. The concept of zoning has been recently used in some states in India in implementing JFM approach, although these mainly focus on varying rights only.
The variation in rights is not dependent on the responsibilities of the communities. The rights are varied mainly by the nature of resources and objective of resource management.

In Madhya Pradesh, zones are classified at the state level. Other than protected areas, government forest lands have been divided in two different zones with different level of rights (Figure 1.1). In the zone of open forests having less than 0.4 forest density, the communities are granted rights over all the non-nationalized non-timber forest products (NTFP) and a share of 30% in the tree and bamboo products at the time of final harvest is recognized. In the zone of closed forests having more than 0.4 forest density, communities are assigned rights over non-nationalized non-timber products and Nistar (making certain forest products available at concessional rates) rights over the timber and bamboo products according to availability. However, no share in the produce at the time of final harvesting is recognized. Besides the two zones on government forest lands, cultivation of trees is promoted on private and community lands.

**Grant incremental rights**

Community rights can be granted incrementally. Initially a few rights are granted and communities are made aware that if they are able to demonstrate abidance by the expected responsibilities, they will be granted further rights. The process could be made in two or three steps. This would motivate communities to take more responsibilities to get more rights and in turn, the benefits. This approach helps in validating community commitment before granting full rights. The process of incremental rights become applied in a *de facto* sense in many cases when state policies change over time to recognize greater rights of the communities. In Haryana, India, after the establishment of hill resource management societies, the lease over grass and bhabbar is being granted to them at some decided price without their need for participating in open auction. Earlier, the local communities were not able to compete with commercial interests in the open auction.

**Withdraw rights gradually**

When the agreed responsibilities are violated, the rights could be reduced gradually rather than completely terminating the agreement with communities. The mechanism of reducing rights incrementally could be defined in the initial agreement with communities. Certain rights could be suspended for a certain period. For example, the free and exclusive rights to some of the non-timber products could be auctioned or a small fee could be associated for a certain period. The options of reviving the original rights could be left open subject to abiding by the responsibilities again for certain period. Alternatively, a penalty could be charged for each violation from the community group. In turn, the community group could be left with an option to recover the same from the individual violators.

These options provide a much better alternative than the provision of complete termination of agreement. However, all the state resolutions governing JFM regulations in India and the provisions of community forestry regulations in Nepal provide for complete termination of agreements with communities, when some violations are noted, providing hardly any considerations to the degree of violations and the conditions in which violations occurred. This makes the process of implementation very difficult *(Box 1.4).*
Figure 1.1. Forest Zonation in Madhya Pradesh, India

Forest zones
Z1 Protected Areas (National Parks and Wildlife Sanctuaries)
Z2 Closed Forests outside the Protected Areas (Density 0.4)
Z3 Open Forests (density 0.4)
Z4 Private and community land

Village institutions
VFC Village Forest Committee
FPC Forest Protection Committee
EDC Eco-development Committee
PI (or) Private initiatives (or)
TGC Tree Growers Cooperatives

Resource development measures
RDH Rehabilitation of Degraded Habitat
EDP Eco-development program
P & CAT Production & catchment area treatment
RDF Rehabilitation of degraded forest
VRDP Village Resource Development Program
BP Biomass production

In Gorkha district of Nepal, a women’s user group violated the agreed operational plan by harvesting 30 over-mature trees from the handed-over forest with the intention of increasing their community fund, while the operational plan prescribed removal of only two trees in a particular year. The user group, according to the operational plan, was collecting dried and fallen wood in cleaning operations which led to profuse regeneration of sal (Shorea robusta) seedlings. Because of the profuse regeneration, the opinion of the district forestry staff was also in favor of removal of over-mature trees because this was considered a technically sound practice. However, when the matter came to the notice of higher officials at the center, it was considered a violation of the agreement because operational plan did not prescribe removal of more than two trees. They ordered the seizure of the timber harvested.

The dilemma for the officials at the center was whether or not to take community forest back from the user group and revert it to national forest, hence losing the confidence of other forest user groups in the district and possibly jeopardizing the community program in the district. At the same time, the officials were undecided about whether or not to take action against the district forest staff for prescribing a silvicultural operation which was technically sound and being practiced in another district. The user group demanded the hand over of the timber seized on the grounds that they acted upon the advice of the district forestry staff. The conflict dragged on for almost a year.

Finally the decision was taken at the government level to auction the seized timber and deposit the proceeds in the community fund to be used only for common purposes. Harvesting of timber was banned for the next five years. The complexity arose because the community forestry regulations do not clearly provide any provisions and powers to forestry staff other than to terminate the agreement with communities in case violations are noted. Because of this, there were more cases of violations of operational plan by communities in Tanahau and Lalitpur districts, in which the agreements were terminated, leading to serious disputes and court litigation.

Source: Shreshtha, 1996; Shreshtha, personal communication.

In most instances, even if violations by communities are noted, no steps are taken to make communities realize the importance of abiding by responsibilities. In general completely terminating the agreement with communities may be too harsh and often politically unacceptable and administratively difficult. The termination of agreements may only lead to reversion of open-access situation. This approach does not provide any other viable solution to motivate communities. Gradual reduction in rights certainly could be a better alternative in these circumstances.

**Link with additional incentives**

When communities take more responsibilities, more incentives could be provided. When violation in responsibilities is noted, depending on the degree of violation, incentives could be reduced or delayed in incremental manner. This will signal reduction in benefits without actually reducing the rights. Then efforts should be made to sensitize communities to abide by the agreed responsibilities. If still the violations continue, then the approach of gradual reduction in rights could be followed as discussed above.

**Market as motivator**

The motivation for communities to follow responsibilities is that they derive benefits from the resources over which their rights are recognized. The responsibility of regulating access and limiting extraction to a non-destructive level are essential to ensure that resource regeneration continues to reach a level of potential productivity. In its absence market pressure could become counterproductive and lead to a rapid
degradation of resources as is commonly seen in open access situations. Conversely, in the presence of appropriate regulatory practices, an effective market could provide a stimulus to increase production. Communities will also become concerned to ensure conservative use of resources and generate surplus, if the increasing surplus leads to increased benefits to them. The effective market plays a critical role in providing this stimulus.

A market becomes more effective when all the actors have equal access to markets on the same terms and everyone is aware of the factors influencing supply and demand. The effectiveness of market depends on a number of market-related policies and practices, which ultimately affect the benefits available to the communities. The state agencies have a crucial role in ensuring that these policies and practices favor community interest and local communities get a fair share in the profit from marketing activities.

The discussion below is focused first on the various factors that affect the availability of market benefits to communities. Then measures are suggested to improve the market effectiveness. This is followed by discussing the considerations for deciding a locally appropriate strategy at the community level. This chapter draws on the lessons of field experience and the issues discussed by Lintu (1996), Dewees and Scherr (1996) and Clay (1996).

What affects market benefits to communities?

Right of extraction
A large number of products of higher economic value have either been extracted by state agencies or state authorized traders. Many of these products are auctioned annually and local communities only get the labor wage in their extraction, that too only if outside labor is not brought by commercial operators. Often the wage rates of local people are also inappropriately decided. For promoting greater interest in rational management of resources, it should be considered how the extraction rights could help communities to maximize their benefits.

Appropriate time for extraction
A number of products have an appropriate maturity time for extraction when quality and/or are at their peak. Extraction before such a maturity level will affect the price and therefore the benefits. In open access where the first person to extract can get the maximum, there are chances of extracting even before this maturity level. Regulated access definitely has a major role in such products. When assigning responsibility to community groups, attention should be brought to all such products to encourage establishing regulations concerning appropriate time of extraction.

Perishable products
Many products perish fast if not harvested, packed, and stored properly, then transported to market at an appropriate time. Local communities often lack these practices. Providing information and facilities could help raise their benefits.

Market glut
Many seasonally produced items are harvested at particular times when a supply glut often leads to fall in prices. Appropriate storage and information systems may earn communities greater benefits.
Right to sell
With the intention of avoiding exploitation of local communities, many government agencies have established state controlled procurement systems for a variety of products. In this process, restrictions were imposed on the local communities to sell these products only to state authorized buyers. The utility and impact of such monopolistic trade practices need to be evaluated whether these have been helpful in protecting the interest of local communities or have rather restricted their opportunities. This will help in understanding if in changing circumstances there is a need to continue such monopolistic practices or it may be better to leave it open to market competition.

Regulation of prices
For procurement by parastatals/state licensed buyers or for helping some industries, commonly the prices of certain items are fixed by state agencies. In most instances these prices have been far lower than what a competitive market would offer.

Harvesting and transit regulations
The restrictions on harvesting of trees even from private lands and mobility of certain type of products or attaching permit requirements often affect the decisions of local people in producing such items. Often this has provided opportunities for exploitation of local people. Many of these regulations have also affected farmers’ willingness to plant trees.

Unfair trade practices
In the absence of appropriate regulatory measures, a variety of unfair trade practices prevail in the market. This includes tax evasion, adulteration, and ring formation of buyers to lower the prices etc. Many medicinal plant products and oils are subjected to mixing with other products. This lowers the value of even the original products and ultimately affects the benefits of the local communities.

Market-related information
When local communities are not fully aware of who the potential buyers are, they are paid much less prices compared to what an informed producer may be able to fetch. Similarly the lack of awareness about processing, packaging, proper handling etc. also result in much lower returns to communities.

What could be done to protect community interests?

Develop awareness of marketing practices
Markets are affected by all decisions taken in the process of production and sale of goods and services. It starts from the time of deciding to grow a particular species or taking regeneration measures which ultimately affect the future supply of products. Marketing practices include physical activities such as extraction or collection, haulage, grading, packaging, storage, display, and trade transactions. With the nature of products these practices differ. The variety of products that are available from forests add to the diversity of marketing practices. The forestry professionals involved in building community institutions and promoting community interest need to be aware of these practices and various actors, costs and processes involved.
**Develop marketing information system**

When producers are better aware of various marketing activities and buyers, they have the best advantage for getting the highest price for their products. Similarly, if traders are aware of demand and scarcity of products, they would be prepared to pay the price which market can absorb. This competitive price stimulus would encourage producers to produce more of such scarce commodities.

The information needs of different actors differ. Rural communities are often the least informed of various aspects of marketing activities. The information should be helpful to communities in deciding what to produce, when to harvest, how best to harvest, collect, sort, pack, store, transport, and whom and where to approach the potential buyers to get the best possible prices. The traders should also be informed of the type, source, and quantity of produce likely to be available and the additional efforts that are being made to improve the production. This advance knowledge helps the traders in future planning for establishing better market linkages with consumers and industrial users. This also stimulates the entry of new traders and improves market competition.

Price information is required on a regular basis. Other information about marketing practices could be updated periodically. Communities require more locally suited information systems in a language and form they can understand. The extension workers or the forestry workers placed at the grassroots level can play this role, if they can be trained and motivated for the task. Community representatives could also perform this function. Use of this approach has shown encouraging results in the Philippines (Box 1.5). Radio, television, newspapers, and periodicals can be used to supplement these efforts. The exhibition fairs and visits, commonly used for agricultural extension, have a great potential for providing information about forestry products, improved technology for production, harvesting and processing etc.

**Improve marketing capabilities**

Marketing capabilities are needed at all levels from gatherers and producers to traders and processing industries. Traditionally, interaction of rural communities with the outside world has been limited, especially in relation to the market-oriented activities. Therefore, in most instances, they lack appropriate skills to take the best possible advantage of the opportunities. Forestry professionals involved in promoting community interests should develop an appropriate action strategy for improving marketing capabilities of local communities.

There are a number of important aspects of marketing practices for which efforts to improve marketing capabilities could help in maximizing marketing profits to local communities:

- improving harvesting techniques,
- minimizing post-harvesting losses,
- reducing marketing costs, and
- processing locally.

Inefficient harvesting techniques contribute to considerable losses of forest products. This is true from a major product like timber to small items like honey, fruits, oilseeds, gums and resins. Gains through improved harvesting techniques could result from less damage to plants so that their future productivity is not adversely affected, besides higher output and reduced loss during harvesting. Harvesting may be improved by careful handling, following appropriate techniques, or use of improved methods, proper tools and handling equipment. This may require training and other support to local communities.
Box 1.5. Developing a community-based marketing information system: the Philippine experience

With the implementation of the Integrated Social Forestry Program (ISFP) in the Philippines, which provided security of tenure in the form of 25-year renewable stewardship contracts, production improved in many of the community managed areas. As the production reached a level exceeding the subsistence needs of the farmers, knowledge of marketing became a necessity. As a response to the new demands, a community-based marketing information system (MIS) was collaboratively designed with the technical assistance of FAO’s Forests, Trees and People Programme.

The field testing of the system was started in 1991 in Barangay Sta. Catalina, Atimonan (Quezon Province). Teams of volunteer data collectors gathered weekly wholesale prices for six different products from five traders in each of the five nearby markets. The data were then summarized by a record keeper and posted on the bulletin boards strategically placed within the community habitation area. Information on retail prices of two of the products provided by the Bureau of Agricultural Statistics through radio broadcasts were also included in the information list posted.

Training of data collectors on the use of price monitoring forms and pointers on the proper way of approaching traders were important inputs in the implementation of the MIS. Monthly meetings at which different teams reported on their experiences and accomplishments encouraged participation and provided all members with additional marketing knowledge.

The system was also started for trial in two other places in 1993. These were located in Barangay Alion, Mariveles, Bataan Province and Barangay Julita, Libacao, Aklan Province. Evaluation of the results indicated that producers have been able to enhance their bargaining power in negotiating prices with the traders. Improved market transparency and understanding of price fluctuations led farmers to reschedule rotation of the annual agroforestry crops. Indirect effects that were noted included a general increase in interest in the marketing issues and improved organizational skills. Female participants explained that being partners in the MIS effort had contributed towards improving their self-esteem.

Source: Austria, 1996.

A significant amount of produce is lost after harvesting even before producer is able to sell the produce to the next buyer. This loss often continues until the raw product is either consumed or processed into some less susceptible forms. The damage could be due to perishable nature of the product or damage by rodents, insects or infectious organisms. Much of these damages could be reduced by the use of appropriate storage and handling practices. In specific circumstances use of preventive pesticides may also be helpful.

Every activity in the marketing chain contributes to the final cost to the consumer. However, this cannot be generalized because middlemen provide a variety of services and add value to a produce and efficiency by bulk handling. Marketing costs could also be cut by minimizing losses, packaging properly and transporting efficiently.

A number of forestry products can be processed locally by communities individually or collectively which may increase their profits. This may require increasing the purity of material, reducing the volume or improving the shelf life. The raw goods can be converted into some other forms. The feasibility of local processing would depend on many factors such as need for technology and investment in processing facilities. The important consideration will be to evaluate if whether local processing would be profitable for communities or not.
Develop market research network

An effective market research system should provide adequate and timely information about the current or future potential market opportunities, market irregularities, inadequacies in terms of infrastructural or institutional support and the impact of various policy decisions. A regular system of market research becomes a basis for sound policy decisions to improve the marketing practices for the overall interest of producers, consumers, traders and industries.

Developing an efficient marketing research network involves universities, research institutions, and organizations responsible for setting standards and those agencies having responsibility for regulating various marketing practices. The forestry agencies implementing CBFPs have a very crucial role in understanding local practices and providing information about current and future potential production opportunities. All these actors need to work in a close coordination to provide timely information to make appropriate decisions and take any corrective measures, as required.

Strengthen market regulatory practices

A variety of regulatory practices become important in ensuring smooth functioning of markets. This involves development and regulation of standards of various products to be processed or sold. Effective enforcement of market regulations is important for eliminating unfair trade practices such as adulteration, evasion of taxes or trade and transit regulations. Such practices affect prices of commodities and also the share of the profit of communities.

Keeping regulations minimal and promoting conditions for a free market interplay are important before market regulatory practices can be effective. Often trade and transit restrictions are difficult to administer and promote unfair practices. The important criteria should be to consider the stage and form of product that would be more appropriate for taxation and other regulatory restrictions for convenient administration and enforcement. The responsibility for regulatory functions should be well established with open and transparent mechanisms.

Develop financial services

Easy credit on reasonable terms can be helpful in improving community enterprise. A variety of initiatives for augmenting production, local processing, packaging and managing transport can improve community benefits. Bulk purchase of some raw materials, machinery or accessories needed for processing may be more cost effective. Some products may require storage to avoid season of glut to get price advantage. Community members individually or cooperatively can manage some of these activities, if financial resources are available to them. Therefore, the role of banking and credit institutions to provide finances when needed becomes important. Community members can also cooperatively pool resources to manage some of the activities. Users of forest resources can contribute a small fee to build common funds to manage some activities collectively. The common funds could be a means of developing capacity for self-run credit schemes, in which additional funds could be provided from outside in suitable combination of loans and grants, if required.

Provide price support

Prices of many forest products fluctuate frequently due to unfair market practices such as cartel formation, hoarding, and adulteration. Sometimes it is due to fall in the production or due to glut. When local people are not assured of a minimum level of prices, they may not be motivated to indulge in
producing such goods, of which prices fluctuate frequently. State agencies can provide a minimum price support to overcome this problem. In this system, when prices in the open markets fall below a certain minimum, state agencies buy those goods at some assured price. This practice has been used in many agricultural commodities quite successfully to maintain the interest of farmers. Many of the state parastatals engaged in monopolized purchase can be rather used for this purpose.

**Promote infrastructural facilities**
Marketing infrastructure includes roads, transport and storage facilities, and the market places for display and sale of products. Some facilities such as transport could be developed by private entrepreneurs while others such as roads and market places often require government support. Sometimes initial support in terms of storage, processing and other infrastructural facilities becomes important to develop new markets for products which are not adequately utilized. This is particularly true with forest products due to diversity and dispersed availability.

**Ensure institutional coordination**
At the operational level, coordination among various institutions and actors involved is very important. A variety of regulating and field implementing units need to be involved in providing institutional support for marketing. These include forestry departments, research institutions, universities, standardization organizations, product and quality monitoring and control institutions, extension agencies, marketing cooperatives, financial institutions, marketing information services, transport and communication networks, and trade organizations.

Coordination is important for maintaining the free-flow of information and maintaining liaison among all the relevant agencies and actors. This affects the effectiveness of market and ultimately the benefits of communities. The critical question is who should be responsible for coordinating forest product marketing activities. An appropriate structure and a system of responsibility need to be developed for overseeing all the actors and agencies and ensuring that interests of communities are not adversely affected. Much of this role will have to be played by the agencies implementing CBFPs, and effective linkages will have to be developed from community level to the policy-making levels.

**Considerations for a locally appropriate strategy**
For developing an action strategy for improving market benefits at the community level, locally specific considerations become important. Nevertheless, within a locality, if resource conditions and socio-cultural circumstances are similar, the strategy developed for a single community could be adapted for others by altering specific aspects which vary among communities. The relevant issues should be discussed with each community so that the solutions developed and measures taken are owned by them. Assessments should be made of the current and potential production that could be obtained from the area under consideration. Survey the current products that are obtained and also assess the species which can be grown in the area. Assess the demand for these various products in the nearby or the distant markets as indicated by the price trends and product availability. Based on price trends and demand, consider all the alternative options for the type of products that could be produced in the area. Explore pros and cons of various options considering cost, regeneration techniques, technological aspects, handling and other activities. Identify a range of options that could be profitable. Understand the factors that are limiting communities from involvement in such activities and steps that could be taken to overcome limitations.

Determine a strategy for improving the situation to protect the community interests. This may require developing a better market information system, improving the awareness of communities, providing
technical assistance, training or finances. Start with the products that are already being produced and that have markets. Take measures for improving their production. Take measures to improve harvesting techniques and reduce post-harvesting losses of these products. Develop efficient systems of packaging, storage and handling and transportation. This can be done by improving techniques or developing cooperative systems of working. Depending on the nature of products, consider if activities relating to processing can be done locally. Arrange for equipment, training, and finances, if required. Grading and sorting also add value to products and improve competitiveness of products.

The profits of communities can be improved by developing the awareness of communities about the potential buyers in the nearby and distant markets. This will improve competition among buyers resulting in better prices of the products. It is always important to reduce dependence on a few products. Consider the species or products which may have become highly insignificant because of over-exploitation. Also consider the products which are in demand and being supplied in the local markets from outside sources but could be produced locally. For each product take appropriate measures to improve the strategy appropriately, through a similar process as discussed above.

REWARDS FOR POSITIVE ACTION

When resources are degraded and productivity has not revived, some alternative incentives could still trigger the interest of communities in rational management. Benefits should be perceived to be more than costs. The responsibilities of regulating access, protecting resources from illicit use, and controlling extraction involve some costs. Communities could take measures for improving production. Some of the costs are direct, such as time and labor invested in protection, cultural operations, regeneration measures. Others may be indirect costs, such as the immediate benefits forgone by not extracting the resources due to community regulation. Communities should follow collective regulation in making a relative judgment of benefits and costs, even if it is on a notional basis.

Need for incentives

The need for providing additional incentives to communities become especially important in the following circumstances. Generally these circumstances are present in combination. Before attempting to develop an appropriate strategy, the local circumstances should be discussed with community members to help them realize the value of incentives.

Immediate loss

Regulating use or restricting access to degraded resources reduces the immediate availability of products. Although this is intended to gradually increase the availability of products, communities remain concerned with the immediate availability of products to people.

Poverty-led pressure

When the over-exploitation of resources is due to poverty of people it becomes important to provide alternative income generating opportunities before people can be effectively persuaded to initiate regulated resource use. Dependence of local people has been growing on forest resources and with the rising needs and penetration of market-oriented economies in rural areas, common property resources became a source of earning livelihood for many rural communities.
Disproportionate impact on marginal sections
Because of socio-economic disparities, particularly in heterogeneous communities, marginal sections are generally disproportionately affected by community regulations. These sections have higher dependence on common property resources for meeting their subsistence needs or supplementing their incomes.

Invisibility of benefits
When local dependence is low and degradation is not severe enough to affect the availability of products for local needs, communities may not feel the need for preventing further degradation through regulated resource use. This is often due to the fact that communities do not perceive the value of direct and indirect benefits from resources to be significant. The additional incentives could be used to make the benefits from collective action become more visible to generate the interest of communities in regulating resource use.

Forms of incentives

Measures for improving forest production
In the degraded areas, the regeneration process could be hastened and productivity could be improved by taking certain measures such as soil and water conservation, artificial seeding and planting. Since by recognition of community rights the benefits from increased production are going to be available to communities, these measures should be considered as a form of incentive rather than a regular activity of forestry departments. Such incentives should be obviously linked to performance of communities.

Employment opportunities
A variety of development activities in rural areas could provide wage employment to local people in the lean season. This would motivate people to stay away from indulging in over-exploitation of resources just for supplementing their income. However, such development activities should be widely available and designed to coincide with lean seasons.

Means to increase agricultural production
In areas where irrigation facilities are not adequate, developing irrigation resources could help boosting agricultural production. In hilly areas soil and water conservation measures could be helpful in improving groundwater recharge, prevent erosion, and ultimately help in augmenting agricultural production.

Entrepreneurial training and capacity building
Rural communities traditionally have a limited involvement in marketing and other enterprises for which they could sell goods and services in the urban market. Consequently, rural people generally lack appropriate skills and aptitude for a variety of business enterprises. These may be activities based on the local forest or agricultural products or outside raw material. Providing training and marketing support may be helpful in building entrepreneurial capacity.

Credit facilities
Lack of easy availability of financial resources on appropriate terms is one of the most crucial limitations for many rural communities. This limits the ability of local people from engaging in incoming generating enterprises. Well-designed community-run micro-credit programs can get started with seed money along
with training and capacity building. However, rather than providing entire resource or seed money at one time, it should be spread over a few years and it should be linked with continued performance of communities.

**Social services**

Health centers; periodic visits or availability of doctors or nurses; supply of medicines; provision of schools, teachers and other study materials; drinking water or sanitation facilities; and other activities provide social benefits rather than direct economic benefits. Similarly, if the development of infrastructure facilities is the priority of communities, it may be taken as an incentive in return for community commitment to manage resources rationally. However, the critical consideration would be to make rational use of available financial resources (*Box 1.6*).

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**Box 1.6. Should rural development activities be a part of an incentive strategy?**

A variety of social welfare and infrastructure development interventions, which may require large investments such as development or improvement of facilities for education, health, irrigation, roads and electricity etc. can be taken up to provide incentives. These are quite important for the overall rural development process. When their delivery can be linked to community performance for their compliance to the responsibilities, these can be effective in motivating communities to manage the resources rationally.

However, when budgetary constraints limit investments by a forestry agency in other potential areas, such rural development activities can not be considered ideal use of limited financial resources. Purpose of additional incentives should be to make the benefits of collective action more visible and compensate the loss of immediate gains due to restrictions in the resource use. Any investment beyond that can not be considered an essential part of the incentive strategy.

Even if the rural development activities are carried out by other government agencies, linking their delivery to community performance can be useful. Not only the forest but other common property resources such as irrigation water use, watershed development, rural water supply systems etc. require collective action. If these can all be linked to community performance, these will motivate communities for rational action.

In some instances, other rural development agencies are not able to provide adequate services or undertake required development activities in the interior areas due to their limited budgetary and manpower resources. In the tribal dominated interior forest areas in India, for example, forestry agencies are generally the main players and have a continuous contact with people. This helps them in building a good rapport quickly with local people, particularly when community-based participatory approaches are adopted by them. If the forestry agency staff has a greater involvement or even the direct role in delivery of rural development activities also, it provides them an opportunity to link these activities with community compliance in managing the forest resources rationally.

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**Improving the effectiveness of incentive measures**

**Use whole community as beneficiary**

The rewards should benefit the whole community rather than just a few individuals. For example, developing irrigation facilities which supplies water to all or the majority of households. When all the members have equitable rights and benefits, the peer group pressure become effective in persuading all the members to follow community regulations.
Use individual beneficiary when it could also be effective

Specific nature of dependence on forest resources of a segment of society or only a few individuals is quite common. As long as the interest of other members of a community is not affected, granting rights or providing specific incentives to these specific members may be desirable to motivate them not to indulge in excessive exploitation. This could otherwise become destructive for the whole resource and in turn affect the interests of the whole community. Another situation could be when training is provided for improving entrepreneurial capacity of some of the individuals and different individuals need training for different enterprises.

Fulfillment needs

Incentives would be more effective if the development intervention fulfills the needs felt by communities rather than by outsiders. Subsidy addiction and adoption of supply driven programs followed by different agencies in the same area may not get the desired results unless all the area agencies adopt a joint or similar approach. The contribution could be in various forms such as cash or kind. Commitment is also indicated by continued willingness to maintain assets through community contribution. Unused assets indicate that felt needs of the communities are not being addressed. Communities take initiative for those activities which they feel most advantageous to them, often even without state intervention or assistance. Local initiative by communities in eastern parts of India to regulate access, protect resources from illicit use and revive forest cover is a good example. If necessary, technical or investment support could be provided as an incentive to such communities to augment the process of resource regeneration. Even other incentives could be provided to motivate communities for taking initiative and responsibility.

The development workers need to exert an immense amount of patience Providing freedom to communities to decide what is more appropriate for them could be much better strategies to know what the felt needs are. Participation of all the members of communities is obviously desirable in this process so that what comes out reflects the feelings of community as a whole rather than only a segment of influential people. When communities have freedom to decide, such incentive measures are more relevant in the local socio-cultural context. Communities around Chitwan National Park in Nepal valued thatching grasses more than the dense forest vegetation cover, because the thatching grass was the only material for roofing local styled houses. If because of conservation concerns, the area is converted in dense tree-based cover, local communities may loose benefits and hence the interest in conserving the area.

Nevertheless, most development programs often include a list of activities that could be carried out to motivate communities. This may not reflect the true felt needs and priorities of local communities. In conventional target-driven functioning, the felt needs of communities can not be predicted, therefore requiring that neither the rural activities are planned nor the financial targets are fixed in advance. The procedure will require considerable changes in the systems of allocating financial and physical targets of activities and altering the systems of monitoring and approval of intended activities. Such a strategy has been effectively used in South Rajasthan (Box 1.7)
Box 1.7. Using community felt needs in the incentive strategy: some administrative implications

In the second phase of World Food Programme supported forestry project operative in four districts of South Rajasthan, the forestry staff is indicated to develop community resource management plans (termed as 'micro-plans') through community participation. These plans are to be prepared only in those villages where some initiative has already been made by communities to regulate the resource access. The staff is encouraged to also assess the felt needs of the communities when the need for providing incentives is considered important for motivating the communities. No directions are given regarding the nature of activities that can be taken up. After communities enlist various development activities they are asked to prioritize them based on what is considered most useful and relevant by the community members. The judgment of the felt-needs is also made through the willingness of communities to provide contribution through voluntary labor or other means. The resource management plans with the list of the priority felt needs and proposed activities are then submitted to the Project Directorate.

After a scrutiny by the Project Directorate, these plans are placed for approval with the Project Level Implementation Committee (PLIC). This committee consists of all the district level forestry officers of the districts in which the project is being implemented along with the representatives of the line agencies. The line agencies relating to all the development activities such as education, agriculture, rural water supply, irrigation, health, road etc. are represented so that no overlapping activities are planned in the same villages and necessary cooperation of the line agencies is ensured. After the approval of the plans by PLIC, the compiled budget requirement and a summary of the plans is placed before the State Level Implementation Committee (SLIC), which comprises of senior government representatives of all the relevant departments. What is approved by the SLIC becomes the approved budget which obviously incorporates all the activities including the felt needs of the communities. In this process, no financial and physical targets are fixed in advance and what comes up depends on what is proposed by communities.

Source: Choubey, personal communication.

Link with performance

If there are no violations of agreed principles, communities deserve more rewards compared to those in which community regulation are not effectively implemented. This will motivate them to become more effective and exert social pressure on the violators. Linking some type of incentives with performance is often difficult. For example, development of school building, health center, and irrigation dam could not be split over many years. However, option of taking activities one by one over years may be more effective than taking all the activities together in the beginning.

Operate through community institution

The provision of any rewards or reduction in rewards and punishment should preferably be applied on the community institution. The community institution, in turn, should be authorized to distribute benefits or collect penalties from its members. This will strengthen the community institution and social pressure on the members to abide by community regulations. For example, wage employment opportunities are generally provided as an incentive to a community to fulfill their felt need so that they stop indulging in illicit cutting and selling to earn their livelihood. The best strategy in this situation would be to provide an option to the community institution to decide which members of the community will be employed by turn so that most members can benefit equally. Alternatively, if there is no such arrangement and wage employment is provided randomly and directly by the forestry agency, the members will not be influenced by community institution.
Provide as a reward not as a subsidy

The most critical consideration in implementing a development strategy should be to judge when an incentive could be perceived as a subsidy rather than a reward. Thus, even a justified subsidy becomes more effective when it is perceived as earned rather than merely given. A clear understanding among development practitioners about what characterizes subsidy and a reward will be helpful (Table 1.2).

<table>
<thead>
<tr>
<th>Attribute/feature</th>
<th>Subsidy</th>
<th>Reward</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact</td>
<td>Addiction, further expectation is created</td>
<td>No addiction, does not lead to developing expectation</td>
</tr>
<tr>
<td>How implemented</td>
<td>Given assuming that communities will take responsibility</td>
<td>Earned by communities based on performance</td>
</tr>
<tr>
<td>Ensures community commitment</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Initiative</td>
<td>Does not depend on community initiative nor ensures future initiative</td>
<td>Depends on community initiative and mobilizes future initiative</td>
</tr>
<tr>
<td>Impact on building community capacity</td>
<td>Does not lay responsibility on communities and so does not help in developing of capacity</td>
<td>Communities are expected to prove their performance to earn the rewards, thus, help building capacity</td>
</tr>
<tr>
<td>Operational mechanism</td>
<td>Development practitioners assume the need for such an activity as the need of communities</td>
<td>Communities choose the activity based on their felt need and indicated by some contributions or initiatives</td>
</tr>
</tbody>
</table>
2. ENHANCING COMMUNITY CAPACITY

Community action depends on the capacity of the communities to organize themselves and institute collective regulations which should be accepted by all the members. The regulations should also be accepted by the non-members who are excluded from using resources. Communities have a number of responsibilities in managing the resources collectively. The main community responsibility is to develop a local institution through which collective decisions about resource use and management can be implemented. The capacity of community groups to organize and govern the common affairs becomes obviously important. Similarly, it is important to become aware of the practical issues that weaken community institutions so that appropriate measures can be taken to overcome them.

IMPROVING ORGANIZING CAPABILITY

Collective management of common property resources requires that communities organize to form effective community institutions. Implementors of CBFP need to be aware the process for constituting community groups and developing functional procedures. The effectiveness largely depends on what binds a community group together and how the acceptability of community regulations can be improved. This discussion mainly draws on institutional issues in relation to common property resources by Ostrom (1990, 1994), Jodha (1992), Sarin (1993), McKean (1995), and Hobley and Shah (1996).

Constituting community units and membership

The basis of the formation of units for forest resource management should be social-territorial relationships. The acceptance of community regulations is greatly facilitated by the presence of social relations among the members of a group. Hamlets and villages or their segments form socially related groups among rural communities. Rather than forming groups based on politico-administrative units, it should be considered that socially related groups have territorial relationship with the area under consideration. This means that a group should have traditionally been using that area exclusively. It is quite common that the village or hamlet settlements, because of habitation pattern and proximity, use a common area traditionally. If such traditions or exclusivity of use has been lost in the recent past, these can be revived. Boundaries of the units should be clearly demarcated and known to all the concerned neighboring groups who need to respect the regulations. Without clear boundaries the violations cannot be ascertained nor can effective protection systems be established.

Smaller units in which exclusive territorial relationship can be established are better to facilitate coordination. However, the group below a certain minimum size could also be inefficient to protect and manage an area economically. Common areas too large in size could be divided in different organizational units. On the contrary, if the forest area is common among more than one village settlement, they could manage it jointly if there is no convenient way of dividing the area. In some
instances, such as in newly settled areas, social relations are not strong, particularly when the residents
come from different socio-cultural or geographical backgrounds. The territorial relation with a particular
area may also not be well established. Such examples are available from tarai regions of Nepal or canal
irrigated areas of Western India. In such cases establishing groups based on habitation, proximity of the
forest area and such other considerations is very important for effectively involving communities in the
management of resources.

Membership should be open to all unit residents who are willing to contribute and cooperate in terms of
labor or other forms as required for rational management of forest resources. They should also commit to
abide by the rules, regulations, responsibilities of the group. It is important that rules for canceling
membership entitlements when leaving the area and allowing new members to become entitled is decided
in advance to avoid disputes over benefits. Often the residential requirement for becoming entitled to
benefits is helpful. Thus, those who leave the area and move to another town or territory cease to have
rights. Similarly, the rights are inherited only when the next generation resides in the area. Many groups
have rules to charge additional fees of those who come from outside to reside in their area.

