

Simpler Forest Management Plans for Participatory Forestry





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**Simpler Forest Management Plans
for Participatory Forestry**

Forestry Policy and Institutions Service
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Foreword

Participatory forestry is now a widely accepted concept and many governments have put policies and laws into place to support the local management of forest resources. However, some constraints have appeared which prevent the full realization of the potential offered by the devolution of ownership or management rights to the rural population. As identified in various international fora (International workshop on participatory forestry in Africa, 2002, Forum on the role of forestry in poverty alleviation, 2001), one of these constraints is the unrealistic requirements imposed on rural communities for the preparation of forest management plans. This is in this context that FAO started to look at existing attempts and experiences to solve this problem in various part of the world. This work has resulted in this working paper which has been prepared with the support of a number of persons.

The main source of the information on which this working paper is based is a survey conducted by Mr. Hiroyuki Tanaka when he was an FAO officer with FONP, and who deserves special thanks for his valuable contribution. We would like also to express our sincere thanks to the following people who contributed their experiences and ideas regarding current practices in forest management plans during this survey:

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It is hoped that this working paper will be a useful reference point and inspiration for government agencies, other organizations and practitioners who are working on the development and implementation of effective ways to strengthen the role of sustainable forest management in meeting the livelihoods needs of the rural population. This work is a first attempt to assess the existing state of the art on adapted and simpler forest management plans. FAO intends to conduct further work to test, refine and disseminate best practices related to simpler forest management plans and in that regard we will welcome your suggestions, comments and collaboration to ensure that forest management plans become a catalyst for successful local, collective forest management.

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Executive Summary

This working paper aims to present and stimulate thinking about some of the constraints imposed when conventional forest management plans (FMPs) are used for participatory forestry. It describes recent approaches to address these constraints, mostly based on a study of forest management plans in 22 countries⁴.

The study also focused on some promising experiences in simplifying forest management plans for livelihood-oriented⁵ and enterprise-oriented forestry.

Traditionally, FMPs were developed primarily for large-scale timber concessions, and thus focus on the requirements of large scale timber and production-oriented forest management. The formats of such FMPs require forest managers to have high levels of technical and financial capacity. In many countries these conventional FMPs are also applied to small-scale and/or non-timber operations without fundamental adaptations, posing a number of problems to collective forest managers (CFMs) and those supporting them. These problems include: high costs; time delays; low-quality participation and participatory processes; overloaded frontline extension services; inadequate support for marketing and financial planning; poor levels of understanding of CFMs of the completed plans; limited focus on benefits for forest-dependent poor through insensitive regulations; inflexibility of local forest governance structures and problematic handovers of state forest to communities.

This working paper shows that some FMPs are simpler than conventional FMPs although there is much variation in the level of simplification taking place. However, many of these FMPs are still too complicated for CFMs and it remains difficult for CFMs to prepare such FMPs by themselves without receiving significant external professional assistance.

The working paper clarifies the importance of distinguishing the following four possible functions of FMPs:

1. An output of an interactive learning, capacity-building and negotiation process
2. A technical guide for management planning, implementation and monitoring
3. A legally required document
4. An instrument to describe and regulate local forest governance⁶ based on multi-stakeholder agreements

⁴ Relevant information (e.g. formats of forest management plans and/or relevant legislation) used for the comparative analysis were consequently collected from following countries: Cameroon, Gambia, Tanzania, Mozambique, Senegal, Mexico, Costa Rica, Guatemala, Bolivia, Brazil, Argentina, Paraguay, Chile, Cambodia, Vietnam, Laos, Philippines, Nepal, India, Indonesia, Myanmar and Bhutan.

⁵ In this paper, "livelihood-oriented forestry" means forest management for domestic/subsistence use, supplementary income generation, and "security net"/last resort of the poor in the time of shock. It therefore includes protection, use for consumption and part-time sale

⁶ In the context of this study, a working definition of governance could be "the structures and processes that determine the translation of policies and regulations into reality and the power relationships between the stakeholders involved in this process (Dubois, 2002, personal communication)".

The FMP preparation process itself should be used as a catalyst for facilitating capacity building, negotiation and participation in order to achieve the following four elements which are crucial for successful local forest governance:

- local institutional accountability
- local technical & intellectual capacity for management
- economic strategies based on existing local resources
- cultural resonance

Trust amongst and between community-based institutions and in the local forest management governance framework needs to be built before any direct commitment to forest management planning. Until this happens, the preparation of a forest management plan is a formality for many, and might thus be largely irrelevant to the interests of truly forest-dependent people.

Rules and technical standards determining which resources to retain under central government control whilst often justified as a scientific necessity for management planning are often used as a means of maintaining or increasing central control over lucrative forest resources opportunities. A number of examples show that simple environmental standards in addition to social codes of conduct (e.g. benefit- and responsibility-sharing arrangements) are potentially a good substitute for overly complicated FMPs.

The preparation of FMPs should occur in a stepwise manner with capacity of CFMs being built gradually. It is not sufficient to prepare a FMP by simply following a checklist or through a series of participatory exercises lasting only a few days. If this is done, conflicts will not be resolved (and may in fact be initiated) and disadvantaged groups will be further disempowered. A sufficient period for internal learning, debates and negotiation is crucial for establishing a strong collective forest management institution

A number of relevant policy issues which affect the preparation and implementation of FMPs are also discussed. These include the inadequacy for many situations of legislation based on local by-laws; forest devolution in the wider political environment; overloaded government institutions and dealing with power differences within local communities.

Finally, an outline of the four main stages of an FMP preparation process and suggested contents for a simpler FMP are presented.

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Acronyms

AAC	Annual Allowable Cut
AAP	Annual Action Plan
BMP	Best Management Practice
C &Is	Criteria & Indicators
CBEs	Community-Based Enterprises
CBFM	Community-Based Forest Management
CF	Community Forestry
CFMA	Community Forest Management Agreement
CFMG	Community forest management group
CFMs	Collective Forest Managers
CIFOR	Centre for International Forestry Research
DFID	Department for International Development
DFO	District Forest Officer
DzFO	Dzongkhag Forest Officer
FAO	Food and Agriculture Organization of the United Nations
FD	Forest Department
FFS	Farmer Field School
FMLG	Forest Management Learning Group
FMP	Forest Management Plan
FONP	Forest Planning and Institution Service (FAO)
FUG	Forest User Group
JFM	Joint Forest Management
JMA	Joint Management Agreement
MA&D	Market Analysis and Development
N.D.	No Date
NGOs	Non-Governmental Organizations
NWFPs	Non-Timber Forest Products
NWFPs	Non-Wood Forest Products
OP	Operational Plan
PCFMA	Preliminary Community Forest Management Agreement
PLA	Participatory Learning and Action
PRA	Participatory Rural Appraisal
PSG	<i>Plan Simple de Gestion</i> - Simple Management Plan
SFM	Sustainable Forest Management
SRA	Social Responsibility Agreement
VFC	Village Forest Committee
VFR	Village Forest Reserve
VSS	<i>Van Suraksha Samiti</i> – Forest Protection Committee

Chapter 1

Introduction

1.1 Background

As part of their commitment to halving extreme poverty and food insecurity by 2015, the Forestry Department of the Food and Agriculture Organization of the United Nations (FAO), with the support of the UK's Department for International Development (DFID), held an interagency forum on "The Role of Forestry in Poverty Alleviation" in September 2001. One issue raised during this forum was that the demand for overly detailed forest management plans was creating a barrier for rural communities trying to acquire utilization rights to forest areas. There was therefore a need to simplify planning and monitoring requirements for collective forest managers (CFMs) in order to address this (FAO, 2001).

Similar issues were highlighted during two International Workshops⁷ on Community Forestry in Africa (Banjul, Gambia in April 1999; and Arusha, Tanzania in February 2002) where it was pointed out that the unnecessarily demanding requirements for forest management plans was a constraint to realizing the potential benefits from community forestry and that simpler forest management plans drawn up by communities with technical assistance from the forest service should provide a sufficient basis for any community-based forest management (FAO, 2000). Prescriptive legal requirements, time-consuming and inflexible registration processes and complex management plan formats, when imposed as a prerequisite for community-based forest management, limit the opportunity for local forest users to make real forest management choices reflecting their unique needs and conditions and hence reduces the opportunity for collective forest management to contribute significantly to rural livelihoods and eliminating rural poverty.

1.2 Aims of this paper

The aim of this working paper is to stimulate thinking regarding possible appropriate changes in forest policies and practices to allow FMPs to be used as an enabling tool to support, rather than to constrain, small-scale forest managers. This will be done by first identifying the problems created when conventional forest management planning concepts are imposed on the collective forest management situation in developing countries. Recent approaches used to address these problems by taking examples of simpler FMPs developed by CFMs and individual small-scale forest managers in various countries will then be described. By drawing out from the more successful approaches, some general guiding principles for forest management planning by CFMs are presented.

The study includes some analysis of FMPs for individual, as opposed to collective, forest managers since this helps to clarify the general concept of simpler FMPs. However, it is accepted that land-use decision-making and control over forest resources differs between individual and collective forest management situations. Ideas and concepts relating to individual forest managers have therefore only been included where they contribute to the discussion on FMPs for collective forest managers.

Chapter 2 offers an analysis of some of the main problems which arise where conventional FMPs and planning concepts are directly applied to the CFM situation. Chapter 3 then collates a range of

⁷ These workshops were organised by the Forests, Trees and People Programme (FTPP) of FAO in conjunction with Gambian Forestry Department, Tanzanian Forestry and Beekeeping Division, respectively, with financial support of the German Agency for Technical Cooperation (GTZ)

experiences with simpler FMPs both in terms of the enabling policies and legislation and the field-based practices of applying simpler planning systems in collective forest management. Chapter 4 then continues by identifying some broad guiding principles for simpler FMPs by drawing on the analysis of selected examples of promising practices. As a general conclusion, plans for livelihood-oriented⁸ forest management have been simplified in various ways whilst this appears to have been harder to achieve with enterprise-oriented forest management which usually requires more detailed and accurate quantitative information plus an element of business planning. The importance of applying some of the successes with simplifying management plans for livelihood-oriented forestry to all types of management plan are stressed, and a 4-stage planning process is outlined which could provide the basis for all types of collective forest management. Chapter 5 highlights some pertinent yet critical policy and legislation issues influencing the implementation of forest management plans, whilst recognizing that some of these issues are beyond the direct influence of field practitioners. Finally, Chapter 6 draws some overall conclusions from the study.