Rights of the members

Exclusive rights
The group should have exclusive and secure rights over the resources. Before assigning responsibility of
an area, it should be examined if other groups or members have legal or customary rights on the same
area. Before deciding rights of community groups over an area, pre-existing claims and counter claims
should be considered and disputes, if any, should be settled. Establishing exclusive rights is a necessary
condition for converting any resource area from an open access situation to collective management.
Nevertheless, this does not imply elimination of mutually agreed rights among different groups. In many
cases, particularly in the interior forest areas, the local groups often exclude neighboring groups from
using major products such as timber, while they do not restrict using minor products such as grass and
firewood as long as there is no scarcity. In shamilat forests of Punjab in India, the mutual rights are
decided among several villages and they have also developed reciprocal arrangements with migratory
graziers.

Migratory users, traditionally use an area only for part of a season for a produce (fodder) which is in
surplus. Until that resource becomes scarce due to degradation, increase in local or external demand, rise
in the number of migratory users, or such other factors, the local residents may not have any objection.
However, migratory users are coming in conflict with the local residents who start protecting their
resources in response to expanding the CBFPs. Such conflicts require a much deeper understanding of
complex issues involved in order to find amicable solutions, because there are several implications on
current policies and practices.

Equitable right
All the members of a group should have equitable rights in the collectively managed resource. Defining
the distribution of outputs or rights to use resources based on some unit (i.e. household) is often helpful.
A good example of ensuring equitable rights and distribution of benefits is the case of Sukhomajri from
Western India where the villagers who did not possess land were given rights to water from the dam built
for community use. These people could sell their water rights to other members of the community. This
ensured their interest in restricting grazing from the catchment area to prevent silting of dams.
Many communities use differential distribution of products or outputs in order to satisfy subsistence demand of different sections of a community. However, because of specific socio-cultural circumstances, if a section of a group uses a particular type of products more than the others, such groups should have consensus for a differential distribution pattern (Box 2.1).

Resource factors

Local dependence on the resource to be managed by a community helps the group in coming to a common strategy. Deciding a common regulation and management strategy should be seen by members to the advantage of all. Since the benefits will maximize by rational collective action, particularly in the resources which are subjected to degradation due to unregulated open access, these make a better candidate for community management compared to those areas where there is no scarcity.

Functional aspects

Rather than prescribing uniform rules, flexibility should be provided to communities to formulate and modify rules appropriately. Those affected by rules should be able to participate in the process of formation or modification of rules for relevance. The efforts should be made to promote participation of all the sections of a group, especially the poor and marginalized ones. Community group leaders who are made responsible for general operations and functioning, should be accountable to the whole group. Mechanism of monitoring their performance by the groups should be well developed. Major issues which affect the larger section of a group should be decided by the whole group rather than by a leader or a few selected representatives only. The community groups should be autonomous. Even if coordinating role is played by an outside local organization, it should not have controlling functions.

Majority of community members generally lack awareness even about the rules and regulations decided by their own committee. A special effort for improving awareness of all the members would motivate them to participate in making decisions which affect them. Communities should develop mechanisms to monitor the impact of regulations on resources. Community groups should have an easy access to conflict resolution mechanisms. Transparency in the transactions and decision-making process is very important in gaining confidence of the members of a group. Transparency is required in internal functioning as well as external interactions of the groups. The members should remain aware of the interaction with the outside agencies, especially the implementing government agencies and NGOs.

Box 2.1. Differential access to different sections of community

Bar Godam village from Haryana in India comprises of 50 families out of which 25 belong to Bhanjda community, which is totally dependent on bamboo basket making to earn their livelihood. Gujjars and other people in the same village mainly collect fodder and only a few bamboos from forests. Before initiating JFM in 1989, Bhanjdas were permitted only 50 bamboos per month and that only for a period of six months. Since this was inadequate, Bhanjdas often used to cut extra bamboos on the sly. This was a cause of frequent conflicts of Bhanjdas with forestry staff.

When improved access to Bhanjdas was offered in return for their commitment for protection and regulated use, the members of other communities in the same village were also consulted. The others said they would not have any objection provided their own rights to the limited forest produce were not affected. Only after ensuring the consensus among all members about differential access to Bhanjdas, a program of JFM was initiated. This greatly contributed to the successful implementation of the program. Bhanjdas were permitted to cut 100 bamboos per month for a period of nine months.

Source: Sarin, 1996.
Transparency can be promoted by building responsibility of committee members for sharing information among their area households and by discussing the activities in regular meetings. The agenda of each meeting should be declared in advance and all the members should be informed.

OVERCOMING WEAKENING FACTORS

Absence of the favorable factors for improving organizing capability obviously weaken the local institutions. There are many other factors which contribute to weakening the effectiveness of local institutions depending on local circumstances. Some of these factors are rooted in local socio-economic or resource conditions while others are resultant of the modalities of various development programs being implemented in rural areas.

Multiple local institutions

Not only in the forestry or natural resource management sector but also in a number of other sectors of rural development, community-based participatory approaches are being adopted. Building a local institution has become the starting point of these development programs. But most agencies act independently without any coordination at the community level. Even the agencies concerned with common property natural resources such as forest, watershed, irrigation, soil conservation, and rural water supply are promoting independent local institutions. Complexity is added by the involvement of many of these agencies in other spheres of development activities such as health, adult education, women literacy, child welfare, road and other infrastructure, and income generation. These activities are commonly taken up as a form of incentives for local people to attract them to participate in their programs and understand the value of collective action. Besides, many other development agencies such as agriculture, animal husbandry, veterinary, education, and health have taken initiatives to promote community institutions through which they are seeking greater participation of local people in the development process.

Potential adverse consequences

Village institutions promoted under different programs immensely vary in principles and mode of operations. Some village institutions form around politico-administrative boundaries while others are based on social-territorial units. Yet others such as self-help groups and credit institutions have used a small group within a village. Promoting an effective local institution requires that the members have a social cohesion and a common interest to cooperate. Social relations and interdependence contribute to the effectiveness of local institutions. Members are more likely to abide by the commonly decided regulations when they have mutual obligations and trust. When the same set of people are governed by different institutions and leaders, this relationship of trust is affected and villagers become indifferent and uninterested in the affairs of these institutions.

The effectiveness of different local institutions in a village depends upon the principles and modalities adopted by different field implementing units and the dependence and awareness of local people on the resource or the institutional activities. The ineffectiveness of one or more of the institutions affect the villagers' faith in the whole participatory approach. Promoting multiple institutions in the same village may be unnecessary if a single institution serves the purpose. Their advantages should be clearly understood.
Some positive aspects

Multiple institutions provide an opportunity for leadership development. And different institutional representatives lessen the risk of ineffective leadership and total control by an elite few. The spread of the resource area over multiple social-territorial units may demand different requirements of the local institution. For example, only those villagers receiving irrigation would be interested in a water user association. If the smallest irrigation management unit and command area extend beyond a village, the water user association then will have to include members from other villages, too. Similar argument can be used for a micro-watershed unit for a watershed development program. Some development programs address a specific purpose such as women’s self-help, adult education group, maternity health care group, or self-run micro-credit group. It may not be desirable to mix such diverse activities with institutions primarily managing common property natural resources. However, when services are provided as local incentives, it becomes necessary to link these activities through a common institution.

Elected local institutions

Locally elected bodies such as Panchayats and Village Development Committees, operating in India and Nepal, respectively, form another layer of local institutions which directly or indirectly influence the functioning of community institutions. Such elected bodies or their representatives also play a role in the village development activities. In some instances, they are provided ex-officio roles in the executive committees of local institutions. The election process can affect the group solidarity and cohesion when politics is involved. The political rivalries between supporters and opponents of the winners persist after elections and can divide the groups or have adverse affects on the functioning of local institutions (Box 2.2). It may be difficult to avoid the influence of political activity. This raises questions regarding the need for elected bodies in consensus-based local institutions. Is there value added? Since everyone is known to each other in small and socially related groups, if the process of selection of representatives is transparent, the consensus-based process could be more effective.

Some potential options

Multiplicity of village institutions for participatory development is a recent and emerging phenomenon. Without understanding the interactions and issues that are involved when multiple local institutions are present, the participatory development process aimed at promoting collective action and providing greater control to local people might run into a risk of dividing people and adversely affecting the whole process of development. There are important considerations for deciding when and for what purposes separate local institutions would be desirable and when it would be better to combine different functions or implement development activities through fewer local institutions, including:

- dependence on resources,
- overlap of resources,
- benefit distribution,
- nature of activities,
- socio-cultural conditions, and
- need for linkages.

When all the members of a village are collectively dependent on common property resources, it may be better to have a single institution for the governance of such resources, even if the nature of resources is different. For example, if all people of a village would benefit from the development of access road as well as forest resources, both these type of activities can be managed by the same local institution. When
Box 2.2. Politicization of community institutions

In Nepal, as per the new rules formed after the democracy, the old management committees headed by Panchayat representatives were required to be dissolved and new committees were to be formed. In Patle Pangising forest user group from Dhankuta district in eastern Nepal, politicization of the process of selecting committee members became a serious impediment in the effective functioning of the user group.

In a general assembly of the users in April, 1994, after a long discussion in the presence of forestry staff, 11 members for the committee were selected. The newly elected chairman had political affiliations. Because of his political interests he started criticizing the previous management committee and alleging some of its members having affiliations in other parties. This was unacceptable to other people. Due to politicization and dominating attitude of the chairman, many users were unsatisfied with the new committee. Some users including the members of the management committee initiated a campaign to collect signatures of members to dissolve this newly elected committee.

After a planting program in June, 1994, in which all the user group members were expected to take part, the members turned into an assembly meeting. First they dissolved the management committee and started discussing issue of selecting a new committee. After a long discussion, it was decided that people actively involved in political parties should not be selected as member of management committee. Several proposals were considered for chairman but none was acceptable to all. The assembly was postponed for the next day.

On the next day in the general assembly, again long discussions were held to consider candidates for chairman and committee members. The people having political affiliation wanted to support different candidates. Ultimately, the members selected a person as chairman who was politically not active. For rest of the members of the committee, people compromised to get representation of their supported candidates. Even though management committee was finally selected through consensus, the selected members were seen as a compromise formula rather than commanding respect and trust of the people.


there is some degree of overlap between the use of different resources or when the nature of products is similar (i.e. watershed development and forest management), it may be better to combine their management under a single institution.

If the resource under consideration provides benefits to a select community, non-beneficiaries may not be interested in this resource management. If irrigation water reaches only the fields of a few farmers of a village, a separate institution of the farmers benefiting from the resource would be more appropriate for the purpose of managing irrigation system. If the nature of different activities to be managed by local institutions is distinct and decisions in one activity do not affect the decisions in another, separate institutions may not be inappropriate. For example, adult literacy groups can operate independent of self-run credit institutions. It will depend on local traditions and prevalent formal and informal community institutions, whether combining different functions would be appropriate or not.

Multiple meetings and visits

With the growing popularity of community-based participatory approaches, the tendency of arranging meeting and visits has been increasing. Often the communities with effective institutions and with easy access are more frequently visited. Frequent visits can have adverse affect on villagers whose time is consumed. It would be more appropriate to develop a rotation system of regular meetings in all the communities on different days to lessen the risk of frequent visits in fewer communities.
Elite domination

In most of the local communities, only a few elite people influence majority of the decisions. They generally occupy the positions in executive committees of local. The operational practices of government agencies which depend on frequent interactions with such elite members further legitimize the process of elite domination. The decisions taken by these people or the promises made by them are taken to represent the whole community. In real terms, participation of marginalized groups is often very limited and their concerns are unrepresented. These groups lack awareness of their rights and responsibilities and so they are indifferent to the decision-making process. This affects the relationship of trust among the members and threatens the viability and effectiveness of local institutions. The implementing staff should avoid interacting with only a few representatives repetitively. Effort should be made to spread interaction among all members and recognize equal importance to all. Elite domination can be minimized by ensuring broad-based participation of all the members and sections of a community.

Power-centered leadership

In the design of local community institutions, a structure of executive committee is prescribed by field implementing units. One of the members is selected as a chairperson through whom most of the operations and transactions are done. The agency staff interact with the chairperson to get various activities executed. This person is a mediator for communicating with the community members. In many instances the chairperson is perceived by local community members as a representative of the development agency to execute their program rather than to serve the interests of their community. The de facto accountability of such leaders is less rooted with the community members and they become more concerned with the obligations and requirement of field implementing units. Instances have been noted when people had to bribe the chairperson to get material from forest areas.

When large sums of money are being spent or other forms of power and control functions are being attached to the chairperson, their selection can become politicized. This process can create an atmosphere of unhealthy competition among the villagers. The leadership becomes more power-centered rather than being welfare- or service- oriented. The institutional effectiveness can be promoted by ensuring transparency and accountability of executives to its members. The field implementing staff should make sure to build a greater base of interaction among the larger proportion of the members of a community. The operational procedures should be so designed that the execution and control is spread among more individuals within a community rather than a single leader. Most of the crucial decisions should be made through the involvement of the whole community rather than being left on selected or elected members of committees. Even the approach of group leadership compared to a single leader may some time be more practicable. Group leadership approach has been used in the West Bengal Forestry Program in India. Traditionally many communities have followed a group leadership approach in which even if a formal leader is nominated, the decision-making process incorporates views of a council which usually consists of five members.

Imposition of institutional arrangements

In addition to above, there are many other forms in which, the institutional arrangements are imposed on local communities without considering local variations and their relevance. It seems apparent that fixed policy arrangements are assumed to be more efficient rather than allowing some appropriate variations.
according to circumstances. This is reflected in adopting a uniform policy in Nepal and in most of the states in India. This appears to be more a bureaucratic check rather than a rational choice.

Many forms of responsibilities and often the management choices are also uniformly applied to all communities, irrespective of their traditions, capabilities, or willingness. Most indigenous communities have some form of pre-existing institutional arrangements. Prescribing fixed forms of institutional mechanisms such as executive committee structures, membership rules, withdrawal rules do not allow adaptability to local socio-cultural circumstances. Communities should decide appropriate governing structure and develop regulatory mechanisms. This will facilitate development of a local institution which evolves from the traditions and proves to be effective under local circumstances. In the process of establishing community regulations, some system of leadership may emerge which is likely to be more representative of local traditional systems. This will have greater acceptance within a community if the following aspects of this system are carefully understood.

**Does it perpetuate elite domination?**

Traditional systems in many societies perpetuate dominance of a few village elite belonging to higher social strata. In such cases it needs to be impressed upon the community group that all the sections and particularly women should be encouraged to participate. The representation of marginal sections in management committee could be made mandatory. The community could choose to adopt a rotational leadership system in which the selection of leaders is made open after every year or two. The eligibility of the same person to a leadership role may be restricted to single terms.

**Is it a single or group leadership?**

Some traditional communities might have a group leadership system. They may or may not have a nominal head. Even if sometimes they have one person as a nominated head, the decision-making process adopted by them involves a group of (five or more) important persons in the community.

**Is it a pre-existing formal institution?**

The previous government interventions might have prescribed a form of community institution in an ongoing or completed program. Communities might automatically switch to the same institution if it is representative and facilitates participation of all the sections within a community. The success and failures of previous experience should also be examined and discussed so that corrective steps, if needed, can be taken before its formalization.

**Does it encourage people to decide?**

If no definite system of community leadership emerges and no traditional institution is present, then people should be encouraged to decide how they want to form the institution. The options for single leader versus group leadership approach, the number of members in the governing committee, and their roles and representation should all be discussed with people and decision should be left to them.

**Does it promote transparency and openness?**

In all the above cases, whatever system is adopted, effort should be made to promote transparent and open decision-making system with participation of all the sections and interest groups including women. Rather than merely imposing this, it may be useful to explain the importance of participation and transparency for the sustainability and effectiveness of community institution. This can be done by
demonstrating the success stories where participation was ensured and the stories of failures where participation was not ensured.

ENSURING BROAD-BASED PARTICIPATION

The success of collective action depends on conviction and participation of the whole community. However, a variety of social inequalities make it difficult to provide equal opportunities to all sections in many communities. Effective functioning of a community institution in a heterogeneous community is often more difficult than in a homogeneous community. Socio-economic variations of a community make it difficult to come to commonly agreed decisions. The social stratification commonly leads to inequalities and discrimination among members. This has implications on distribution of benefits from resources. Nevertheless, there are many examples of heterogeneous communities which have successfully established effective community institutions.

The key to success in such communities is to explore points of common interest and ensure participation of all segments or interest groups. The resource management strategy and system of benefit distribution should be such that no section of a community is at a disadvantage. Often the poor and marginal sections and women form notably disadvantaged groups requiring special attention for ensuring their participation. Similarly, because of socio-cultural differences, the participatory strategies for indigenous communities need to be adapted according to local circumstances.

Participation of women

An understanding of the need for promoting participation of women is essential among the implementing staff as well as community members. The participation of women is important not merely for humanitarian reasons but also for achieving and managing resources sustainably. Women in developing countries are often primary managers of natural resources at the local level. They collect and process a variety of products from forests for household use as well as for earning livelihood (Table 2.1). Men by and large remain unaware or unconcerned of the diverse activities in which women are involved. If the decisions related to resource management and use regulations are primarily taken by men, they are most likely to ignore the concerns or specific needs of women.

However, women often face an unusual number of barriers that inhibit their participation in community activities. Sex segregated hierarchical nature of society prohibits women from speaking in public forum. A girl child is often discriminated against for child care, education, nutritional food, and participation in many other social activities. This discrimination leads to lack of confidence among women to express themselves. Most of the decisions related to economic issues are taken by men in male dominated societies. Thus, women become used to decision making by men and they themselves do not perceive the need for their participation. Therefore, proactive approaches to mobilize participation of women occupy special significance. However, these should be combined with approaches to convince men as well as women for equitable participation of both the genders. Field implementing units also need to develop capabilities for promoting women participation and performing a facilitating role. The discussion below focuses on these aspects which draws mainly on Food and Agricultural Organization of the United Nations (FAO 1989), Molnar and Schreiber (1989), and Sarin and others (1996).
Table 2.1. Women's involvement in forestry:  
a case study from West Bengal

<table>
<thead>
<tr>
<th>Classified item of NTFP</th>
<th>Female gatherer</th>
<th>Male gatherer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food</td>
<td>37</td>
<td>7</td>
</tr>
<tr>
<td>Fodder for goats</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Fuel</td>
<td>38</td>
<td>4</td>
</tr>
<tr>
<td>Structural</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Religious</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Ornamental</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Medicinal</td>
<td>5</td>
<td>14 (all medicinal men)</td>
</tr>
<tr>
<td>Minor household articles for mats, sal plates</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

Numbers of species collected:
- exclusively by women -- 71
- exclusively by men -- 23
- by both -- 10

Processing of all the NTFP:
- exclusively by women.

Marketing of NTFP:
- 2/3 activities by women,
- 1/3 activities by men.

**Adopt proactive approaches**

Equitable participation of women can be made obligatory by state policies and by adopting proactive approach in the implementation process. Although it would be generally more appropriate to avoid prescriptions about the structure and functioning of community institutions for letting the locally appropriate form emerge and evolve, it will be desirable to make the participation of women mandatory as a minimum necessity. This may include equitable opportunities through membership rules, representation in management committees, and requirement of presence of a certain minimum proportion of women in any meeting or decision-making process. In recent years, some state policies for JFM in India have adopted some of these measures and there is an increasing realization for further strengthening these measures. These measures need to be accompanied by proactive approaches in practice to be effective (Box 2.3). This would include talking to women first and seeking their opinion during meetings. Use of circular seating arrangements during meetings indicates equal status and importance of all the members including women.

**Convince women to participate**

It is not uncommon that women do not feel the need for their participation. The efforts to make women realize the importance of their participation for their welfare could be an effective means of motivating women to take interest and participate in the functioning of community institutions. This can be achieved through helping women to analyze the impact of past decisions and seeking their suggestions for appropriate measures to minimize adverse impact on them, if any. The gender analysis of the activities
related to forest use and management (Table 2.1) also motivate women to participate. One of the effective means to convince women could be to conduct separate meetings of men and women for discussing or deciding some particular issues and then combining them to understand the differences and deciding a commonly agreed strategy. The strategies to convince women to participate need to be accompanied by measures to create a conducive environment aimed at overcoming the constraints faced by women (Box 2.4).

### Box 2.3. Emphasizing women participation in practice

In Haryana state of India, JFM program provided for independent eligibility of women in village institutions. This was accompanied by insistence on the presence of maximum number of men and women for all JFM related discussions. When women did not show up for meetings, despite advance intimation, the meetings were simply not begun till women were called. The men often attempted to bypass this resolve by indicating that women were busy with cooking, livestock or child care. However, if the JFM team was firm, the men used to send instructions to the women to come and they would show up often in large numbers.

Source: Sarin and others, 1996.

**Convince men to encourage women participation**

Convincing men is often the main obstacle to promote participation of women. Men should start understanding that the acceptance of decided regulations cannot be ensured unless women are convinced, because they are the major users of resources. This is important for the effectiveness of community institutions and achieving the goal of resource revival and sustainable management. Men may not be fully aware of the problems faced by women and therefore it is very important to provide opportunities for participation to women themselves. Women face many social and cultural constraints to participate in village meetings and most of these constraints can be removed only when men encourage women to participate. An atmosphere needs to be provided in which women can express their views without any inhibitions.

Some of the activities used for motivating women to participate, such as gender analysis and comparison of decisions in separate meetings of men and women, would also be effective for convincing men to promote women participation. In addition, awareness of men needs to be improved about the constraints faced by women and advantages of their participation through suitable activities and exercises. Case studies of villages where promotion of women participation has been helpful in developing effective regulatory systems could also be useful. When traditional cultural mores are such that it is difficult to convince men, start with a few men or leaders with favorable opinion and progressive views.

### Box 2.4. Overcoming constraints faced by women in participation in village meetings

- Are all women informed and aware of the meetings?
- Is the timing of meetings convenient for women?
- Is the location of the meeting convenient for women?
- Are the social and cultural constraints inhibiting women from participation are understood and overcome? (Often male family members need to be convinced and approve the participation of women in the meetings.)
- Do the women perceive the meeting to be of any use for addressing their particular problems?
- Do the women feel that their problems and views are given equal importance? (Sometimes village power dynamics operate by a few powerful male interest groups who make decisions before the meetings. The meetings are used for formal endorsement by the general body without much discussion and analysis.)

Source: Sarin and others, 1996.
Develop capability for facilitating role

Efforts need to be made to convince and develop capacity of field implementing staff for promoting participation of women. The staff should understand the approaches and exercises that can be useful in the process. Women facilitators can be very helpful for some exercises and breaking the initial impasse. Field implementing units should have women staff at all levels to build favorable atmosphere and appropriate capability within agencies. If increasing women staff is difficult, women facilitators can be contracted particularly for building gender sensitivity among communities. Many state agencies in India and Nepal have adopted a strategy of reorienting staff through intensive training programs for staff as well as communities for promoting participation of women. However, such efforts so far seem to be inadequate and need to be further intensified.

Participation of indigenous communities

Indigenous communities are characterized by their attachment with land and culture. Natural resources have special significance in their daily life. The style of houses, clothes, and food reflect the use of locally available products. Often the natural resources have cultural and religious significance for them and a variety of taboos and totems center around natural resources. By relative isolation from mainstream societies, indigenous people are slow to adapt to changing realities. This remains an evolutionary process in which communities gradually realize and adapt their traditional practices. However, with the increasing local and external pressure on resources, indigenous communities need to rapidly adapt their practices to sustainably manage the resources. It is also important for improving economic benefits from resources while ensuring their sustainable management.

In the process of adaptation, indigenous communities can be helped by following a participatory strategy which makes them realize the need for evaluating the relevance of their traditional practices in changing circumstances. An ‘adaptive participatory strategy for indigenous people’ should follow an evolutionary approach in which an incremental understanding is developed by communities in relation to their past practices and current realities. This has been developed on the approach described by Jain (1996).

Adaptive participatory strategy for indigenous people

Adaptive participatory strategy for indigenous people (APSIP) is useful in approaching indigenous communities, understanding their institutions, and facilitating them to formulate or adapt mechanisms of resource regulations and management. This strategy helps in deciding the actions needed at different progressive stages of understanding developed by communities.

What were the different traditional practices of control and regulation in the social system of indigenous communities which ensured sustainable use of forests and other natural resources? The first step should consist of identifying the local institutions (prevalent and historical) and understanding the systems of control and regulation of resource use. The information search needs to be extended to the general socio-cultural life and the mutual relations of community members (within and among communities) and should not be restricted to resource use systems only. The information collection about traditional and contemporary practices and the attributes of communities should include various aspects such as:

- socio-psychological and socio-cultural attributes, social customs and norms related to community activities and natural resource use, attitude and belief systems about conservation.
practices, value of plants and animals as expressed in art, folklore, festivals, and folk traditions;

- religious practices such as protection of sacred trees, sacred groves, practices of plant and animal worship, various nature related taboos, totems, myths and mythological beliefs;

- political systems of leadership pattern, decision-making systems for regulation of resource use, responsibility and authority structures, mechanisms of inter- and intra-community conflict resolution, social trust and acceptability of community decisions, frequency and patterns of violations of the norms and regulations;

- resource management systems including practices of conservation, indigenous knowledge of medicinal and other uses of plants, methods and regulations of forest produce collection, mechanisms of harvesting and rotating, ethnobotanic and ethnobiological aspects, and sharing of water from community irrigation sources and their maintenance; and

- economic factors affecting life styles, dependence on common property natural resources, levies or fees for regulating resource use, collection and trading of various natural resource products, demand driven by nearby urban centers, and market structures.

This is by no means a complete list of all the observable aspects which will vary among different communities and will also develop during the process. General information should also be collected regarding the efforts made for community organization, the response of the community members, and the level of community participation in common matters.

What were their mechanisms of operation or institutional arrangements that made them so acceptable among community members? Acceptability of community regulations, not only within a community but also between communities, is a common observation. A variety of norms, customs, networks, and mutual obligations ensure the effectiveness of community regulations even while such regulations do not have any legal sanctity. To an outsider many of the activities of local communities may appear to be irrelevant for understanding the effectiveness of community regulations. Nevertheless, the assessment of prevalent social mechanisms in any community is an important step. This would, to some extent, become evident from the information collected in the first step above, but may require further efforts for specific information. The method of 'participant observation' may be very useful in gathering relevant supporting information.

How have these traditional practices undergone changes in the recent history and what are the factors responsible for these changes? It needs to be understood how the traditional systems of control are changing and what are the factors (social, economic, demographic, political, etc.) that have affected the traditional practices. Understanding the historical as well as contemporary factors affecting traditional systems of community management of natural resources is of critical importance. To understand the value and relevance of changing traditions in the present context, we need to analyze what factors are positive and which of them are negatively influencing the traditional practices. This judgment is one of the extremely difficult tasks because it is affected by the values of the person making the judgment. The values of traditional practices cannot be examined easily by outsiders without some element of bias or prejudice because of the difference of the cultural background of the observer and the observed. However, the outsiders need to be conscious of such differences in value orientations and make the best possible efforts to avoid any personal influence on the judgment.

What is the relevance of traditional practices in the contemporary society for developing and reviving the systems of sustainable management of natural resources? This analysis should be done through interactive methods with the involvement of community members. The process should be oriented to help them in understanding their own institutions, the changed situation in which they are
now, and how they should adapt their local practices and regulatory mechanisms to ensure sustainable use of the resources. Communities should be helped to become aware of resource conditions and future implications of current resource use patterns. If communities develop a good understanding of various factors and circumstances, community members should be left to decide eventually their own future course. The development practitioners should play the role of facilitators and should promote autonomy of communities rather than dependency. Eventual development/revival of an effective and autonomous community institution is the test of the success of this strategic process.

IMPROVING CONFLICT MANAGEMENT CAPABILITY

Conflicts are inevitable in the functioning of a community institution. Regulations imposed on resource use amounts to some restrictions on individual freedom for the common goal. The members adversely affected by regulations or obligations may have to sacrifice their current needs or privileges and find alternative means. Conflicts may emerge at different stages of development and functioning of community institutions. Development of capacity for managing potential conflicts is essential.

The nature and complexity of conflicts varies with the nature of parties involved. Deciding remedial measures against the occasional violations by a few community members may appear to be a simple process. However, sometimes it may be indicative of underlying. Conflicts with external parties are generally more complex, but may not always be so. Depending on the nature and complexity of conflicts, the efforts and support required for their resolution differ. The key to successful resolution of conflicts is to involve all the parties in a participatory atmosphere where mutual understanding is developed through interaction and dialogue and views of all the parties are respected. It is difficult to predict, what steps will be helpful in developing a better understanding among the conflicting parties. At best this remains a learning process for communities as well as external facilitators (Box 2.5).

The options for providing support

**Leaving resolution to local people**

The first and foremost consideration should be to leave conflict resolution to the people. In many circumstances, the least possible interference from outside could be ideal. People should feel the responsibility not only for the conflicts but also for developing mechanisms for resolving them. Conflicts from internal sources and between neighboring groups are best resolved by local initiatives, avoiding external intervention. The people should be sensitive to the consequences of continuing conflicts. Traditional solutions within the community have a greater acceptance among the members.

**Involving third party mediation**

If amicable solution to the conflict fail with local intervention, the next option should be to motivate people to find a neutral third party. The mediator has to be known and well respected by all parties. For internal conflicts the neutral third party or mediator may be from within the community or from the neighboring communities, such as teachers or elders. For conflicts between communities, the third party generally has to be from outside the conflicting parties, possibly community leaders in the area or NGO workers. Implementing staff should allow communities to select the mediator. The facilitator’s role is to invite suggestions, consult people, interpret and restate the suggestions to make them clear to all the members and help people to come to a consensus. The facilitator does not take decisions or influence the
Box 2.5. Participatory learning process for conflict resolution

This case study from South Rajasthan in India reflects how a strategy of organizing and capacity building through a participatory learning process helped a weaker community in resolving a long-standing conflict with a much stronger neighboring community. The efforts made for resolving the conflict became a process of learning for community members as well as the forestry staff.

The conflict became apparent when the people from an influential section of a large village, Tirpal, started grazing their cattle in a newly-raised forest plantation of a small tribal village, Unkaliyat. Rather than taking it as a problem of forestry staff alone, the people from Unkaliyat village were motivated to organize and protect the plantation for their own benefit. Initially the forestry staff was apprehensive of the capacity of villagers to resist the people from a dominating caste of village Tirpal. Nevertheless, some of the villagers of Unkaliyat gathered and accompanied forestry staff to successfully move the illicit graziers away. But the illicit graziers came back in the area within a week and this time they were laced with guns.

The forestry staff, knowing the notoriety of illicit graziers of Tirpal from past experience were of the opinion of seeking police help to deal with the situation. However, on the insistence of deputy conservator of forests responsible for the area, the villagers of Unkaliyat were motivated again to show organized strength of the whole village to have a lasting effect on the graziers. The villagers of Unkaliyat gathered and laced themselves with sticks and axes and successfully forced out the graziers from the plantation area. However, the graziers threatened the villagers of Unkaliyat of dire consequences. In response to the threat by the graziers, full support from the forestry staff and the police was provided. Besides boosting the morale of the villagers of Unkaliyat, this incident also generated the interest among the neighboring communities to organize because they were also facing similar damages from the villagers of Tirpal. The forestry staff also felt motivated for seeking cooperation from people in future.

Encouraged by the response of villagers of Unkaliyat, a program of developing the local resources was taken up as an incentive to motivate the villagers for organized action. For sometime, no incidences of violation were noted, but after the next rainy season, stray incidences were reported again. Besides making efforts for motivating the villagers of Unkaliyat through meetings and training activities, the people from neighboring villages were also involved. Later, the effort was also initiated to begin dialogue with some people from Tirpal. After a persistent effort over the next year, the group of six villages became a united force. Ultimately, the people of Tirpal realized the need for cooperation and avoiding the confrontation. Through a process of mediation and negotiation facilitated by the forestry staff, the conflict was finally resolved by deciding a mutually agreed plan of resource use and development in all the villages.

Source: Jain and Jain, 1997.

decisions. The facilitator should have good communication skills and familiarity with the local problems. The facilitator can be from within or outside the agency.

Mediating conflicts

If a well-organized facilitation process does not lead to an agreeable solution, having a mediator may be necessary. However, as far as possible the request for mediating the conflict should come from people. The mediator has to make certain careful decisions which then will have to be acceptable to the conflicting parties. Mediation process requires a more skillful facilitation approach in working with the conflicting parties individually and together. There may be conflicts such as those involving violent clashes, serious threats or retaliatory damages, which may warrant some special efforts, particularly if the claims and counter claims become difficult to resolve. If the situation is such that leaving the conflicts
unresolved will further aggravate the problem or will lead to a considerable intentional damage to resources by conflicting parties, it may be more appropriate to seek the help of conflict resolution experts having special skills in facilitation, mediation and negotiation processes.

Making policy changes

If conflicts are between communities and state agencies, responsible decision makers may need to consider appropriate policy changes. For example, if the designation of a politico-administrative unit as a community unit is leading to conflicts within or among the neighboring units, it may require changes in policies to permit formation of a community unit based on traditional patterns of resource use. A timely reporting system should be developed within the field implementing unit to bring issues to appropriate decision-making levels. Systematic studies and analysis of the issues can be made and early actions taken. If policy changes require additional time, intermediate arrangements can be made so that persisting conflicts do not lead to a worsening situation.

STRENGTHENING REGULATORY CAPABILITY

The foundation of sustainable resource management through community-based approaches lies on regulation of resource extraction, effectively limiting it to the non-hindering levels of regeneration. Maintenance of resource extraction levels may differ with local dependence. It may have to be above silvicultural limits if the resource scarcity is high and alternatives for subsistence needs are few. For example, lopping of trees, cutting of fuel, extraction of grasses, and collection of leaves from forest beyond a limit may not be silviculturally desirable to revive potential productivity of degraded forests in the shortest possible time. Therefore, the extraction should be so planned that even if it delays the process of revival of potential productivity, it does not lead to further degradation. Thus, resource scarce areas pose a special challenge for regulating resource extraction.

Diverse regulatory mechanisms

Communities use a variety of regulatory mechanisms to control extraction of forest products (Table 2.2). These provide a broad range of options for the local communities to consider. The suitability of mechanisms would depend on the nature of products, as well as resource conditions and local socio-cultural traditions. Deciding and regulation the appropriate level of extraction is easier for some products compared to others. For example, all the available grass after drying or fruits after maturity can be extracted without affecting future productivity adversely. However, extraction of timber or fuel and lopping of trees require much more planned strategy of regulating extraction to maintain extractable limit and achieve potential productivity sooner.