Annexes A & B provide suggested contents of simpler FMPs, both for livelihood-oriented forest management and community-based forest enterprises.

The information on which this study was based includes written material collated by the Forestry Policy and Institutions Service (FONP) of FAO (e.g. forest management plan formats, planning guidelines, relevant legislation, and policy documents) using mostly informal contacts⁹ with forestry professionals involved in collective forest management and through material available on the internet.

⁸ In this paper, “livelihood-oriented forestry” means people-centred forest management for supplementary income generation and domestic/subsistence use. Livelihood-oriented forest management is particularly important for the poor as a “security net” during times of shock.

⁹ Contacts were made with forestry professionals in 34 developing countries

Chapter 2

Conventional Forest Management Plans and Collective Forest Management

This chapter identifies some of the problems which arise when conventional types of forest management plans are used in collective forest management situations in developing countries.

The formats of the forest management plans in use in many countries today originate in earlier concepts of “forest working plans” where timber production was the main forest management objective¹⁰. Such plans need relatively high levels of technical and financial inputs by forest managers to prepare and implement them.

There have been some modifications developed to FMP formats which recognize the increased importance of multiple-objective forest management for CFMs¹¹ as well as their different capacities and needs. However, significant elements of conventional FMPs have usually been retained as the basis for the legal transfer of management responsibility. Often there has been no meaningful adaptation of FMPs to small-scale and/or non-timber operations and the capacities and needs of collective forest managers. In addition, government approval of FMPs often requires the legal acquisition of land title and formal registration as a forest management body - again creating a barrier which CFMs can struggle to overcome.

2.1 Emphasis on the plan rather than the process

Most CFMs consist of people of a rural community working together to manage a defined forest area. In such a situation, the process of preparing a forest management plan is equally, if not more important than the final output i.e. the FMP itself, because the planning process is an opportunity:

- to empower local forest users
- to identify and involve local stakeholders
- to agree on management objectives and strategies
- to negotiate and agree on benefit sharing, responsibilities and costs
- to combine local knowledge with technical information

Conventional FMP formulation does not normally recognize the importance of process – particularly participatory processes, the aim being solely to produce a plan (as a document) which directs the way in which the forest is managed. Applying this “document-driven” approach to collective forest management frequently results in plans being prepared for collective forest managers by forest services rather than by the collective managers themselves. This results in a lack of “ownership” of the final FMP and consequently a lower level of understanding and commitment to implementation, with the possibility that the plans may neither actually reflect the real needs of the collective managers, nor an agreed strategy to achieve these.

¹⁰ Recknagel (1913) states that “the prime object of any forest is the growing of timber...”. The concept of “management plans” as opposed to forest working plans is a more recent development.

¹¹ “CFMs” in this study means any normally resource-poor groups of people (e.g. community, community based enterprises) who actually manage, use and take care of forest.

Experience of working with CFMs in many different situations has shown that the FMP document itself is not always a good indicator of either the progress being made with respect to sustainable forest management nor in terms of the institutional capacity of the group to address issues of livelihoods, poverty, equity and lack of capacity amongst members. CFMs with technically poor quality FMPs may under some circumstances be very successfully managing their forest and addressing difficult institutional challenges, whilst CFMs with what appear on paper to be good quality FMPs may in fact not be following them.

2.2 Lack of planning “logic”

It is common to find FMPs for CFMs which include very broad management objectives (often identical for every separate plan in a region) followed by a detailed list of management activities which do not bear any immediate relationship to the achievement of the stated objectives. This is a result of two main problems:

Firstly, the objectives are broad because no attempt has been made to derive real local (or site-specific) objectives from locally identified problems or opportunities. Often the objectives e.g. “to conserve forests” are simply lifted from national policies or guidelines. Development of locally derived objectives would require a much more detailed analysis of local needs, trends and potentials which frequently does not take place. The concept of site-specific objectives (where there are different management objectives for different patches of the same forest) is rarely encountered.

Secondly, management activities are often either developed as a “wish list” with no guarantee that they will ever become a reality, or are driven by the availability of resources (often financial resources). This is a common situation under joint forest management in India where the value of participatory planning at village level is somewhat undermined by centrally developed and funded “schemes” which forest department staff are expected to deliver via village forest committees (VFCs) in order to achieve predetermined physical or financial targets. The result is that most plans are very similar despite significant local differences.

2.3 High costs

Conventional FMPs usually require detailed forest inventories and demarcation. This can result in an excessively high planning cost which collective forest managers may not be able to afford. For example, in Cameroon the development of a simple forest management plan (*Plan Simple de Gestion - PSG*) for a community forest of 3,500 hectares costs between US\$ 1.4-5.7/ha (Fomete, 2000) with additional costs of preparing a community forest application from US\$285 to US\$1,500 per application¹². As a result many community forestry management groups in Cameroon are unable to fund the forest survey they legally require for their management plan (Djeumo, 2001).

Similarly, government community forest management guidelines in Bolivia indicate that forest inventory usually costs between US\$ 30-32/ha for smaller (100 ha) forests to US\$ 6.4-8.5/ha for larger (10,000 ha) forests¹³. These high costs prevent forest-dependent communities from acquiring a formal Community Forest Management Agreement unless they can obtain funding support from external donors.

¹² These figures are for forests of 3,500ha. However, the size of the forests does not much influence the costs of application.

¹³ According to: Cuadro 7: Costo total estimado de un inventario forestal de reconocimiento en base a los precios, Normas técnicas para la elaboración de instrumentos de manejo forestal comercial (inventarios, planes de manejo, planes operativos, mapas) en tierras comunitarias de origen (1997), Resolución Ministerial No 136/97.

Costs can be reduced where local people participate more in plan preparation (e.g. in Kompia¹⁴ in Cameroon where costs of *PSG* development was reduced to US\$ 1.3/ha) and through self-financing initiatives such as the sale of timber from private lands to cover the costs of planning (although in Cameroon this is now unlikely to happen because of the prevailing dependency on externally funded projects). Other communities in Cameroon have entered into arrangements with logging companies who cover planning costs in advance. However, such agreements can weaken the bargaining power of communities with logging companies with the result that the companies involved in such deals may pay very low prices for the timber they extract (Dubois, personal communication).

External financial support for preparation of forest management plans has perpetuated this problem. For example, Municipal Forestry Units (*Unidad Forestal Municipal - UFM*) in Bolivia rely heavily on external projects such as BOLFOR¹⁵ to shoulder such costs whilst *UFMs* which do not get such external support cannot afford to support local forest managers in the forest management planning process (Pacheco, 2002). In Cameroon few, if any, community forests have been created outside donor-supported initiatives (Dubois, personal communication).

2.4 Prescriptive silviculture

Forests have conventionally been managed for national benefits by government forestry agencies. This has led to an assumption that management objectives under newer collective forest management arrangements will remain the same despite the fact that many developing countries now have forest policies specifically giving priority to local benefits. As a result, objectives may not be locally derived or reflect a livelihoods-oriented perspective (i.e. they are usually timber-production or conservation oriented). This tendency is then reflected in the silvicultural prescriptions included in the management plans which tend to be more narrowly focused on those activities which would have been applied had the forests still been under government management as opposed to favouring more innovative approaches such as multiple-objective, multi-storey forestry or NWFP¹⁶ production

Forestry technical knowledge within government forestry agencies has generally focused on silviculture for timber production, (often emphasizing the use of exotic species). As a result, there is very little extension support available to advise on silviculture for multiple products such as firewood or fodder grass or NWFPs such as mushrooms or honey. This then limits the scope and availability of forest management options which can be applied by CFMs. For instance, in Nepal, operational Plans for community forests tend to be timber-oriented because a lack of appropriate technical support has tended to discourage flexible, multiple-use forest management, based on objectives identified by forest users themselves.

This reduced emphasis on the livelihood aspects of silviculture and forest management has tacitly induced and favoured over-protection of community forests – a situation commonly observed in Nepal. A survey in the Koshi Hills showed that “active” forest management involving harvesting of forest products through lopping, pruning, and coppicing was only taking place in 19% of the community forests studied, whereas simple protection was very widespread (Branney *et al*, 2001). This situation is exacerbated by a lack of confidence among forest users over implementing harvesting and benefit-sharing arrangements. Many forest user groups find it is easier to “ban” all harvesting than to elaborate local arrangements for sustainable forest harvesting and put into place a

¹⁴ Philippe Auzelle, personal communication quoted by Dubois (2000)

¹⁵ Project of Sustainable Forest Management funded by USAID

¹⁶ NWFP is used instead of NWFP through out this paper following standard FAO terminology.

control system based on negotiation between all potential forest users. This seriously limits the potential for real livelihoods benefits and poverty alleviation through forest management by forest user groups.

Although the need to promote multi-purpose forestry for livelihoods is becoming officially recognized within many forest policies, the knowledge generated specifically for livelihood-oriented multi-purpose forestry by official forest research institutions is still limited. Technologies concerning multi-storey mixed forests, domestication and sustainable use of various NWFPs, and small-scale forest enterprises are still not commonly available at the frontlines of forestry extension. Forest managers generally have limited scope and choice over possible management options for their forests even though they are invariably expected to prepare a forest management plan. As Barandun (2001) points out, real dialogue with local stakeholders is often non-existent when negotiating new extension services. Centralized and formal research systems do not fit in well with livelihood-oriented forestry which is meant to respond to the very diverse and site-specific aspirations of forest managers. The extension services need to work in a way which supports and responds to CFMs helping them to identify and generate site-specific knowledge which would inform their decision-making.

2.5 Overloaded field staff

Prescriptive and technically demanding FMP requirements result in an increased workload for field staff of government forestry agencies because they are required to have significant inputs into producing them. This has important cost implications since government staff themselves require additional field allowances (often unavailable) to do such work with CFMs. Operational plans in Nepal are frequently hastily prepared because staff cannot spend enough time with each FUG. The example of Nepal presented in Box 1 illustrates this.

This overburdening of field staff also discourages review and amendment of operational plans because additional work is required each time changes are made. In Nepal, whilst the Forest Regulation of 2051 (1995) says "User Groups may make timely amendments in the Work Plan relating to the management of the Community Forest, and shall inform to the District Forest Officer regarding such amendments (Chapter 5, Clause 26)", in practice this rarely happens. This leads to rigid plans which cannot easily be amended as the needs of forest users develop¹⁷ and as a result, operational plans even if they are recognized as being deficient cannot easily be improved.