Mechanisms for promoting economic rationality

Ideally, the mechanisms used for regulating extraction should also promote economically rational use of resources. Nevertheless, economic considerations rarely get prominence unless there is some direct cost for use of scarce common property resources. People often tend to avoid the use of private property for producing similar goods which are available from common property at no cost. This leads to over-exploitation of common property resources. Attaching some form of direct cost through user fees or other mechanism for the use of common property resources offer several advantages.
### Table 2.2. Regulatory control systems used in traditional forest management

<table>
<thead>
<tr>
<th>Basis of group rules</th>
<th>Examples</th>
</tr>
</thead>
</table>
| Harvesting only selected products and species | - Trees: timber, fuelwood, food (fruits, seeds, honey), leaf, fodder, fiber, other minor forest products (gums, resins, dyes, liquor, plate leaves etc.)  
- Grass: fodder, thatching, rope  
- Other wild plants: medicinal herbs, food (tubers, etc.), bamboo etc.  
- Other cultivated plants: upland crops (cereals, potatoes, vegetables), fruit etc.  
- Wildlife: animals, birds, bees, other insects, etc. |
| Harvesting according to condition of products | - Stage of growth, maturity, alive or dead  
- Size, shape  
- Plant density, spacing  
- Season (flowering, leaves, fallen etc.)  
- Part: branch, stem, shoot, flower |
| Limiting amount of product               | - Time: by season, by days, by years, by several years  
- Quantity: number of trees, headloads, baskets, number of animals  
- Tool: sickles, saws, axes  
- Area: zoning, blocks, types of terrain, altitude  
- Payment: cash, kind, food or liquor to watchers or village, manure  
- Agency: women, children, hired labor, contractor, type of animal |
| Using social means for protecting area    | - Watcher: paid in grains or cash  
- Rotational guard duty  
- Voluntary group action  
- Making use of herders mandatory |


**Advantages of user fees**

Direct cost induces conservative use of resources. People become more concerned about minimizing wastage and using alternative products or energy sources. This could be an effective means of promoting economic rationality in the rearing of scrub and unproductive livestock which are considered useful for dung production. When user fees are collected by communities, the generated funds provide an additional resource to be invested for better management of resources or developing assets of common interest. This also builds a sense of self-reliance among communities. The importance of associating direct economic costs become much more relevant in today’s society with the increasing penetration of monetized economy in the lives of rural communities. A large number of communities have started using a system of user fees, penalties or other forms of costs. This is becoming an important acceptable means of regulating resource use (Box 2.6).

**Promoting user fees**

A system of user fees can be promoted by building awareness of such prevalent mechanisms among communities. The system can also be promoted by providing matching grants to communities in some proportion of the collected funds. The communities could be provided autonomy to use such community funds for some common purposes. However, strict enforcement of quantity control over extraction of resources needs to be ensured, otherwise such user fee-linked matching grants could prove to be counterproductive. This lays a responsibility of developing effective, open and transparent monitoring systems on the part of field implementing units. The effective system of monitoring is important for CBFPs even in the absence of provisions for matching grants. However, initiating a system of matching grants would not be desirable until the effectiveness of monitoring system is proven.
## Box 2.6. Local initiatives for inducing cost on using community resources

Community protection and management of forest resources has spread to an estimated 12,000 to 15,000 rural Indian communities in past two decades, with a primary concentration in eastern India. Many of these communities are using a system of user fees and penalties to regulate resource use and extraction generally for major products such as timber, fuel and poles. Often the costs to resource use is also added by protection duties or contributions in the form of cash or kind for management of resources (Poffenberger and others, 1996).

In Harda division from Madhya Pradesh in central India, nearly 100 participating local communities collected Rs. 1.7 million as community funds in just 3 years through contributions, user fees, penalties and other means (Rathore, 1996). In Jhansi district of Uttar Pradesh in India, degraded common lands were developed based on watershed development approach with community involvement. In these fodder scarce areas, local communities started using a system of fee for grass harvesting from the developed areas. Some of them have used even the measures of auctioning the produce for full cost internalization. These communities use community funds to provide low-cost credit to members (Hazra et al., 1996).

In Nepal, indigenous systems of regulating forest use has been existent for long time which included a system of user fees, membership fee, contribution in kind or labor and fines for violations (see Messerschmidt, 1986). With the expansion of community forestry in Nepal, such systems are again becoming popular with handing over of responsibility to user groups in recent years (Dahal, 1994).

### Modalities of user fees

The responsibility of deciding the modalities of user fee systems, that would be appropriate for a local situation, should be left with communities. What should be the amount of user fees, on what items it should be levied, how it should be combined with quantity controls, in what form user fees can be paid, all can be decided more appropriately by communities themselves. Communities could be facilitated by building their awareness of the prevalent systems in different communities and by helping them to evaluate the pros and cons of different systems.

The user fees can be paid in various forms such as cash or kind or even as a part of the collected produce. The latter option could be appropriate for items of local consumption, while fees in terms of cash or kind are suitable for perishable items. Levyng user fees would be desirable for the major products which are susceptible to over-harvesting and for which regulation of extraction is more important to revive resource productivity. The amount of user fee should remain affordable for the poorer sections within a community. Even a small amount of fee is effective, at least in the beginning, when no previous systems exist. The evidence indicates that people are willing to pay when this ensures greater advantages in the long run and provides greater control and autonomy to them in resource management.

### Use of community funds

The community funds built through user fees and matching grants can be used for maintaining resources and improving productivity. Some communities have used these funds for providing credit to needy members who need an opportunity to develop alternative means of income. This mechanism helps to compensate those who are affected most by initiating resource use regulation. If the community funds is significantly ample, portions can be distributed among the members. This may be especially useful to build member confidence when communities have not developed an effective and transparent community fund or when previous cooperative arrangements have failed.
3. IMPROVING FIELD IMPLEMENTING UNIT CAPABILITY

The conventional mode of functioning within field implementing units, in which the decisions are mainly based on technical and managerial considerations, is not conducive to CBFPs. Implementation of CBFPs requires a continuous interaction with people. This section looks at the institutional limitations of the field implementing units and the need for transforming and improving them by encompassing the principles of learning organizations.

Institutional limitations of field implementing units

Institutional limitations are regarded as one of the major factors in limiting the success of community-based approaches. The operational experience of the World Bank in implementing forestry and other natural resource management programs in South Asia and many other studies (Singh, 1997; Saxena, 1997; Hobley, 1996a&b, Hobley et al., 1996; Palit, 1996a; Karki, et al., 1994; Dahal, 1994; Gilmour and Fisher, 1991; Fisher, 1995) have pointed to this fact. Many of these limitations can be effectively overcome by transforming field implementing units into learning organizations which continuously use experience to improve performance.

Top-down approaches

Despite the rhetoric and recognition of incompatibility of top-down approaches with community-based programs, devolution of authority and decision-making powers to lower levels has been limited. Most decisions for the so-called decentralized community-based programs continue to remain largely centralized.

Lack of coordination

There is lack of coordination between different branches and different layers within the field implementing units. The mechanisms are either absent or highly inadequate to achieve coordination with other line agencies involved in related natural resource management and rural development activities, particularly at the community level.

Hierarchical relations

The hierarchical relation between different layers inhibit free-flow of information and atmosphere in which mutual understanding can be built. The front-line functionaries are only supposed to follow the instructions and they do not have any opportunity to raise questions about any decisions. Owing to the persistence of such relations for a long time, most field functionaries have lost the habit of judging and evaluating the actions and making suggestions for further improvement. The knowledge and experience of a large proportion of the agency staff is thus, not utilized in improving the organizational functioning.
Lack of motivation and stability of staff

Barring a few personally committed ones, there is a lack of interest in the majority of staff for building and strengthening community institutions and promoting local participation. There are no mechanisms to distinguish those who are dedicated and those who are not. The field implementors are not encouraged to experiment. General tendency is towards 'status quo' and emphasis is on penalizing failures rather than rewarding success. There are frequent changes in the posting of staff often for administrative or political rather than professional reasons. In CBFPs adequate stability of staff is very important to build and maintain relations with local people and ensure continuity in management strategies adopted.

Lack of specialization

Greater proportion of time is spent by forestry professionals in routine administrative and non-technical matters and the realization of need and emphasis on building professional skills is inadequate. Moreover, there is no motivation for specialization. As a result, there is almost negligible progress in using or improving technologies or developing better human resource management and organizational development strategies.

Lack of competence

Overall forestry organizations lack an appropriate skill mix required for the implementation of CBFPs. Specifically there is inadequate attention for building skills in social sciences, economics, policy analysis, information management, organizational development, and research. The competence building programs are highly inadequate to build the skills for the mainstream functions of mobilizing communities and developing collaborative resource management strategies.

Lack of accountability

The mechanisms to establish accountability for actions and outcomes are either absent or ineffective. In CBFPs, accountability mechanisms need to be built up to the community level.

Inefficient procedures

The commonly followed bureaucratic procedures often result in unnecessary and unsystematic paper flows with unwanted exigencies or repetitive information. There is general indecisiveness from top to bottom resulting into delays in implementation. Various levels of functionaries feel overloaded with a variety of inconsistent functions.

Need for continuous learning

The agencies implementing CBFPs essentially need to build systems in which a continuous process of learning takes place at all levels. The learning atmosphere should foster sharing knowledge to achieve a common goal. The learning organizations differ from conventional hierarchical organizations. Marquardt (1996) and Watkins and Marsick (1996) highlight the following attributes of a learning organization.

- Learning is acquired by the organizational system as a whole, almost as if the organization were a single brain.
- Organizational members recognize the critical importance of ongoing organization-wide learning for the organization's current as well as future success.
- Learning is a continuous and strategically used process, integrated with and running parallel to work.
Different learning styles are recognized and appreciated in a learning organization. No single style is deemed as best, since an adaptive, innovative organization needs all styles, each of which can complement the deficiencies of the others.

People have continuous access to information and data resources that are important to the organization's success.

There exists an organizational climate that encourages, rewards, and accelerates individual and group learning.

Change is embraced, and unexpected surprises and even failures are seen as opportunities to learn.

It possesses the ability to continuously adapt, renew, and revitalize itself in response to the changing environment.

No particular structure or procedures are considered as a final goal. The organizations evolve and adapt themselves to changing situation. As more is learnt over time, new and appropriate structures and functional procedures are adopted.

The organizations build systems which capture, share and utilize the knowledge of its members.

Learning takes place and is supported in teams and larger groups, where individuals mutually develop new knowledge (Box 3.1).

**External factors**

External political and economic changes affect the functioning of organizations and the policies and practices adopted by them. Because of changing economic forces, what incentives may be effective today in motivating communities may not be appropriate or adequate tomorrow. Because of several social, cultural, economic, and political factors, the response of communities cannot be predicted in advance. Each community is unique in its own context and the steps need to be adapted according to local situation. No fixed procedure can be used for all the cases.

**Changing dependence**

Use of new materials and forms of energies change the nature of dependence on forest resources. The effect may be seen more in future than what has emerged so far. This has implications on deciding appropriate strategies for the management of resources.

**Technological developments**

Rapid changes in technologies have several implications on the functioning of organizations. Developments in biotechnology have opened new possibilities for improving forest production. Computers and information communication systems have revolutionized office management systems. Use of satellites and geographical information systems is becoming possible.

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**Box 3.1. Defining learning organization**

Learning organizations are places “where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and people are continually learning how to learn together.”


“A learning organization is an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights.”


Learning organization is one that learns continuously and transforms itself.... Learning is a continuous, strategically used process--integrated with and running parallel to work.


A learning organization, systematically defined, is an organization which learns powerfully and collectively and is continually transforming itself to better collect, manage, and use knowledge for corporate success.

*Source*: Marquardt, 1996.
for forest resource assessment and management decisions at micro- to macro-levels.

**Pressure on agencies**
Rising awareness about the consequences of environmental degradation and mistakes of the past development strategies have led to immense pressure on forestry agencies. A process of continuous learning is essential so that the mistakes are detected early and corrective measures can be taken in time. The conventional functioning of forestry agencies was largely based on technical considerations of resource management. With the adoption of community-based approaches, the role of state agencies is changing rapidly which requires a process of continuous learning (*Box 3.2*).

**Emerging information and experience**
Increasingly more information is becoming available in various forms. Managing the information and learning from it is becoming a challenge for the organizations. New experiences of innovative approaches are becoming available from within and outside the field implementing units, not only from within a country but also from different corners of the world.

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**Box 3.2. Changing role of state agencies**

Community-based approaches are aimed at an over all development and sustainable management of resources. This implies an important role for the multiple government agencies as well as for private and non-government agencies and the general public. This includes regulatory and incentive measures so that the people follow the regulations and participate in the development and management of resources. Besides its own executive and administrative functions, the state agencies have a variety of roles in promoting community-based management of forest resources. Some of the main aspects of state responsibilities could be broadly divided into the following five categories:

*Enabler.* The most important role is to provide a favorable policy environment in which communities feel motivated to collectively manage the resources. This has implications for executionary functions such as recognizing rights and assigning responsibilities, providing clear territorial demarcation, and support for protection from organized outside users.

*Regulator.* These functions include monitoring behavior of the public and agency personnel in compliance with the prescribed laws and regulations. This will include monitoring of regulated use and management of resources by the communities as per the agreed plan. There are a number of market regulatory functions to facilitate market becoming a motivator for conservative use and maximizing productivity rather than a force for increasing exploitation beyond the productive capacity.

*Facilitator.* The field implementing units are required to facilitate other actors to play an appropriate role. The important actors are communities, line agencies, NGOs, industries and private entrepreneurs. Research, dissemination of knowledge, awareness building, market information systems and market regulations are some of such functions. If there are conflicts within a community or between different communities, the forestry staff may be required to play a role of facilitator to resolve conflicts. When a number of agencies deal with various related sectors of natural resources, ensuring coordination among them becomes a very important function.

*Provider.* Communities would require a number of technical and managerial services. This may include planning and lay-out of contours, different structures to be built, cultural operations to be carried out. If planting is to be carried out then supply of seeds, raising nursery seedlings, developing planting plans etc. may need help of the forestry staff, at least in the beginning.

*Promoter.* Enhancing community capacity through extension and other support services is a crucial role of state agencies. This remains a continuous activity along the process of implementation.
Transformation to learning organization

Transforming the traditional hierarchical organizations into learning organizations should be a gradual process. The efforts should start after understanding the present capabilities and consideration of several aspects of current functioning and future options. The approach suggested here builds on the analytical frameworks or models provided by Kombluh and Greene (1989), Watkins and Marsick (1993) and Marquardt (1996). Among these, the model developed by Watkins and Marsick provides a most comprehensive overview and actions at different organizational levels. This model has been adapted for developing a framework for improving institutional capacity for implementing CBFPs (Figure 3.1). In this framework, the lower triangle represents the individuals who comprise the field implementing unit. The top triangle represents structure and functional systems of the field implementing unit. The emphasis is on developing learning both at the individual level as well as at the organizational level. The important features of this framework, have been explained by Watkins and Marsick as follows:

"... learning becomes increasingly complex as we move from the bottom to the top, because individuals must interact within successively larger social units. In other words, individuals learn first as individuals, but as they join together in organizational change, they learn as clusters, teams, networks, and increasingly larger units. In addition, while individuals can initiate some changes on their own as a result of their learning, the organization must create facilitative structures, policies and cultures to support learning in larger groups and throughout the organization."

![Figure 3.1. Framework to improve institutional capacity for implementing CBFPs](image)


Community-managed programs in forestry: A synthesis of good practices  57
The action imperatives of this framework have implications at the organization level, team level and the individual levels. Five action imperatives for transforming an organization into a learning organization include:

- develop enabling environment for continuous learning;
- develop participatory learning culture (to capture and share learning);
- encourage collaborative learning at all levels;
- develop effective competence building programs; and
- provide motivation for better performance

**ENABLING LEARNING ENVIRONMENT**

Several organizational decisions and modes of functioning affect the learning environment in an agency. The working procedures and mechanisms of interaction among the workers should facilitate continuous learning. Three considerations are important for developing enabling environment for continuous learning in forestry agencies: compatible work responsibilities, freedom for innovation, and empowering work culture.

**Organize compatible work responsibilities**

The way work responsibilities are organized significantly affect the worker’s performance and the ability to learn. When the responsibilities are for the whole of an activity from the start to end, this not only lays greater accountability on the implementing staff, but also ensures greater involvement in deciding what is appropriate. This requires thinking, judging, and responding to local circumstances which in itself become a learning process as opposed to merely following instructions. This type of learning enabling environment can be achieved by suitably organizing work responsibilities of the implementing staff as discussed below.

**Assign area-based responsibilities**

The implementation of CBFP requires that resource management decisions are taken in collaboration with communities. Therefore, the resource management units should comprise areas over which communities have or can have exclusive rights. The work responsibilities of implementing staff should be for all the resource management activities in such units, and encompass the aggregation of these units rather than some forest blocks without including the dependent population and considering the resource-user relationships. It would not be appropriate to define the units based on ecological considerations or physiographic or locational factors alone. Based on the local demand or other factors, different management strategies may be appropriate in two nearby localities having similar ecological or physiographical conditions.

**Ensure continuity in responsibility**

The community-based approaches require that the implementing staff maintains regular contact with the local people. The stability in responsibility of staff helps in developing informal relations with local people which is mutually advantageous for the people as well as staff. Nevertheless, the responsibilities of the lowermost staff is frequently shifted based on the concentration of afforestation or management activities. Continuity in area-based responsibilities ensures accountability of the responsible staff.
Avoid overlapping responsibilities

When resource management decisions are to be taken by communities in collaboration with field implementing staff, it would be desirable for each particular community unit there be someone directly responsible rather than overlapping responsibilities. However, different patterns of responsibilities for administration and development of forest areas is followed by different agencies. In many states of India, for example, there is a pattern of overlapping responsibilities of different wings of administration. It makes coordination among such wings a difficult task. Sometimes contradictory approaches are followed in neighboring or even overlapping units. If there is a division of regulatory roles (administration of forestry laws) and development or management roles (afforestation, soil conservation activities etc.), both of them independently do not remain effective. These problems can be overcome by assigning clear and exclusive responsibility to a front-line staff or a staff unit.

Assign doable responsibilities

The level of doable responsibilities for a lowermost functionary unit would depend on a number of factors and the nature of problems such as scarcity of resources, local vs. external pressure, the occurrence of organized offense, intensity of development and management operations required, socio-cultural circumstances, the level of awareness among people and so on. On an average, it will become difficult for one front-line staff to look after more than 10-15 community units. Thus, the responsibility of a staff should be for a cluster of such appropriate number of community units. For a staff unit, this number would be different, depending on the composition of the unit.

Promote innovation and experimentation

The learning environment in an organization can be effectively promoted by encouraging innovation and experimentation. This would require gradual delegation of decision-making responsibilities to the levels close to the ground action. There should be a freedom for deviating from conventional or recommended procedures or approaches and taking risks. The genuine mistakes should be tolerated and achievements should be appreciated. Mistakes should be seen as an equally potent source of learning and developing new ideas. Innovation often results from bold steps which require risk taking.

In forestry organizations, field manager level is one which forms a key link between the organizational chief level and the front-line implementing staff. The field managers can make a considerable influence in evolving such approaches and working procedures which could be locally more appropriate. A number of successful examples have indicated that innovative professionals experimented with what they considered to be locally relevant and eventually contributed to the development of sound policies and operational mechanisms for field implementing units (Box 3.3).

The transformation of hierarchical organizations into learning institutions requires considerable changes in the structures and functional procedures. Therefore, this will have to be a gradual process in which there is an incremental learning from each experience and this provides a greater confidence in moving forward. A regular process of innovation and experimentation should be built into the organization. This can be achieved by gradually delegating decision making powers to the lower levels according to priority and the need of the local situation. Some of the activities may be taken on experimental basis also.
Arabari Experiment
In Arabari research station, in West Bengal, India, Mr. A.K. Banerjee was posted as Silviculturist in 1970. He noticed that the local people used to disrupt the experiments by cutting fuelwood and grazing animals on the experimental plots. Mr. Banerjee realized that people were indulging in such illicit removal because of lack of employment opportunities and alternative sources of income. He started discussing with members of surrounding villagers and developed a good rapport with them. He offered villagers a comprehensive program of employment in return for stopping grazing and the cutting of fuel on the field station. Due to limited budget and employment opportunities, he later revised the arrangement promising them a 25 percent share of the sal timber and rights to all minor forest products including leaves, medicinal plants, fiber and fodder grasses, mushrooms and fruits. This agreement appealed to the local villagers and they ceased grazing and cutting, and began protecting the forest from outsiders. This led to formation of a forest protection committee of the 11 villages around the Arabari Forests. Gradually this and similar other successes led to adoption of the strategy of regenerating and managing forests through joint management agreements throughout the South-West Bengal.
Source: Poffenberger, 1996.

Sukhomajri experience
In mid 70's, a team of Central Soil and Water Conservation Research and Training Institute, Chandigarh, in Western India headed by Mr. P. R. Mishra undertook a survey of siltation problem in the catchment of a lake located near the city of Chandigarh. It became apparent that open grazing and unregulated exploitation of forest products was the main cause of denudation of catchment areas of the lake. Several previous attempts of taking soil conservation measures and planting efforts failed because of this open access problem.

However, to better understand the problem two small earthen dams were built in the catchment of a village ‘Sukhomajri’ in 1976. Catchment of one of the dams was treated with soil conservation measures while the catchment of the other was left untreated. The water retained by the earthen dam, of which the catchment area received treatment, was provided for irrigation to adjoining agricultural fields in the next season. This resulted in the increase in yield by more than two and a half times. Understanding the value of irrigation, villagers demanded construction of a dam at a site which would provide irrigation to larger area of the village. Despite the fact that the proposed site was outside the catchment area of the lake for which the team was studying the problem, the construction of dam was agreed with the condition that villagers would stop grazing their animals in the catchment area. Villagers agreed because this would protect their own dam from silting up and safeguard their new and only source of irrigation. This arrangement became an effective mechanism of social fencing of regenerating areas. The approach was later studied by higher level policy makers and adopted for integrated watershed development program.
Source: Sarin, 1996.

The Case of Harda
Organized illicit logging, grazing and fire has been affecting the regeneration of deciduous teak forests and bamboo (Dendrocalamus strictus) in Harda division of Madhya Pradesh in India. Local people brought animals from outside for seasonal grazing in the area in return for a fee (mostly in terms of food grains) from animal owners. Mr. B.M.S. Rathore, Divisional Forest Officer of Harda, initiated an experiment in October, 1990 by adopting collaborative planning approach with villagers.

The strategy was to develop plans to protect, regenerate, and stock adjoining forest areas and to divert unsustainable pressure from forests through on-farm and off-farm improvements. In a number of places, irrigation facilities were developed to augment the production of food grains locally. Forest development activities were taken up to help regeneration process and provide employment to the local people. Additional income generating activities were initiated to augment local earnings. All these variety of activities, in return for the promise of villagers to protect and regulate resource extraction, led to effective regeneration of forests in the area. In about four years' time nearly 80 percent of the forest area and 190 villages were covered under this program. This incentive-based strategy has been later studied and adopted almost all over the state of Madhya Pradesh.
Source: Rathore, 1996 and Kumar, personal communication.
From each activity the results should be regularly analyzed. Both positive and negative lessons are important for future action. The lessons learned could form the ideal basis for policy reform. The successful results from delegation provide a basis for making appropriate changes in policies and procedures and for further delegation (Figure 3.2). The reiterative cycles of delegation and policy reform could be very effective in inculcating a continuous process of learning in traditional hierarchical organizations.

![Figure 3.2. Promoting innovation and experimentation](image)

**Develop empowering work culture**

The function of enabler and facilitator of learning is much different from the traditional supervisory roles. The learning environment is promoted when there is a culture of inquiry and dialogue and a free flow of information and ideas among all organizational levels without any hesitation or hindrances of hierarchical relations. The supervisory staff, managers and senior professionals need to learn the qualities of enablers and promoters. They should help develop an atmosphere of trust and mutual confidence, eliminating fear and mistrust. Everyone should be treated with respect, honor, dignity and fairness. The empowering relationships can be developed by involving all the levels in decision making processes. Especially those who implement the activities should participate in the development of a plan and the strategy of action. Rather than being directed, the front-line staff should be provided an opportunity to suggest and develop action strategies. The senior professionals need to learn how to transmit and integrate their knowledge with that of the implementing staff. In a learning organization,
when opinions of all levels are valued and achievements are recognized, staff are motivated to improve the work environment and contribute towards achieving the overall goal of the organization, irrespective of their positions (Figure 3.3).

**Figure 3.3. Learning process for expanding the impact**

Desire for more learning with larger scope of involvement and activation

Active participation and work towards change in the workplace and beyond

Attainment of broader knowledge and extension of learning

Activated interest in greater learning and more involvement

Worker self-confidence and efficacy

Skills building and competency

Source: Adapted from: Deutsch, 1989.

**DEVELOPING PARTICIPATORY LEARNING CULTURE**

Community-based participatory approaches cannot succeed unless supportive administrative processes are suitably amended and favorable attitude is created in the entire organization. The transformation to learning organizations could be made much smoother if different layers of staff come together on a regular basis and discuss relevant issues. Here an approach of using interactive learning processes (ILPs) is suggested which can be helpful in gradually transforming a hierarchical and directive organization into a learning institution.
Interactive learning processes

The interactive learning processes are meant to provide an opportunity to interact in a highly participatory, non-restrictive and informal setting to facilitate free exchange of ideas. The ILP helps in building confidence and trust among the staff and promotes a relationship of mutual respect and dignity. The decisions taken through these processes have greater acceptability and ownership within the organization. If conducted in the right spirit and with sincerity, the ILP can serve to quickly spread knowledge among all the levels of staff and to build a participatory culture. This minimizes the need for centralized training. Moreover, the learning facilitated through such interactive programs remain locally relevant. This becomes helpful in developing an educational work environment to foster learning in the whole organization. The importance of educational work environment has been explained by Kornbluh and Greene (1989: p258) in the following words:

“It is the striving to maximize learning in the workplace through the way work, decision making, technology and related processes are designed, maintained and redesigned. It includes the structuring and evaluating of work relationships based on their individual and mutual learning and knowledge-creation potential. A work organization that fosters such an environment can be characterized as an organization that values individual and group learning as highly as any other aspect of the productive process, that is as conscious of learning as it is cost conscious or quality conscious”.

The ILP can be built into an organization through a regular process of interactive learning sessions (ILS) in which all the implementing staff at all the levels get an opportunity to interact and learn from experiences. For different levels, ILS can involve different mix of staff and be linked vertically and horizontally with other sessions (Figure 3.4). For example, interactive sessions can be organized at the district or sub-district level involving all the staff. If bringing all the staff at a time may disrupt regular functions, or the group size is too large, the sessions can be divided into small groups. For breaking monotony and bringing in diversity, each time a different pattern of grouping may be used.

In countries like Nepal, where the number of staff in each range is small (usually 5-10), these sessions can be conducted for a few ranges or for the entire district unit together. While for countries like India, where usually the number of staff personnel within a range is relatively large (about 20-40), it would be more appropriate to have such sessions in two tiers, i.e. at the range level with higher frequency and at the district level intermittently. The district managers (and occasionally some higher level officials) should also participate in these sessions but should ensure that the atmosphere remains non-restrictive and informal.

Prerequisites for success

The process of ILS by itself would not be effective unless carried out systematically and in a well-planned manner. These should not be taken as usual meetings of staff to review administrative activities. If the process is not carried out with a clear intent and good preparations, it may not bring desired results. The sincerity of purpose and relevance of the issues discussed should be clearly evident. The participants should feel that their views are considered important. The issues should be well planned and the participants should be made aware of the agenda in advance. In each session, the discussion should be restricted to a few but specific and relevant issues. Effort should be made to arrive at some conclusion on the issues. The process should have flexibility to accommodate discussion on any relevant aspects, if participants feel priority and importance of the issue. If this means altering the agenda or postponing the
discussion on some other issues, this should be adjusted. The discussion will be more successful when facilitator is well informed about the issues, differing views and previous history.

During the sessions, everyone should feel motivated to participate and express the opinion without hesitation. All the types of views should be respected without any criticism or discouragement. The necessary common rules of business should be agreed upon by participants in advance. Interactive tools and exercises should be used to enhance participatory atmosphere. Facilitators have an important role in ensuring the success of ILS and it would be very useful to build a team of facilitators in the organization (Box 3.4). Good listening and communication skills and familiarity with the interactive tools and group processes are the essential qualities of good facilitators. To ensure a conducive atmosphere for interactive sessions, facilitators should provide vision and stimulate thinking, assist in coming to an agreement with common rules of business and adhering to these rules during the sessions, help keep the discussion focused on the issue, acknowledge the feelings of the participants to ensure that every one feels respected, state a problem in a constructive way, take opinion of all the participants and build consensus, and avoid forcing any opinion on the group and play a role of neutral mediator. There should be proper follow-up of the issues discussed and decisions taken in each session. The follow-up steps taken should be communicated to participants or should be discussed at the next session before moving on to other issues.
Box 3.4. Build a team of facilitators at different levels in the organization

An organization adopting a process of ILS would require good facilitators at various levels. Some outside facilitators, having good expertise, may sometimes be desirable for specific purposes. Nevertheless, for regular sessions, the selected staff members within the agency having a good potential can be trained to become good facilitators. To attract capable staff, some extra incentives should be provided to the staff selected to become facilitators on a competitive basis. These staff need not be detached from their regular functions, because facilitating role will be required only for short sessions.

If the ILSs have to be carried out in each range separately, some staff from each range should be trained to become a facilitator. If the interactive sessions need to be regularly carried out only at the district level, facilitators could be one among any of the district staff. The district managers should be necessarily exposed and specifically repeatedly trained for being good facilitators and leaders. However, it should not be assumed that only they have to play the role of facilitators in all the district unit level group activities. The type of skills required for a facilitator cannot always be expected in a person functioning as a district manager. Any person having the desired qualities can act as a facilitator, irrespective of his/her level or position in the hierarchy. Similarly, suitable persons should be selected and trained as facilitators at all levels. Usually a team of facilitators should be built rather than a single person so that they can play the required role mutually.

ENCOURAGING COLLABORATIVE LEARNING

Collaboration does not mean merely working together but it strives to develop a mutual understanding of a situation among the collaborating partners. Collaboration is helpful in developing options and arriving at decisions. The effective collaboration develops only when the involved parties are not prejudiced and discuss the issues with an open-mind. Collaborative learning is very important at all levels in an organization implementing CBFP.

Collaborate with communities and other local actors

A variety of local actors could be helpful in motivating communities for collective action and building sustainable local institutions. These could be traditional local leaders (from same or neighboring villages), local NGOs, teachers, community workers, artists, elected representatives, and other influential persons. If no individuals can be identified in the area, it should not be made mandatory to use local actors or NGOs as intermediaries. However, if any of these actors are found effective, these could be used to provide an effective linkage between community and the forestry staff in the implementation process (Box 3.5).

Build team-working system at the implementation level

The efficiency of the staff involved in motivating communities can be improved through developing team-working system and collaboration among fellow staff. The skills and capability of staff vary and every person cannot be expected to be equally competent in all the aspects. The neighboring staff should be encouraged to cooperate in the common activities to gain complementary advantages of their skills. Similarly senior staff should specifically provide support in those activities in which a local staff lacks in skills or aptitude. Particular attention should be on the group activities where need for a team of
Collaboration with communities for all resource management decisions is the foundation of CBFPs. Collaborative strategies help in building the ownership of such decisions among the communities. The staff should be encouraged to develop an attitude of learning from communities and more and more decision making should be left to communities.

In Andhra Pradesh forestry project in India, at each community level, a local NGO is assigned a responsibility of motivating communities and working in close collaboration with the forestry staff. When a program of JFM is to be initiated in a community, the NGO representatives continuously interact with local communities along with or without the forestry staff. After a regular process of interaction, when it becomes evident that community has well understood the concept and has built an effective local institution, the program of JFM is formalized. The local NGO continues to play the role of liaison during the implementation process. The approach has proved effective where a local NGO has been found having previous experience in the area and credibility with local communities.

Develop collaboration between core and specialized functions

Often the staff engaged in specialized functions such as research, training, monitoring, policy or project formulation remain isolated from the mainstream functioning of forestry organizations. The lack of coordination among different branches leads to inefficient functioning, of not only the specialized branches, but on the core functions in a more pronounced effect. The researchers are not aware of the problems faced by field staff and continue to carry out research as they feel important. The research results do not reach the field level and field operations continue to use obsolete technology. The trainers do not come to know about the effectiveness of training programs and continue to follow the same strategy without any further improvement.

The collaborative working between core and specialized functions can be achieved by using ILS, as discussed in the last chapter, for periodically discussing the problems and progress of each other. Researchers, trainers, policy or project planners, and monitoring staff can participate in ILS at any level as per their need. If the information is to be sought from the field level, they can take part in some of the range, subdistrict or district level ILS, as required. For broader information and coordination, they can take part in regional or agency chief level ILS. Researchers can quickly disseminate new information, review the follow-up of previous information, and seek suggestions for further improvement. Similarly, the collaborative learning through ILS can be useful for other specialized functions.

Develop networks and cross-functional teams

Over years forestry professionals have become generalists and there is very little impetus for continuously updating knowledge in any specialized disciplines. By building effective networks and cross-functional teams, this deficiency can be overcome to some extent. Each professional is encouraged to select one or two areas of personal and professional specialty. They are encouraged to build their knowledge and skills in the particular areas. This should be done irrespective of their current position and functions. These specialty areas should be based on the need of the organization. Choices may include legal issues (community rights and forestry laws), marketing-related policies, economic policies, extension approaches or participatory methods, training, manpower planning, research, monitoring, forest facilitators becomes necessary. The effectiveness of such activities also has greater influence on the response of the community groups. For each area teams can be formally recognized, if needed. Team working may be encouraged by building team award systems.
resource assessment, regeneration management, non-timber forest products, agroforestry, pasture
development, biodiversity conservation, wildlife management, and indigenous knowledge. Such areas of
specialty could be suitably grouped together as considered appropriate.

All the professionals who have chosen a particular area form a network in the area of their specialty.
When important decisions need to be taken related to particular areas of specialty, the members of the
related network could be consulted. These networks act like advisory groups. Besides, these networks
can periodically meet and discuss the progress on particular issues and suggest suitable measures for
improvement. Such network meetings can be facilitated in conjunction with ILS. When special studies
are required, these professionals can become a valuable source of expertise.