2.6 Lack of business orientation

The prevailing approach amongst forestry professionals supporting CFMs tends to be one more geared to resource creation than maximizing livelihood benefits. Business planning; processing; transporting; marketing; and financial management, all necessary to strengthen small-scale forest enterprise, are usually absent even though CFMs may need information or direction to enable them to become entrepreneurs – particularly if their objectives include income generation. However, Arnold (2002) challenges the notion that many of the poor presently engaged in low productivity forest product activities could gain access to modern sector markets because most of these labour intensive and low productivity activities generate very low returns and will have to be abandoned as labour costs rise or because they are produce goods that cease to be used as incomes rise. If this is the case, it simply reinforces the argument for giving more attention to business planning as part of the FMP to ensure that such enterprises are soundly based.

¹⁷ Under the current guidelines, the OP cannot be reviewed until two years have passed since approval. It has even been proposed recently to extend the minimum period between reviews to the full five years of the O.P. (Malla *et al*, 2002).

Commonly, the experience and skills in small-scale business planning which can be provided by support agencies such as forest extension services or NGOs are also limited.

2.7 Inflexibility

Conventional forest management plans are often treated as rigid blueprints prescribing everything which can be undertaken in a forest area with little scope for flexibility. In practice, forest managers may find this approach unrealistically demanding, in which case they may look for loopholes to circumvent problems. For instance, in Venezuela, about 50% of timber produced from natural forests

Box 1: Overloaded field staff resulting in low-quality participation in Nepal

Preparation of Operational Plans (OP) includes a number of tasks all of which require inputs by forestry Range Post staff working with user group members:

- preparation and writing of the user group constitution
- detailed forest survey/inventory work
- organisation of data, area calculation, timber volume and maximum annual sustainable cut calculation
- writing the operational plan
- making amendments and revising the plan (normally after 5 years)

This inevitably proves to be difficult and staff find it almost impossible to keep up with the demand with their limited human and financial resources e.g. In Kushmisera Range Post, at one time there were 20 outstanding applications for community forest while the average rate of handover in the past seven years had been between three and four per year.

District Forest Officers (DFO) set annual targets for FUG formation and operational plan preparation for inclusion in their annual budgets based on the demands received from villages in the district. Usually, the actual budget allocated is less than that originally proposed. This increases pressure to complete the planning process as quickly as possible in order to achieve targets e.g. a forest guard in Kushmisera Range Post reported that an operational plan for a new FUGs in the area was prepared in one day.

In practice, there is hardly any opportunity for forest rangers and guards to reconcile their limited time and budgets for operational planning with sufficient facilitation to ensure effective participation throughout the whole process. This allows planning to be dominated by local elites. Consequently, in certain situations “only a minority of members had ever heard of the Operational Plan, and most people were unaware that they had any kind of plan at all” (Malla et al, 2002)”. The resulting plan itself is then also biased towards the wishes of local elites rather than the needs of the forest-dependent poor. In this “quick fix” situation, FUG assemblies are frequently called at very short notice with decisions often already having been made beforehand with the assemblies used simply inform those present about these decisions. This disempowers many poorer FUG members who are inadequately involved in planning and decision-making processes over issues which directly affect their livelihoods.

Source: Malla *et al*, 2002

is exploited through Annual Permits of Extraction (Silva, personal communication). These are given to private landowners to exploit timber on their own land and do not require the application of sustainable forest management techniques. There are few limits on the amount of wood extracted (WRI, 1998) and, according to Centeno (1995), the majority of the industrial extraction of timber based on these permits leads to deforestation and degradation.

In Bolivia, as in many countries, the regulatory system has largely been designed with large-scale forest concessions in mind, thus leaving CFMs with many disadvantages. Transaction costs for small-scale timber producers to be recognized as local forest user groups are relatively high as are costs of inventories and forest management plans, especially in relation to the expected returns. The slow process of municipal forest reserves demarcation (see 2.11) also limits the opportunity for these groups to request forest concessions. As a result, some small-scale timber producers persist in illegal logging and farmers obtain clear cutting authorization based on a land-use plan for agricultural purposes in order to justify logging because this involves less cost than that for a forest management plan (Pacheco, 2001).

2.8 Skills and Methods required

Conventional FMP, with their emphasis on resource quantification and data, are often culturally and technically inappropriate for rural people in developing countries where numeracy and literacy rates are low. For example, forest inventories to produce quantitative baseline information and to calculate sustainable harvest levels and annual allowable cuts of timber or NWFPs are often too alien to be meaningful to local forest dependent people. Similarly, the tools and equipment used e.g. compasses, relascopes, computers serve to alienate local people from forest “professionals” rather than actively involving as participants them in FMP preparation.

Apart from being time-consuming and often unnecessary, as Makarabhirom and Raintree (1999) point out, such methods may be counter-productive and even harmful to villagers. For example, in relation to NWFP management in Lao, quantitative survey methods may be a poor substitute for traditional decision-making processes, and run the risk of encouraging “token participation” in an externally imposed process which is poorly understood by villagers. Many quantitative methods used in forestry are not very relevant to the thinking processes of rural people, and since they cannot be done without outside assistance, they promote dependency rather than self-reliance. It is sometimes forgotten that quantitative forest survey methods are a means of making decisions rather than being an end in themselves. If this is understood, then the possibility of basing decisions on other non-numeric information can also be recognized and incorporated into forest management planning processes.

Normally, FMPs for CFMs are required to be produced as written documents. Not only does this present a problem of understanding where the official language and forestry terms e.g. inventory¹⁸ are unfamiliar to local people, it also means that writing becomes the task of elite individuals or forest service staff, thus disempowering most members of the community. Even typing and copying documents can become a major constraint in rural communities.

In four FUGs studied by Malla *et al* (2002), committee members could not understand the meaning of inventory in their operational plans, let alone the ensuing calculations of the maximum sustainable cut. Many measuring units, as well as the language were incomprehensible to Forest Guards as well as users. As a result, the inventory was not actually “used” for management purposes, but remained primarily an evaluation tool for the District Forest Office.

The problems caused by externally imposed methods can only be addressed when it is recognized that local people’s values and beliefs need to be fully incorporated into forest management planning and decision-making processes often as a “.. *mix of indigenous and outside knowledge and values*” Haverkort and Hiemstra (1999). Whilst it may be easy to ignore local people’s values until “*they*

¹⁸ The forest resource inventory became a compulsory component of FUG Operational Plans in 1999 (Malla *et al*, 2002).

have been examined and declared valid by conventional western science” (Balasubramanian, 1999) because they are hard for outsiders and professionals to digest e.g. “ancestors are satisfied”; “spirits are felt”¹⁹, the same values are often considered as being “non-negotiable” by local people because they are so fundamental to their livelihoods and a sense of self and security (Edmunds and Wollenberg, 2002). Therefore, local forest governance is unlikely to succeed unless local people’s criteria are fully accepted and taken into consideration.

2.9 Imposition of regulations

The type of information required to be included in forest management plans is often pre-determined under government laws and legislation regardless of whether this is actually needed by CFMs. Usually the prescribed information requirements of management plans far exceeds the minimum actually necessary for livelihood-oriented forest management²⁰.

Unnecessarily prescriptive regulations on forest management planning can act as a means for imposing external controls and impositions on local communities – the effect often being to reduce access to forests by the poorest, most forest dependent households whilst allowing better access to outsiders or elite groups.

Makarabhirom and Raintree (1999) express concern that detailed NWFP inventories in Lao might encourage over exploitation by local NWFP traders who may move in (often armed) and exhaust the resource in short time once stocks are publicly known. Article 25 of the Forest Law (1996) in Lao states that: “*the harvesting of timber and other forest produce can proceed only in surveyed and inventoried production forest areas for which there is a forest management plan*”, and “*the harvesting of other forest products such as mushrooms, roots, tubers, shoots, leaves, flowers, barks, resins, gums must be carried out according to specific regulations issued by concerned agencies*”. Imposition of such controls over resources which villagers generally believe they have traditional rights to collect from the forest without seeking permits, may adversely affect the livelihoods of the poorest forest-dependent people. In fact there may be times when there is no reason to take the risk of making inventories of NWFPs because such information is not needed by local users who actually manage them (Makarabhirom and Raintree, 1999). Forests are often the last resort of the most marginalized and the landless in local communities because their use is not well-regulated. They offer room for maneuver for socially weak people simply because of their *de facto* open access. Insensitive regulation during forest management planning can therefore have unexpected outcomes on these vulnerable groups.

2.10 Predetermined local forest governance structure

Regulations on CFM usually predetermine the local institutional arrangements. In many cases, such regulations provide little room for accommodating a diversity of culturally appropriate group structures and decision-making processes (i.e. indigenous forest governance systems)²¹. In many

¹⁹ For example, a case study shows ancestors play a crucial role in natural resource management and local knowledge generation in Northern Ghana (Millar, 1999). “Satisfaction of ancestors” is a crucial criterion in natural resource management in this case. Another case study also shows that “communities take good care of trees planted in the traditional spiritual context and that their survival rate is high” in Shona society in Zimbabwe (Gonese, 1999).

²⁰ In this paper, “livelihood-oriented forestry” means forest management mainly for domestic/subsistence use, supplementary income generation, and use of the forest as a security net or last resort of the poor in the time of shock. It therefore includes protection, use for consumption and some forest product sales.

²¹ See also Lindsay (2002) who describes problems of the “over-standardisation” trap in participatory forestry legislation along with the “whose vision of community do we use” conundrum and the “local democracy will swallow up our forest committee” anxiety.

countries, formal registration as a local forest management group is a prerequisite for the approval of an FMP (e.g. Brazil, Cameroon, Nepal, Laos and Bhutan). Often the legislation which defines the legal entity of a forest management group is not governed by forestry laws but by co-operative/social association laws for example Village Forest Committees in India are now being encouraged to register under the Societies Registration Act (1860) to provide them with legal backup.

If it a requirement of an FMP application and approval process to create or formalize such groups, this may cause informal forest management groups (both traditional and recently established) to lose control whilst replacing them with less familiar and potentially inappropriate institutional structures. Whilst informal local forest management institutions may feel the need for better official and legal recognition of their status, there is also a danger of potential conflicts and “hijacking” of their own locally induced systems of forest governance by inflexible and excessively rigid governance arrangements formulated through government regulations (e.g. Suryanarananan and Kothari, N.D; Shackleton *et al*, 2002). Inclusion of informal or indigenous forest governance into formal frameworks may create institutions that have little legitimacy among actual forest users.