Develop collaboration with line agencies

When natural resource management and related functions are divided among several government
agencies, it becomes very important to develop a collaborative system. This is not only important to gain
complementary advantages, but also to develop an effective strategy of implementation. If one of the
agencies attempts to become demand driven, while others continue to follow the supply driven
approaches, both cannot be effective simultaneously. This would be the case particularly when the
nature of development activities taken could meet the similar objectives such as provision of wage labor
or supply of fuel and fodder. The agencies trying to persuade community contribution and commitment
may not be successful in these circumstances.

The effective mechanism of collaboration has to be at the community level. The collaborative efforts
started at higher levels may not reach the community level, which is quite evident from the several
attempts of developing collaboration at the district levels. Ideal would be to discuss the proposed
intention of initiating development activities by line agencies at the community level before actually
initiating the action. This should be helpful in developing a common strategy of working with the
community, if desirable, through the same community institution. The development activities can be
dispersed over the area and over time to ensure availability of local wage labor when needed by the
agencies and when communities have shortage of employment opportunities.

Develop collaboration with other external actors

Several external actors such as private industries, universities, other academic institutions, and NGOs
have direct and indirect influence on the functioning of field implementing units. Developing suitable
mechanisms of collaboration among them can improve the efficiency of field implementing units. If the
information about the availability of raw forest products can be regularly provided to potential processing
industries, the benefit flow to communities may be improved. The collaboration with academic
institutions can motivate them to work on the problems of forestry agencies. NGOs can play an
important role in a variety of activities from ground-level implementation to policy reform.

Community-managed programs in forestry: A synthesis of good practices
Box 3.6. Need for harmonic relationship with external actors

The real challenge in promoting community management is in the public education, creating awareness, and building local capability. This can be best achieved by the cooperation of government organizations, NGOs, and the academicians. Nevertheless, these three actors have not been functioning in harmonious relationship. All three probably have been attempting to maintain their own positions. None of them appreciates the stand points of any of the others. The contradictory relations seem to have been perceived inevitable among them, who should rather function in a complete harmony for a common purpose. A harmonious link among these three actors is most crucial because each of them has a distinct and a complementary role. If these three actors join together and work towards solving the problems of development practice, the outcome would be much better. Collaboration among them can definitely meet the challenge of developing a sustainable society.

Source: Jain, 1996a.

However, generally the relationship between the external actors and field implementing units is often not that of collaboration (Box 3.6). The mechanisms need to be developed which can promote collaborative working among them. One of the options could be to develop a regular forum for interaction at various levels. These forums should be used to explore areas of collaboration and discuss the real and substantive issues rather than merely criticizing each other. The relationship of trust and cooperation would develop only when these actors focus on constructive criticism and positive action.

COMPETENCE BUILDING PROGRAMS

The need for building competence of staff for the implementation of CBFPs has to be a continuous process rather than the conventional training only once at induction.

With the adoption of community-based approaches, forestry agencies are gradually developing new training and capacity-building strategies. Greater emphasis is being put on periodic staff training for reorienting towards participatory approaches and skills building using participatory tools and exercises. However, most of these strategies suffer from several limitations.

Limitations of training strategies

Most of these limitations could be overcome by using a learner-centered approach. By applying the principles of learning organization, all staff members create new knowledge through mutual experience-sharing and interactive processes. Diverse strategies are simultaneously used for building competence of various levels of the staff and learning becomes a continuous activity.

Uniformity in training

Most of the training programs remain target driven and centrally planned activities. The candidates participating in the training programs are nominated without considering their skills, aptitude and training needs. For promoting community-based approaches, support required by local communities and, therefore, the skills required by staff vary considerably.

Fixed training programs

Once a specific training program is designed, the contents and activities generally remain fixed from one program to another. The programs do not build on the growing experience and emerging information within or outside the agency. The training programs often consist of a package of activities covering a
large number of issues at a time. This makes it very difficult for trainees to absorb all the message and use it after the training.

**Assumed effectiveness**

Once a staff members are exposed to a training program, it is assumed that they have acquired skills. There is no effort to evaluate the effectiveness of training programs by examining the use of skills in the field or the performance. The training is an isolated activity in the routine of a staff. Neither is there an assessment before training programs, nor is there a follow-up after the training activities.

**Shortchanging the learner**

In large organizations, it is not possible to provide opportunities to all the members of staff in a short period of time. Periodic opportunities for continuously updating the knowledge and skills is essential for the success of CBFPs. However, through the commonly used training strategies, it is difficult to cover all the staff members because of resource constraints. In addition, training programs continue to be trainer centered rather than learner centered (Table 3.1).

**Learner-centered approach to building competence**

Adults learn best when they have interest and motivation to acquire skills or improve their knowledge. Learning is always incremental and the previous knowledge of the learner influences learning from new experiences, whether self-initiated or facilitated learning.

The discussion below is focused on developing a learner-centered strategy for building competence of all the levels of staff. Self-learning is largely a personal effort and remains a continuous activity for each individual irrespective of efforts for facilitating learning by an organization. However, the learning environment within an organization can stimulate one's ability and interest to learn. The incentives for

<table>
<thead>
<tr>
<th>Trainer-centered approach</th>
<th>Learner-centered approach</th>
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<tbody>
<tr>
<td>Learner is assumed to be dependent on trainer; the function of determining what, how, and when anything should be learned and judging whether it has been learned rests on the trainer.</td>
<td>Adults strive for autonomy and self-direction in learning.</td>
</tr>
<tr>
<td>Learners have little resources for learning so the trainer transmits knowledge using techniques such as lectures, readings, and audio/visual presentations.</td>
<td>Adults learn through using their own and each other’s experiences.</td>
</tr>
<tr>
<td>Learners have interest in learning in order to advance to next stage.</td>
<td>Adults become interested in learning when they experience a need to know or to do something in order to perform more effectively in certain aspects of their lives.</td>
</tr>
<tr>
<td>Learning is subject-centered, focused on prescribed content and curriculum design sequences according to logic of subject.</td>
<td>Adults have a task-centered or problem-centered orientation to learning</td>
</tr>
<tr>
<td>External pressures (family, competition etc.) are the main motivators.</td>
<td>For many adults, the internal motivators of self-esteem, increased self-confidence, and recognition are more potent than the external motivators</td>
</tr>
</tbody>
</table>

better performance can be an important motivation to facilitate learning. Many other aspects such as clarity in performance desired, conducive work environment, encouragement, and appreciation also provide motivation for learning.

**Promote experience sharing**

For implementing community-based programs, the lessons learned from the local experience become most relevant. A regular process of experience sharing by the front-line staff with their fellow colleagues and their immediate senior functionaries can be immensely helpful. The discussion should focus on sharing the experiences of implementing or carrying out activities, the difficulties encountered, and the aspects or the tools and processes found helpful in achieving the objectives. The staff having faced similar difficulties can share the solutions to understand the applicability. The fellow staff should understand the reasons of differences and derive lessons for future activities. The lessons from positive experiences can be used in future by different staff members and precautions and corrective steps can be identified against the difficulties. This type of effort can gradually build a pool of knowledge, which becomes mutually beneficial for all the levels of staff in improving their efficiency. If the staff members sent for visits or training to different regions or countries are able to share their experiences through ILS, this facilitates spreading the knowledge within an organization.

**Use means of distance education**

The means of distance education offer several advantages, but also a few limitations. *(Box 3.7).* However, these are not to replace the need for other forms of interactive facilitated learning opportunities. Rather these can best complement the other regular programs.

Written materials. Providing reading materials about policies and practices, manuals for field activities, case studies and other relevant discussions can be very useful in keeping the staff informed. The staff working at different levels can contribute to develop such materials. Care should be taken that the material remains simple and easy to understand for the staff. This can be ensured by keeping publications separate for different levels. The contributors can be suitably rewarded for their writing skills and extra effort.

<table>
<thead>
<tr>
<th>Box 3.7 Advantages and limitations of the means of distance education</th>
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<tbody>
<tr>
<td><strong>Advantages:</strong></td>
</tr>
<tr>
<td>• Flexibility suits adult learners</td>
</tr>
<tr>
<td>• Does not disrupt regular routine functions</td>
</tr>
<tr>
<td>• Can reach a large number of trainees in a short time</td>
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<tr>
<td>• Cost effective</td>
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<tr>
<td>• Favors disadvantaged, or physically remote staff</td>
</tr>
<tr>
<td>• Takes training nearer to the workplace</td>
</tr>
<tr>
<td>• Successful learners are generally self-selected and well motivated</td>
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<tr>
<th><strong>Limitations</strong></th>
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<tr>
<td>• Learning in isolation requires more self-motivation and discipline</td>
</tr>
<tr>
<td>• Limited opportunities to learn from other participants</td>
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<tr>
<td>• Less suited to certain activities (e.g. those requiring hands-on experience)</td>
</tr>
<tr>
<td>• The costs of initial design and development can be high</td>
</tr>
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</table>

*(Source: Smith and Teshome, 1998.)*
on the growing experience and the users should be regularly provided with new or updated information.

**Knowledge management and dissemination systems.** The rapid technological developments and expanding information base in today's world presents a great challenge to field implementing units to crystallize relevant information and provide in a useful format to implementing staff. This could be an immense task for a learning organization especially if the past efforts for managing knowledge and information has been limited. This would require coordinated effort and adoption of appropriate strategies to enhance the effectiveness of knowledge management (*Box 3.8*). The training or research centers could be used to coordinate this task, because as a part of regular activities the staff working on these specialized posts is also expected to keep themselves acquainted of the developments within and outside the agency. They could be in a better position to collect, analyze and develop the information in a usable form. However, leaving the task to a few individuals or branches of an agency may not fulfill the objective of capitalizing on the diverse experience and information. The approach should be to encourage field functionaries also to share their experience and expertise. Everyone can contribute to the knowledge building in a learning organization in some ways or the other.

**Learner-centered training strategies**
The knowledge about new techniques, changes in policies and practices, the information about the emerging experience within and outside their agency can be effectively disseminated through training programs. Training is an opportunity for creating an ideal environment to facilitate learning. The focus of training programs should, therefore, be shifted from the trainer to learner. The role of trainer should be to assist the learner make a decision and choose among various available tools and resources for improving knowledge and skills required for success. Here a systematic and a learner-centered strategy is suggested for effectively reaching to all the levels of staff in a short time and on a regular basis.

**Box 3.8. Ten strategies for knowledge management**

- Create expectation that everyone is responsible for collecting and transferring knowledge,
- Systematically capture relevant knowledge external to the organization,
- Organize learning events within the organization to capture and share knowledge,
- Develop creative and generative ways of thinking and learning,
- Encourage and reward innovations and inventions,
- Train staff in storage and retrieval of knowledge,
- Encourage team mixing and job relation to maximize knowledge transfer across boundaries,
- Develop a knowledge base around the values and learning needs of the organization,
- Create mechanisms for collecting and storing learning,
- Transfer classroom learning to the job by through a deliberate strategy of learning transference that includes specific steps for manager, learner and trainer before, during and after the training programs.

*Source: Marquardt, 1996.*

**Use interactive learning sessions**
The ILS can be used for providing training on a regular basis to all staff levels. For the front-line and their immediate supervisory staff, this can be conducted in each district dividing the groups in suitable sizes. For avoiding monotony and improving interaction in each session, a different mix can be used from within the district or from the adjoining districts. It would be ideal to develop the training input in such a way that at a time only small and specific information needs to be provided. Not all the dimension of policies or new techniques need to be explained in one step. For implementation activities and practical exercises that need to be carried out by the staff, the training will be easier if these can be divided into small steps.

*Community-managed programs in forestry: A synthesis of good practices* 71
Use of the regular process of ILS for training purposes would require some skilled personnel to be used as trainers and facilitators. These could be from among the local staff who have better listening and communication skills and aptitude for learning and disseminating the information effectively. In each district a few regular staff members can be selected to serve as trainers during the ILS. It would be ideal if a few trainers from training centers can also supplement them to make the process more effective, as the insider-outsider teams are generally more effective. The district managers may also assist this team.

**Regularly train the trainers**

The staff and the district managers who need to perform tasks of trainers and facilitators should be provided with regular opportunities to improve their skills. Since the number of such staff will be relatively small, it becomes easier to provide intensive training. Besides the actual techniques and information, the main emphasis of training should be on developing listening, communicating, and facilitating skills. These skills develop gradually and repeated exposure to systematic training programs is very important. It may not be necessary to have it at the same frequency as that of ILS organized for front-line implementing staff. However, it would be useful to provide this input at least once or twice a year, if not more frequent.

**Develop training programs for specific needs**

It may not be possible to cover all the training needs of the front-line and various levels of staff through ILS. The additional specific training needs can be periodically covered through specific programs developed for this purpose. The objective is to cover the specific training needs of the staff rather than providing uniform training to all. The ILS should be first used to improve their awareness about the types of skills required and then to assess the personal skills to identify the areas in which they feel deficient. For example, such specific needs may be survey, resource inventory, mapping, or communication skills. Providing a menu of the options for selecting one or two may be a quick way of assessing the skill needs. After mapping the skill needs, the staff should be grouped according to training needs and provided training together. The trainers for specific training programs could be from the local staff having those specific skills and assisted by trainers from training institutes or other specialized branches within the agency or outside. The specific training programs could be conducted once or twice a year or at some suitable frequency depending on local needs.

**Supplement the training inputs with practical activity**

According to the nature of activity or information, as far as possible the training should provide opportunity for direct visual or practical hands-on experience. This is specially important for the field-oriented exercises. Relaying the do’s and don’ts and even the rationale for change in policies or potential of collective action can be more effectively communicated when this is demonstrated through practical examples. There is a common tendency to highlight a few successful examples. The examples of case failures provide almost equal or probably even more important lessons for improving the future practice by pointing to what needs to be avoided. The practical demonstrations or visits to appropriate cases should be carefully arranged. Each activity should have a clear objective and the information should be analyzed and discussed on the site. At completion of visits there should be analysis of the local situations. Without a systematic effort in understanding and analyzing information, the purpose of visits or demonstration would not be fulfilled. This implies a specific role for the facilitators.
**Develop a system of monitoring and follow-up**

All training activities should have a system of monitoring and follow-up. The effectiveness of the training programs cannot be judged from the feedback received during the training activity alone. It is better reflected by the impact on the performance of the trainee and the retention of the message received. Even the trainee realizes the deficiencies mainly when he/she needs to use the information for carrying out the actual activity. The trainee should have regular support from someone who can provide the supplementary information immediately when needed. Such support can be provided by fellow colleagues or the senior staff, especially if a team working system is developed or frequent ILS are arranged. The basic advantage of such systems is that the difficulties experienced by one may be solved by others from within the group. The ILS can be used for evaluating the impact of previous training before providing the next.

**Develop training programs for specialized functions**

The training needs for the staff engaged in specialized functions differ considerably from the staff with regular functions. These require specialized skills and the training programs need to be specifically developed. This becomes especially important when the regular staff is posted or used for specialized functions. The ILS can be useful for facilitating mutual learning within each of the specialized wings of the field implementing unit. However, the training for specialized functions would require the use of specialists in the area. These specialists may have to be often used from outside the agency such as from central or regional branches within the agency, academic institutes, universities, or other experienced organizations. The specific training needs may be covered through cross-regional or cross-country support or the exchange programs. The most important consideration would be to develop a long-term planning and specific programs to meet the objectives of the agency. The common tendency of broadly generalized programs often may not be effective.

The advantages of developing special skills can only be realized when the staff trained in specialized skills remains on the specialized posts for at least a period that the skills can be used to improve the functioning of specialized wings. This becomes especially difficult when the staff within an agency is transferable from regular functions to specialized functions and vice-versa and there are no special incentives for specialized functions. This is largely true in most of the South Asian countries. The provision of special incentives for specialized functions is very important and this is being discussed later. Besides, stability of staff needs to be ensured at least within each field of specialization (Box 3.9).

**MOTIVATION FOR BETTER PERFORMANCE**

CBFP activities carried out by various levels of staff become so diverse that it becomes very difficult to monitor the sincere efforts by the responsible staff. Particularly, the effectiveness of efforts for motivating communities depends on personal and behavioral aspects. In the implementation process of CBFPs, a continuous effort needs to be made by the staff to provide support and mobilize communities for collective action. The staff should be motivated to acquire the required skills and make sincere efforts on a continuous basis.
Box 3.9. Stability on specialized posts

Forestry departments in India perform a variety of functions and the same staff can be posted to the mainstream forest management functions and the specialized functions after their induction training. The staff is transferable between different wings of the department and there is hardly any motivation for specialization. The issue of dividing the department into specialized wings has been under debate for a considerable time but no acceptable strategy could be developed. The general feeling is that dividing into specialized wings will compartmentalize the department leading to the problems of coordination, besides minimizing the diverse opportunities in the career. The strategy suggested below could be effectively used for motivating staff for specialization while maintaining the diverse opportunities in the career.

After induction training, all the staff should be assigned to mainstream forestry management functions. This will provide them an opportunity to develop broader skills and get acquainted with the problems of general functioning. Then after four to five years, each of staff should be provided opportunities for selecting one of the specialized functions (which should have special incentives) or to continue in the mainstream functions. The specialized functions could be wildlife and protected area management, research, training, monitoring, policy analysis etc. At this stage special training can be provided as per the selected option. Once a specialized function is assigned, the transferability of staff (if at all the transfers need to be made) should be restricted within the specialized branch for at least four to five years. After this period again the open choices could be provided and this pattern can be used all through the career.

Source: Jain, 1990.

What motivates?

Different individuals are motivated by different factors. Social, cultural, educational and economic background affect the interest of an individual immensely. Human variation is always the biggest factor. Some individuals are self-motivated or have an inherent zeal to achieve something. Some are analytical and reformative by nature. Some like challenges and want to excel in any circumstances. However, most individuals are affected by the recognition of their efforts and achievements and social prestige accorded to their position. Social prestige is commonly attached to power, status, hierarchy, and income level. A critical aspect of motivation is the differentiation between those who make sincere efforts, gain needed skills, and achieve results and those who do not. If a system treats all in the same manner, it lowers the enthusiasm and interest of those who make extra efforts. Enforcement of punishment is generally more complex than those for rewarding the performance, although both have problems in effective implementation. In many of the developing countries because of political and other administrative reasons, the punishment to non-performers has become difficult to implement or the measures have become highly ineffective. Therefore, the importance of additional options which could differentiate among the performers and non-performers become even more important.

Improving the effectiveness of rewards

The effectiveness of rewards is affected by several local social, political and cultural factors and the effectiveness of particular options need to be judged in the local context.
Link with performance. When there is a direct and clear link between the rewards and the performance, rewards become more effective. Rewards need to be earned by the staff by achieving the expected or extraordinary results.

Provide a variety of options. When there are a number of options for getting rewards which depend on different types of skills, one can make more efforts in areas of his/her natural skills or aptitude.

Spread rewards among the staff (the number of rewards). The number of awards should be adequate to provide stimulus to a good proportion of the staff. If only one out of 5,000 potential candidates is to be awarded, the majority of the staff will not be motivated. If everyone is engaged in similar activities and achieve certain expected results, then everyone could be rewarded. However, this should be based on sound studies and the well-defined milestones of expected achievements.

Measure progress considering difficulties. The performance should be measured against the base-line, considering the nature of the problems and difficulties in a local situation. Some activities have more difficulties and local level problems than the others and this should be recognized so that the efforts are not diluted in the areas of difficulties.

Use multiple criteria. The significant rewards should be based on multiple criteria or achievements on several fronts.

Link rewards to non-lapses in other aspects. When some significant rewards are to be provided, it is important that the staff not have lapses in regular functions. This will ensure that the staff do not ignore regular duties in the interest of getting rewards.

Relate with the level of skills required. The value of reward should be related to the level of skills required in achieving the expected performance for the reward. This will motivate staff for acquiring the needed skills for an activity. This becomes especially important for specialized functions which require special skills.

Ensure that the performance is assessed objectively. It is crucial that the selection of awardees is unbiased. Therefore, the indicators of performance based on which awardees are selected should be objectively measurable. For significant awards, multi-party assessment should be used, which may include community members, representatives from outside the agency, and different levels within the agency. As far as possible, the process should be made open and transparent. The criteria and indicators for assessment should be declared in advance and the results should be made open after the assessment process.

Keep onus on the awardee. It becomes relatively easy to evaluate the performance when the claimant of the reward provides a verifiable assessment of the achievements. For example, a staff having achieved higher success of supplementary regeneration measures can provide a count of the plants survived by dividing the whole area into small blocks. It then becomes easy to draw random samples of a few blocks to verify and the rest of the area can be assessed through ocular estimation.

Celebrate the rewards. The effectiveness of rewards can be considerably improved by wider publicity and public appreciation of those who receive the rewards. This will give motivation for future efforts by those who have not yet received rewards.
What achievement should be rewarded?

Rewarding should be such an aspect that can be measured and that helps in improving the success of implementation of CBFPs. The achievement can be measured by judging the impact of activities carried out by the implementing staff. The achievement can also be in the form of innovating some new practices or techniques which help in improving the implementation process. The results from implementation activities can take a long time in CBFPs. However, a person's skills can be evaluated throughout the process. Four aspects -- learning, sharing, innovating and achieving -- could be used as a basis for providing rewards.

Rewards for learning

A community forestry worker is required to learn a variety of skills and acquire knowledge about different policies and practices. Learning is a gradual and continuous process. One learns through experience and learning can be facilitated through a number of ways. However, motivation to learn is very important. The stimulus for learning can be created by providing rewards for acquiring knowledge and skills. The need for intensive input through training, which may become difficult in large organizations, could be partially replaced by simply providing such a stimulus by rewards. It may become more easily feasible to provide written materials and visual or audio-visual aids to all the staff compared to bringing them to organized training programs in a limited time.

For measuring learning, simple assessment tests could be used at the end of each year or at some suitable periodicity. These tests in itself can be a motivating factor to stimulate efforts to learn. The assessment tests could be designed for different levels of staff and different types of skills or knowledge separately. Since learning is incremental and improves with experience over years, the assessment tests could be accordingly varied over time.

Minimal qualifying score may be kept for rewarding learning. Those who do not achieve the minimal qualifying scores should be made to repeat the test at the same level during the following year, while others having qualified can be subjected to higher level of test. This differential achievement can be linked with differential rewards. The rewards could also be graduated based on the level of score achieved. The individuals getting higher scores can be given higher rewards. By not limiting the number of awards, the stimulus can be spread among a larger number of staff. Non-achievement of minimal qualifying scores would indirectly amount to signaling punishment because of comparative professional image. If some staff is unable to acquire minimum necessary skills and obtain minimum qualifying scores even after repeated attempts, this can be used for punishing or even removing them from the job.

Learning assessment process can be used for motivating trainees by assessing the skills during or after the training programs. Motivation for learning can also be stimulated by arranging competitions for writing articles or essays on specific issues or by arranging debates. These may be

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Box 3.10. Learning assessment motivates to learn

Mr. Pankaj Srivastava, after getting posted as a Divisional Forest Officer in Hoshangabad division of Madhya Pradesh State in India, was attending a regular range meeting. After interacting with the front-line staff, he found that many of them were not fully aware of the different elements of the policy circular governing the JFM program in the State. He first ensured that everyone had a copy of the circular and then announced that in the next meeting he would arrange a quiz test on the circular. This motivated the staff to study and discuss with fellow colleagues. In the next meeting, on giving the test, it was apparent that awareness of the staff had considerably improved.

Source: Srivastava, personal communication.
organized on the fashion of sports competitions from district to regional and country levels.

**Rewards for sharing**

The sharing of experience and knowledge by those who have better achievements and capabilities can be used as a basis for providing rewards. Many of the activities performed by staff which help in sharing their experience and knowledge are considered a normal part of their duty. No extra incentives are provided even though these often amount to extra efforts and responsibilities for the staff. Here a system of annual or periodic awards is suggested which could become a good source of motivation for the staff.

**Resource person awards.** Frequent visits to different communities are arranged to demonstrate the success to a group of trainees or other types of visitors from the same or different region or even from different countries. The visits may need to be arranged for researcher or policy analysts. The trend of visits is increasing over years consuming a lot of time of the staff, particularly those who are devoted and have achievements to demonstrate. This may be used for providing incentives by paying some honorarium for each visit to the staff as well as to the communities. Some communities in Nepal have begun charging a fee for arranging visits to the forest areas they are managing. The communities and staff may be selected periodically based on the performance and type of issues involved. By selecting a number of communities and arranging visits in rotation, frequent visits to the same area may be avoided. This will also minimize frequent distraction of a few particular staff personnel from their regular duties. The feedback from visitors may be used for maintaining a check on the better performance of the staff in arranging visits and explaining to the visitors. The honorarium may be paid by the visitors or those who arrange the training programs.

**Speaker awards.** Staff having good communication skills and achievements should be asked to share his/her knowledge and/or experience with fellow colleagues, participants in workshops, or trainees in training programs. A small number of staff from each district may be selected based on their capabilities and performance to become speakers for a period of time, such as a year. For each session they are to address, they can be provided some honorarium. This practice is common for speakers invited from outside the organization, but rarely used for the speakers from within an organization, specially for the front-line staff. The performance of the speakers can be checked by the feedback received from the audience.

**Facilitation awards.** A variety of activities such as conducting interactive learning sessions, group decision-making programs or workshops, etc. require good facilitators. The facilitators can be from among the staff having good communication and listening skills. The selection of facilitators can be done annually. For playing the role of facilitators in each session, some honorarium or other forms of reward can be provided. The continued eligibility for facilitator may be subject to the performance in facilitation and on the feedback received from the participants. By selecting more than one facilitator, they can work jointly or in rotation.

**Writing awards.** The staff having satisfactory achievements and expression can be encouraged to write case studies of successes or failures or experience of using some tools or exercises. This may be useful for the other front-line staff of the agency. Such writings can be published and circulated at a suitable frequency such as monthly or quarterly. This can be done for different levels of staff and for covering different aspects of activities and information. For each contribution to a publication some honorarium or other suitable rewards can be provided. The quality of writing can be evaluated by an expert committee consisting of experienced persons.
**Dissemination awards.** There are always some members of the staff who are quite inquisitive and make efforts for being informed of the latest developments in the discipline of their interest. Such persons can be encouraged to analyze and compile the information and derive implications for the functioning of the agency. The information can be developed in the form of ‘dissemination notes’. For developing each of such dissemination notes, the staff can be provided rewards. This can be especially used for motivating those members of the staff who can write about their experiences when they have an opportunity to go for training or visits in other regions or countries.

**Mentoring awards.** The purpose of these awards is to motivate those staff who have a good record of achievements in promoting communities and an ability to share their experiences and skills with those who lack in them. Each year a few front-line staff members are selected to become mentors based on their past performance. The mentors are given the responsibility of helping a few staff personnel (1-3) who lack in the skills through continuous interaction and assisting in conducting various exercises or other regular activities. The learner staff should preferably be in the proximate areas to facilitate continuous interaction. At the end of the year, the performance and skill level of learner staff is assessed. The awards to mentors should depend on the satisfactory level of achievement by the learner staff.

**Rewards for innovation**
Improving the working procedures and field practices in the implementation process is a continuous activity. The efficiency of a variety of activities can be improved by applied research and innovation. The improvements may lead to reduction in cost or increase in effectiveness. Developing suitable applied procedures for some of the basic technological developments may require local adaptation before their application in the field. Many of the activities relating to applied research, innovation or adaptation can become a part of the regular functions and field activities, if the staff having the inquisitive nature can be motivated through suitable rewards.

**Rewards for achieving better results**
Obtaining desired progress of community institution, effective regulation of resource use and sustainable management are the main objectives of CBFPs. The progress of community institutions should be measured against a baseline. The achievement of having solved a complex problem should be given more weight than merely achieving effective regulation. For example, resolving a multi-party, long standing conflict through mediation could be given higher importance over achieving collective action by a community not having any external conflict.

Rewarding regular progress of community institutions should be given utmost importance for motivating staff to continuously make sincere efforts. This will require a regular process of evaluation of performance of communities and status of resources. This is useful not only for providing a sound basis for rewarding staff performance, but also for ensuring continuous progress of CBFPs. Based on specific studies and local problems and issues, some milestones of expected achievements can be defined for judging the progress of communities at periodic intervals. The rewards could then be provided based on expected achievements. By not limiting the number of rewards, the motivation can be spread more effectively among all the members of the staff. In addition, the rewards for achievements can be provided on the basis of overall performance of individuals as well as teams. The criteria for judging the performance of individuals can be a combination of number of factors. When the rewards to individuals are based on achievements by a team, the staff is motivated to work in collaboration.
Rewards for providing better services

In addition to normal duties, if a staff can provide periodic information about market prices, processing facilities, potential buyers of certain local products, etc., this may improve community benefits. A variety of technical and managerial services can be similarly beneficial to communities. Providing incentives can motivate staff for ensuring better services on a regular basis. Some of the services may be required only until communities become aware or self-reliant on those aspects.

Communities can also provide rewards to staff in terms of payment for the service provided, if this results into increased benefits to them. There are many examples of communities in Mexico (locally called ejidos) hiring forestry professionals for managing resources. In Nepal some communities have hired forestry personnel for managing forests and running forest processing unit in Kabhre Palanchok district. For providing motivation to staff, government agencies will have to legitimize rights of the staff for receiving such payments from communities. The system can be suitably developed to avoid malpractice. The communities could be the main controllers having open choice to select a service provider from government or nongovernment sector. The maximum ceiling on the rate for a service can be fixed according to the benefits accrued to the communities. To encourage communities, government may provide partial payments in the beginning which may be gradually withdrawn.

Rewards for specialized functions

The implementation process of CBFPs require a number of support activities and development of specialized functions such as training, monitoring, research, policy analysis. There are several advantages of assigning such exclusive responsibilities to the staff especially posted for this purpose so that greater attention can be paid to these functions. However, unless strong incentives are provided, the specialized posts may not be effective, especially if the same person has the options to work on the regular posts where power and prestige is higher.

Generally in South Asia, the staff with regular functions of forestry administration commands greater powers and public contacts as compared to those on specialized posts. When some members of the staff are assigned specialized posts, because of transferable nature of jobs, this often amounts to a loss in social as well as professional prestige. Local social and cultural factors have greater influence compared to the professional capabilities of an individual. Because of this phenomenon, barring a few individuals who are personally committed, often the staff posted for specialized functions do not remain motivated to excel. Two suggestions are made here to maintain motivation for specialization.

Provide rewards to the regular staff for specialized functions. A number of activities which are apparently considered more appropriate for specialists, may also be carried out, to some extent by the regular field functionaries. This can be effectively used to reduce the number of staff members required to be placed exclusively for specialized functions. Many staff personnel have capabilities or the aptitude for specialized functions. Without removing such staff from the regular functions, they can be provided incentives to accomplish small specialized functions. In this manner the staff having special aptitude for certain type of activities will not have to leave the regular posts. At the same time this will motivate them to improve skills for activities in which they have a special interest.

By selecting a number of potential candidates, the amount of time required to be spent per person for specialized functions can be reduced to a level that it does not disturb the normal functioning of the staff. Checks can be built in the form of linking rewards with non-lapses in the regular functions. Regular staff can assist in a number of activities relating to training. For example, staff having good communication abilities can be used as speakers for specific sessions. They can also assist in developing field manuals.
and suggesting other practical aspects to improve training programs. Many of the applied research activities can be carried out in conjunction with regular functions without disturbing the normal work. This includes the activities related to maintaining seed production areas, collecting and storing seeds, improving nursery practices and developing planting techniques. Some of the monitoring activities can be planned in a manner that the field staff may need to be used only for a short period of time. A variety of policy studies can also be undertaken by devoting some extra efforts while continuing to perform field functions. If specific studies require some intensive work for a short period, this can often be done without affecting the regular functions.

**Provide special incentives on specialized posts.** By the very nature of such tasks, special skills and aptitude is required for the specialized functions. Therefore, the incentives should be such that they are able to attract the staff with such skills on a competitive basis. Physical facilities, special privileges, and monetary gains should be adequate to enhance the social and professional prestige on being selected for such posts. To attract skilled officials in training academies in India, special pay is provided to the staff selected for the academies. This is more than special pay provided for almost any other special post of similar level in forestry organizations in the country. However, this is still considered inadequate due to lack of perks and other physical facilities, besides low professional status accorded to training functions.

The physical facilities could include housing, communication facilities, education for children, etc. Preferred special privileges such as visits for training purposes to other regions or countries and other opportunities for improving skills can be used as incentives. The staff posted could be provided special eligibility for further studies, leaves, outside assignments, participation in seminars and conferences. The special facilities, privileges and significant monetary gains are necessary to attract skilled personnel, but may not be adequate to ensure improved performance of the staff posted on specialized posts because these options cannot be easily linked to their continued performance. Nevertheless, some special achievements -- in training, research, monitoring and policy study -- by the staff on the specialized posts can be separately rewarded.

**Forms of rewards**

Rewards could be provided in several forms and the combination of any forms can be used together. Not only the physical or monetary gains but personal, professional and social gains are equally important.

**Non-monetary**

Even without monetary or positional rewards, recognition or credit to an individual improves his/her professional prestige. Declaring in public forums, formally appreciating someone's achievements, publishing information about the achievements and presenting certificates could be used as non-monetary forms of rewards. Their importance can be enhanced by popularizing such rewards in the public and professional circles.

**Special privileges**

Special privileges could include a variety of perks or physical facilities such as housing, transport, communication, etc. The options for visits to other regions or countries to study specific issues may be provided by choice. The opportunities for improving personal and professional skills such as for writing, speaking, photography, videography may be used as incentives. Special paid leaves could be provided to conduct specific studies related to useful professional issues. These will further improve the capability of staff. By providing these opportunities with special preference to those who are achievers, the pace of
capacity building process can be considerably enhanced. This is specially true when an organization has
developed systems to share the information and knowledge on a regular basis. Further career
advancement opportunities should also be provided to the staff who demonstrate continuous excellent
achievements.

**Monetary rewards**

In developing countries where salary and wages are generally very low, monetary rewards become
especially important to maintain rising living standards. The rewards can be in the form of increments in
pay, special pay, promotion, or direct cash. These could be provided for individual achievements or for
encouraging collaborative working. The value of rewards should be significant enough to motivate the
staff. The costs for monetary rewards can be justified if we consider the value of advantages (Box 3.11).
Monetary rewards when linked with performance can be planned in a way that these do not become the
part of the regular fixed costs on salaries and establishments. These can be rather made components of
the development costs. For example, if the rewards are based on achieving better performance of
supplementary regeneration measures, these can be included in the cost of these measures while planning
the expenditure. These rewards need to be given only when the achievement of plant survival or other
growth parameters is higher than expected for the reward. Such standards can be easily established by
comparing the averages of the last few years when there were no rewards.