2.11 Slow processes of handover and registration

Where formal registration as a local forest management group is a prerequisite for the approval of an FMP, this process can be very time-consuming and demanding. For example in Bolivia, it takes about one year (in some cases up to 20 months²²) for official acknowledgement and approval of local forest management groups (*Asociaciones Sociales del Lugar -ASLs*). Furthermore, a given ASL has to have been in existence for at least for 5 years to be authorized to apply for ASL status. It is likely that it may take a long time before forests are allocated to ASLs by municipalities because they often have insufficient forest reserves for allocation and because the process is subject to the slow progress of the conflict resolving programme of National Agrarian Reform Institution because a given forest must be free from land conflicts²³. These obstacles seriously hinder the expansion of community forestry in Bolivia (Pacheco, 2001; 2002). Similar problems exists in Honduras where the approval process by AFE-COHDEFOR²⁴ for revision of forest management plans²⁵ may actually take up to one year while the regulation set by AFE-COHDEFOR specifies that the approval procedures should take no more than 60 days (Alvarado, personal communication).

Formal registration can also be used as a means to maintain implicit government control over forest resources. A forest user group in Nepal which had been waiting for official acknowledgement of their status for 7 years in the year 2000 (Branney, personal communication). Under such circumstances local forest users are subject to *de facto* veto²⁶ by the forest department. In some countries financial support is provided to the FMP formulation process and in order to provide this support, communities or individual forest managers must first be established as a legal entity.

²² From acquisition of legal personality to the final qualification by Ministry of Sustainable development and Planning (Ministerio De Desarrollo Sostenible Y Planificación)

²³ Instituto Nacional de Reforma Agraria (INRA)

²⁴ La Administración Forestal del Estado – La Corporación Hondureña de Desarrollo Forestal

²⁵ In this case, these forest management plans are required for commercial timber production.

²⁶ Some forestry laws [e.g. Cameroon, Laos, Cambodia (draft)] include a “silence clause” whereby the if plan once officially presented to the authorised forestry authorities is not reacted upon after a give number of days, the plan is taken as “approved” and can start to be implemented. Other countries (e.g. Nepal, India) do not include such a clause nor provide for the payment of compensation (“penalty clause”) where delays are caused by the government. Refer to Lele (2000) for the implications of this in India.

Chapter 3

Experiences with Developing Simpler Forest Management Plans

3.1 What is meant by a “simpler” forest management plan?

Chapter 2 has described some of the problems which can occur when conventional FMPs are applied in collective forest management situations. Most of these stem from the inappropriate nature of conventional FMPs in the newer environment of participatory forestry and collective forest management. Recognition of this has led to a series of attempts to modify FMP formats for both collective forest management, and for individual small-scale forest owners. Successes with these adaptations have been mixed, but all can be described as being simpler or more appropriate versions of conventional FMPs (whether or not they are actually described as such).

Box 2: Operational plan contents (Nepal)

According to the regulations relating to the Forest Act (1993), the operational plan for a community forest should contain the following elements (Branney *et al.*, 2001).

- Details of forest name, boundaries, area, condition, forest type
- Map
- Block division with details of each block
- Resource assessment
- Objectives of forest management
- Methods of forest protection
- Forest development activities
- Nursery, plantation and income generating programme
- NWFP development activities
- Provisions for using income from sale of products
- Penalties
- Provision for wildlife protection

Box 3: Simpler forest management plan contents (Guatemala)

According to “Modelo simplificado de Planes de manejo para Bosques Naturales Latifoliados en Guatemala (1996)”, the following information is required for the ‘simpler’ management plan of broadleaf forests smaller than 45 ha.

- Objectives of forest management
- Maps
- Tenure status and location of the forest, boundaries, area, condition forest type
- Forest Inventory (design of sample plots, 100% pre-harvest inventory, NWFPs)
- Forest management activities (Minimum DBH for cutting, protection and regeneration, cutting cycle, block division for harvest, annual allowable cut (both in areas and volume))
- Road planning
- Time schedule for the implementation of forest management

As Boxes 2 and 3 show, the term “simpler” is a relative term. In this case, an operational Plan for a community forest in Nepal (Box 2) although not specifically described as “simpler”, in practice appears much simpler than the “Simpler Forest Management Plan” used in Guatemala (Box 3).

The term “simpler” needs to be treated with some caution to avoid misinterpretation. Although the actual FMP (the final document) in many CFM situations needs to be simpler than a conventional FMP (as per Chapter 2), the same may not necessarily be true for the process that results in its

successful formulation. This can be a complex participatory process aimed at reaching consensus between diverse stakeholder groups and regarding a number of different (and sometimes contradictory) management objectives. It would therefore be ill-advised to treat such a participatory process as being simple when compared with a conventional, technically-driven planning process since this would underestimate the skills and time required to facilitate it. The collective forest management situation can therefore require the apparent contradiction of a simpler type of FMP which is the outcome of a relatively more complex process.

Several types of FMP for small-scale or CFM situations can be distinguished depending on the overall forest management objectives and the type of forest manager:

- forest management plans for livelihood-oriented forestry
- forest management plans for commercial forest enterprises
- forest management plans for small-scale private forest owners

Whilst these three types of plan are not mutually exclusive (e.g. the livelihoods-oriented and forest enterprise types are commonly combined within a single collectively managed forest), they can be conveniently used to analyse different experiences with simpler FMPs. The examples given show that there have been significant attempts to modify conventional FMPs to accommodate these new requirements. Within these modifications there is much variation in the type and degree of simplification which has taken place. Some characteristics of these simpler FMPs and the type of support being provided to prepare and implement them are summarized in Fig. 1.

Analysis of experiences with simpler FMPs has been divided into several key areas covering the most important developments (again these are shown in Fig. 1).

Fig. 1: Summary of the characteristics of “simpler” FMPs and management planning support

	Characteristics	Examples used
3.2 Livelihood-oriented CFMs		
3.2.1 Appropriate legislation	Probationary period; use of by-laws; use of environmental standards; emphasis on social criteria; recognition of existing indigenous institutions	<ul style="list-style-type: none"> • The Gambia • Tanzania • Bolivia • Nepal
3.2.2 Autonomously evolved plans	Iterative learning within communities; accountability and transparency mechanisms in decision-making and benefit sharing; strong leadership; driven from a sense of “crisis”	<ul style="list-style-type: none"> • Jadhargaon & West Bengal (India) • Tianba (China)
3.2.3 Simpler plans	Non-technical; map-based approach; participatory methods; minimal information requirements; simple silvicultural models	<ul style="list-style-type: none"> • Cameroon • Bhutan
3.2.4 Simpler planning techniques	Multi-purpose forest management; use of indigenous knowledge; forest-user-led experiments; participatory resource assessment; simple tools and equipment	<ul style="list-style-type: none"> • Agroforests (Indonesia) • Forest Management Learning Groups (Nepal & Vietnam) • Kenya • Nepal
3.3 Enterprise-oriented CFMs		
3.3.1 Appropriate legislation	Marketing support by government (few examples)	
3.3.2 Autonomously evolved plans	Spin-off of from livelihood-oriented self-rule of local forests; formalization of existing forest-use rights for timber	<ul style="list-style-type: none"> • CFMGs (Bhutan)
3.3.3 Simpler plans	Non-technical; map-based approach; participatory methods; minimal information requirements; simple silvicultural methods	
3.3.4 Simpler planning techniques	Supporting forest-user-led analysis; emphasis on resource sustainability; market sustainability, social/institutional sustainability and technical sustainability	<ul style="list-style-type: none"> • Marketing Analysis and Development Approach
3.4 Individual Small-scale Forest Managers		
3.4.1 Appropriate legislation	Applied to small forests only, use of simple sketches in place of a pre-harvest inventory	<ul style="list-style-type: none"> • Bolivia, Guatemala
3.4.2 Simpler planning techniques	Multi-purpose forest garden planning, joint marketing support, micro credit and certification support	<ul style="list-style-type: none"> • Analog Forestry, Bhutan

For each of the three type of management plan identified, the following characteristics have been used as a means of classifying experiences and examples:

Appropriate legislation What has been done to legislate for more appropriate forest management plans for collective forest managers?

Autonomously evolved plans How have local communities been able to learn and develop planning techniques which meet their own needs and capacities?

Simpler plans What plan structures have been developed to be consistent with the need for simpler forest management plans?

Simpler planning techniques What simpler planning techniques are being used to support the active participation of local communities in forest management planning?

3.2 Forest management plans for livelihood-oriented forestry

3.2.1 Appropriate legislation

Legislation which accompanies or supports simpler FMP formats for CFMs (or for individual small-scale forest managers) has been developed in many countries including: Cameroon, Gambia, Tanzania, Mozambique, Malawi, Kenya, Senegal, Mexico, Costa Rica, Guatemala, Bolivia, Brazil, Paraguay, Chile, Argentine, Cambodia, Vietnam, Laos, Philippines, Nepal, Indonesia, Myanmar and Bhutan. Many of these countries have already officially accommodated simpler FMP formats for CFMs in their legislation although the level of planning still tends to be based on the requirements for commercial forest enterprises, regardless of the actual management objectives.

Most of the formats of FMPs presented here are still complicated from the small-scale managers' point of view and require technical assistance from professional foresters. Only a few countries so far have legal provisions specifically tailored to livelihood-oriented small-scale forest management.

The examples described here from Gambia and Tanzania illustrate how appropriate legislation can be used to support a type of FMP which is appropriate to the requirements of CFMs where the overall management objective is to benefit the livelihoods of rural forest users. The example from Nepal shows how over-prescriptive legislation can have a negative impact.

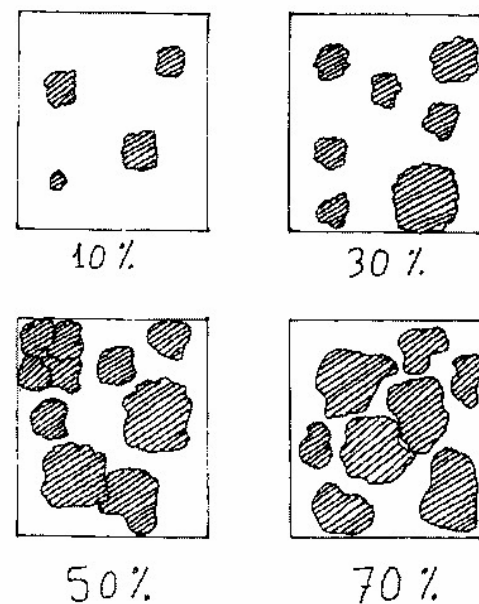
Community Forestry in The Gambia

In Gambia, the Forest Bill (1998) defines the procedures and legal requirements for creation of community forests and designation of community controlled state forests. The accompanying "Field Manual on Community Forestry Start-up and Implementation" (referred as "Field Manual") was issued by the Community Forestry Unit of the Forestry Department. In this manual, planning requirements for community forests are drastically simplified. Examples of simpler procedures for harvesting, resource assessment and management agreements are described here:

A: Simple harvest guidelines

These are based on canopy cover % instead of an annual allowable cut for which inventory would be needed. With canopy cover less than 30 % no live tree harvesting is allowed. If canopy cover is more than 30 % and if the trees are non-valuable species²⁷ then exploitation can take place providing canopy closure remains above 30% (Fig.2).

For valuable species, exploitation is possible but has to follow a simple diameter limit for felling,



Crown projection is estimated with full foliage i.e if there are no leaves, (dry season) you have to imagine how the crown would look like during the rainy season

Figure 2: Visual guideline of canopy cover from "Field Manual", The Gambia

²⁷ The list of names of 15 valuable species is given in the manual.

regeneration and density of standing trees²⁸. The use of such simple criteria for harvest greatly eases enforcement and monitoring by forest guards.

B: Resource assessment

Inventory is not required in the 3-year and 5-year management plan²⁹ which the Forest Committees³⁰ have to develop. This reduces the burdens (in terms of labour, costs and technical skills) which the Forest Committees have to bear. As an alternative, a map³¹ is required for forest management planning purposes and the existing forest resource is assessed through Resource Mapping based on Participatory Learning and Action (PLA) exercises including transect walks and participatory mapping.

C: Management agreement

The Community Forest Management Agreement (CFMA) is developed through a two-tier process consisting of a Preliminary Community Forest Management Agreement (PCFMA), followed by a 5-year Community Forest Management Agreement (CFMA). The former is a 3-year probation period before the official handover gives permanent ownership rights over forest resources and serves as a period for institution building; management planning; capacity building and confidence building of both parties (local Forest Committee and the Forest Department).

The CFMA consists of brief descriptions³² of anticipated forest management operations for the next 5 years; responsibility for each of the operations and information about the committee members. Local by-laws are established as a legal instrument for supporting implementation of the management plan. The manual recognizes the traditional importance and advantage of oral by-laws and endorses their use in a flexible way. It also recognizes that local forest management rules (officially called as Community Forestry Rules) will emerge gradually through a process of awareness creation and cannot be established at once. Local forest management rules are expected to contain regulations allowing restricted access to and use of the community forest and its products by determining the users; the products to be used, and the use systems.

After the CFMA has been signed by both parties, a cadastral survey is carried out by the Survey Department and the forest is then officially gazetted by Parliament. This assures the community's

²⁸ The list of diameter limit for harvesting valuable species is given in the manual. If regeneration is not present, harvesting can occur only if enrichment planting takes place. If there is regeneration over 1.5m (or a man height) in medium density, harvesting is possible. In a pure young stand (diameter between 10 and 20 cm) of valuable species without regeneration, harvesting is possible if the distribution of remaining valuable trees is satisfactory. This operation is a thinning to favour the elite trees for high quality timber production.

²⁹ A three-year management plan is required for the period of Preliminary Community Forest Management Agreement (PCFMA). A five-year management plan is required after Community Forest Management Agreement (CFMA) is made.

³⁰ Local forest user groups called as such in Gambia

³¹ Information on the location of the community forest, road network, natural resource, land use distribution and planned forest management activities are shown in this map (the scale of 1:10000). These information are collected through PLA exercises such as transect walk and participatory mapping. A photocopy of 1:50000 map should be also submitted to indicate the location of the village(s) within a district (Field Manual, and Reeb, 2002, personal communication).

³² It consists of brief over view of the local forest history, names of the officers of the government institutions involved, names of the committee members and their position, village population information, the name of village head, review against previous report (e.g. the status of vegetation, regeneration and given damage to the forest (qualitative, rough assessment), and management options (e.g. firebreak establishment, tree planting, deadwood utilisation, nursery activity, regular patrol, regular meeting and beekeeping).

permanent tenure of the forest. Finally, the Bill does not set a maximum ceiling³³ for forest managed under CFMA. This legislation is particularly remarkable when compared with other relatively complex procedures applicable in very small forests of 3-5 ha e.g. in Bolivia and Guatemala.

Community Based Forest Management in Tanzania

A: Legislation³⁴

In Tanzania the elected village council of each village is designated as ‘Land Manager’ with powers to adjudicate, allocate, register and certificate landholding within the village area through the establishment of a Village Land Registry. The law directly encourages the establishment of village forest reserves as a priority by requiring each village to register such common resources prior to allocation of remaining land to individuals. National Forest Policy (1998) then directs that village forest reserves will be managed by village governments or other entities designated by them for this purpose e.g. NGOs, user groups, associations, and religious institutions. Therefore, the legislative system for village forest reserves in Tanzania recognizes previously established local governance frameworks and bodies – village governments – and enhances their legal powers to make by-laws affecting the use and management of forest resources within the village area (Wily, 1999).

Community-based Forest Management (CBFM) in Tanzania does not therefore aim for community “participation” but to be community-based. Devolved decision-making supports the empowerment of forest-dependent people where, in this situation, foresters participate in the efforts of the communities who are recognized as the actual forest managers. This management-centred rather than user-centred approach of CBFM is reflected in the forest management planning process specified in the official “Community-based Forest Management Guidelines (CBFM Guidelines)”.

B: Planning Guidelines

According to these guidelines, communities must prepare a forest management plan (FMP) and draft and pass a set of village by-laws. The community appoints a “planning team” to support this process. Using a set of questions provided in the CBFM Guidelines³⁵ the planning team inspects the forest thoroughly although no quantitative forest inventory is required. This inspection allows the community to decide what kind of management regime it needs.

C: Forest Management Plan Format

The FMP format is provided in the CBFM Guidelines. To be approved, a FMP does not need to contain more than a simple list of actions³⁶ with timetable for rehabilitation and development of the forest. The FMP defines the responsibilities and powers of each actor with control systems in place for each task described in the plan to ensure accountability and transparency. Plans therefore focus on

³³ The size of a community forest can be very big. For example, there are some community forests of 70,000 ha in Mexico (Negreros, 2002, personal communication).

³⁴ The Land Act (No.6 of 1999) and The Village Land Act (No.7 of 1999)

³⁵ The inspection is carried out to identify, clarify and assess forest boundaries, vegetation zones, special sites in the forest, change of the forest condition in the last 50 years (e.g. streams, wildlife, forest use – grazing, wood extraction, hunting, beekeeping, mining, and identification of degraded areas), forest users, forest-damaging practices, new use of the forest, forest ownership and management status, existing rules and existing best forest managers.

³⁶ CBFM guidelines include the following activities as examples of actions: planting seedlings around a degraded spring to encourage the return of water; filling gullies with stones; cutting and planting suckers in a burnt area without regeneration of useful species; using a bare area for private plantations on payment of a fee; discouraging certain species by permitting free thinning to encourage growth of another species.

boundaries, rules (officially established as by-laws), punishments and monitoring arrangements, rather than on a detailed silvicultural prescriptions.

A “test period” of at least 1 year is required (with a Provisional Forest Management Plan for this period) before registering a Village Forest Reserve (VFR) or signing a Joint Management Agreement and by-laws³⁷. A “review team” appointed by the community reviews financial management, record-keeping, reporting, forest protection, adherence to the rules, enforcement of punishment, the status of boundary disputes and the views of various local stakeholders on the forest management. Checklists specified in CBFM Guidelines are used to identify questions to ask under “Things to look for”³⁸. Using these, problem areas are identified, and decisions are made to address them. The FMP is re-drafted according to these and is finalized for the formalization of CBFM.

Community Forestry Nepal

In Nepal, where community forestry is now well established, national level operational guidelines were produced in 1995 and revised in 2002 based around the Forestry Act (1993) which legislated for the establishment of community forests managed by forest user groups. These guidelines were highly process-oriented reflecting the importance given to a participatory planning process involving all local stakeholders (forest users) in operational plan preparation. Although not without problems, the overall impact of these guidelines has been to strengthen participatory processes; to enable community forestry as a national-level and widespread programme; and to empower forest user groups.

Unfortunately, more recent developments have tended to weaken rather than build on this strong enabling environment. Recently produced inventory guidelines for community forests³⁹ have now prescribed a conventional forest inventory approach despite a number of successful initiatives where participatory resource assessment and forest users involvement in a non-technical and understandable way have been piloted. In practice, the spirit of the operational guidelines are undermined by these newer inventory prescriptions. The result has been that both forest user groups and supporting field staff (forest guards and forest rangers) have to carry out a task in order to revise their operational plans for which they not only lack capacity and resources, but for which there is little real demand. Unsurprisingly, in many districts this has led to a huge backlog of plans requiring revisions and a reduced levels of confidence amongst forest user groups.

³⁷ There are various forms of CBFM in Tanzania with different formal registration processes. A district register of forests is required at the District Council level where the community independently manages the forest as a declared or gazetted VFR, or where only part of the community is involved, as with a Group Forest Reserve. A joint management agreement (JMA) is fixed between the Central Government and the community where Government designates the community as manager of a National Forest Reserve. A JMA is also fixed where Government and the community agree to manage a National Forest jointly, sharing decision-making and the work of management as co-managers - usually meeting as a ‘Joint Management Committee’ to make plan and take decisions.

³⁸ Simple questions are used for the assessment, e.g. “Have the in-forest dwellers left?”, “Has cultivation in the forest ceased?”, “Are cattle and people trails closed?”, in order to assess the effectiveness of the provisional CBFM arrangement.

³⁹ Guideline for Forest Inventory (2000). Ministry of Forests and Soil Conservation, Kathmandu

Domestic forest use - Bolivia

Domestic use of forests in Bolivia do not require authorization⁴⁰, whilst a forest management plan is an essential requirement for all types of commercial forestry (Pacheco, 2001). Domestic use is regulated by the agreement instituted through negotiations between the local communities and/or other landowners co-ordinated by the local municipalities and local forest office (*La Superintendencia Forestal*). The agreement takes into consideration specific characteristics of the area, traditional use and customs, and sustainability of the resource. A distinction has therefore been made in the legislation which promotes the no-commercial use of forest.