**Box 3.11. Justification for the monetary rewards**

*Reduced expenditure.* There could be considerable saving in direct or indirect costs if rewards were applied to
improve office administration, field operations and extension activities.

*Increased benefits.* There could be a considerable gain in the value of benefits from the efficient handling of an
activity. This will lead to better management of resources and increased benefits to society.

*Saving in alternative costs.* Many of the activities carried out by the staff could reduce the costs which may
otherwise be required. The rewards for self-learning may reduce the need for training. This saving may not be
immediately visible if the organization does not have ongoing adequate training programs to cover all the staff.
Similarly, many activities or studies are carried out by consultants when there is lack of capacity in the organization.
If required, joint insider-outsider teams can be used in the beginning. It would have motivating effect and create a
competitive spirit for performance when the rewards and facilities to insiders could be equivalent to payments to the
outsiders.
4. IMPROVING THE IMPLEMENTATION PROCESS

This section describes a systematic process of implementing CBFP to guide the field implementors. The process of implementing CBFP involves a variety of activities carried out by different levels of the agency staff and local communities. The actions of the staff are guided by the policies adopted and by the work culture that prevails within the field implementing unit. Similarly, the response of local communities is affected by the policy environment and the efforts that are made by implementing staff for improving their capacity. Thus, the issues relating to enabling policy environment, enhancing community capacity, and improving institutional work culture discussed in previous three sections have direct implications for the implementation process.

The implementation procedures of CBFP have been evolving since the initial experiments indicated the potential of involving local communities. The innovative experiments were guided by the committed individuals who developed clear linkages between the rights and responsibilities of communities which ensured operation through effective community. The implementation was closely monitored by them and the emerging problems along the process were resolved to sustain the interest of local communities.

Later when the implementation of community-based approaches slowly expanded, a system of developing resource management plans (termed as ‘operational plan’ in Nepal and ‘micro-plan’ in India) emerged. A variety of participatory tools and rapid appraisal methodology gradually became popular which helped in promoting greater participation of local people in the planning process. This planning process provided an instrument for developing locally specific resource regeneration strategies for community resources while considering the community needs and local conditions. In conjunction with the information about community institution, its mode of functioning, and rights and responsibilities, this planning process became a mechanism for entering into resource management agreements with local communities.

However, in the process of expansion of community-based resource management programs, many limitations became apparent. Many recent studies and reviews have pointed to several of these limitations (Hobley et al., 1996; Hobley, 1996a; Overseas Development Administration (ODA, 1996); Poffenberger and others, 1996; Poffenberger and Singh, 1996; Gilmour and Fisher, 1991; Fisher, 1995). Most studies recognize that the expansion of community-based approaches is desirable for achieving sustainable management of resources. Nevertheless, it requires amending and adapting the implementation practices to overcome the emerging limitations. Some of the important limitations of current approaches are highlighted below and then a strategic implementation process is described to overcome these limitations and to improve the overall effectiveness of CBFPs.
Limitations of current approaches

Besides general institutional limitations having direct or indirect implications on the implementation process, there are several shortcomings of the practices commonly followed by field implementing units. Not all of them can be generalized and the exceptions could always be found because of some committed individuals or because of wide variations in the strategies adopted.

<table>
<thead>
<tr>
<th>Box 4.1. Favorable attributes for initiating community-based resource management</th>
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<tbody>
<tr>
<td>* Homogeneity of user community</td>
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<tr>
<td>* High degree of dependence on forest resources</td>
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<tr>
<td>* High stakes in protection</td>
</tr>
<tr>
<td>* Presence of good root stock</td>
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<tr>
<td>* Cultural and social mores favorable to community initiatives</td>
</tr>
<tr>
<td>* Compatible land/man ratio to meet local needs</td>
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<tr>
<td>* Favorable attitudes of local forestry personnel</td>
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<tr>
<td>* Local leadership or the presence of an NGO</td>
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</table>

**Selective efforts**

Efforts for mobilizing community action is commonly initiated in a few selected areas based on the presence of favorable attributes (Box 4.1) or is limited by budgetary targets. Community involvement is preferred in degraded areas and generally less intensive efforts are made in less degraded areas even though community involvement can help in preventing their further degradation. When neighboring communities have interrelated problems, initiating action only in one or a few of them does complicate the problems or prolongs the conflicts.

**Mixed approaches**

When efforts to motivate communities are initiated only in a few locations, the rest of the areas are managed through conventional approaches of protecting the areas from people. This implies that the staff has to act through two contradictory approaches simultaneously. This undermines the importance of initiating community-based participatory approaches in the eyes of the implementing staff. Sometimes organizing communities and constituting their executive committees are seen by the staff merely as a mechanism of getting financial and physical activities allotted in the areas of their responsibility.

**Inadequate community support**

Functioning of community institutions evolves overtime. Problems emerge as more regulations are formed or new activities are initiated by user communities. Most field implementing units lack in developing effective systems of monitoring the progress of community institutions and providing a continuous support to them, as required. Intensive efforts are generally diluted after the formulation of resource management plans to enter into an agreement with communities and initiate its implementation. As resources regenerate, communities require support for better silvicultural management, effective marketing strategies and improving benefits from resources. Similarly, persistent efforts in sensitizing communities are important for minimizing elite domination and inequitable distribution of benefits which persist in many instances.

**Planning process is too rapid**

After a few meetings or initial indications of favorable response, a planning process is initiated with communities. Commonly a package of rapid appraisal exercises is used to be carried out in a short time (usually 3-5 days). These exercises have multiple objectives such as sensitizing communities, motivating them for collective action, and developing resource management plans. Despite several recognized
advantages of participatory rapid exercises, the response of people to multiple aspects cannot be taken as a sure indicator of their understanding and commitment.

People learn over years how to respond when a new program demands a particular type of response from them for initiating investment activities. In rapid exercises, people do not necessarily have adequate opportunity to understand and analyze all the dimensions of their response. It is not practical for all the sections and interest groups to always be represented, even if intended and best efforts made because of rapidity of exercises. Rapid appraisals are too difficult even for the staff to understand and carry out with all the necessary precautions and in a true participatory spirit.

**Lack of involvement of front-line staff**

Since the packaged rapid appraisal exercises have multiple objectives, greater importance is attached to the involvement of senior staff and the multi-disciplinary teams. The front-line staff commonly plays a role of arranging physical facilities and following the instructions of the seniors in these exercises. Least importance is attached to their involvement in thinking, judging, evaluating and decision making in the planning process. Ideally, the front-line staff should feel the responsibility of all the activities and decisions which could be also helpful in the development of their capability. Because of their involvement in the day-to-day operations for implementation and regular interaction with the local people, they will be in the best position to monitor the functioning of community institutions and undertake corrective measures if made responsible.

**Investment-driven process**

The plans in community consultation are formulated generally for a period of four to five years of future activities. Since the linkages between the implementation of the plans and continued effective functioning of the community institutions are not well established, at least in practice, the success of these plans cannot be predicted. The bureaucratic systems of monitoring performance by financial and physical targets based on these plans often lead to a situation where the investments have to be made even without adequate response of the communities. Such investments create a 'dependency syndrome'. Ultimately it amounts to undermining the approach of community-based resource management, the success of which largely depends on the responsibilities and commitment of communities.

Some of the above limitations and particularly the last one applies less to the community forestry program of Nepal than the other countries of South Asia because of low investment support provided to communities by state agencies. Owing to the reduction in subsidy, the self-reliance of communities has increased over years. A phased process of implementation is recommended by forestry agency in Nepal (Box 4.2) to guide the field practitioners, although its use in practice varies to a great extent. The monitoring process and linkages between the progressive steps are not well established in these guidelines.

**Extensive implementation strategy**

The limitations described above form a major bottleneck in ensuring greater success of CBFPs and expanding it further to all the degrading areas where it has shown a potential in achieving sustainability of natural resources. To overcome these limitations, an 'extensive implementation strategy' is suggested here which encompasses learning process approach linking the progress of community institutions in an incremental and adaptive manner. The emphasis is also on promoting interactive learning among the implementing staff as well as community members to improve overall effectiveness of CBFPs.
Box 4.2. Operational guidelines for implementing CBFPs in Nepal

The operational guidelines adopted have divided the implementation process in four phases:

Investigation phase. The activities in this phase include establishing a good rapport with villagers and gathering social and technical information about the use of the forest. Emphasis is also laid on identifying the users with the forest used by them.

Negotiation phase. In this phase, forest user groups are formed and forest management issues are discussed with them. The operational plans are prepared and approved after which the forest areas are handed over to forest user groups for management.

Implementation phase. After handing over of the forests, various approved management activities are carried out by the forest user groups during this phase. The field staff is expected to provide technical and other support as requested by the forest user groups, besides monitoring the approved activities.

Review phase. This phase includes appraisal, revision, and renegotiation of an operational plan with the forest user group, either at expiration of the plan or at the request of the user group.


Essential features

Step-wise process. The process of understanding local conditions and problems, sensitizing local people to mobilize collective regulation, developing resource management plans and formalizing rights and agreements with communities is divided into several steps. Each step in the process has an objective. The fulfillment of the objective is assessed before moving further. Thus, the process of building community institution and various other elements of resource management agreements with communities develop over a longer period of time through small steps, as opposed to packaged rapid appraisal exercises. The step-wise process is maintained for providing support in the implementation of various resource management activities after the agreement, during which also the progress of community institution is regularly monitored.

Extensive efforts. In this strategy, the efforts for motivating communities for rational management of resources are initiated in all the areas where community-based approaches have the potential. These areas are divided in clusters of 10-15 or some administratively convenient and technically suitable number of social-territorial units. For each cluster, a front-line staff is made responsible for all the types of management and regulatory activities. The efforts are initiated by all the front-line staff in the area of their responsibility and the implementation process thus involves all the field staff.

Phased approach. To make it convenient in implementation, it is suggested here to use a phased approach of this extensive strategy. Rather than initiating efforts in all the communities simultaneously, first an analysis of the basic information about all the social-territorial units within a cluster is carried out. Based on this analysis, a few communities are identified within each cluster in which the efforts to mobilize collective regulation should be initiated first. The basis of selection may be the presence of favorable attributes for collective action or the interrelated problems requiring simultaneous efforts.

Incremental learning. Thus, the efforts are initiated only in a few communities but all the staff is involved. This provides an opportunity to the front-line as well as supervisory staff to learn through experience about the details and intricacies of the implementation process. The identified gaps are covered with appropriate corrective steps. As greater confidence is gained, the effort is gradually spread to the rest of the communities within each cluster. Ideally, it should become possible to spread the efforts in all the potential communities within a period of 3-5 years.

Chapter 4. Improving the implementation process
Demand-driven approach. Initiating efforts in a community does not imply making investment or granting rights. The efforts are initiated with the intention of mobilizing collective action and the investment support and formalization of community rights is done only in those communities which evince effectiveness of collective regulations. The efforts are always initiated in more communities than the number in which assistance is intended to be provided. The assistance is never extended unless expected progress of communities becomes evident. This motivates the communities to ensure abidance by agreed responsibilities for getting continued assistance in the implementation process.

Community-decision making. In each step of the implementation process, the decisions are to be made by local people about what is appropriate for them. The outsiders or the agency staff are not to suggest them, but are to facilitate them. The emphasis is more on using such tools and procedures which sensitize local people to think and arrive at rational decisions in a group framework.

Interactive processes used. In the step-wise process, at each step the front-line staff interact with the fellow colleagues and the seniors. The information collected and effectiveness of the methods and tools used is discussed through ILS to take appropriate decisions. If the information collected is found inadequate or more information is needed on some other related aspects, then efforts are made to cover these inadequacies before deciding to move further (Box 4.3).

Monitoring is an in-built process. The decision for moving to next step is taken only on getting the expected results from the previous step. Thus, performance of the staff as well as the communities needs to be monitored at every step and this becomes an in-built process. Since the actions of the implementing field staff are divided in small steps, the progress can be evaluated more easily.

### Box 4.3. Moving in small steps

- The field staff is assigned a task of collecting information or carrying out certain exercises for a particular step and is equipped with necessary skills and tools.

- The staff carries out the task in appropriate units and brings the relevant information.

- The information is discussed in an interactive setting with senior staff and other fellow colleagues who have gone through the same process; suggestions are sought from all of them; effectiveness of methods and tools is evaluated.

- Decision is made on the case by case basis whether a move forward can be made or further information or field work is required. The field staff is further equipped for another step or for covering the deficiencies in the same step.

- The staff carries out the next task and brings the relevant information. Forward step is taken only in those communities where progress indicates to move further. In others the information is reviewed and necessary corrective steps are taken. The help of senior staff or other fellow colleagues is provided if required in particular cases.
Positive attributes
In addition to the several positive aspects evident from the essential features of this strategy elaborated above, there are many other advantages of this strategic process.

Builds staff capacity. Because of the use of interactive learning processes, the implementation process in itself facilitates collaborative learning and helps in building the capacity of implementing staff for future activities.

Convenient in facilitating learning. The implementing staff has to learn in small steps rather than all the aspects at one time. This makes it very easy to facilitate learning as compared to conventional training programs aimed at providing a whole package of practices in one training session. Conversely for this strategy, the training programs could be locally adapted, made clearly and directly relevant with locally realistic examples and facilitated for covering the entire staff in quick short sessions.

Adaptive process. The process in different steps facilitates in making a start from the existing level of community awareness and in building on previous efforts. The small steps can be easily modified as per the local circumstances.

Minimizes the risk of failures. The progressive steps and assistance depends on the continuous performance of communities. Before investments are to be made, community capacity is validated.

Institutionalization is easy. The step-wise process can be planned in yearly cycles in such a way that at a particular time of the year the field staff is required to carry out only some particular type of activities in most of the communities in their cluster. Such a systematic pattern of working makes the process of institutionalization within an agency much faster.

Enhances community capacity. Sensitizing and facilitating local communities to take decisions at every step helps in building their capacity for future action. This also ensures greater involvement of the people for deciding collective responsibilities and mechanisms to implement them.

Creates a competitive spirit. Simultaneous extensive efforts create a spirit of competition among communities, particularly if priority in providing assistance or incentives could be given to communities showing more favorable response. Involvement of all the staff also creates a healthy competitive spirit among them for better performance.

Expansion is faster. When the efforts are initiated in all the clusters, the neighboring communities learn from each other or this can be easily facilitated. Moreover, since the basic efforts are spread among all the communities, it generates awareness among them much faster. Thus, less efforts could bring greater results.

Minimizes unintended consequences. The pressure from one area will not be transferred to another, if all the communities become aware of protecting their resources from outside illegitimate users.

Overcoming anticipated problems
Despite several advantages and convenience for an field implementing unit in building a process of continuous learning and improving its capability, there could be several constraints in effectively implementing this strategy. This would be particularly true in the agencies simultaneously following the conventional mode of functioning. Without testing different policy options, extending the program all
over may not be a wise decision. Not only the policy options but also the institutional constraints of conventional field implementing units offer several constraints in the success of any implementing strategy. Variation in the capacity of staff at all levels in any field implementing unit is a common phenomenon. Because of this, all the communities may not get adequate support and attention, if the efforts are initiated in all the clusters.

Initiating efforts in all the communities places high demand on the supervisory staff to provide adequate support and monitor various activities. Field implementing units frequently face shortage of staff to extensively implement community-based programs requiring more intensive efforts compared to conventional mode of functioning. Generally there is lack of motivation for the implementing staff to devote all their efforts with utmost sincerity, as required for the success of community-based approaches. If the efforts are initiated in all the communities or the clusters, it may require large amount of financial resources to provide assistance to communities for regenerating degraded resources and other activities.

The highlighted problems are common among field implementing units involved in the implementation of community-based programs. The effective policy options become evident only through the experience, and various options can be experimented even while using extensive implementation strategy. Emphasis should be laid on deriving implications from the emerging experience within and outside the agency before initiating such a program. The strategies useful for improving the institutional capacity of field implementing units have been discussed in the last section. Nevertheless, for the agencies having none or very limited experience in implementing community-based programs, it will be more appropriate to pilot the program in small but representative areas before extending it all over. The details of an intensive piloting strategy which could provide a commensurate experience for adopting the extensive implementation strategy later are given in Annex 2. Other problems, in general, are rooted in the functional modalities of field implementing units and human resource management strategies adopted by them. These problems would require development of specific strategies considering the circumstances in the agency. A detailed discussion on the potential options to deal with all these problems is provided in Annex 3.

**Pre-requisites for success**

Besides the essential features described above, some general operational tips should be considered as necessary pre-requisites for success.

**Build informal relations.** The front-line staff should build a good rapport from the very beginning with all the sections or interest groups within the communities for which they are responsible. The staff should continue to frequently meet people irrespective of the activities taken up in any particular village.

**Don’t suggest, rather seek suggestions.** At any point of intervention, the aim should be to assist people in understanding the pros and cons of options suggested by them so that they can move forward or change their decisions as they consider appropriate.

**Don’t raise expectations.** There should be very conscious effort to avoid raising expectations of people for government investment in return for following the suggestions of agency staff.

**Be a regular observer.** Collecting information on a number of aspects and understanding the community response at various stages require continuous informal interaction with local people and use of direct and/or participant observation techniques.

*Community-managed programs in forestry: A synthesis of good practices*
Develop a system of regular interactions. If all the members of a local community start discussing the issues on a regular basis regarding the common resources they use, it ensures that people remain concerned and resolve the problems as they emerge. This helps in avoiding concentration of power in the hands of the elite and enhance transparency in the functioning of community institution. A regular system of interaction can be promoted by arranging a regular meeting convenient to all the members and sections (especially women and marginalized groups). This could be used to monitor the progress, plan future actions, and discuss any other related issues.

Maintain enthusiasm. Various audio-visuals, success stories, dramas or local folklore could be used to attract the attention of the people on various issues. Such forums could also be used to build awareness about other government programs or such schemes which may be beneficial to people.

Record community events and activities. Keeping a record of regular meetings and other events will be helpful not only to forestry staff in assessing the progress, but this will also become a mechanism for maintaining transparency in the functioning of a community institution. The information collected through different exercises also form different components of agreement between communities and the state agencies.

Develop simple information formats. Simple formats developed for each step in the process could make it easy for the front-line staff to collect the relevant information. The value of the detailed information should be judged by its contribution in the decision-making process. Formats should be locally developed or adapted, and keep centralized information minimal.

Assess the progress regularly. Assessment of the impact of each step is a crucial activity before deciding to initiate next step. Enthusiastic response of a few individuals or general agreement of people in a group setting should not be taken to represent the opinion of the whole community. The assessment process should ensure that the intended message of the steps is understood by all the members of the community which should reflect in the expected achievement at the end of each step.

Fit tools to processes. A large number of methods and tools developed over last two decades have proved their use and value in different stages of the project preparation and implementation at the community level as well as at the project management level. The approach described here requires a careful use of the tools to serve the intended purpose. The tools should not be merely used just because these are part of a recommended package, without judging the relevance of tools in the local context. For the same purpose different tools may be useful depending on local circumstances. Similarly, the same tools could be used for different purposes also. Rather than using the tools merely for collecting information, these should be used to facilitate decision making by local people.

Use local stories and anecdotes. Because of local socio-cultural traditions, different stories, anecdotes, proverbs, and mythological or even true events of the past become popular in an area. If these convey some relevant message then people understand them faster than a detailed exercise. The anecdotes, proverbs or stories revealed during an exercise in some community may be useful in others. By sharing with other fellow colleagues and by compiling them, many such examples can be collected.

Develop locally specific guidelines. The variations in local social, economic, cultural and ecological circumstances affect the relevance of particular type of steps and procedures. Therefore, for each specific region, the broad guidelines discussed in this manual should be locally adapted. Most important would be to describe the whole process in simple language, illustrating the appropriate tools and locally adopted procedures with local examples.
5. PHASES OF THE IMPLEMENTATION PROCESS

The implementation process is divided into four phases and each phase is divided into steps. Each phase has a distinct purpose and the move into a next phase should be made only when the expected results from the current phase have been achieved (Table 5.1). However, the sequence of steps within a phase may be altered according to local circumstances, if required. Some steps may require repeating again in the same or another phase. Full or part of the activities of different steps may be combined together. While maintaining flexibility for local variations, this process is intended to provide a broad framework of actions to guide the field practitioners (Figure 5.1).

The following discussion assumes a general scenario where communities do not have prevalent regulatory systems. If some regulatory systems are prevalent, some steps may become redundant while other aspects of intervention may become necessary. Such decisions should be taken on a case-by-case basis. The strategy decided and adopted for a particular community, should be periodically reviewed and appropriate adjustments should be made. Along the process of implementation, monitoring remains a continuous activity. This is essential for ensuring progress of implementation process and taking necessary steps for further improvement. The essential considerations for 'monitoring and improvement' are described after discussing the phases of the implementation process.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Objective</th>
<th>Expected results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparatory</td>
<td>To understand local and interrelated issues of communities and to decide a strategy of action</td>
<td>Development of a clear strategy of action for each individual community to mobilize collective action</td>
</tr>
<tr>
<td>Mobilization</td>
<td>To mobilize collective action to regulate resource use</td>
<td>Establishment of effective collective regulations</td>
</tr>
<tr>
<td>Formalization</td>
<td>To develop a plan for resource management and other details for formalizing agreement between communities and responsible agencies</td>
<td>Necessary details for resource management agreement spelling rights and responsibilities of communities and duties and responsibilities of state agencies</td>
</tr>
<tr>
<td>Implementation</td>
<td>To provide necessary support during the process of implementation</td>
<td>Continual progress of resource conditions and effectiveness of community institution</td>
</tr>
</tbody>
</table>
Figure 5.1

Phases and steps in the implementation process

- Preparatory phase
  - Assess local conditions (Collect information about local socio-economic conditions, resource use patterns and pressures, and past efforts)
  - Decide a strategy for action (at the community level)
  - Know each community well before beginning action
  - Sensitize communities about resource degradation
  - Develop awareness about new policies
  - Help developing regulatory systems
  - Help managing conflicts
  - Promote gender sensitivity
  - Validate effectiveness of community regulations

- Mobilization phase
  - Help developing a resource management plan
  - Formalize community institution
  - Clarify rights and responsibilities
  - Formalize resource management agreement

- Formalization phase
  - Develop demand driven investment planning
  - Develop an incentive strategy
  - Develop an implementation plan
  - Sensitize for fulfilling deficiencies in supply
  - Provide necessary support services
PREPARATORY PHASE

The objective of this phase is to prepare well before initiating efforts in individual communities by collecting basic necessary information about communities, resources and their inter-relationships. The intent is to understand the locally relevant issues for developing an appropriate strategy to mobilize collective action. Depending on local conditions and problems the steps required to mobilize collective action would differ among different communities. The strategy cannot be decided on the basis of the information collected from a single community. The interaction among neighboring and distant communities using the same resources is equally important. The approach described is aimed at initiating efforts in all the communities, where adoption of CBFP has a potential in preventing degradation. Therefore, the information needs to be collected for all the potential communities. Then based on the analysis of this information, a decision is made as to in which communities the action should be initiated first and what steps should be taken in individual communities.

Step 1. Assess local conditions

Objective
To make a broad assessment of the current state of resources, pressure on resources, past efforts by government agencies and communities, and local socio-economic conditions. The overall assessment of local conditions should provide adequate information that can explain the causes of resource degradation in the past, potential sources of future conflicts, and differences in the nature of problems in different communities. This step is mainly intended for the staff of the field implementing unit to understand the extent and nature of the problems and local conditions in the area of their responsibility.

Essential considerations
Considerations should be given to accomplishing the information collection in a short time and in a cost effective manner in all the potential communities. Limit the information to a minimum to understand the local and external factors. If further details are required before initiating action in individual communities, it can be done later. Avoid elaborate details and, if fairly approximate, information based on key informants. Available records or sample surveys could serve the purpose, accuracy may not be necessary. Use the information which may be known to the local staff with prior work experience in the area. Provide the centrally available information through census reports, departmental official records, previous maps and progress reports to the local staff in the appropriate formats. If there are similarities in socio-economic and cultural attributes and vegetation resources, then detailed information on such aspects for each community may be avoided by using the basic information collected for representative communities.

While keeping the information needs minimal, the assessment of the local conditions could be done using a “pressure-state-response” framework. The pressure on resources is caused by users and so information on user-resource relationship is very important. Socio-economic conditions of communities indicate the dependence on resources and provide an indirect measure of pressure. The current state of resources indicates the impact of pressure on resources. The response of society is reflected in the past efforts made by communities and responsible agencies. This information would provide an understanding of the local and interrelated issues for different communities to help in deciding an appropriate strategy for action for each individual community.
**Activities**

Four activities are suggested below for providing an adequate assessment of local conditions and to understand the individual and interrelated issues of local communities.

**Assess resource use pattern.** The information collection could be started from individual habitations to understand from where local people collect forest products and who else comes to the same area. This should also include information on whether for different types of products the resource use areas or regulations are different. For example, collection of fodder and fuel by outsiders may be allowed but timber and specific fruits may be restricted for local users.

The historical trends are equally important because some of the traditions may have been lost in the recent past. Traditionally only the local users may have been using resources from an area but with the resource degradation in other localities more outside users may have started using the same area. The information can be collected through direct observation and through interviews with some users from different villages. The information should be checked through triangulation by interviewing different segments within a village and in neighboring villages. The information can be depicted through sketch mapping showing resource areas and users (*Figure 5.2*). The current and traditional resource use patterns could be depicted on the same sketch map by distinguishing the type of symbols or separate maps could be used. This should indicate which habitations are the most important users of a resource area. If the pattern of current use is considerably different from the traditional pattern, a greater importance should be attached to the traditional patterns. Based on this information, approximate boundaries of social-territorial units (comprising of resource area and habitations) can be drawn on the sketch map.

Each local staff is expected to collect information for areas within a cluster of his/her responsibility. However, the information about the users coming from outside the cluster and those going out from within should also be collected by the staff. This information should be exchanged and cross-checked with fellow staff from other relevant clusters to truly represent the resource-user relationship in an area.

**Understand socio-economic conditions.** The basic information about the social composition, education level, different resource areas, occupation patterns, alternative employment opportunities or entrepreneurial skills and other physical infrastructure, all indicate local socio-economic conditions. All these aspects influence or indicate the local dependence, pressure on resources and the level of understanding and awareness of local people. Most of the information may be collected through census or other administrative records. The information can also be collected or supplemented through interviews with a few key informants and a visit of the area. The information needs should be kept simple as far as possible. A sample data sheet is given in the *Annex 4* for recording basic socio-economic data.

**Assess current resource conditions.** The information on the state of vegetation could be indicated by density, type and growth status. The density could be broadly categorized into classes, (i.e. 0-10%, 10-20%, 20-40%, and more than 40% density). The vegetation type will include the composition of main dominant species and other important flora. The growth status could be broadly indicated by the height of the main vegetation. For fodder trees, lopping intensity and timing may also be useful. Similarly, the grass flora and other herbs indicate the stage of succession or retrogression and depending on a locality, this may be a useful information.
Figure 5.2. Sketch mapping of resource-user relationship in a cluster

Community-managed programs in forestry: A synthesis of good practices
For collecting the information, the representative areas of each unit should be observed from different vantage points. The state of the resources should be recorded through ocular estimation about vegetation density, type and growth. The information then can be represented on a sketch map using different labels or intensity of figures. Some descriptive aspects may also be important to understand the stage of retrogression or succession. This needs to include observations on seasonal variation in vegetation, particularly for annuals which may be visible only during or immediately after the rainy season.

**Assess the history of resource management.** The history of resource management and the response of agencies and communities to local conditions can be judged from past interventions by the responsible agency such as harvesting, afforestation or other regeneration measures; major reasons for the success or failure of past efforts; past efforts made by local communities in terms of controlling access and protecting resources from outside users along with the information on who initiated such efforts and how these systems developed/changed over time; contributory factors in the success or failure of these efforts; and significant events of change in resource management and other outside pressures or conflicts.

Information about the past intervention by responsible agencies can be collected through administrative records, progress reports, old maps, interviews with local people and the staff members who have been working in that area. The information about the initiatives taken by communities and other significant events can be collected through interviews with the local people or the staff working in the area. The emphasis should also be laid on collecting necessary supplementary information to understand the contributing factors in the success or failure of past efforts. The overall information can be presented in the form of a time line.

**Step 2. Decide an appropriate strategy**

**Objective**

*To decide appropriate steps to follow in order to generate interest of local communities in collective action.* This step is to be decided for each individual community separately after considering the local conditions.

**Essential considerations**

Different factors may be more important depending on local circumstances from area to area. However, in most circumstances it becomes necessary to analyze the pressure factors (user-resource relationship, local socio-economic conditions), current state of resources, and the response of people to the changes in resource conditions. The necessary information on these aspects has been collected in the previous step which can be supplemented with any further information or specific details if required.

**User-resource relationship.** The pressure of users on resources affect not only the rate of degradation and the regeneration capacity, but also the ease with which the access to resources could be controlled by communities. A variety of situations and their combinations are possible. Only local users may have access to a local territorial unit. If the resources are still degrading, the pressure may be excessive due to high population, encroachment on the forest area, and conversion of forest land for agricultural purposes, high livestock pressure and excessive open grazing, etc. In addition to local users, neighboring, distant or migratory users (or any combination of them) may also have an access to the local area. These may be traditional users or some of them may have gradually started coming to the area, as resources in the area traditionally used by them got degraded due to unregulated open access. A section of local or outside
users may be using the area for earning their livelihood by selling the produce in the nearby markets.
There may be commercial interests of the organized illicit users from local area or outside.

Such resource use factors will determine what strategy can be appropriate or when joint or simultaneous efforts will be necessary in some communities because of resource use inter-relationships. For example, a community may be facing pressure from neighboring communities which have extremely degraded resources in their territory. Unless the efforts are initiated simultaneously in such neighboring communities to revive degraded resources it will be difficult to effectively persuade them to stop using the neighboring area. Similarly, if current or past efforts by communities indicate active or dormant conflicts with other neighboring communities, efforts will have to be initiated for understanding the nature of conflicts and for developing a strategy for facilitating their resolution.

**Socio-economic conditions.** Social composition, education level, types of occupation, alternative employment opportunities or entrepreneurial skills affect the level of receptivity and awareness of the people. The education level and other social attributes affect the type of communication tools and activities that could be effective in a community. When a group has a mix of both educated and uneducated members, it is even more challenging to develop an appropriate communication strategy so that a section of the group does not dominate the discourse and the message is effectively received by all the members.

The occupational pattern of the group also affects how much people are dependent on forest resources. The people from habitations near urban areas might be able to earn much higher wages than they are able to earn through selling the produce from forest areas. On the other hand, the inhabitants away from urban areas but having high entrepreneurial skills may develop processing enterprises quickly to process forest produce locally. Such groups could be easy to motivate for collective action to protect and rationally utilize resources to improve their incomes. Gorela and Eklingpura villages in South Rajasthan, India, having developed dairying and milk supply enterprise quickly realized the value of grass from forest area and were highly motivated to protect resources and regulate access. This was one of the strongest common binding factors in these highly heterogeneous villages.

**Current state of resources.** The level of degradation and the nature of resources immensely affect the interest and response of community groups. High level of degradation and scarcity generate interest in collective action. If the degradation is not severe, then the concern for collective action would depend on whether or not the current level of extraction (by local or outside users) is causing any local deficiency of forest products and adversely affecting the environmental services or other related benefits. The silvicultural nature of species and commercial value of the products available from the forest area also affect the interest of the local people. It is much easier to regenerate coppicing species compared to those that require planting. Presence of root stock also helps in bringing back vegetation cover quickly.

**Response of communities.** The past efforts of a community reflect the response of people to the local situation. The previous efforts of initiating collective regulation indicate their awareness and concern about degradation. The success or failure of previous efforts provide indications for the type of efforts needed in future. Even if some communities are already regulating access and protecting the resources, there may still be problems of equitable distribution of benefits, participation of marginalized groups such as the poor and women. Similarly, there may be a scope for improving benefits from resources through better silvicultural options, supplementary regeneration efforts, measures to improve non-timber forest production, better extraction planning, improving environmental services (e.g. water stream flow), processing and marketing of products, conservative resource use and such other aspects. The strategy should accordingly be adjusted.
Activities

For deciding a strategy, all the collected information need to be compiled in a form that can help in comparing different social-territorial units to understand the similarities and differences and other interrelated issues. Community profile datasheets as discussed above provide information about each community. For easy reference and comparative analysis, most of this information can be depicted through sketch maps on transparent overlay sheets which can be placed on the top of a physical map of the area. The physical maps showing forest area and other physical features including contours are usually available in district and range offices. These maps could be also obtained from survey agencies in most of the countries. If the scale of a basic map is not appropriate for a cluster, even repeated photocopy enlargements of the relevant portion may suffice to provide for a base map on which transparency sheets could be overlaid to draw a sketch map.

The mapping can be done for individual social-territorial units along with the relevant neighboring areas or this can be aggregated for a cluster of social-territorial units by altering the scale of map. The aggregated maps provide a better picture of user-resource relationship. However, the scale and size of the map should be so chosen that basic details about the resource-user relationship, state of resources and socio-economic conditions (at least the demographic details) could be well depicted.

At the level of a cluster, depicting resource conditions (vegetation density, growth, etc.), user-resource relationship, socio-economic conditions (human and livestock demographics) on a sketch map may be adequate to understand the relevant issues. Many other details such as education levels, heterogeneity, physical infrastructure could also be represented through appropriate symbols, if required. Similarly, the additional information from community profile data sheets could be tabulated for comparison.

The information collected should be discussed thoroughly at this stage through ILS at the range level. The district managers should supervise and facilitate such exercises. All the front-line staff within the range should be involved in an interactive setting so that they can freely share the information and learn from the experience of fellow colleagues. Ideally at least the range officers and other selected local staff from other range units should also take part and share their experiences.
MOBILIZATION PHASE

Mobilizing collective action can be achieved through promoting community awareness about resource degradation from unregulated open access, its impact, future consequences, and the causes of the problems both internal as well as external. The people should also understand the benefits of rationally managed resources, especially if their rights under new policies are recognized. This should lead people to initiate action of regulating access and extraction of resources. The protection of resources from illicit use should no longer remain a problem of agencies alone. However, this requires a gradual and systematic approach without creating any dependence or expectations among villagers.

Step 1. Know each community well before beginning action

Objective
To develop greater knowledge of relevant local issues of each community in which action needs to be initiated for mobilizing collective action.

Essential considerations
Only after the basic information is collected to understand interrelated issues, it becomes necessary to develop greater knowledge of the relevant local issues. This includes enhancing collection of information beyond that from the preparatory phase. In addition, three aspects should be given greater attention. First is the knowledge of local perceptions and traditions which is important for building on the existing level of awareness and capacity of local communities. Second is the existence and functioning of formal or informal local institutions and their effectiveness. Third is the nature of local dependence and external pressures on the resources.