3.2.2 Autonomously evolved plans

Traditional local forest governance systems are encountered throughout the world. These are usually based on simple environmental and social codes developed by local people within their traditional/local institutional structures. Often, such systems forest are not officially recognized by governments or accommodated within forestry-related laws.

Local forest governance systems can work effectively - especially where there is limited external pressure (e.g. logging/mining companies; excessive interference by central government). In the face of such pressures, strengthening existing systems and processes can be more effective than imposing new ones. Hence, this section looks at examples where forest management plans have evolved within local forest-based institutions and where these have been effectively incorporated into newer collective forest management situations.

Self initiated forest conservation in India & China

The 2 examples given here (Boxes 4 & 5) from India and China show how autonomously evolved forest management initiatives by local communities can be very successful. Incorporated into formal CFM legislation without bringing an end to such existing local governance structures and replacing them with new ones can build on these strengths (as shown in Jardhagaon), but prescriptive legislation can also create problems for such self-initiated systems (as in Tianba Village)

⁴⁰ Reglamento General de la Ley Forestal (Decreto Supremo 24453, 1996: Articulo 69, III).

Box 4. Jardhargaon, Uttarakhand, India

The village of Jardhargaon in the hill district of Tehri Garhwal, Uttarakhand once had dense forests. A large part of these, on the lower hill slopes had become highly depleted due to over-exploitation for fuel, timber, and other needs. In 1980, the community started with efforts to protect these forests under the leadership of Mr. Vijay Jardhari along with other like-minded persons from the village. They mobilized the entire village to begin protection to reverse the trend of degradation which had started years before. Today, two decades later, the slopes above the village are again clothed in thick forest. Discussion amongst the villagers, regarding the possibility of self-management of the forest land, resulted in the formation of a *Van Suraksha Samiti* (VSS, or Forest Protection Committee). The members of VSS are chosen by common consensus during a meeting of the *Gram Sabha* comprising all the adult members of the village.

The VSS meets around once a month, and minutes are maintained. Decisions are taken by means of resolutions passed by consensus. The VSS sets the rules for forest use and carries out its own monitoring. Rules and regulations have evolved over a period of time e.g. no green felling is allowed; people are not allowed to take cattle into the oak forest; quarrying is done only at a designated site and only for domestic use; etc. These rules are generally followed by the villagers, since they are aware of the fines or social penalties which could result from violations.

The people of the village do not have any legally recognized rights of ownership, control or management over the Reserved Forests in the village since these are officially owned by the government, although since 1980, through the VSS, they have been exercising de facto control over them without any involvement of the Forest Department. The quality and diversity of the forests of Jardhargaon is better than most in the region, including those managed by the government (Source: Suryanarayanan and Kothari, N.D). Recent developments in Uttarakhand (formerly part of the state of Uttar Pradesh) have allowed formalization of these arrangements under recently formulated VSS rules (Uttarakhand Panchayati Forest Rules, 2001)

Participatory Monitoring in West Bengal (India)

Autonomy and local level empowerment implies a capacity within local institutions to effectively monitor their own forest management and institutional decision-making processes. In practice, a lack of confidence in this is often the justification needed for government forest services to maintain their control over local forest management and governance by imposing overly complex FMPs, and externally driven monitoring arrangements on CFMs. Ironically, poorly resourced governments are rarely in a position to monitor effectively whilst many forest dependent communities have been able to evolve their own monitoring arrangements if given the opportunity to do so.

Box 5: Tianba Village, Yunnan, China

Tianba village is located in Jingning County in Yunnan Province, China. Threatened by the rapid deforestation in the area, the local people of Tianba spontaneously organized themselves and have been successfully managing their forests since 1982 despite the total deforestation in surrounding villages. Led by the Village Committee, the people of Tianba have been working collectively to manage their local forest, carrying out tree planting and patrolling for forest protection. The community autonomously worked out their forest management schemes and issued forest regulations. Many different ways of managing forest have been applied with the consensus of villagers (e.g. Model Forest; CPC (Communist Party of China) Member Forest; Youth Forest; and Elders' Forest) These measures have promoted forest resource protection and development and the forest cover is now more than 60%. The State Greening Committee awarded Tianba Village as the "Thousand Family Greening Village" for the whole country.

The Village Committee organized logging activities with an annual output value of 180,000 RMB (US\$ 21,800) before the introduction of the controversial logging ban imposed by the Central Government in 1998. The Village Council used to allocate income from forest to build schools and clinics; widened roads in the mountain area; and purchased trucks and jeeps. However, after the tree felling ban in the new policy, the community now faces critical challenges due to their lack of the forestry revenue (Source: Presentation made by the village representative at the Workshop on the Rural Learning Network, Kunming, October 18-20, 2000).

For example, user-led monitoring called "Participatory Resource Monitoring" in West Bengal can be a real and effective alternative to externally driven systems. In Participatory Resource Monitoring, a community monitors its own natural resources (e.g. forest growth; harvested products; NWFPs collected and sold and even biodiversity indicators such as insects found in the forest). The community also keeps their own records of these and uses this to manage the forest resource in a sustainable way by developing "check and balance" mechanisms. In West Bengal the Forest Department is now incorporating these findings for their own long-term planning (Dey, 2002, personal communication).

3.2.3 Simpler plans

As a minimum requirement, FMPs for livelihood-oriented forest management will require the following to be clearly defined:

- forest boundaries
- resource assessment
- assessment of forest product needs
- use rights and responsibilities of members of the group
- benefit sharing arrangements
- minimum environmental standards

Many community forestry initiatives have been able to develop and adapt this simple model plan to their own circumstances. For example the planning guidelines for Bhutan describe the characteristics of simpler FMPs (Fig. 3).

Figure 3. Characteristics of community FMPs in Bhutan. Adapted from Forestry Extension Division (2003 draft)

Useful	<ul style="list-style-type: none"> • Containing all the information needed by the Community Forest Management Group (CFMG) to manage their community forest • Not containing any extra information (not actually required for managing the community forest) • Including all the actual activities which the CFMG agree to implement
Participatory	<ul style="list-style-type: none"> • Prepared by the CFMG (or committee) with forestry staff as facilitators and trainers
Understandable	<ul style="list-style-type: none"> • Written in local language • Including maps, diagrams, charts and drawings to be easily understandable • Short and containing minimal text
Flexible	<ul style="list-style-type: none"> • Allow for annual monitoring and review of activities
Realistic	<ul style="list-style-type: none"> • Containing agreed responsibilities for implementation and procedures which the CFMG can follow

Box 2 outlines the contents of a simple FMP (operational plan for Nepal). Similar, simple formats have been developed for other CFM situations. For example Box 6 shows an example of the simple table of contents for a participatory forest management plan developed in Cameroon. Whilst being more detailed than the bare minimum prescribed in the national level guidelines⁴¹, this is still simple enough to produce a plan which can be prepared and understood by local people and which is likely to be implemented.

3.2.4 Simpler planning techniques

Many purpose-built methodologies for simple forest management planning techniques have been developed for a range of environmental and socio-economic situations. These allow forest management plans to be developed with simpler formats similar to some of those described in section 3.2.3 whilst building on locally evolved practices and knowledge and fitting within the current legislative framework for livelihood-oriented forest management.

Indigenous knowledge and multi-purpose forest management in Indonesia

Initiatives with jungle rubber management (Box 7) in Indonesia (under ICRAF⁴²) CFMs with holistic management planning support based on indigenous knowledge in order to promote multi-purpose forest garden management systems. These initiatives are based on identifying, developing and implementing silvicultural techniques for mimicking natural

Box 6. Table of Contents of a Forest Management Plan (Cameroon)

1. Executive summary
2. Introduction
3. Legal status
4. Institutional status
5. Planning process
6. General description
7. Maps
8. Problem analysis
9. Overall objectives for the forest
10. Resource assessment (for each FMU¹)
11. Problem analysis for each FMU
12. Management Objectives for each FMU
13. Strategies and options for each FMU
14. Activities for each FMU
15. Rules and responsibilities for each FMU
16. Annual Plan of Operations (prepared every year)
17. Annexes (Articles of association; benefit sharing arrangements; agreements with other institutions; list of households; any other information)

⁴¹ Manual of the procedures for the attribution and norms for the

⁴² International Centre for Research in Agroforestry

succession of forest to local climax vegetation. This is not just ecologically credible but also culturally credible to local people.

CFMs selectively encourage the growth of valuable species in the forest succession process so that they are assured of good harvests the forest products they need. These approaches can only be effective by taking advantage of the amazing knowledge of local people on local vegetation including its use, propagation and management. It is relatively easy to generate confidence in these indigenous knowledge-based forest garden management systems because they can be easily woven into their traditional livelihood system. External extension services provide complementary advice on silvicultural techniques and are able to learn from the local management systems being developed in this way.

Box 7: Rubber and Damar Agroforests in Indonesia

ICRAF has supported analysis and development of options for farmers to improve the profitability of rubber, *damar* (resin producing *Shorea javanica*) and other types of agroforests. Among the range of alternatives to unsustainable land-uses, *damar* agroforests or rubber agroforests (as found in Sumatra) are important because they have been successfully tested on a large scale and developed and managed for decades by millions of smallholder farmers. Agroforest systems can ensure a smooth transition from traditional shifting cultivation to permanent production systems. They can be defined as forest structures planted and managed by farmers for the production of various forest and agricultural products on the same piece of land. Established through a complex succession of development and production stages involving the plantation of crops as well as of various commercial and useful tree species, agroforests mimic natural forests, with a complex multistrata structure and a closed or almost closed canopy that is usually dominated by a few tree species. Biodiversity in agroforests is usually high, as farmers do not systematically eliminate unused species, thus allowing the regeneration of numerous forest species - those that are perceived as having no detrimental impact on system productivity. Many examples of agroforests have been described from Indonesia. In Sumatra alone, an estimated area of about 4 million ha is covered with *damar* (*Shorea javanica*) agroforests, rubber agroforests and fruit/timber/spice agroforests.