Activities
The activities which can be helpful in the process of collecting relevant information on the above three aspects is described below.

Understand local perceptions and traditions. Various aspects on which information may need to be collected include norms, customary practices, beliefs and the value of forest resources. The value of forest resources is reflected in the awareness of people about the direct benefits in terms of various products received and the indirect benefits in terms of environmental services, such as increasing water stream flow, preventing soil erosion, or deposition of silt in farm fields.

A variety of rituals and forest conservation practices center around religious beliefs or customary traditions of local people. The particular type of use and seasonal restrictions on extraction of certain type of products also indicate local traditions. This may be reflected in the time and manner in which people collect and use various fruits, seeds, flowers, leaves, honey and a variety of other products available in the area.

The awareness of the people about direct and indirect benefits can be assessed through focus group interviews or through informal conversations by asking how forests benefit them and what has been the effect of degradation on these benefits. Care should be taken to avoid leading questions.
Collecting information about local traditions requires additional strategies of using techniques of direct and participant observations. The information available from academic studies in the local area could also be useful, at least to provide a broad framework of questions to be examined in the local context. Because of wide variations in local traditions, it will be useful to guide the staff about pertinent questions and the aspects of information to be collected.

**Become aware of existing local institutions.** Often the arrangements of traditional community institutions may not be as formal as those institutions promoted by government agencies. However, understanding the existence and functioning of informal institutions is also equally important. The sphere of activities may or may not be related to governing resource use. Their effective functioning indicate local capacity. For example, it might indicate that some village elders decide many regulations and disputes among members in many aspects of social life and the whole village members abide by their regulations. If formal institutions promoted by other government agencies exist, the following aspects of information become important:

- nature of activities or controlled resources, such as watershed areas, irrigation resources, drinking water supply;
- whether membership of the institution covers the intended population of social-territorial unit covering forest areas;
- period for which the institution has been functioning;
- effectiveness of the institution in abidance of its regulations;
- process of selection of governing committee leaders or members; the social and political dynamics affecting the functioning of the institution; and
- the pattern of interaction among more than one formal institutions.

**Assess local dependence and external pressures.** Brief information about the dependence of local and outside population becomes evident from the information collected on socio-economic conditions, current state of resources and resource-user relationship. However, further information on the following aspects will be useful:

- major products obtained by the local community from local and outside resources and their scarcity or abundance;
- particular type of medicinal plants or other non-timber products which may be under greater threat from market pressure;
- dependence of marginal sections on forest resources for consumptive or commercial use;
- seasonal variability in the availability of products and its impact on community activities, such as migration for wage employment;
- role of women in collecting products and other management activities;
- incidence and pressure of organized illicit users in the area;
- boundary conflicts; and
- frequency and intensity of migratory users coming to the area.

Most of the this information could be collected through direct observations and interviews with local individuals or groups. The information can be gathered and shared with community in the form of daily activity schedules, seasonal product flow charts, and sketch maps showing product mobility.
Step 2. Sensitize people about resource degradation

Objective
To understand the extent of community awareness of the causes and consequences of resource degradation; to sensitize people to the problem of unregulated extraction, and to motivate people to take collective action.

Essential considerations
Collection of information about the causes and consequences of resource degradation is not the purpose of this step. In fact, the nature of pressures on the local resources would have become evident from the information collected during the preparatory phase. If the previously collected information is inadequate, effort should be made to fill the gaps before initiating this activity. While conducting the exercises for sensitization, care should be taken to avoid raising expectations of people for development investment otherwise the response of people may be distorted. The people should become interested in collective regulation because of the common good to all members.

Activities
The effort should first begin by seeking people’s opinion about the past conditions of resources and differences with that of the present. It will be better to represent this information in some visual form through participatory sketch mapping. This will provide a good background for discussion among people. The attention on consequences of resource degradation can be drawn by asking people about the comparative changes in the flow of benefits from resources. A hypothetical projection in future (assuming if the trend continues) can be immensely useful in stimulating discussion about causes and consequences. A variety of tools can be useful in this exercise. A technique of “Comparative Visualization” described in Annex 5 could be quite useful for this purpose. The purpose of the exercise would not be served unless the discussion among people leads to understanding the underlying factors of unregulated access. The attention of the people should be drawn on the changing pressure on resources from local and external users. People should also feel that this will be advantageous for all the members if they all cooperate in regulating the access and extraction (Box 5.1).

If people still do not show interest in initiating collective regulation, effort should be made to go into further details of internal and external factors. Then the exercise for building awareness of resource degradation and the consequences should be repeated with different set of tools and probably a change in the skill mix of the facilitating team. In addition, broadening the base of activities could be helpful in generating the interest of local people:

- discuss successes of villages in nearby areas,
- discuss failure of afforestation or forest management activities in the same or some nearby areas,
- arrange on-site walks through affected areas and visits with local village representatives, or
- demonstrate potential benefits by estimating yield of different products benefiting from protection.
In a village meeting, author was conducting a ‘Comparative Visualization’ exercise. This conversation in nutshell explained the principles of collective action in simple language. People felt highly motivated and started discussing the mechanisms for regulating extraction by local users and protecting resources from outsiders. This became an effective example later in other villages:

Explaining the cause of degradation of resources in past 20 years, a villager said: “Whenever we didn’t see a forest watcher, we let our cattle graze in the area. We took fuel and other products out of it. Some of us even have been selling these products. Many people from outside also have been collecting products from the area for a long time now. In the last few years, people from cities came with trucks at night and took away products from this area. We were interested in the payment made to us for helping them cut the wood and fill that in trucks. We were not concerned with the degradation that was happening. Now almost nothing is left. Even the plantation done 5 years before is now completely damaged.”

“Who suffered the loss? As some of you said, these resources are very important for you, how can then the resources be revived back and who can do it?”

One of the villagers promptly replied: “It will become possible only when all the villagers consider this as a common field of all the members together. We are a family of four brothers and all the members of our family work together in our fields. Every one of us work equally hard and we share the responsibility without any complaint or grudge. None of us tries to damage or steal the products from our field, when no body else is watching. Whatever we get out of it we enjoy equally. Similarly, if the villagers can consider themselves to be members of a family and this forest land to be a field of all villagers, no body will damage the resources. We shall take whatever is our share. There is no reason why we can not get best possible production out of it.”

**Step 3. Build awareness of new policy measures**

**Objective**

To build awareness about rights and responsibilities of people under new policies.

**Essential considerations**

A brief mention about the new policies may be required at the beginning or during the previous exercises so that people understand why such elaborate exercises are being carried out. Efforts may need to be repeated periodically for all people, among all the sections within a community, to become aware of all the aspects of their rights and responsibilities.

At this stage, no mandatory structural requirements for community institution or management committee should be prescribed. It is expected that communities will start discussing about regulating the access and develop some protection system. This will require mechanisms to devise regulations and monitor their abidance. The people should be encouraged to decide what they feel appropriate without any interference or suggestions. This will provide options to local communities to evolve locally appropriate systems by building on the existing and traditional systems. These may be more effective compared to any prescribed ones.
Activities

For explaining new policies and its implications to people, use of simple and illustrative tools becomes very important. Explain in group meetings and demonstrate in the field what type of activities will be their responsibilities and what rights they could have. If a village is too large, it will be useful to carry out such exercises in small groups to be followed by a combined discussion. Motivate people to share the information among other members not present in the meetings. Assess the awareness among different sections of the community and repeat the exercises, if necessary. Use posters stating the rights and responsibilities in local language and depicting the actions through diagrams such as a scene of people patrolling for protection or watch and ward, reporting about fire, catching illicit cutters, do’s and don’ts of extraction regulations (e.g. dried and fallen material vs. growing trees). Use well recorded videos to explain policies in local language and interactive setting.

Step 4. Facilitate communities in deciding regulatory systems

Objective

To facilitate communities in deciding a strategy of regulating access and start protecting resources from illicit users.

Essential considerations

Once a community is motivated to initiate collective action, the next obvious step will be to devise governance systems to regulate access of the members and protect resources from outside illicit users. The community should decide the issues. This involves a number of decisions relating to members who should have access rights, about mechanisms of regulating extraction of products in terms of quantities, manner, time and place and about establishing protection and distribution systems.

Similarly, the decision about which neighboring users should be allowed in a territory and which ones not, should be left on the community. It does not mean that even the legitimate users having customary or legal rights should be excluded. In fact, in most cases local communities accommodate such users. In case this does not happen, a little effort in sensitizing people about the consequences and threats to sustainability of regulatory systems could be helpful. However, no direct interference at this stage is desirable because this will give some time to neighboring communities to resolve the issues themselves through dialogue or negotiations, if there are problems. The apparent impression of resource-user relationship from the information collected in the preparatory phase cannot be easily relied upon because often there could be claims and counter claims. By playing the neutral role, the local staff can be more effective.

When community members decide to regulate access and protect their resources from outside threats, it should be indicated that the forestry staff will not continue the protection or patrolling duties. Otherwise this may affect the community commitment and the ownership of community regulations and development of responsive attitude among people. However, when there are problems of illicit users or organized groups coming from outside, the help from forestry staff should be easily available.

Activities

Some activities can facilitate local people in deciding appropriate regulatory systems, particularly when there has been no past effort or the traditional systems have lost effectiveness. Discuss a range of mechanisms or the traditional systems of control present in different communities which elicit different
systems of regulating access, extraction and benefit distribution. Also discuss the limitations and advantages of these systems in the local context including the impact on marginal sections of the community. Demonstrate different systems through success stories, videos and other forms of communication to local people in village group meetings. Arrange visits of some villagers to successful cases in similar socio-economic and resource conditions. Then facilitate these representatives to discuss their observations with their fellow members.

Step 5. Help managing conflicts

**Objective**

To help communities in managing conflicts which may arise during the process and build capacity for the future.

**Essential considerations**

Not all the conflicts can be expected to surface right in the beginning but the most obvious ones would become apparent once communities start regulating resource use. The appropriate steps need to be initiated to resolve conflicts so that the effectiveness of community regulation can be ensured before any process for granting formal rights and responsibilities is initiated.

The type and intensity of violations of community regulations indicate the nature of problems and conflicts communities have. It also reflects the effectiveness of protection system adopted by a community. More violations by the members of a community indicates that the problem is within the community. Even if sometimes conflicts are not visible, an opinion survey with a few representatives from different sections of communities in an informal setting would provide a feedback on how the system is working and how they feel about. It is especially important to assess the opinion of members of marginal sections such as the poor and women.

Depending on the nature of problems, appropriate steps need to be taken as the conflicts arise. If conflicts are within a community group, the measures should be taken to analyze the steps taken earlier or the other locally relevant issues to decide appropriate measures. If there are inter-community conflicts, efforts will have to be made among all the involved communities. The emphasis should be on indicating to local people that all the conflicts need to be resolved before formal recognition of rights. This should motivate communities to make effort by themselves to resolve the conflicts, rather than considering this as a responsibility of forestry agencies.

**Activities**

The type of activities required to assist communities in managing conflicts depends on the nature of the problems and issues involved. Organizing regular informal surveys and playing a role of direct or participant observant can be helpful to the implementing staff in being aware of the local problems. When needed, the implementing staff should take initiatives to organize meetings or facilitate discussion among the conflicting parties in an open atmosphere. The communities should be provided adequate support, as already discussed in the chapter on 'Improving Conflict Management Capability'.
Step 6. Promote gender sensitivity

Objective
To sensitize community members for promoting equitable participation of women in decision-making processes

Essential considerations
The activities for promoting participation of women may need to be repeated at different stages in the implementation process with different tools and exercises. The effort should be made to encourage participation in all the planning and decision-making processes. In the process of deciding and enforcing community regulations through the exercises carried out in the previous steps, the level of involvement of women would become apparent. This will be helpful in planning an appropriate strategy for promoting participation of women. Most important is to make community members realize the importance of participation of women for effectiveness of community regulations and sustainability of community institution.

Activities
Persistent effort is necessary through diverse activities and other measures as discussed earlier in the section on “Enhancing Community Capacity.” Some exercises, as mentioned below, may be used at this stage to promote gender sensitivity.

Daily activity schedules. Collect information about the daily activity schedules of men and women based on sample surveys within the community and discuss the results in a village meeting highlighting the amount of time spent by men and women.

Gender analysis. Carry out gender analysis of various forest products collected and the management activities carried out. Discuss which gender needs to devote more time and effort and why the involvement of both the genders is important.

Impact of regulations. Assess the impact of regulations decided on time and effort needed by men and women. Analyze if there are more violations by a particular gender. Encourage discussion if change in the regulations is needed to improve their acceptance.

Comparative exercises. Carry out some suitable exercises in separate groups based on gender. This could be done for deciding how much area to be closed, which area to be closed, what species to be planted, and what management strategy to be adopted etc. Then discuss the differences in results after combining the groups.

Step 7. Validate effectiveness of community regulations

Objective
To ascertain the progress and effectiveness of community regulatory systems.
**Essential considerations**

The future success of CBFP depends on the effectiveness of community regulations which should become clearly visible at this stage. The adequate time to test effectiveness depends on local circumstances and the nature of problems. The history of resource-user relationships, prevailing or past conflicts, resource conditions and other socio-economic aspects could provide some indications, if a community group is likely to have more problems.

Some conflicts may emerge only when resources regenerate and significant benefits start flowing. This is inevitable in any community-based program. However, the period of testing community commitment should be enough to reveal the obvious conflicts that may arise among the members or with the external users, whether legitimate or illegitimate. There cannot be any better and safer way to ascertain the conflicts that may emerge than waiting and seeing if any actually do. This provides an opportunity to the affected users to raise their pertinent issues. This also helps in identifying appropriate users who should have regular entitlements in a social-territorial unit.

Preferably a period of two rainy seasons should be considered to test the effectiveness of community regulations. Most of the natural regeneration occurs in rainy seasons. During and in the post-rainy season, seasonal herbs, grasses, fodders, leaves, etc. become available. Availability of fruits, gums, resins, etc. is spread over different seasons. Fuel and timber can be extracted practically any time, but usually winter or spring season is considered better.

It is expected that, if the past trends have been of afforestation or management through government investments, people may demand investments for regenerating the area. While explaining the rights and responsibilities, the people should be clearly told of a minimum requirement from them before any investments can be made and rights can be formalized. The minimum requirement is that the communities are able to demonstrate regulating access and protection from outsiders on at least some part of the area. This could not be applied where a fresh afforestation is to be done such as canal banks, tank foreshores, coastal areas and other extremely degraded or barren sites. On such sites, some artificial regeneration measures can be taken up on a small part of the community area with the clear knowledge of the community that the area is being developed to test the effectiveness of community regulations. However, even if a bare minimum root stock is present, it will be ideal to assess the natural regeneration potential before planning to supplement with artificial regeneration measures. Regeneration is important for trees, grasses, or other non-timber products which are often important for local communities.

**Activities**

Assessment of violations of community regulations can be done through participatory monitoring and evaluation methods planned at suitable periodicity. The participatory exercises have a potential advantage of motivating communities to take corrective actions, if needed. For example, if communities decide to ban grazing in a certain area, then visiting this area with some local representatives and watching for violations (could be indicated by fecal droppings or grazed plants in the area) could be a simple participatory exercise. Similarly, other violations could be judged through suitable indicators. Reporting the results of such participatory exercises in village meetings by community members themselves can stimulate greater interest and response of the people.

Three scenarios are described in Table 5.2 and a strategy is suggested for assessing the effectiveness of community regulations in these circumstances.
Table 5.2. Testing community capacity and commitment

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Measures to test community regulation</th>
</tr>
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</table>
| **Extreme degradation:**       | • Take up supplementary artificial regeneration measures in a small area for testing in the first rainy season.  
                                  • Emphasize on the sowing of suitable grasses, and planting quick rotating coppicing species for fuel and other multi-purpose uses. Also include other non-timber species which can start providing returns in a short time.  
                                  • Evaluate community regulation in the post-rainy season. If effective regulation is found, take up another similar effort the next year, but expect at least a small community contribution. |
| almost last stages of retrogression, heavy grazing pressure, even roots of woody plants are dug out and used by people, acute shortage of resources, fuel and fodder in major demand |                                      |
| **Moderate degradation:**       | • Motivate community to close a small part of their area for taking up supplementary artificial regeneration measures.  
                                  • After post-rainy season, let community regulate the extraction of harvestable regenerated products such as grasses and seasonal herbs, evaluate the effectiveness of community regulation, make a participatory assessment of regenerated species, analyze the need for supplementary measures, take up the measures and assess the effectiveness of community regulation after the post-rainy season. |
| limited regeneration potential, some supplementary regeneration measures desirable |                                      |
| **Low degradation:**           | • Do not take any supplementary measures but test the effectiveness of community regulation for at least two rainy seasons and then decide to take steps to formalize a resource management agreement, before providing any assistance for supplementary measures.  
                                  • Other incentives may however be provided to make immediate benefits attractive and generate interest in collective regulation. |
| good natural regeneration potential, supplementary measures required only for developing alternative income generating stream through planting of non-timber species that can tolerate shade |                                      |
FORMALIZATION PHASE

In this third phase, necessary preparations are made for formally entering into an agreement with communities to recognize their rights and assign them responsibilities. At the same time, the monitoring and regulatory functions of forestry agencies are spelled out clearly and made known to communities. A formal institutional set up of communities should become functional for governing the community affairs. This will also require development of a suitable management plan of resources by communities.

Step 1. Help developing a resource management plan

Objective

To facilitate communities in developing a resource management plan indicating allocation of resources for different purposes, activities to be taken up for improving resource productivity, and the extraction rules that will apply.

Essential considerations

Developing a resource management plan is one of the most important activities for transferring management responsibilities to communities. It is ultimately the rational management of resources that will ensure the flow of greater benefits to communities. The regulatory activities of community groups and the resource development interventions need to be primarily directed at achieving the rational management. Before beginning the planning process in a community, it should be ensured that the community is well convinced of the benefits of collective action from rational management of resources. The plan should be simple and easy to understand for the community (Figure 5.3). Without community enthusiasm and interest, the plan will remain supply driven and will not be owned by the community.

Activity--Setting goals of resource management

Current state of resources The assessment of current state of resources can be made through complete enumeration or sampling and measurements. However, for facilitating participation of people in the process, as far as possible, simple and visual or action oriented methods should be preferred. The assessment through transect walk and participatory mapping could be quite useful. For representing the information on a map, the broad categories of vegetation may be depicted pictorially by varying the heights and density of symbols used.

Potential of resource development. The potential for the development of local resources can be judged by examining the relatively undamaged or less degraded resources in the similar ecological zone where climatic, edaphic, and topographical features resemble with local conditions. If this type of resources can be found even in small patches in the nearby localities, this could be very useful in demonstrating to communities. Alternatively the resource potential can be judged by the conditions which people have seen before 20-30 years, when the degradation was not high. The loss in soil cover and the root stock at the local site should be taken into consideration while estimating the potential based on previous conditions.
Estimation of local needs. The product needs of dependent population can be estimated on the basis of consumption by local people and the current shortfalls, if any. Before doing that, the effect of excluding outside users should be considered. This may result in reduced pressure on the resources. One of the convenient ways to assess local needs is to assess perceptions of the people. The technique of ‘comparative visualization’, as discussed earlier, could be simple and quite effective for this purpose. The traditional local resource use should be given adequate consideration while determining the local needs. For example, if a section or majority of local community is involved in bamboo basket making, production of green bamboo should become an important goal. If rearing livestock is a major enterprise of local people then production of grasses and tree fodders will have to be given higher priority as opposed to timber.

Alternative options. The most crucial decision in the setting of an appropriate goal is to make a choice among the alternative possible uses. Any area in its natural regeneration process provides multiple products and use options. Most communities adjust to the local ecological circumstances and their needs often coincide with what is locally available. However, if because of changes in resource conditions, market demand or occupational patterns of community members in the recent past, the need for some specific products is increased, the options to improve the production of those products should be considered. Examples of resource development in the similar conditions by communities or government agencies elsewhere in the nearby localities also provide viable options. While facilitating the discussion about various alternative options, emphasis should be placed on building full awareness of the associated activities and the responsibilities for each of the options.
While deciding among various resource management options, economic considerations alone may not always be adequate or even desirable. Obtaining the maximum possible production of some valuable goods may be an economically rational decision, but may not always be locally appropriate. Social and cultural traditions also affect the choices of the people for a particular type of use. When the resources are limited, all the local needs may not be met from the resources. When the potential of available resources is more than the local needs, the choices could be to give priority to local needs and then generate surplus of those commodities that could bring maximum benefits to communities while sustainably managing the resources.

**Allocation of resources.** Based on the above information, the available resources need to be allocated into units requiring different management activities. The activities in different units may vary in terms of time of start, use regulations, silvicultural operations or regeneration measures. If the total resource area in the whole social-territorial unit is quite small, and uniform management can be adopted, the allocation in different units will not be necessary. If the area is large, it will be desirable to divide the area into different units and work out a rotational plan of development. Even if the whole area requires similar management strategy because of similar resource conditions, the division in units may still be useful to initiate activities in different units at different times. This will spread the availability of products and make it convenient in operation. Site conditions also become an important factor in the allocation of resources. Highly sloppy areas may be used for watershed protection, indicating limitations on some type of uses or extraction of products. Lower slopes and valleys may be more conducive to be used for grazing or other intensive uses.

**Building community ownership.** The estimation of resource potential and current or future needs of the people can be carried out through sample measurements, surveys and simple calculations. However, the main objective here is to build ownership of the decision making process in the community. For this purpose, setting of the goals and allocation of resources can also be achieved through other visual and action techniques such as mapping, diagrams and ranking. Such exercises could be immensely helpful in involving village people, when majority of them are uneducated. Detailed steps of an exercise based on such visual and action techniques are given in Annex 6. These exercises would be simple for local forestry staff and will involve less work. The needs of the people keep changing over time. As the resource availability changes, local people adjust themselves to the circumstances. Therefore, elaborate and accurate estimation of needs can be quite futile, when the purpose can be served by simple visual exercises.

**Activity -- Selecting regeneration and management strategy**

For reviving degraded resources, assisting natural regeneration should be the first priority. Only after assessing the response of measures to promote natural regeneration, planning for supplemental measures or silvicultural measures to improve productivity should be initiated.

**Natural regeneration.** The natural regeneration potential cannot be easily predicted in advance from the parts of woody plants left above the surface. The roots below may or may not be vigorous enough to stimulate good growth. If enough of plants regenerate and show vigorous growth after closure, there may not be any need for artificial regeneration measures. Natural regeneration provides an opportunity for natural species which may ecologically suited to local conditions. Closure from open grazing and other forms of extraction pressure is the simplest way of testing the natural regeneration potential in degraded areas and also provides opportunity to test the effectiveness of community regulation. Considering the current local use, closure should be initiated in small parts of community area at a time. The goal should be to avoid shifting of pressure from the area of one community to that of another. It will require
participatory planning with communities to decide when and how much area can be closed for grazing. Commonly after closing some portion of the total area, any next closure will require that some part of the previously closed area can be opened from grazing unless the people adopt a stall feeding strategy.

**Supplementary measures.** If mere closure provides indication of good natural regeneration, there may not be any need for supplementary measures. This will become apparent within one or two years of closure. However, if supplementary measures are required to hasten the process of regeneration, the main consideration should be to examine the goal of production from the area. For example, grass and fuel production simultaneously require sparse density of trees to permit penetration of light to the ground. If site is highly sloppy or eroded, the soil and water conservation measures would augment the regeneration process and minimize soil erosion. Choices for seeding or planting a particular type of species requires consideration of the climatic and edaphic conditions of the area and usefulness to the local communities.

**Silvicultural measures.** If the resource degradation is not severe, the silvicultural considerations such as pruning, thinning, intermediate felling etc. become important to obtain the best output. To make it convenient for operation, and to spread the availability of by-products, the area may be divided into different units and the operations could be rotated. Depending on the local conditions, there is a possibility and utility of supplemental planting of non-timber species.

**Enjoining the community.** The selection of appropriate regeneration strategy should be made in community consultation. For motivating communities, discussing benefits of closure with people, taking them on a visit to areas that have been closed and regenerated successfully, or citing examples of success could be effective. Field staff have also used mythological stories to motivate people in India (Box 5.2). Planning supplemental measures of regeneration would require choosing species and techniques of afforestation. This could be done through species ranking matrix keeping the criteria of site suitability under consideration. Product flow charts representing the conditions in the past and present could be useful in selecting non-timber species for which supplemental efforts are required.

**Activity -- Developing extraction rules**

**Acceptable level of extraction.** As a bottom line, it needs to be ensured that the extraction and use of resources does not lead to their further degradation. Ideally, the goal should be to achieve potential productivity in the earliest possible time which can only be ensured by limiting extraction to such levels that regenerative potential of resources is not adversely affected. Considering the local needs, the permissible level of extraction can be decided between these two limits. If the local needs are excessive, it becomes a question of trade-off between meeting current needs and achieving potential productivity sooner for maximizing benefits. Communities need to understand this to decide acceptable levels of extraction for various products.
Box 5.2. Field insight: Motivating people to close grazing in degrading forest areas

In Jhabua district of Madhya Pradesh in India, open access use of forest resources in the past decades has led to considerable loss of forest cover. Most of the areas in the hilly and undulating terrain of the district are subjected to immense amount of soil erosion. The importance of closure of forest areas from open grazing is one of the most serious challenge in this livestock rich district, facing tremendous shortage of fodder. The district forest manager, Mr. A.B. Gupta and his staff have often used a popular story of Hindu mythology to motivate people to close the areas from grazing.

The story says that in the ancient times the river Ganges was brought to earth by Lord Shiva in his long hairs. The Lord Shiva is said to have approached Lord Indra, who is believed to be God of Rains. When Lord Indra was pleased to provide water for the Ganges, Lord Shiva absorbed that water in his long and dense hairs and slowly released in the Himalayas from where the river Ganges has emerged.

Mr. Gupta and his staff interpret this story saying that the long and dense hairs of Lord Shiva are nothing but a dense cover of vegetation which helps in absorbing rain water where it falls. The same water recharges the ground water and then flows through water streams emerging from hilly areas. People quickly understand such popular stories and feel convinced when asked to confirm whether or not the water steam flow has been declining in their area due to loss in vegetation cover. Mr. Gupta and his staff find this type of stories quite useful in motivating people to close their areas for grazing to help the regeneration process.

Source: Conversation with Mr. A.B. Gupta, Deputy Conservator of Forests, Jhabua, his forestry staff and members of Village Forest Committee of Rakharia on May 11, 1997.

Involving the community. The forestry staff could facilitate discussion among community members for deciding extraction rules by organizing meetings. The extraction plan should include the time, place, manner and quantity of various products that are permissible to extract. The community can be involved in developing the plan by listing different products and discussing the rules in each block of management. The example for grass is given in Table 5.3. Similarly it should be done for fuel wood, poles, small timber, leaves, and other locally important products. Major silvicultural operations such as thinning, intermediate felling and timber harvesting require much more elaborate rules.

<table>
<thead>
<tr>
<th>Name of the product</th>
<th>Place/Block</th>
<th>Time</th>
<th>Quantities</th>
<th>Manner</th>
<th>Other restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grass</td>
<td>Block A: Young regenerating area</td>
<td>October</td>
<td>1 person per household per day until available</td>
<td>Cut and carry</td>
<td>No grazing until year 2000</td>
</tr>
<tr>
<td></td>
<td>Block B: Area under protection for last 5 years</td>
<td>November</td>
<td>1 person per household per day until available</td>
<td>Cut and carry</td>
<td>No grazing until grass cutting is over</td>
</tr>
<tr>
<td></td>
<td>Block C: Area left for grazing until Block A can be opened</td>
<td>Any time</td>
<td>No restrictions for members</td>
<td>Grazing</td>
<td>No damage to young trees through lopping or branch removal</td>
</tr>
</tbody>
</table>

Table 5.3 A sample of extraction rules for grass in a community managed forest area
Removal of some products may not be restricted by blocks or the allocation units, but the extraction rules remain important. For example, fruits should be extracted on maturity. Lopping of fodder from trees should be done in a manner that it does not affect the growth of trees adversely (Box 5.3). The planning for extraction should include all the locally important products which are prone to excessive or irrational exploitation. The products of lesser significance could be left from regulation.

**Box 5.3. Field insight: Lopping regimes vs. cutting of hairs**

During a field exercise in village Unkaliyat in South Rajasthan in India, author was attempting to motivate people to adopt forest product extraction rules that do not affect the growth adversely. When lopping rules were being discussed, the attention of villagers was drawn to a tree which was severely lopped and was left with only a main stem and a few short branches. It was asked whether it is good to lop all the branches and leaves like the tree or it may be more rational to lop only the lower branches keeping the rest to support the tree growth. One of the persons in the group said: “If our hairs are cut, these can grow back. But if our head is removed from neck like this tree, what will grow back?” His dialogue was so appealing to people that it did not require any further explanation for convincing them to adopt rational lopping rules.

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**Step 2. Formalize community institution**

**Objective**

To help build a formal community institution which can take the role of governing community regulations and interact with government agencies to protect community interests.

**Essential considerations**

The efforts for building a community institution and prescribing an institutional structure or the rules should be deliberately avoided early in the implementation process. When a community starts regulating resource use, some form of community institution and the functional modalities also emerge. However, these should be discussed with the community members, and the accepted rules and procedures should be recorded in the form of some kind of a charter (sometimes referred as constitution) which can be referred when some dispute arises about the functional modalities. Some of the basic issues which should be included in a charter include:

- eligibility to become members of the group,
- entry and exit rules for membership,
- size of governing council and selection of members for the governing council,
- role of governing council and frequency of its meetings,
- adopted pattern of leadership system (single or group), selection process and duties and powers of the leader(s),
- tenure of leader(s) and the members of governing council and their accountability to the whole group,
- process of forming or amending rules, and
- frequency of meetings of the whole group and issues to be reported to the whole group by the governing council or the leader(s).

Along with the charter a list of members with their addresses and other necessary household details should be made to eliminate the chances of a probable dispute that may arise over the entitlement of the...
benefits from resources. Commonly a standard charter is used by many government agencies which is applied without much discussion with community members. This leads to lack of awareness among members about their rights to participate in decision-making process and exercising control over the operations of community institution. Even if a standard charter may be applicable to many groups, it is very crucial that it is thoroughly discussed with all the members in a very open and participatory atmosphere and their approval is taken on each aspect. If some amendments are suggested, they should be recorded. It is just not a matter of informing them, it is rather a matter of building ownership and awareness of such rules.

Activities
The responsibility for the formulation of rules to govern the functioning of community institution should be left on community members. However, the discussion can be facilitated by the forestry staff in the meetings organized for this purpose. If some important aspects of the rules are not suggested by community members, they could be encouraged to consider them by giving such examples or explaining their importance. The effort should be made to stimulate discussion about the pros and cons of the rules. Even if this ends up in adopting a charter commonly used by most communities, it will build the ownership of the rules adopted in the community.

Step 3. Clarify rights and responsibilities

Objective
To develop a clear understanding among the community members about their rights and responsibilities for rational resource use and management and about the duties and responsibilities of the government agency.

Essential considerations
The process in the previous steps might have generated some perceptions among community members about their rights and responsibilities and about the duties and responsibilities of government agency. At this stage, the entire process and the understanding developed among people should be reviewed. Each aspect of responsibilities should be clearly discussed. It is not only the responsibilities of regulating access and extraction and protecting resources from illicit use, but also the responsibility of regenerating resources, taking steps for improving production, and maintaining them sustainably which needs to be understood by communities. The responsibilities should also include such activities as protection from fire, non-conversion of forest land for other purposes, and protection of wildlife.

The duties and responsibilities of the government agency should also be discussed clearly. In view of the management plan, the responsibilities of communities and government agencies should be reviewed. The most important part here is the recourse which government agencies can take in case of violation of responsibilities by communities. The mechanisms of this should be clearly defined so that no arbitrary decisions can be taken later. The system of monitoring should be participatory and the criteria and indicators to be used should be made known to communities in advance. The important monitoring responsibilities will be to oversee that there is equitable distribution of products and benefits, communities protect the resources from illicit use, extraction of products is within the limits as agreed, and appropriate measures are taken by communities to help resource regeneration.

Care should be taken to discuss and record the pre-existing legal or customary rights of traditional users from neighboring or distant areas. The example of seasonal migratory users is a case in point. Unless
clearly discussed in advance, these may lead to disputes later, threatening the effectiveness of community institution. However, the responsibilities of such outside users and restrictions that would apply to them should also be clearly discussed with both outside as well as local users.

Activities
The activities for clarifying rights and responsibilities to communities will include discussion with community members in the meetings organized for this purpose.

Step 4. Formalize resource management agreement

Objective
To develop a contractual agreement between community institution and government agency defining each other’s rights and responsibilities.

Essential considerations
Communities should be given a written document as a proof of recognition of their rights and responsibilities to provide legal sanctity to the agreement. This should empower them to take appropriate steps against internal or external illicit users. Before a formal agreement is approved by the appropriate levels of government representatives, the progress of community response should be verified as described in the previous steps. It is not the quality of plan on paper which can truly represent the response of a community. It is rather the perception, awareness and abidance of community regulations that could better reflect the capability of communities of managing the resources.

The resource management agreement should include the following aspects:
- charter of community institution, along with the list of members and the governing council, the history of community institution;
- description of the area, along with basic socio-economic data, a map, and current state of resources;
- management plan for resource use and development;
- rights and responsibilities of community members; and
- duties and responsibilities of government agency.

Activities
Through the implementation process followed in previous steps the necessary information for developing a resource management plan and other details of the agreement would be ready at this stage. All these elements should be reviewed with communities by the district managers along with the all the relevant staff responsible for the area before approval. A time-bound system of approval process would be ideal for avoiding unnecessary delays.
IMPLEMENTATION PHASE

This fourth phase provides all types of required support to communities in the implementation process. This will require developing an action plan consisting of activity schedules and the division of responsibilities between communities and state agencies. The care has to be taken that the investment planning becomes a demand-driven, bottom-up process starting at the community level. Communities will need support for technical, managerial, and marketing-related services, and for resolving any conflicts that may arise during the process. If the demand exceeds the production available from local resources, the efforts will also need to be made to promote communities to adopt alternative measures to fulfill the deficiencies in supply.

Step 1. Develop a demand driven investment planning system

Objective

To develop a system of planning for regeneration and development of resources which starts at the community level and in which the investment depends on the continuous performance of communities.

Essential considerations

It has been discussed earlier that the area having natural regeneration potential may not require supplementary measures other than collective regulation by communities. But for the areas needing investment in supplementary measures, a planning system needs to be developed so that it does not become supply driven. For making an investment system a demand-driven process, it should be realized by the communities as if they earned the investment from government by showing the best performance and compliance to the agreed responsibilities. It will require a bottom-up planning process starting at the community level. The necessity of the investments should be judged based on resource conditions and a community contribution should be expected.