Source:

http://www.icraf.cgiar.org/sea/Researchthemes/Theme_4.htm

*Forest Management Learning Group in Vietnam & Nepal*⁴³

This approach which has been field-tested in Nepal⁴⁴ and Vietnam⁴⁵ is an example of iterative learning where forest users are supported in developing their own silvicultural or forest management systems most suited to their own particular needs and environment. The FMLG approach which was developed out of the Farmer Field School (FFS) methodology used in agriculture, is used to facilitate knowledge generation for multi-purpose community forestry. The approach assists forest users in developing the knowledge, critical skills and self confidence they need to make decisions about forest management based on their own experiments, observations and analyses. FMLG offers forest users opportunities:

- to analyse existing forest resources and future forest product needs
- to identify the opportunities for various forest management options including opportunities for income generation
- to analyse existing constraints
- to try out new forest management options on a small scale
- to act as a forum for exchanging ideas for the improvement of livelihoods
- to identifying common problems and encourage collaborative working

Identification of promising knowledge or techniques through experiments by forest managers may feed into the modification of their forest management plans as demonstrated in Nepal (Box 8) – hence the iterative process.

⁴³ The FMLG approach was developed by RECOFTC (Regional Community Forestry Training Centre for Asia and the Pacific, Bangkok) with the support of The Forests, Trees and People Programme (FTPP) of FAO.

⁴⁴ Field tests in Nepal were carried out in conjunction with Nepal-Swiss Community Forestry Development Project; FAO Hills Leasehold Forestry and Forage Development; Women Acting Together for Change (WATCH); Nepal-Australia Community Resource Management Project; the Federation of Community Forestry User Groups of Nepal (FECOFUN); and the Community and Private Forest Division of the Department of Forests (CPFD)

⁴⁵ Field tests in Vietnam were carried out in conjunction with The Social Forestry Development Project (SFDP) Song Da; the Mountain Rural Development Programme (MRDP); the Social Forestry Support Programme (SFSP); the Sustainable Management of Resources in the Lower Mekong Basin Project (MRC); and the project “Afforestation in Bac Giang, Quang Ninh and Lang Son Provinces” (KFW3).

Box 8: Forest Management Learning Groups (FMLG)

A FMLG generally consists of 15-25 forest users selected from the wider user group. Facilitators use various PRA methods, including as mapping, transect walks, pair-wise ranking, needs trend analysis, drama and participatory feedback throughout the one-week group set-up period in order to support problem identification and analysis of opportunities by group members themselves. Sessions on required skills such as monitoring of the experimental plots and record keeping are also held during this period.

After the establishment of small experimental plots regular follow-up sessions are usually held monthly. The group themselves decides when and how often to hold these sessions. A FMLG may last several years since it takes time before the results of the experiments become apparent. Each follow-up session lasts several hours with the group carrying out necessary forest management activities such as weeding or coppicing and monitoring the experiments based on their objectives, selected indicators (e.g. growth, density, survival rate, coppicing, fruiting and flowering) using farmer-friendly units (e.g. number of headloads of fuelwood rather than weight in kg). They also compare experimental plots with a control, share ideas and analyse the efficacy of each treatment. An external resource person (e.g. on tree crop management, marketing and processing of NWFPs) may be called in as needed, with the assistance of a facilitator.

Various experiments are possible (e.g. comparing different coppicing treatments for maximising fodder and firewood production; thinning of bamboo clumps for maximising bamboo shoot production). These experimental topics are determined by the forest users according to their forest management objectives. Ideas for various experimental treatments derive from indigenous knowledge and the casual observations of forest users. One FMLGs in Nepal carried out an experiment to convert their pine plantation into broadleaf forests. The Operational Plan of their community forest has now been modified based on the success of small-scale experiment officially acknowledged by the local District Forest Officer (Miagostovich and Triraganon, 2001; Tanaka, 2001. See Miagostovich, (2002) for further information).

Participatory resource assessment

In conventional FMPs, forest inventory is an activity which requires considerable technical inputs and which can take a considerable amount of time and expense to carry out. In CFM there is a need for techniques which are more appropriate to the needs and capacities of local forest managers – especially for situations where timber production is not the major forest management objective. Much attention has therefore been given to the development of simple, participatory forest resource assessment methodologies for livelihood-oriented forest management.

A number of different aspects of forest resource assessment have been modified and tested to make them better suited to livelihood-oriented forest management including:

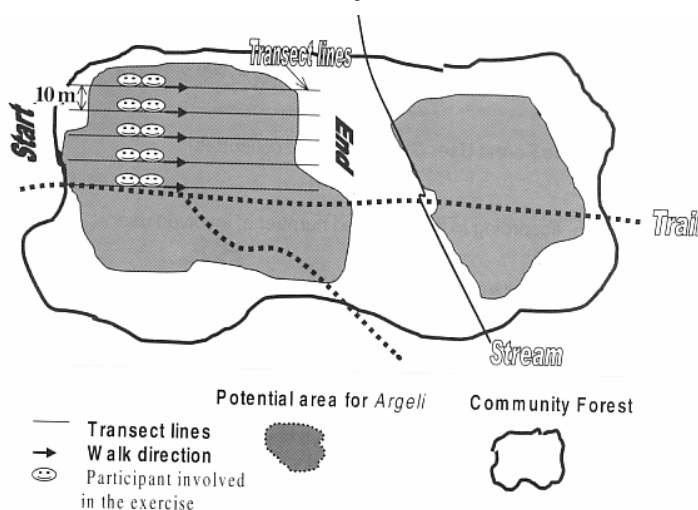
- forest resource assessment (covering the whole forest resource) rather than just timber inventory;
- participatory processes where forest users are actively carrying out the forest resource assessment themselves rather than forest technicians;
- simple, non-quantitative methods with emphasis on visual observations in the forest rather than accurate measurement;
- use of locally recognizable measurement units and classification systems rather than conventional inventory terms;
- presentation of information produced by forest resource assessment in a visual and graphic way to enable better interpretation of results by forest users; and
- linking of forest resource assessment with simple systems for identifying suitable silvicultural systems and estimated forest product harvesting levels.

The examples which follow have been selected to illustrate some of these aspects of participatory forest resource assessment.

NWFP assessment in Nepal

NWFPs are an important forest component in community forests in Nepal but their assessment for the purposes of determining sustainable harvesting regimes is normally rather vague – often a simple description of what NWFPs are present in the forest.

Figure 4: Participatory mapping technique for argeli, in Nepal



An attempt to develop a simple, yet more informative assessment system for one NWFP (*argeli*⁴⁶) – used for paper making) was based on a series of steps:

- delineation of the growing area (by participatory mapping);
- systematic counting of clumps (on parallel transect lines);
- estimation of the availability of bark in each

⁴⁶ Argeli (*Edgeworthia gardneri* – a shrub, the bark of which is used for making paper)

- clump; and
- data analysis and calculation of sustainable harvesting levels.

Each of the steps was a collaborative exercise involving both local forest users and forestry field staff. A field manual⁴⁷ was developed to guide each step and assist in the calculation of harvest levels.

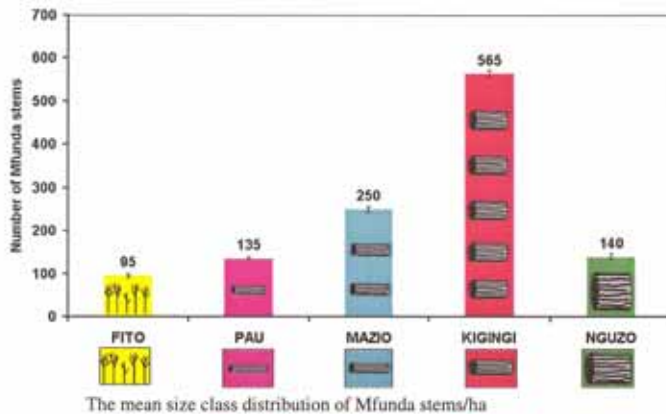
Pole resource assessment in Dida Village, Kenya

At Arabuko-Sokoke Forest in Kenya^{48, 49}, a pilot participatory forest management plan was developed with the villagers of Dida Village adjacent to the forest boundary. The main forest products which the villagers wished to utilize included house-building poles, fuelwood, medicinal plants, as well as foliage for butterfly farming and pollen sources for beekeeping.

It was found necessary to make an assessment of the availability of building poles of different categories so that villagers could determine sustainable harvesting systems for their utilization. 5 categories of poles were identified by the villagers. Each had a particular local name and use, and was distinguished by certain size parameters.

Figure 5: Local categorization of building poles, Dida Village, Kenya

Local name	Local Use	Approximate dbh range
Fito	Horizontal wall runners	< 4.0 cm
Pau	Vertical wall runners	4.1-6.0 cm
Mazio	Roof support	6.1-9.0 cm
Kigingi (borito)	Wall support	9.1-13.0 cm
Nguzo	Fencing	13.1-20 cm



Small sample plots were laid out in the forest. No trees were actually measured inside these plots, but each tree was classified according to the categories shown in the table and the number of poles in each category was recorded for each plot. Histograms were then produced showing (for each of the main tree species) the availability of house building poles in different blocks of the forest assigned to the village. From this, villagers were able to estimate offtake levels for each category of pole and could

develop local harvesting rules according to tree species and category of pole.

Calculation of offtake levels using “thumb rules” in Nepal

Most community forests in Nepal are important sources of forest products for the subsistence needs of members of the forest user group. After protection, such forests can become very productive with regular harvests of fuelwood, fodder, poles and some timber. A simple system for estimating offtake levels of fuelwood has been devised and has been widely used by both members of forest user groups

⁴⁷ Nepal-Swiss Community Forestry Project (2001)

⁴⁸ The Arabuko-Sokoke Forest Management and Conservation Project was funded by the European Union.

⁴⁹ Brunt (2001)

and Forestry Department field staff (Branney, 1994). These “thumb rules” are based firstly on a visual assessment of the forest resource by forest users covering 4 main criteria including:

- forest type (for 3 main forest types found in the middle hills of Nepal);
- age (mature, pole-stage, shrubland, mixed);
- canopy density (dense, open, very open); and
- regeneration (abundant, few, none).

Based on these criteria, forest condition (good, average, poor) can be assessed using simple flow diagrams. For each condition, there are harvesting options e.g. singling, thinning, coppicing (or combinations of these) as well as an estimated annual yield per ha. This can be calculated for a forest block of a known area and depending on the expected harvesting cycle (i.e. how soon users expect to return to the same block for another harvest). Although a very simple system which can be used effectively with local people, further measurements have shown that the information on harvesting yields is reasonably accurate and well within the requirements for sustainable harvest levels (Maharjan 1998).