Develop a bottom-up planning system. In the beginning of every year a participatory assessment of abidance of responsibilities by the communities should be made. Communities should be aware that the investment by government will depend on the results of participatory assessment process. The emerging experience of Nepal in using a bottom-up planning process has been found to be quite effective (Box 5.3). The process involves a series of interactive workshops. These workshops provide a forum to the user groups to share experiences and ideas. The workshops are also useful for the district forest staff to interact with the user groups and to develop realistic annual development plans.

Promote community responsibility for fencing. Closing an area from grazing is almost a minimal necessity for helping natural or artificial regeneration in an area. Closure can be done through social fencing, in which communities decide to keep their livestock away from the designated area by a common consent. Since it saves entire cost of fencing, it considerably minimizes the need for investment for supporting regeneration measures. Social fencing directly reflects the effectiveness of community regulation. However, not everywhere social fencing may be a practical way because of the prevalent grazing practices. This is true in areas where livestock density is considerably high and the practice of herding (animals accompanied by some person to regulate their movement) is not common. If in an area farmers fence their fields to protect their crops from grazing, even if it is seasonal, in most instances it means that the area to be regenerated will require some kind of fencing.
Box 5.3. Emerging experience of bottom-up planning in Nepal

The experience of bottom-up planning in Nepal's Community Forestry program is one of a simple and pragmatic approach that takes into account local needs before imposing development targets derived by outside calculation. Bottom-up planning starting at the beat level was largely pioneered by Nepal Australia Community Forestry Project while many other projects evolved their own processes or adapted from this pioneering effort. The main features of the process are described below.

The planning process starts at the level of forest user groups. The forestry staff facilitates the process in the general assemblies of individual user groups to help them develop the proposals for the activities to be taken up during the next year. The community contribution and responsibilities are also decided. Usually these proposals are then discussed at the annual user group networking workshops. These workshops are organized at the range or the district level. The district offices finalize these proposals after judging the capabilities and past performance of the user groups. If there are any discrepancies in the plans these are removed before proposing them to higher levels.

The proposals are then discussed at the regional or national planning workshops and budget proposals are finalized and submitted to national planning commission. After the approval of budgets, these are allotted to district offices. This process has shown encouraging results in building ownership of the planning process among communities and the local forestry staff.

Source: Wee and Jackson, 1993; Gayfer and Pokhrel, 1993; Shreshtha, K.B., personal communication.

One of the ways to explore possibilities of minimizing the cost of fencing is to leave the entire responsibility of fencing with the local people. The effectiveness of fencing may be assessed periodically by examining natural regeneration. People will obviously explore the least cost options. There could be a number of cost effective ways of fencing. Fencing through dried plant materials or live hedge fences are some of the examples. Live fences have the advantage of providing some products to local residents. Depending on the costs that need to be born by people, if it is too high, a part of the cost could be reimbursed to people if the effectiveness of fencing is proven. Alternatively, a fixed sum per unit length of fencing could be paid to community to at least cover a part of the community cost.

Mobilize community contribution. The main objective of seeking community contribution in resource development is to generate ownership of the development process. If community members contribute to the cost of development of a resource, then the members will develop greater stake and will ensure that the situation does not revert to open access. When a contribution has to be made by community members, it should be a felt cost such as direct payment or contribution in the form of labor. The contribution thus should have some opportunity cost to people. Deduction from the payment in wages or other forms of incentives will not be effective. Mostly people will perceive this as a reduced wage or reward rather than a contribution. If people have to contribute from the additional incentives received, it can still make the contribution felt, if the decision to contribute is not obligatory when incentives are provided.

The contributing members should be convinced of the advantages from the investment. A plea for deducting the amount to be contributed from the wages at source is that members once receive the wages do not make even a promised contribution. This is in fact a direct indication that the members are not convinced of the benefits from the investment of the contributed fund or have over years become dependent on the government investment. Both the situations need to be avoided for effectiveness of the development process.
All the members benefiting from the resource should contribute towards its development and should also have a say in making a decision about the use of contributed fund or the resource being developed from contribution. Community takeover of some responsibilities may not be perceived by community members as a contribution unless it directly adds some cost to them. For example, saving in investment due to social fencing may not add to a direct cost if it does not require regular patrolling. The amount of contribution to be made by community should be linked directly to benefits. The value of benefits perceived by community should be more than the contribution expected from them. The benefits sometimes may not be perceived by people, if they are indirect. It makes deciding the amount of contribution a very difficult process. Some of the practical options are discussed in Box 5.4.

**Box 5.4. How much community contribution?**

Deciding the amount of contribution for a community is a complex issue because the value of benefits cannot be easily estimated. It may be a time-consuming and intensive process.

Leave a fixed part of the development activities as the responsibility of community, depending on localities, such as fencing, watch and ward, minor cultural operations, post-planting care (but link additional incentives with the survival and growth of plants).

Expect a fixed amount of contribution per unit area for initiating development activities. The amount of contribution could be varied between regions or localities depending on the current state of resources and other socio-economic conditions. The contribution could be in terms of in kind or cash. Increase this amount in some appropriate proportion for each additional area to be covered.

Provide a fixed amount as reimbursement of the cost to the community. The amount to be reimbursed is reduced over years. In Nepal in the Hill Community Forestry Program, initially Rs.4,000 per hectare were provided to community user groups. However, this amount has been gradually reduced to merely Rs.500 per hectare in a period of 5 years. If such an approach of reduction can be made known in advance, this will create incentives for communities to initiate activities early.

**Provide target-free flexible budgets.** The demand-driven process of investment requires that investment is made only if favorable response is shown by communities. If the expected response is not achieved, it should be possible to withhold investment, even if budgetary provisions are available. This process requires that the amount of budgets to be spent is available in the flexible amounts to the district managers and field functionaries. The budgets left from one financial year should be available for use in the following year. The achievement of budgetary targets should not be used as a measure of performance of the staff. The performance could rather be judged by getting community commitment or achieving continued performance.

**Step 2. Develop an incentive strategy**

**Objective**

To develop a plan of providing additional incentives to communities to motivate them for rational management of resources
In some circumstances, when the controlled access to resources is unable to provide adequate benefit flow to communities, it may be appropriate to provide additional incentives which can generate the interest of communities in the rational management of resources. This will be important until such time when resources gradually revive and start providing enough benefits to sustain the interest of communities in rational management. Following aspects could be helpful in developing an effective strategy of providing additional incentives.

**Establish the need for incentives**

The objective of deciding a suitable incentive strategy is to make community realize the benefits of controlling the access and restricting extraction to help resource regeneration. The four important types of circumstances in which providing additional incentives to communities become specially important have been discussed in the section on “Enabling Community Action”. If any of these aspects are apparent before taking initiatives to decide the appropriate forms, quantum and delivery mechanisms of incentives, the need for incentives should be discussed with community members.

Discuss the present level of production that is obtained and seek opinion about the impact of regulated use that will affect the immediate availability of products to people. For example, restrictions on grazing or fuel collection in a part of the area may require people to search for alternative sources or obtain produce from outside. Discuss simultaneously that the area closed would result in increased availability of grass and some other products even during the regeneration process. Especially discuss the increased production over years also. Assess if there is a loss in the availability of production in the short run and for how long. Decide an appropriate incentive strategy to compensate for the loss.

Sometimes compensating only for the loss may not be adequate. For example, due to non-availability of adequate wage earning opportunities in the lean period, people turn to extracting forest products and selling them to earn their livelihood. In such circumstance, consider the total unemployment period rather than only the loss in their earnings due to restrictions in resource use. Link provision of wage opportunities to people with their commitment to abide by the regulations.

Discuss the impact of initiating regulated use on the marginal and poor sections of the community who may be having greater dependence on the resources. This is especially important in heterogeneous communities. A pre-assessment of dependence through periodic direct observations could be helpful in better understanding this impact. After verifying the information, analyze the loss in number of person-days or immediate benefits to these marginal sections within the community. Persuade the better off sections to provide a differentially higher share in the additional incentives to the marginal sections. Discuss its importance in generating the interest of marginal sections in abiding by community regulations.

Demonstrate the value of potential benefits that will be available to communities from resources due to regulating access and following the management plan. This may be done by comparing the present level of production with the expected production after initiating regeneration measures. Also discuss the impact on the environmental services. If the direct and indirect benefits from resources are not perceived to be adequate, additional incentives could be used to make the benefits more attractive. This could be especially important in relatively better areas, where the current rates of resource degradation may not be resulting in local scarcity.
**Decide appropriate forms of incentives**

To improve the effectiveness of incentives, the suggestions for appropriate activities should emerge from communities so that they feel the ownership. Having a ready list of a few options may not be very effective. Nor will it be desirable to start with the need assessment, which may lead to raising expectations that cannot be fulfilled. In order to keep the expectations low, it is better to emphasize that the additional incentives are meant for compensating the loss in immediate sources of incomes resulting from the restrictions on the resource use.

The communities could be motivated to consider locally suitable options by discussing all types of possible activities. Potential, though unfamiliar activities can be demonstrated for the communities. Widening the options for incentives can be immensely helpful in selecting appropriate forms of incentives. Some products can be processed locally or other enterprises can be taken up by local people. The assistance in terms of entrepreneurial training, technical information, building awareness about marketing channels, and providing credit facilities can be taken up as a form of incentive. There could be some development activities which generate assets, as well as provide wage employment. Such activities should be so planned that the employment is available in the lean season. Building or augmenting small irrigation facilities also helps in raising agricultural production to compensate the loss of income.

**Link incentives with performance**

If it is not realized by community members that additional incentives are a reward for their commitment to manage resources sustainably, the objective of providing incentives will not be fulfilled. Additional incentives do not flow from resources and, therefore it is very important to link them with the performance of communities. The activities decided as a form of incentive should be so selected that these can be divided over years. Then a schedule of delivery of these activities should be discussed with communities. It should be clarified that before delivering an activity at each point on schedule, the performance of community will be assessed in terms of abideance with the agreed responsibilities. The activities should be delivered only when compliance of responsibilities by the communities is satisfactory.

**Step 3. Help in developing an action plan**

**Objective**

To help communities in developing an action plan for implementing the decided management strategy.

**Essential considerations**

For each resource unit, an activity plan should be prepared consisting of the activity schedules and responsibilities of the communities, as well as forestry agency. If the activity plan has to be similar for other management units but to be initiated in later years, a separate schedule may not be necessary at this stage. In such cases, the activity schedule should be freshly developed when the action is to be initiated incorporating lessons from the experience of implementing plan in the previous year(s). However, if the action is to be initiated in other units at the same time but through a different approach (for a different primary objective), then separate activity plan should be drawn for all such units.

Detailed advance planning for many coming years creates a sense of dependence in communities which needs to be avoided. Communities should be indicated that the planning and investment of next year is
not automatic but will depend on their performance during the current year. This approach will ensure the demand driven mode of operation rather than it becoming supply driven.

**Activities**
The activity schedule for each resource unit should be decided through a participatory group discussion seeking opinion on appropriate time and the responsibility for each activity. A sample of an activity schedule is given in Annex 7. This type of locally appropriate schedules should be developed for each management unit.

**Step 4. Sensitize people for fulfilling deficiencies in supply**

**Objective**
*To motivate people to take measures to cover the deficiencies in supply of products after considering the potential of local resources.*

**Essential considerations**
The success of all the efforts made to regenerate and manage resources sustainably depends on maintaining the level of extraction in such a way that resource regeneration is not hampered. This will be practical only when the local demand is limited to the capacity of resource to supply products, if extraction is regulated based on sustainable levels. This is especially important during the process of regeneration. If the demand exceeds the supply potential, then it becomes very important to motivate communities to adopt measures for fulfilling deficiencies through alternative options, like using alternative products or energy sources, improving production on private or other common lands, and reducing consumption of forest-based products through conservative or efficient use.

**Activities**
The discussion should be facilitated in village group meetings to sensitize local people about the gap in the demand- and supply-potential and build awareness about the alternative options. These activities should be targeted at making people understand the rationale for taking alternative measures. Since this would be more important than merely supplying the goods and services to facilitate adoption of alternative options, use of a strategic process described in Annex 8 could be quite effective.

**Step 5. Provide necessary support services**

**Objective**
*To provide necessary technical, managerial, marketing related and other support services and facilitate resolution of conflicts.*

**Essential considerations**
Implementing various planned activities and maintaining regulated use of resources by communities will require a continuous support of forestry staff. Since the support required by different communities may vary according to local circumstances, the staff should maintain a regular contact with people to remain fully aware of the developments taking place in the communities. From initiating regulated access for regenerating resources to achieving potential productivity and sustainably managing at that level remains
an ongoing journey. Therefore, the attention and effort of field implementing staff should not be diluted during the entire implementation process.

**Activities**

Not all aspects of support can be planned in advance, making it necessary for staff to pay attention to various activities. Monitoring of activities must be assured on the agency side and those committed by communities. Financial resources must be available as per the commitment made by the agency. Equipment, seeds, nursery materials, seedlings and other necessary materials must be available. Technical support needs to be provided for silvicultural management operations and field work such as contouring, layouts, planning soil and water conservation structures, advice and supervision for cultural operations, advance preparations, planting and after care.

Staff will also need to assure that a locally specific strategy is developed to maximize benefits to local people from available products by providing appropriate marketing information services, improving the knowledge of processing, packaging, and handling and building awareness about the measures to enhance the production of valuable products. Local people should be provided incentives as per the agreed strategy such as entrepreneurial training, developing local facilities or assets. Promoting an effective system of user fees, self-run micro-credit programs, should follow any favorable response about these activities in a community. Staff should assist communities in maintaining suitable records of community activities, accounts, and proceedings of various meetings and decisions taken and develop a local capacity for carrying out these activities by some of the community members themselves. As becomes necessary, staff will facilitate resolution of conflicts. As resources regenerate and community regulation is maintained, a variety of conflicts may emerge during the process. These may be internal or may be with external parties. A continuous support would be necessary to improve the capacity for conflict resolution.
MONITORING AND IMPROVEMENT

Monitoring is an ongoing and integral part of implementing community-based programs. Monitoring of activities start right from the beginning of the implementation process. Since the learning process used here requires assessment of the progress at each step, monitoring obviously becomes a necessary prerequisite before taking the next step. Besides, monitoring is essential to judge the overall impact of the implementation process on achieving the objectives of the program. This chapter draws mainly on World Bank (1981), Clayton and Petry (1983), Davis-case (1989, 1990), Feuerstein (1994), and Jain and Jain (1997a).

Benefits from monitoring

For communities. Monitoring should help communities to understand how effective they are in meeting the decided goals of resource management, how different sections are affected by regulations, and how regulations are being accepted by community members and the excluded outside members. Communities should review their progress through regularly scheduled meetings. Members will want to be aware of the importance of monitoring all aspects of the functions of the community institution. The front-line staff may have to facilitate this process in the beginning. The members of different sections or interest groups of the community should be encouraged to raise any relevant issues. This will enhance greater transparency in the functioning of community institution.

For front-line staff. It should be helpful to the front-line staff in understanding the impact of steps taken by them for motivating the communities so that they can take corrective steps if it is noticed that the steps taken have not yielded expected results. The staff should continuously monitor the implementation activities to be carried out by them as well as communities. This has to be essentially a part of their regular functions. The interactive learning processes can be very useful in the monitoring process.

For supervisory staff. The supervisory staff, particularly the district managers should be able to periodically assess the effectiveness of the steps taken by the front-line and their immediate senior staff. The district managers should be able to also monitor the progress of community institution and the impact on resources. This should help them in taking appropriate and timely decisions to ensure a continuous progress of the implementation process. The reports from the field staff and their own supervisory activities should provide some information to district managers about the progress of implementation process. However, this will not be adequate to judge the impact on community institutions and the resources being managed. It requires a systematic and periodic monitoring system specifically designed for this purpose.

Some essential considerations

The discussion below is focused on details of a monitoring process meant to serve the purpose of district managers and the implementing staff. The monitoring process will be equally useful for sensitizing communities if the process is made participatory. Therefore, the emphasis is on adopting the process of participatory monitoring. At first, some essential considerations for developing an effective monitoring system are discussed.
**Unit of monitoring.** For community-based programs, the ultimate unit of monitoring has to be one within which there are direct linkages with the responsibilities, primarily of a single community user group. When aggregated information is required, it should be based on such community units and possibly represent variation among these units.

**Relevance with the objectives.** The monitoring process should focus on measuring such activities and aspects which indicate the progress towards achieving the objectives of the program. Often when a program is developed and divided into discrete activities, the relevance of monitoring the activities with respect to the main objectives of the program is lost. Monitoring of discrete activities should not become an end in itself. For example, if the objective of a program is to promote tree planting on private lands to reduce pressure on government forest lands, monitoring of merely distribution of seedlings will be highly inadequate to indicate fulfillment of the objective.

**Periodicity in the process.** Monitoring should be carried out at a regular interval to ensure comparability over time. Particularly the condition of forest depends on seasons and an appropriate time of assessment becomes very critical. If seasonal grasses and other annual herbs need to be observed for recording progress in succession then it has to be at a time when such plants are still visible, such as towards the end of rainy season. On the contrary, if survival of planted seedlings is to be assessed, the appropriate time will be before the onset of rainy season so that the survival is measured after the plants have faced dry season.

**Comparability of measures.** As far as possible the measures should be so developed or presented that these can be used to compare the progress between different communities. For example, if the area under regulation is reported for different communities, it does not provide a good basis for comparison. However, if the same is presented as the proportion of the total area in the territorial unit of a community, this becomes a relatively better measure to compare the progress of different communities.

**Benchmarking progress of a community.** For each attribute to be used for monitoring, a base line measurement should be made at the start of the program. It would also be ideal to have an assessment of expected level of achievement for the attributes where it is relevant so that the progress can be better judged. The practically attainable level for an attribute is affected by several factors which should also be considered while judging the progress. For example, the installation of biogas plants cannot be expected from those members who do not own livestock.

**Criteria for selecting indicators.** The indicator should have an unambiguous definition so that it is not interpreted differently by different people involved in the process. It should be easy to understand and use for the local staff and also for local people. It should be relatively easy to measure in a cost-effective manner. If one aspect can be measured by a number of indicators, the indicator selected should be best possible representative for explaining the ‘state’ of a condition being measured. It should be less prone to bias in measurement. If an indicator is measured by different people in the same circumstances, they should be coming to nearly the same value. If available indicators for measuring a particular aspect are prone to bias, possibly more than one indicators should be used to measure the same aspect. The indicator should explain the variation in performance, state or impact as clearly as possible.
Designing the monitoring process

In CBFP monitoring a number of aspects, processes and community responses cannot be easily captured in quantifiable measures. Therefore, it may not be desirable to exclude the use of qualitative measures, though these should be defined as clearly as possible to make them less prone to bias. In the monitoring strategy suggested here, both qualitative and quantitative aspects are used and effort has been made to make the process simple without ignoring most of the important aspects that would be useful to measure. The need to continuously observe the actions and responses of community members make the process of monitoring CBFPs a complex activity. The resource regeneration and productivity are some of the aspects which can be physically measured. Nevertheless, not all the community actions and functional modalities reflect immediately in the impact on resources because resource regeneration may be a long term process. If the operational evidence of responsibilities taken over by communities indicates that the extraction rules and its implementation is not adequate, the monitoring process should indicate the need for corrective measures without waiting for physical indications in terms of the adverse impact on resources to become visible.

Observing community response becomes even more important because the state of resources cannot always be attributed to responsibilities taken over by the communities. For example, if forestry staff is continuously and effectively protecting a resource area from over use and allowing only mature grasses and dried and fallen wood to be extracted, the resultant state of resource cannot be attributed to community responsibility. Nor does it indicate that communities will continue to maintain the same level of extraction restrictions, once the attention of forestry staff is shifted from the area to new ones. The monitoring process for community-based programs should therefore include observations both on the impact on resources and the processes within communities. Monitoring of both these aspects require a systematic and well-planned approach and the monitoring exercises for this purpose have to be carried out periodically.

Monitoring community response

The effectiveness of community institution is reflected in the acceptance of regulations and responsibilities by community members. The process through which the rules and mechanisms are decided contribute greatly to the acceptance of these rules by community members. It is important to consider how the marginal groups, women and such other interest groups, participate in the process of rule formation. However, the process through which these are decided, the functional modalities used, and the type of regulations adopted are equally important. The aspects measured should indicate the effectiveness of the community institution and at the same time they should relate to the objective of achieving rational resource management. The rational resource management process is affected by two main aspects: extraction regulations and the measures adopted by communities to improve productivity.

Effective rules limit extraction of resources to a level which does not hinder the regeneration process. Method for sharing the extracted produce among community members should reinforce members’ interest in abiding by the extraction regulations. Implementation of extraction rules should ensure no regulatory violations (if there is a threat from outsiders or violations from community members, the mechanisms of protection and regular watch and ward become very important). And conflict resolution plays a significant role in the acceptance and effectiveness of extraction regulations.

The effectiveness of community institution in deciding and implementing the measures to improve productivity can be more easily observed in the form of regeneration of resources. It should be observed to what extent the measures decided are suitable according to local conditions to get maximum possible
benefits from resources while ensuring sustainability and how has the community developed the ownership of the planning process and the measures decided. The ownership of the process can be further judged by how much the community is willing to contribute in the investment required for resource regeneration and management. In addition, the productivity can be judged by how the community decides to maximize their benefits from common property. If a community institution gradually expands its role in the decision-making process, it indicates greater effectiveness of community institution.

Most of the attributes discussed above can be more easily captured in aggregate qualitative measures. If some of them can be indicated by events or activities which can be measured quantitatively, in most instances it will not reflect the full aspect of the intended attribute. For example, the capacity of community in resolving conflicts may result in the declining number of violations. However, the decline in violations may be due to several other reasons. Similarly, the level of participation of people may not always be well reflected in the number of meetings and number of member in an institution, if these are just a blind follow-up of what every one else in the area is doing. For facilitating comparison of performance of different communities, a method of scoring using ‘multiple criteria’ assessment could be helpful. A comprehensive scale developed to assess the progress of a community institution, using the scoring method is given in Annex 9. In this scale, the judgment of a score for an attribute is made based on a number of activities and processes happening in a community over a period of time. The scores for each attribute can be compared among different communities. The scores of different related attributes can also be aggregated to compare the overall progress of different communities.

**Monitoring resource management**

Ultimately all the activities of the implementation process should result in the improvement of the resource conditions. The indicators for monitoring of resources could be developed using the ‘pressure-state-response-impact’ framework. The initial assessment of local conditions has been described using the same approach in the ‘preparatory phase’ earlier. This could become a baseline if it is intentionally done with appropriate details and greater accuracy. The observations on resources after the initial baseline should be mainly focused on how the pressure on resources is changing, what is the extent and type of measures taken, and what has been their impact which can be observed on the ground. Some useful indicators for assessing these aspects are given in Table 5.4. Most of these indicators are quantifiable which makes it easy to measure them in a relatively unbiased manner. The indicators are presented in forms that makes their comparison possible, although they have to be derived from the basic data for each community.

**Participatory process of monitoring**

Usually monitoring for impact assessment is done by field implementing units through special cells set up for monitoring purposes within the agency. Sometimes it is done through or with the involvement of implementing staff. Communities are rarely involved. If communities are involved in the process, it can provide them insights for removing the bottlenecks to the progress. Participatory monitoring process provides an opportunity to get communities as well as the implementing staff involved in the process together and learn from each other. Involvement of outsiders from within or outside the agency could provide a relatively unbiased assessment. It may even be an experienced staff from areas other than the one under consideration. Thus, monitoring should ideally be done by a team of local staff and some outsiders along with community representatives. Assessment of both community response and the impact on resources should be carried out together to get the comprehensive feedback from both quantitative and
Table 5.4. Indicators for monitoring resource management

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in pressure on resources</td>
<td>• Proportion of outside users excluded</td>
</tr>
<tr>
<td></td>
<td>• Proportion of livestock units sold or turned to stall feeding</td>
</tr>
<tr>
<td></td>
<td>• Proportion of livestock owning households having installed biogas plants</td>
</tr>
<tr>
<td></td>
<td>• Proportion of households using fuel saving devices</td>
</tr>
<tr>
<td></td>
<td>• Proportion of households using other alternative forms of energy</td>
</tr>
<tr>
<td>Area under regulated use</td>
<td>• Proportion of total area under regulated use</td>
</tr>
<tr>
<td></td>
<td>• Proportion of area under unregulated use (e.g. open grazing)</td>
</tr>
<tr>
<td></td>
<td>• Extent of resource use as indicated by the produce collected or animals grazed per unit area</td>
</tr>
<tr>
<td>Effectiveness of regulations</td>
<td>• Number and degree of violations categorized suitably such as minor (e.g. occasional grazing, lopping), moderate (e.g. cutting big trees) and major (e.g. organized violations from outsiders) violations</td>
</tr>
<tr>
<td>Supplementary regeneration measures</td>
<td>• Proportion of total area taken up for supplementary regeneration measures</td>
</tr>
<tr>
<td></td>
<td>• Proportion of potential area treated through cleaning operations to eradicate undesired plants and help establishment of desired plants</td>
</tr>
<tr>
<td></td>
<td>• Extent of seeding of different species, establishment of plants and growth at periodic intervals</td>
</tr>
<tr>
<td></td>
<td>• Extent of area planted, survival and growth of planted species at periodic intervals</td>
</tr>
<tr>
<td>Change in vegetation status</td>
<td>• Stage of succession indicated by number and/or extent of indicator plants such as grasses, herbs, shrubs or trees established</td>
</tr>
<tr>
<td></td>
<td>• Sprouting and growth of woody plants from root stock</td>
</tr>
<tr>
<td></td>
<td>• Area under different vegetation density classes and change over time</td>
</tr>
</tbody>
</table>

qualitative aspects of the process. Some senior staff, at least the range officer level, should be involved in organizing and facilitating the whole exercise.

The participatory exercise should be well planned and carried out at regular periodicity, such as half yearly or yearly. The community members should be informed in advance about the purpose and the strategy of the exercise. The vegetation assessment can be done with selected representatives divided in different sub-groups each accompanied by a staff. The results should be later compiled and discussed with the whole community. For the questions relating to qualitative assessment (such as for monitoring community response, as discussed above) the whole community should be divided in 3-4 sub-groups and the results should be compared. If there are differences in values about some attributes, these should be discussed to arrive at a common agreement. At the end, the overall results should be discussed with the whole group. The reasons for poor as well as good performance should be analyzed and a strategy for future action should be developed.
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Annex 1.
Community forestry approaches in Nepal and India: distinctions and mutual lessons

The program adopted in India is implemented through joint arrangement between communities and forestry agencies with shared responsibilities and benefits. It is commonly termed as Joint Forest Management (JFM). In Nepal, the program is referred as 'community forestry' and is reflected in recognizing greater rights and almost complete responsibilities of resource management to the communities. No share in the benefits is taken by the state agencies. These two countries have not made much efforts to learn from the experience of each other. The experience of India can be used to provide support in terms of income generating activities as a form of incentives in Nepal in specific circumstances to motivate communities for collective regulation. India, on the other hand, has many lessons to learn from Nepal in terms of providing greater legitimacy and long term security, and avoiding subsidy dependence or at least emphasizing a move towards self-reliance among the communities.

| Table A1.1. Major differences between the features of community forestry programs in Nepal and India |
|---------------------------------------------------|---------------------------------------------------|
| **Nepal**                                         | **India**                                         |
| Community user groups are ‘handed over’ a forest area which they use and intend to manage with long-term rights (99 years) for all the benefits flowing from its management. | The rights of communities are usually for a short period of 5-10 years which can be renewed further. The state retains a share in the produce, particularly of major produce such as timber. |
| Communities have complete responsibility of all the management activities. The state assistance is limited to reimbursing a part of the cost of first-year regeneration operations which has been declining over years, thus rapidly moving towards self-reliance of the communities. | The responsibilities of communities are limited such as regulation of access of its members and some protection responsibilities. The state assistance often covers complete cost of regeneration measures not only in the first year but also in the subsequent years. |
| Initiative for formation of user group and applying for handing over of forest must be made from users. Users also have responsibility of preparing ‘operation plan’ for the management of the forest to be handed over. The assistance of forestry staff is provided as needed. Communities have relatively greater ownership of such plans. | Initiative for the formation of Forest Protection Committees (FPC) is often taken by the forestry staff, except for the self-initiated groups. ‘Micro-plans’ consisting of resource regeneration and management details are prepared by forestry staff in community consultation. Frequently, this leads to lack of awareness of details of plans among the community members. |
| Nepal has promulgated Community Forestry Act in 1993 and developed rules and bylaws under this act. Thus, the agreements with communities have legal sanctity. | No JFM resolutions are passed under the provision of Forest Act and therefore do not have legal sanctity. Agreements with communities under JFM resolutions, therefore, remain extra-legal arrangements. |
| Greater autonomy has been provided to users - such as user groups have freedom to fix rates at which to sell the forest products from community forests; user groups have a hammer for marking the timber for transportation. | Rights of FPCs to fix rates are not explicitly stated in any government resolutions governing JFM arrangements. Harvesting of major forest produce such as timber is generally carried out under direct supervision of forestry staff. Using hammer marks etc. therefore, remain a prerogative of forestry agency. |
| The operational guidelines for field implementation of CBFPs prescribe a phased process of building local capacity and take into consideration indigenous management systems used by communities. The process before handing over is meant to ensure that communities have established effective regulations, users of the prospective community forest have been properly identified, and conflicting claims, if any, have been resolved. | The operational process is not well defined. Usually, after a few initial interactions and some favorable response, a micro-plan is made in the villages in which a program of JFM is to be initiated. An elaborate process of ensuring effectiveness of community regulations is almost absent. |

Source: Palit, 1996; Hobley et al., 1996.
Annex 2. A strategy of intensive piloting to build capacity for initiating extensive efforts

Need for piloting

When in a country or a region, the community forestry program is being tried for the first time or if there needs to be considerable changes from the past practices, gaining experience through small pilots may be much more useful than initiating the program all over. A few cases of success set by innovative officials are not enough to replace the need for piloting. Even if there are significant differences in the social and ecological circumstances in an area compared to the one where the experience has been gained, it would be more useful to pilot a program in the new region or in a new area even within a region.

Objectives of piloting

Piloting implies that a community-based program should be tried in small but representative areas where the program is intended to be extended later. The main objective is to understand the appropriateness of various options in terms of policies and practices to achieve sustainable management of forest resources through community involvement. It is also important to understand how the polices and practices need to be varied or adapted to be effective in various local circumstances. Thus, pilots provide an opportunity to rectify mistakes before these get repeated in large areas. Pilots are also aimed at systematically learning from this experience about the process of institutionalization of different practices and operational procedures in an implementing agency.

Strategy of intensive piloting

In order to be widely useful, the pilots should cover diverse areas and circumstances in which the program is finally intended to be applied. The pilots should not merely be tried in the circumstances with favorable factors, but also in difficult areas to understand how to deal with future problems.

Within a representative locality, it would not be adequate to initiate pilots in just a few communities. It would be more appropriate to cover at least a whole range in a pilot program within a socio-ecologically representative region. This will facilitate the implementation of pilots the same way as it would have to be done while expanding the program in all the potential areas.

Preparing for intensive piloting

Since the main objective of piloting is to learn about the potential of a new approach and the suitability of policies and practices, it requires a much more systematic and strategic planning. It needs to be ensured that the effort through piloting is whole hearted and necessary steps are taken and sincerely implemented. Some of the essential considerations in preparing for piloting are highlighted below.

1. Piloting should not be taken as merely an experimental activity, but the effort should be capitalized on the available experience and lessons already learnt about the strengths and weaknesses of existing practices. Therefore, the first step should be to analyze and derive lessons from the existing experience elsewhere and understand the similarities and differences with the local situations. This could be an experience even in another region or a country, still many aspects can be learnt about the policy environment and practical modalities used. Consider social, economic, cultural, and ecological factors that affect the interests of local
communities in taking over responsibilities. Also consider the role being played by the implementing agency staff and the factors affecting their motivation in providing support and necessary services to local communities.

2. To ensure the sincerity of effort, select committed and innovative staff for pilots. This does not mean that later the success will only depend on the availability of better skilled and committed staff but this is important for piloting because many aspects of working procedures need to be evolved. These working procedures will be adopted later by all the staff, therefore, these need to be simple and easy to implement. To attract competent and committed staff to work under the pilot programs, provide additional incentives based on the previous achievements and future performance.

3. Develop a system of incentives which is linked to performance. There are so many diverse aspects that are involved in implementing community-based programs that the sincere efforts by implementing staff could be better ensured through developing a system of incentives for measurable performance. Implementing the incentive system should also be treated as a necessary component of pilots. How an efficient system of incentives could be developed has been discussed in detail in the next section on “Improving Implementing Agency Capability.”

4. Before initiating pilots, make an effort to improve the capacity of the staff selected for implementing pilots. This should include building awareness about the concept of community-based management, current experience in different regions or areas, important issues involved, lessons learnt and difficulties experienced. Arranging visits to a few selected successful areas in other regions or the relevant areas could be immensely helpful. It is also very important to explain the purpose and the process of pilot exercise and to involve the staff in developing a locally appropriate strategy.

5. Provide flexibility for implementation and room for innovation during pilots to facilitate testing of a range of options in different situations. For example, it should be encouraged to use different tools and exercises in different neighboring communities for same purpose. Different patterns of incentives or rights and responsibilities could be tried in similar circumstances. Different levels of support could be provided to different communities. There could be a number of such aspects on which flexible options could be helpful in learning from pilots. Flexibility should also be incorporated to accommodate changes required in the strategy even during the implementation process.

6. Develop a system of intensive supervision during pilots to facilitate quick decisions whenever a suitable response to a unexpected situation is required. Close supervision may also be needed to ensure the sincerity in implementation so that the results could be accounted to the practices used and appropriate lessons could be derived with greater confidence.

7. Develop an effective monitoring and feedback system so that continuous and adequate information is available on the progress of communities. It should provide an opportunity to judge the progress against the expected response and to plan necessary corrective steps. The monitoring system will also be useful for deriving the lessons from the experience of implementing the pilots about the appropriateness of policies and practices. Details on developing an appropriate monitoring system is described later in the last chapter of the section on “Improving the Implementation Process.”

Piloting in the ongoing programs

In many developing countries, community-based forestry and other common property natural resource management programs are already being implemented. The piloting approach could be applied in the ongoing programs to derive systematic lessons of the experience and apply them in rest of the areas. This will require selecting a few representative areas in each region to intensively attempt the approach as suggested above. This does not require stopping the program elsewhere but merely providing intensive supervision and experimentation in the selected areas.
Annex 3. Overcoming the anticipated problems in implementing extensive strategy

Below discussion is focused on each of the anticipated problems which are likely to be encountered while adopting extensive implementation strategy.

Differences in staff capacity

*Problem:* usually not all the staff members are equally capable and so all the areas can not get adequate attention. The participatory nature of action in community-based approach requires better understanding of social, cultural and behavioral issues on the part of various levels of staff which can not be expected equally among all.

*Potential options:* The strategy proposed here accommodates the differences in staff capacity. It is aimed at utilizing in the best possible manner the available capacity by splitting the tasks in small measurable outputs. This facilitates use of all the staff who may not be receptive enough to understand various aspects and intricate details of policies and practices and whole operational approach at a time. It is the process of institutionalization of practices in simple and easy understandable steps which can be immensely helpful in adopting new practices. In addition, responsibility of a staff and the intensity of efforts in terms of number of communities could be varied in different clusters depending on the staff capacity. A team working system should be evolved to cover skill deficiencies in one staff by another and to develop complementarity among them. A variety of extension materials such as audio-visual aids, posters and leaflets could also be immensely helpful.

Supervisory and support limitations

*Problem:* If the program is expanded in all the potential areas at one time, the amount of supervision and support required by the front-line and the middle level staff may be considerable. When there is a change in strategy from the past conventional systems of management, administration and working procedures, this requires a great deal of effort and change in supervision, training, reorientation and a variety of other support activities.

*Potential options:* It is true that the nature of supervisory activities in implementing community-based programs would be more intensive. However, by not expanding to all the potential areas, two different strategies will have to be administered and supervised simultaneously, which could be even more confusing. The strategy of moving in small steps suggested here makes it much easier to administer and supervise the progress. The training needs are also limited to small steps and training strategies suggested are also based more on learning through experience and sharing information among the fellow staff. The interactive learning strategies and team working systems could be immensely useful in facilitating learning without putting much burden on the centralized planning for training, as is a commonly adopted approach. The details on training strategies have been discussed in the section on “Improving Implementing Agency Capability”.

It has also been suggested earlier that before attempting to expand the success in all the potential areas, piloting should be done to learn the appropriate steps and the procedures in supervisory and support functions. This will also help in developing a simple, well tested and relevant system of administering community-based programs. Many of the supervisory and support functions do not add much additional burden when these need to be carried over a part of the area or the whole area.
Shortage of staff

Problem: The implementation of community-based programs require a much more intensive effort because of the need for continuous interaction with communities. Most of the developing country governments are not in a position to afford to expand the size of forestry departments because of financial constraints. Particularly in the initial phases of initiating community-based programs, intensive efforts become necessary which may be affected adversely if the staff is not adequate.

Potential options: Here a few broad suggestions are provided which may be helpful in at least partially overcoming the shortage of staff:

1. Redeployment: Some of the staff could be redeployed from the areas where protection problem is minimized due to communities taking over that function. In some branches or the regions of administration, the nature of task does not engage the deployed staff fully throughout the year. Such staff could be used for partial activities to support the regular staff for a short period and specific tasks.

2. Additional incentives: Those staff who prove their ability to bear the responsibility of motivating and supporting greater number of communities and show proven record of past achievements, could be assigned additional responsibilities. Nevertheless, they should be provided extra incentives for achieving the results. The extra incentives should be linked with the strict compliance and no lapses in their normal duties.

3. Improve efficiency: To make the functioning of an agency simpler, the relevance of various existing duties and the nature of reporting and information systems should be modified. When an intensive support is required for some particular steps, the help of senior levels or fellow colleagues should be provided. Clear instructions in the form of short printed materials for each exercise could be very helpful. Similarly, supporting extension materials such as bulletins, posters, audio-visual aids, videos, films, successful case studies as short stories etc. should also be provided to the local staff.

4. Use local expertise: For some part of the activities, local community leaders, experienced persons and good orators from neighboring or successful villages, teachers, educated people, retired staff from various departments etc. could be of immense help. These can be used not only within the community of their residence but also in other neighboring communities. The festivals, dramas, local art and folklore etc. could be used to spread the message easily and widely. The help of voluntary organizations can be taken, if available.

5. Contracting: The responsibility of building community institution could be contracted out after collecting the base line information and making its independent assessment. Such contracting arrangements should clearly consider that the burden of local staff is reduced. The achievements should include effective protection by local communities, regulation of access and development of management plan and such other measurable achievements.

6. Joint group efforts: In this approach, the various exercises in small steps could be carried out in a joint group consisting of a few representatives from neighboring villages. Alternatively, the effort is concentrated in a single or a few villages but during all the important group exercises, representatives of neighboring communities are invited. These representatives are then encouraged to share the experiences in their own villages and make efforts to organize villagers to initiate collective action. When the neighboring villages have similar nature of problems this strategy can be quite effective (Box A3.1).
Box A3.1 Spreading effect of joint group efforts

This example from South Rajasthan in India, illustrates the spread effect of joint group approach. Forest department staff was making an effort to mobilize villagers of Unkaliyat in resolving a long persisting conflict with the villagers of Tirpal. Unkaliyat was a small homogeneous tribal village facing illicit use of their forest resources from the villagers of Tirpal, which was a large heterogeneous village with some of the powerful dominating castes. The other small tribal villages around Unkaliyat, viz. Gadlia, Samel, Kala Magra, Piplikhera and Ranawaton ka Gura, were also facing a similar pressure of illicit use of their forest resources from the villages of Tirpal. The residents of these surrounding villages learnt about the efforts being made in Unkaliyat and some of them started coming to meetings organized in Unkaliyat village. Learning about this response and similar nature of problems, the forestry staff started inviting a few representatives from these neighboring villages in most of the group activities organized with the villagers of Unkaliyat. This resulted soon in forming a joint group of these villages. Realizing the joint strength of villages, people from Tirpal considered in their best interest to come to an agreement with these villagers. Later these villagers also formed organized committees to protect their own resources and approached the forestry staff to formally initiate resource regeneration programs in their villages.

(Based on Jain and Jain, 1997 and author’s personal experience)

Lack of motivation

Problem: The success of expanding a program which requires greater interaction with local communities, largely depends on the sincerity and conviction of agency staff engaged in such activities, which can not be taken for granted.

Potential options: Developing appropriate forms of incentives for the various levels of staff would be necessary which can motivate them in helping communities and achieving results. There should be clear linkages of incentives with what efforts are made and what results are achieved by the staff to ensure their full involvement. A detailed discussion on developing effective incentive mechanisms has been provided in the section on “Improving Implementing Agency Capability.”

Inadequacy of budgets

Problem: When effort is expanded in all the potential areas it may require considerable investment. The budgetary constraints may then limit the areas in which the needed financial support can be provided.

Potential options: Any development program require some level of financial investment. However, if the budgetary limitations form a major constraint, there are several potential options in community-based approaches that can considerably reduce budgetary requirements. It is more important to spread the effort in all the potential areas and put the process moving in a right direction so that communities continue to take small steps forward.

1. Forest areas in most natural habitats have high resilience and therefore, natural regeneration can have a tremendous potential to revive the resources if extraction can be limited appropriately. The areas having good regeneration capacity may not require any investment, if communities can regulate extraction by the members and protect areas from outside users.
2. Even if the root stock is considerably damaged, still providing rest to the areas can be considerably helpful in regenerating available capacity. It would be more rational to test the available regenerative potential before planning supplementary measures because the regenerative potential of root stock can not be easily predicted in advance. This will reduce the need for supplementary efforts and therefore, budgetary requirements.

3. It is not always necessary to initiate efforts to bring areas under tree cover with full density right from the beginning. There could be several other vegetation resources, such as grasses, herbs and shrubs that regenerate first and can be equally useful if managed well. Seeding of grasses and other useful plants may require much less investment than that needed for complete afforestation. Other low cost silvicultural interventions could be used to stimulate the process of succession in which tree cover could be gradually revived, for example, direct seeding or limited planting.

4. If the level of degradation is severe, and high investments in artificial regeneration and soil and water conservation measures become desirable, taking small areas may be a better option. This will also provide an opportunity to test the capacity of communities in instituting regulatory systems. It would be much better than focusing on a few areas and making large investments to cover entire available areas with those communities in a short time.

5. If a single community has a relatively large area, not all the area need to be developed through government investment. Even while developing a part of the area, the assistance being provided to communities in terms of government investments can be gradually reduced or completely withdrawn. This should slowly generate a system of self-reliance (Box A3.2).

Box A3.2 Promote community self-reliance: a scenario

A community of 50 households has a forest area of about 100 hectares which is considerably degraded. The community is convinced about the need for regulating access to help regenerate the resources and takes over the responsibility of protecting the resources from outside illicit users. In return, the government agency provides assistance for developing about 10 hectares of the area per year. In the first two years, government program provides assistance equivalent to the full cost of regeneration measures. This starts yielding benefits to the community in terms of grass, leaves, medicinal herbs, fruits and some other products. The community is encouraged to initiate charging about 5% of the major produce as a user fee from the users to build a common fund. In the third year, using community contribution from voluntary labor and a part of the generated common fund, the assistance to community is reduced to 75% of the cost. In the next two years, the assistance is reduced to 25% and still the community is able to derive much greater benefits. Community also builds a considerable amount in the common fund through which they are able to take up some other development activities of community need such as building a drinking water supply system close to habitation, a small bridge to facilitate rainy season communication unhindered etc.

Later the government program indicates to the community that funds are no more available but the agency staff is able to provide technical advice and managerial assistance, if needed. The community is already so motivated and convinced from the benefits that have already started flowing from the regenerated resources that it continues the pace of afforestation through common funds and voluntary contribution.

Another fact is that not all communities respond at the same time and with equal commitment. The investment could be differentially provided to the areas where needed most and where community response is greater. This would reduce the need for budgets at a time and will also generate a spirit of competition among communities for getting investments from government by showing the compliance to the agreed responsibilities.
### Annex 4. Community profile: Data sheet for background information

<table>
<thead>
<tr>
<th>Name of community</th>
<th>Number of households</th>
<th>Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Human</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Livestock</td>
</tr>
</tbody>
</table>

#### Neighboring communities

<table>
<thead>
<tr>
<th>Neighboring communities</th>
<th>Number of households</th>
<th>Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Primary forest user)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Neighboring communities</th>
<th>Number of households</th>
<th>Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Secondary forest users)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Neighboring communities</th>
<th>Number of households</th>
<th>Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2)</td>
<td></td>
<td></td>
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<tr>
<td>3)</td>
<td></td>
<td></td>
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<tr>
<td>4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Size of forest area used by primary community

- **Size of forest area used by primary community**: __ha__

#### Size of other common lands in the primary community

- **Size of other common lands in the primary community**: __ha__

#### Distance of forest from habitation of primary community

- **Distance of forest from habitation of primary community**: __km__

#### Distance of forest from habitation of secondary user communities

<table>
<thead>
<tr>
<th>Distance of forest from habitation of secondary user communities</th>
<th>Number of households</th>
<th>Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Percentage of village members literate

- **Percentage of village members literate**
  - Male: __
  - Female: __

#### Social composition and landholdings in primary community

<table>
<thead>
<tr>
<th>Social composition and landholdings in primary community (by caste and/or tribe)</th>
<th>Number of landed households</th>
<th>Average land holding (ha)</th>
<th>Number of landless households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2)</td>
<td></td>
<td></td>
<td></td>
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<td>3)</td>
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<td>4)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Irrigation sources in the primary community

- **Irrigation sources in the primary community**: ____________________________
### Primary village occupations:

<table>
<thead>
<tr>
<th>Type</th>
<th>Number of Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td></td>
</tr>
<tr>
<td>2)</td>
<td></td>
</tr>
<tr>
<td>3)</td>
<td></td>
</tr>
</tbody>
</table>

Number of households migrating annually ______  Period of migration ______

### Industries or other enterprises in the area providing employment to local people

<table>
<thead>
<tr>
<th>Nature of the industry</th>
<th>Small, medium or large</th>
<th>Number of man days employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Major markets in the area for forest and other related products

<table>
<thead>
<tr>
<th>Name of the town</th>
<th>Nature of the market</th>
<th>Distance from village (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Institutions, banks, cooperatives serving the community

<table>
<thead>
<tr>
<th>Name</th>
<th>Function</th>
<th>Distance from village (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Annex 5. Comparative visualization: an exercise for mobilizing collective action

Here a method of comparative visualization is illustrated in which various techniques such as mapping, matrices, and diagrams are used. This exercise is for the areas which are facing considerable degradation. The exercise is to be carried out with a group of 20-30 men and women representing the whole community. Later the results should be presented and discussed with the whole group. A summary illustration of the visualized mapping is given in Figure A5.1 and a matrix of different products is explained in Table A5.2.

1. Take three big sheets of paper. Draw on one of them a boundary of the social-territorial unit of a community. Then ask the people to represent the condition of forests before about 20 years from now. If people are largely illiterate and are not used to counting and calculating years, ask one of the middle aged person, how was the condition of forest when he/she was of the age about a person in the same group who may be roughly 20 years younger to him/her. Draw the condition of the forest by drawing the pictures of trees, bamboo, bushes, grasses or other peculiar vegetation which might have been present in the area. This should approximately represent the extent and the density of vegetation.

2. Take the second sheet and draw the same boundary of social-territorial unit again. Ask people to suggest the condition of the forest at present to be drawn this on the second sheet. At this time comparatively refer to the condition of the forest before 20 years with that of at present. Make corrections in either of the maps so that the extent and density of vegetation depicted bring out the difference in condition of forests.

3. Then ask people to suggest the condition of the forest that will be likely after approximately 20 years, if the same trend of use pattern and degradation continues. Draw that on the third sheet.

4. In all the three maps, to clearly understand the extent of the forest area and the changes, ask people to suggest changes in the boundary of the area under forest and other common lands within the unit. Depict rest of the area under agriculture, housing or other uses through pictorial representation with the consultation of people. Bring out the differences in agricultural area and housing density by asking it to people. It would also be useful to depict agricultural fields, if these have extended within the forest areas also. This may bring the issue of encroachment of forest lands, if there is any.

5. Now take a fourth sheet of paper and draw two vertical lines, dividing the sheet in three equal vertical parts, but leaving a wide space for margin on the left side. In the upper one quarter part of these three vertical parts draw approximately square boxes. In each of these boxes draw an approximate boundary of the social-territorial unit and transfer the broad picture drawn on three separate sheets into these boxes.

6. Tell people at this stage that the three vertical sections represent the condition of forests before approximately 20 years, at present and as foreseen in the future after 20 years if the same trend continues. Indicate that the objective of this exercise is to understand the impact of ongoing use pattern on the future conditions of the resources.

Now for discussing the impact ask people for various products and benefits that they used to get from forests before 20 years. List them in the left margin. Coming to each product one by one, ask about the comparative status now. For example, discussing about fuelwood, ask how much distance they needed.
Figure A5.1 Illustration of comparative sketch maps used to depict the resource conditions

<table>
<thead>
<tr>
<th>Condition of the resources</th>
<th>Before 20 years</th>
<th>Present</th>
<th>After 20 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grass:</td>
<td>Distance needed to travel to collect</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Time required</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quantity available</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Need for buying from outside</td>
<td>X</td>
<td>Y</td>
</tr>
<tr>
<td>Fuel wood</td>
<td>Distance needed to travel to collect</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Time required</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quantity available</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Need for buying from outside</td>
<td>X</td>
<td>Y</td>
</tr>
<tr>
<td>Timber</td>
<td>Distance needed to travel to collect</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Time required</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quantity available</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Need for buying from outside</td>
<td>X</td>
<td>YY</td>
</tr>
<tr>
<td>Other products</td>
<td>Similarly as above</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table A5.1 Comparative matrix of different products
1. to travel to collect it, how much time was required every day, how much quantity was available to them in one year, and if they needed to buy fuel wood from outside. Ask the same questions for the present situation and what they visualize after 20 years. Depict the information through some drawings in three vertical sections. This can also be done by placing wood, stone or other local materials in the boxes. For example, the quantity can be represented by number of sticks. If the quantity available before 20 years is represented by 10 sticks then let people suggest the figure for present and for the period after 20 years. Similarly represent time by number of stones for each hour, distance by length of arrows, and marks of ‘yes’/’no’ for whether needed to buy or not.

2. Similarly discuss about different products such as grasses, small timber, bamboo, household construction material, medicinal plants, fruits, honey, and other major products which were available in the area. Depict them pictorially so that people can clearly visualize the differences. Also discuss represent the indirect benefits that are available by the presence of the forests such as water stream flow used for irrigation or other purposes, prevention of silting of agricultural fields due to vegetation cover on the uphill sides and so on.

3. In the middle of this exercise if someone in the group draws attention of towards the causes of degradation, let the discussion go unhindered. If no one draws the attention, the discussion can be stimulated by asking about the causes of degradation. On a separate sheet note the major aspects of the discussion. and try to depict them through pictures. For example, if people talk of human population, draw a picture of a person. Ask people to represent the variation in population by number of pictures in past, present and future. Similarly, livestock population can also be depicted. If the issue of outside users is brought out, show it by arrows coming in the territory. For neighboring, distant or seasonal migratory users different types of arrows may be used.

4. Draw the different issues brought out about causes by showing them differentially in the two periods - past and present, if future prediction is not possible (as an example for incidence of outside users). About the users in particular, it should be discussed when the outside users started coming into the territory and which one of them are traditional users.

5. Seek suggestions of the people about what could be done. If the afforestation or other regeneration efforts have failed in the past, the causes could be discussed. This will bring the issue of regulating the access. This would lead the group to discuss the ways and mechanisms that could be adopted by them for initiating collective action. Avoid suggesting or directing to people and let the people discuss. Leave them with a challenge to come out with what strategy they would consider appropriate for them.

(Adapted from Jain, N. C. 1996. Revival of community management of range resources in western India. Proceedings of the Fifth International Rangeland Congress held at Salt Lake City, Utah, USA. Vol. I p 268-269. and modified from the field exercise carried out by the author)
Annex 6. How to involve people in planning?

It is quite important that such methods are used in resource management planning which can be understood by local people. Only if the majority of community is educated, methods involving sampling measurements and calculations could be appropriate. If most of the members, specially the women and those from marginal groups are illiterate, the methods should involve more of pictures or actions that can be easily understood. Here an exercise, primarily involving mapping, matrix ranking and group discussion, is described which can be effectively used for participatory objective setting and allocation of resources for different management objectives.

The objective of this exercise is to help people in setting the objectives for resource use and management and allocating the resources accordingly. This exercise should involve as far as possible all the members of a community. If the size of the group is too big, it should be divided in small groups of 20-30 people. Later the results should be discussed by combining them into a single group. Ensure involvement of both the genders and representatives of the marginal sections of community.

1. Explain very briefly the purpose of the exercise that it is intended to have the views of community members on what kind of resource conditions they would like to have and what can be done for the achieving the desired goal.

2. The starting point could be to discuss again the past-present-future matrix of “Comparative Visualization” depicting the resource conditions, as done in the previous exercise for assessing the awareness of people about resource degradation (see Annex 5). Also discuss the products and benefits they used to get in the past and the products and benefits that available to them now. Also briefly discuss if the present levels of extraction continue what people expect to get, just to generate interest in setting an appropriate goal.

3. Use the three maps drawn and the product flow matrices developed earlier to stimulate the discussion. If significant number of members are new in this exercise compared to the previous one, it may be useful to explain the steps and details of the exercise again. It will be useful to verify the details of present state of resources through a transact walk of the area and representing the vegetation categories and areas on the map.

4. Draw a fourth map showing the outline boundary of resource along with topography. Ask people to map what kind of resource condition they would like to have. This may be shown pictorially by drawings of vegetation such as trees, grass, shrubs, fruits etc. It may be worthwhile to compare with the past conditions. If people simply suggest to revive the past conditions then there may not be a need for drawing the fourth map.

5. Then start with the list of products and benefits which they used to get in the past, even if some of them are not available now. These can be represented by diagrams of the products and services. Put this list in the first vertical column of a matrix drawn on a big sheet of paper. For each product item, ask people to compare the yields in the past with that is available at present. This can be done by assigning 10 stones to the amount of products that was available in the past. Then ask people to relatively place the number of stones in the column for present yields. This can also be done for the benefits such as impact on the water stream, or prevention of silting by up hill forests etc. For example, ask people when the water stream used
to dry in the past and which month usually it dries up now.

6. Discuss the ratios that evolve along with the reasons for change in production or flow of benefits. In some instances, some products may have become abundant such as fodder or leaves due to open canopy structure or degradation of resources over time. The production of timber, mushrooms, bamboo, or fruits etc. might have gone down.

7. Then in the next vertical column before each product, let the people suggest the demand for each product. At this time people should be suggested to use any number of stones to bring out relative ratio compared to what is presently available. This means people can use more than 10 stones if they feel the demand for these products is higher than even the produce that was available in the past.

8. In the next vertical column, ask people to suggest kind of management treatments needed for increasing the output of each product and service. For example, for grass, more openness or less density of trees, for more leaves small diameter trees, for mushrooms, moist soil with plenty of organic matter and humus and so on.

9. Place a transparency sheet on the map showing the present condition of resources. Ask people to suggest how the areas should be allocated to ensure availability of different products and benefits and show that on the transparency. If the transparency is not available, use another drawing sheet by placing that on the side. This should generate an interesting discussion on the trade-offs between different prescriptions and different needs. It might even generate another priority ranking for different management options. Facilitate the group in this discussion by providing more sheets and helping them to develop a different set of ranking or drawing different allocation units on the map of the area and evaluating the alternative options. The pool of alternative options can be increased by asking people of different examples in the similar climatic and resource conditions. If a potential practice is relatively new or uncommon in the local area, visits to demonstration sites or video shows can be helpful.

10. If the discussion already does not bring out, then discuss different alternative options that include multiple use areas providing a variety of products and specific use areas for particular products that may not be available from the multiple use areas. For example, if grass is one of the primary need for a community, then density of trees that may be allowed has to be low at least in some part of the area. Seek suggestions for dividing the resource area into different blocks requiring different treatments considering the site variations within the area. Highly sloppy areas may be kept for watershed protection by limiting extraction and restricting grazing. Mid slopes and valleys for grazing and fuel production and areas near the water courses for production of moisture loving species. This will also involve discussion on how different units or parts of the area could be closed for regeneration in rotation.

Annex 7. A sample of activity schedule

A sample of activity schedule covering main activities for the development of an allocated unit from a community resource area. This is based on some assumed division of responsibilities between a community and a state agency. The responsibilities will have to be decided appropriately in local circumstances.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Scheduled time</th>
<th>Responsibility of community</th>
<th>Responsibility of forestry agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closing area for grazing</td>
<td>Since Feb-Mar 1998</td>
<td>Initiating social fencing or developing live hedge fencing</td>
<td>Nil, technical advice or boundary demarcation support, if required</td>
</tr>
<tr>
<td>Assessment of regeneration to examine need for supplemental efforts</td>
<td>Sept-Oct, 1998</td>
<td>Participatory assessment with the assistance of forest department staff</td>
<td>Facilitating community in making the assessment, and deciding effectiveness of community regulation in closing the area to decide to start supplementary regeneration efforts</td>
</tr>
<tr>
<td>Extraction of grass produced</td>
<td>Nov 1998</td>
<td>Ensuring equitable distribution</td>
<td>Nil</td>
</tr>
<tr>
<td>Deciding strategy for development of resource</td>
<td>Nov 1998</td>
<td>Deciding which operations (e.g. regeneration method) will need to be done for achieving the desired goals, with the assistance from forest staff</td>
<td>Assist community in deciding what actions may be needed to develop the resource potential the best, and developing a work schedule</td>
</tr>
<tr>
<td>Deciding species to be planted (if artificial regeneration is needed, as decided above)</td>
<td>Nov 1998</td>
<td>Participatory decision making through species ranking, after considering the natural regeneration potential</td>
<td>Assisting in carrying out the species ranking exercise involving the representatives from all the sections and both the genders</td>
</tr>
<tr>
<td>Initiating nursery activities near the site of planting</td>
<td>Nov 1998</td>
<td>Contributing labor for nursery raising</td>
<td>Providing all the materials and seeds etc.</td>
</tr>
<tr>
<td>Coppicing of rootstock of some of the tree and shrub species and singling of others</td>
<td>Feb 1999</td>
<td>Carrying out through voluntary labor contribution with the technical guidance of forestry staff</td>
<td>Providing technical guidance</td>
</tr>
<tr>
<td>Digging out pits for planting</td>
<td>Feb-Apr 1999</td>
<td>Providing labor contribution up to 20% of the cost of this operation and rest to be paid by the forestry agency on completion of the work</td>
<td>Providing technical guidance for lay out, assessment of the work on completion and making payment</td>
</tr>
<tr>
<td>Planting operation</td>
<td>July 1999</td>
<td>Voluntary labor contribution</td>
<td>Providing technical guidance for appropriate planting technique</td>
</tr>
<tr>
<td>After planting care</td>
<td>July 1999 onwards</td>
<td>Voluntary</td>
<td>Providing technical guidance</td>
</tr>
<tr>
<td>Assessment of performance of the planted area</td>
<td>Oct-Nov 1999</td>
<td>Participatory assessment by community representatives with forestry staff, deciding if any corrective steps needed, discussing in the full community meeting including a review of future activities</td>
<td>Participatory assessment of effectiveness of community regulation in closing the area from grazing, equitable distribution of products such as grass etc., survival of seedlings and after care; providing incentive money to a common fund of the community based on a per hectare rate</td>
</tr>
</tbody>
</table>
Annex 8. Strategy to motivate people to adopt measures to fulfill deficiencies in local supply

1. Organize a village meeting to discuss the gap in local demand and supply potential of the resources. Discuss all the major categories of forest based products available to people from local and outside sources. For example, while discussing about fodder, grasses, leaves and crop residues should be discussed simultaneously. While considering fuels, discuss all types of fuels used such as wood, dried leaves, sticks etc. Exact quantification of the demand and supply to determine gap may be quite cumbersome. It is not necessary for the purpose of sensitizing local people. An approximate estimation of gap can be done by randomly selecting a few representatives and asking them about the quantities of various products which they had to manage from outside sources. This can be taken as an indicative assessment to demonstrate the deficiency. By multiplying with total population, the approximate gap can be shown for the whole village. Discuss if the people feel the gap can be bridged from the production that would become available from regenerating resources, to assess if the gap would be for a short period only.

2. Further sensitize people by drawing attention to some of the impacts which may not be immediately visible, if these are not already brought out in the discussion. This could include the distance traveled to collect various products, difficulties experienced in collecting small size of products (e.g. fuel twigs from small bushes), underfeeding of cattle during the dry season leading to low yield or growth etc. If the community is using resources of other neighboring communities, draw attention to a situation if those communities start preventing outsiders to use their resources. Give examples if this has already started happening.

3. Seek suggestions from people for what alternatives seem practically possible. Let people suggest before suggesting them any. Discuss one by one all major categories of products such as fodder, fuel, timber etc. For each type of product category, seek suggestions on three major aspects:
   - how the production can be increased such as by using other common lands, road or water stream/canal sides, tank foreshores, farm bunds, private wastelands etc.
   - how the consumption can be minimized by more efficient use such as minimizing waste of crop residues, using fuel saving devices, using waste materials as fuel, better care of house constructions and other wood using implements, better storage etc.
   - what alternative means could be used such as kerosene or biogas for fuel; solar or wind sources for energy; iron, plastic, bamboo or other products for replacing timber.

4. Encourage people to choose the options as they feel appropriate. This will ensure that the materials or techniques adopted are locally appropriate. Demonstrate new activities or techniques, about which people are not already aware such as fuel saving devices. Take the help of videos or other effective means for such techniques which are difficult to install quickly such as solar or wind energy devices. After demonstration seek opinion of people and judge the response. Goal should be to create a demand for services rather than merely providing them. Make an assessment of the demanded goods and services and ensure their efficient delivery.
### Annex 9. Evaluating the level of community involvement in resource management

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Score 1</th>
<th>Score 0</th>
<th>Score 3</th>
<th>Score 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation of members</td>
<td>Most of the decisions are made by a few village representatives of elite section but for some major decisions are taken in the full village meetings held periodically but not regularly, and usually attended by 25-50% members.</td>
<td>Most of the decisions are made by a few village representatives of elite section, only few full village meetings are held and usually less than 25% members attend them.</td>
<td>Participation of all eligible village members take active part in the decision making process; usually more than 75% members are present in full village meetings held regularly.</td>
<td>Participation of all eligible village members take active part in the decision making process; usually more than 75% members are present in full village meetings held regularly.</td>
</tr>
<tr>
<td>Participation of women</td>
<td>Less than 50% women take part in the meetings and only few of them actually speak on any issues.</td>
<td>Most of the women either do not take part in the meetings and even if some are present in the meetings they hardly speak or take part in the decision making process.</td>
<td>Nearly 50-75% women attend the meetings and quite a few of them speak out when some issues in which women have greater involvement are discussed.</td>
<td>Most of the women actively take part in the full meetings and play an almost equal role in the decision making process as that of men, usually more than 75% women in the locality attend the full meeting.</td>
</tr>
<tr>
<td>Protection of resources from illicit use</td>
<td>Villagers have a system of protection but the effectiveness is very poor, even some of the local residents sometimes indulge in illicit removal of various products.</td>
<td>Villagers do not have a system of protection and the responsibility still lies on the watcher deputed by forestry agency.</td>
<td>Villagers have developed a system of protection of resources through regular patrolling, if needed all the villagers quickly gather and deal with the offenders.</td>
<td>Villagers have developed an effective system of protection of resources through regular patrolling, if needed all the villagers quickly gather and deal with the offenders.</td>
</tr>
<tr>
<td>Establishment of extraction rules</td>
<td>Community has developed extraction rules only for a few products and prescriptions are broad without enough details about various restrictions.</td>
<td>Community has no extraction rules.</td>
<td>Community has developed strict and elaborate extraction rules for majority the important products available in the area, extraction is regulated by quantity, time, place and manner of collection, the rules are strictly enforced.</td>
<td>Community has developed extraction rules for majority the important products available in the area, extraction is regulated by quantity, time, place and manner of collection, the rules are strictly enforced.</td>
</tr>
<tr>
<td>Regulation of sharing</td>
<td>There are no regulations to ensure distribution of benefits among the members.</td>
<td>Regulation of extraction is only for a few products, other than a period of extraction no other restrictions are prescribed, any number of persons per household can collect the produce.</td>
<td>The distribution of products is regulated by ‘first come first take’ basis, but the there are restrictions on quantities per visit per household.</td>
<td>Community has developed a system of equitable distribution of most of the products, the system is well accepted by all the members.</td>
</tr>
<tr>
<td>Management for improving production</td>
<td>Community pays no attention to improving production from the resources.</td>
<td>Community takes measures for improving the production of only a few important products.</td>
<td>Community takes initiative for improving the production of main products from the existing resources without taking additional planting in gaps or of those non-timber species that could be potentially grown in the area.</td>
<td>Community makes the best possible efforts to gain maximum benefits from resources through taking diverse measures such as planting of non-timber species, cleaning and other silvicultural operations organized timely.</td>
</tr>
<tr>
<td>Involvement in planning</td>
<td>Community members do not play any role in planning resource management activities.</td>
<td>Most of the activities are planned by the forestry staff with the consultation of people, only a few suggestions are provided by people.</td>
<td>Community takes most of the decisions for planning various resource management activities, forestry staff has to merely play a role of facilitators.</td>
<td>Community takes initiative for planning resource management activities and developing action plan. Community approaches forestry staff if help is needed in a few issues.</td>
</tr>
</tbody>
</table>

#### Notes
- **Score 0**: Most of the decisions are made by a few village representatives of elite section, only few full village meetings are held and usually less than 25% members attend them.
- **Score 1**: Most of the decisions are made by a few village representatives of elite section but for some major decisions are taken in the full village meetings held periodically but not regularly, and usually attended by 25-50% members.
- **Score 2**: Nearly 50-75% women attend the meetings and quite a few of them speak out when some issues in which women have greater involvement are discussed.
- **Score 3**: Participation of all eligible village members take active part in the decision making process; usually more than 75% members are present in full village meetings held regularly.
### Annex 9. Evaluating the level of community involvement in resource management

<table>
<thead>
<tr>
<th>Attribute</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Conflict resolution</strong></td>
<td>Community has gained capability and developed an acceptable mechanism of resolving inter- and intra-community conflicts by themselves, community seeks help of the forestry staff only in a rare cases when there is a problem of organized offense from outsiders.</td>
<td>Community is able to decide internal conflicts but for most of the conflicts with the external parties, help from outsiders including forestry staff is needed for mediating the conflicts.</td>
<td>Forestry staff or other outsiders need to involve in most of the conflicts to help coming to acceptable solutions in most of the cases, even if the matters are internal to community.</td>
<td>Community has no system of conflict resolution.</td>
</tr>
<tr>
<td><strong>Community self-reliance</strong></td>
<td>Community has developed a system of user fees and other regular charges to meet all the expenses of resource management, if additional resources are occasionally required, people are willing to raise through contributions in cash or kind.</td>
<td>Community requires partial assistance but mostly willing to contribute significant part through cash or kind.</td>
<td>Community is willing to contribute only a small share and only in terms of voluntary labor.</td>
<td>Community totally depends on the investment made by government.</td>
</tr>
<tr>
<td><strong>Involvement in other aspects of rural development</strong></td>
<td>Community institution has gradually extended its role in many other aspects of rural development activities where whole community needs to take decisions for collective action that includes not only the common pool resources but also the activities related to social and infrastructural development.</td>
<td>Community institution plays role only in the aspects which relate to common pool resources or those issues which have a direct relationship with forest resources such as livestock management, management of other grazing areas etc.</td>
<td>Community institution occasionally takes role in decisions about few other aspects of rural development activities.</td>
<td>Community institution does not play any role in other aspects of rural development activities.</td>
</tr>
</tbody>
</table>

**Note:** The scoring system used here ranging between 0-3 can be converted to 0-5 or 0-10 as per the convenience by putting the values of attributes in between the two extremes to be judged by evaluator qualitatively. This would provide a greater flexibility in scoring and judging the relative progress of a community. However, the scale as given above has been found to be more convenient by the local staff, when this was used in evaluating the progress of a few communities in South Rajasthan in India, because it was felt that the expected characteristic features in between the two extremes should be well defined.

This scale could be used to compare the response of different communities in the similar areas by totaling the scores. If the areas differ widely, the attributes should be very carefully defined to accommodate local factors.

**Source:** Jain, N. C. and Jain, K. Evaluating community involvement in forest protection and management. (Unpublished draft: November, 1997).