3.3 Forest management plans for enterprise-oriented forestry

3.3.1 Appropriate policy and legislation

Most FMP formats for community-based enterprises officially accommodated in legislation require 100% pre-harvest inventory (e.g. Cameroon (draft)⁵⁰, Brazil⁵¹, Bolivia⁵², and Nepal⁵³). None of the formats are particularly simple and none of them extend beyond the traditional boundaries of forest management planning to encompass business planning despite the fact that this is an area where support and planning are critical to the success of the enterprise.

FMPs incorporating business planning have been tried under some pilot projects. For instance, the Social Forestry Development Project, Sanggau, Indonesia, provides guidelines for overall business planning for community-based timber enterprises, including infrastructure development and financial analysis. These elements are incorporated in the forest management planning support provided by the project⁵⁴. Some FMPs for community forestry (Operational Plans) in Nepal specify the need of NWFP management, income generation and income distribution planning (Branney *et al.*, 2001) although few have actually incorporated much specific information about such activities in the plan.

Simpler plans in West Kalimantan, Indonesia

The GTZ-funded Social Forestry Development Project (SFDP) in West-Kalimantan has developed a simpler FMP format with the objective of making plans for small-scale commercial forest enterprises simple, effective and transparent (Schindele and Lux, 2001). These new FMPs not only need to be suitable for implementation by local CFMs, they also need to comply with current government

⁵⁰ Manual of the procedures for the attribution, and norms for the management, of community forests (Chapter 6.2), Ministry of the Environment and Forestry

⁵¹ Seção IV, Instrução normativa No. 4 (4 March, 2002), Gabinete Do Ministro

⁵² Normas técnicas para la elaboración de instrumentos de manejo forestal comercial (inventarios, planes de manejo, planes operativos, mapas) en tierras comunitarias de origen, Resolución Ministerial No 136/97, Ministerio de Desarrollo Sostenible y Medio Ambiente.

⁵³ Malla *et al.* (2002)

⁵⁴ Schindele and Lux (2001), Forest Management Planning, Guidelines for Community Based Forest Management, SFDP

regulations. Unfortunately, the government regulations which are derived from the concessionaire system require a level of complexity which is still not appropriate for local CFMs at village level to be able to address without additional support from forestry professionals. This leads to a contradiction where simpler FMPs are piloted and tested, but cannot be more widely used because of constraining legislation. Clearly there is a need for altered legislation to address this.

3.3.2 *Autonomously evolved plans*

Probably there is less opportunity for FMPs for enterprise-oriented forestry to be developed out of existing local knowledge and experience compared with plans for livelihood-oriented forest management. In many countries, forest nationalization at some point in the past has alienated local people from having access to timber resources from adjacent forests without the involvement of government forest services whilst subsistence needs have often continued to be met on a *de facto* basis even after nationalization.

In some countries such as Bolivia⁵⁵ and Myanmar⁵⁶, the preparation of FMPs is the responsibility of the supervising foresters rather than the CFMs. This is partly because the required systems are too complicated for CFMs to implement, but unfortunately this also removes the opportunity for FMPs to be prepared through a participatory process and to evolve through the experiences and local knowledge of the forest managers.

3.3.3 *Simpler plans*

Analysis of the numerous FMPs collected for the study which led to this working paper shows few examples of simpler FMPs for small-scale forest enterprises. It appears that simplification of FMPs for both commercial timber or commercial NWFP enterprises (whether community based or not) is not easy, nor always desirable. There is a risk that excessive simplification of FMPs for industrial logging can lead to deforestation⁵⁷. The requirements of such plans make them inherently more complicated.

FMPs for forest enterprises may require additional such as cost-benefit analysis, yield projections, marketing, assistance from financial institutions (e.g. bank loans), labour management and infrastructure development (e.g. office, processing facilities, logging roads). It does not appear to be realistic to incorporate all these elements into FMPs for commercial enterprises whilst also keeping the plans very simple. However, it does appear that FMPs for timber-enterprises are used in many community forestry projects without having analysed the comparative disadvantages which CFMs are likely to have in a business environment. For example, since FMPs for some commercial forest enterprises cannot be easily simplified, then CFMs should at least be able to understand what the process for formulating each component of the FMP entails before they invest their time, efforts and money into it, since this may affect the viability of the enterprise. Resource-poor forest managers might choose to undertake a commercial timber or NWFP enterprise and even bear the costs of complex and costly FMP as long as they are convinced that it will be profitable for them.

⁵⁵ The Article 27 of Forest Law No 1700 (1996) and the Paragraph 1 of the Article 69 of Regulation (Supreme Decree 24453)

⁵⁶ Community Forestry Instruction of Myanmar specifies the users' group has to draw up a management plan according to the form prescribed by the Forest Department, and forwarded to the District Forest Officer for confirmation. Advice of responsible forest officer will be taken in the preparation of the plan (clause 14). On the other hand, the guidelines on "Appropriate Forestry Practices" for the Forestry Sector of the Watershed Project in Myanmar states "Management Plan will have to be prepared by the Forest Department in consultation with the community" (p.2) for community forestry establishment.

⁵⁷ Such deforestation is reported in Chile (Prado, 2002, personal communication), for example.

3.3.4 Simple planning techniques

A number of simple planning techniques have been developed which can be used as part of the management plan preparation methodology for enterprise-oriented forest management plans.

Market Analysis and Development Methodology

Originally developed in Nepal and Vietnam for supporting small-scale NWFP enterprises⁵⁸, Market Analysis and Development (MA&D) methodology (Lecup and Nicholson, 2000) has also been applied in Laos, China, The Gambia and Uganda and there are plans to adapt the methodology in Latin America⁵⁹. The MA&D emphasizes a holistic forest management planning and business planning process.

The strength of the MA&D process is the high degree of community involvement from the outset in the planning and design of the enterprise and the business plan. Emphasis is on resource sustainability; market sustainability; social & institutional sustainability and technical sustainability. MA&D assists communities in directly linking forest management and conservation activities to income generating opportunities by providing support for investigating the market environment.

The MA&D process consists of three phases (see Box 9). In the first phase community members assess the existing situation and make a short-list of promising products and services for potential enterprises while taking into account four important aspects of sustainability (resources, market, social & institutional and technical). In the second phase detailed feasibility studies are carried out to assess the economic, ecological, social and technical viability of each of the short-listed products. The information obtained enables community members to make the final selection of the most viable enterprises and prepare business plans. In the third phase community members develop their enterprise development plan (business plan). MA&D has also proven to be successful for several applications⁶⁰ beyond NWFP enterprises

⁵⁸The MA&D methodology was developed by FAO/FONP in collaboration with the Regional Community Forestry Training Centre (RECOFTC). Other institutions and organizations that supported the development of the MA&D methodology and instruction manual include the World Conservation Union (IUCN), Netherlands Development Assistance (NEDA), the Centre for International Forestry Research (CIFOR), and the Netherlands Development Organisation (SNV).

⁵⁹Collaborations with the following institutions/initiatives are on going in Latin America: Joint UNEP-WCMC and ODI project on "Commercialisation of Non-Wood Forest Products: factors of Success and Failure", with special reference to Bolivia, Mexico and Nicaragua; UNCTAD BIOTRADE and ITC Geneva joint Trade Facilitation Programme (TFP), the "Bolsa Amazonica" initiative in several South American countries as well as Biocomercio Sostenible in Colombia; CATIE (Centro Agronómico Tropical de Investigación y Enseñanza) in Central America: MA&D will be used in Project CATIE/FOMIN in pipeline: PyME's Forestales en Guatemala, Honduras y Nicaragua; Andes Group of Conservation International (Wilcabamba-Amboró conservation corridor), and; Instituto Alexander Von Humboldt and its Biocomercio Sostenible program in Colombia and GEF-Andes project: (proposal)

⁶⁰Planning horticultural enterprises (SCTC, Sichuan, China), Agro-forestry marketing initiatives (Vietnam), Planning of village-based eco-tourism activities (SNV, Nepal), Poverty alleviation by identifying rural - based micro enterprises in all sectors of the economy (MEDEP/UNDP, Nepal), namely

Simpler tools and measuring systems

Whilst it may be necessary for forest management plans for commercial forest enterprises by CFMs to be relatively complex when compared with the simple plans for livelihood-oriented forestry, it is possible to simplify some of the tools and measurement systems which are used during forest resource assessment and preparation of the management plan.

For example, when measuring tree diameters, in Karnataka, India⁶¹ a colour-coded calibrated calliper is used. This means that as every tree is measured it can immediately be assigned to a diameter-class according to the colour recorded by the measurer. This not only reduces the need for tedious calculations based on diameter measured with tapes, but it also means that local people can be actively involved in carrying out the measurements, even if they are not literate or numerate. A similar system has recently been developed in Vietnam⁶² where a colour-coded diameter tape was prepared and was very effectively used by villagers for assigning trees to diameter classes without the need to be able to read numbers.

In Bhutan⁶³, a simple wedge prism has been used in community forest stands to get an initial estimate of forest basal area (with practice these can even be used by villagers). Only stands where the basal area is found to be above a certain minimum level are required to be inventoried later using

Box 9: Market Analysis and Development Process

Phase 1: Assess the Existing Situation

Identify potential enterprises; inventory existing resources and products; identify products that are already providing income for local people and eliminates non-viable products. Agree on economic objectives for the enterprise

Outcome: short-list of products as the basis for the next phase of MA&D; identification of local people interested in developing enterprises; understanding of the social, environmental, technical and institutional contexts for a range of products; an interest group formed to undertake the next phase.

Phase 2: Identify Products, Markets and Means of Marketing

Select promising products, identify potential markets and discuss the means of marketing.

Outcome: list of possible products based on detailed feasibility studies; data collected to design a business plan; formation of interest groups around promising products; formation of team to undertake final phase.

Phase 3: Plan Enterprises for Sustainable Development

Prepare the enterprise strategy and business plans. Entrepreneurs are guided through a pilot phase and training, learn to monitor progress and to adapt when change is needed.

Outcome: an enterprise strategy comprising the selected products; marketing and management plans; action-plan to ensure proper implementation; financing obtained as specified in the capital needs statement.

Source: Lecup and Nicholson (2000)

conventional measurement plots (because only these stands have sufficient timber volume for harvesting). This saves a considerable amount of time and effort during management planning.

⁶¹ This technique was used by the Western Ghats forestry project (1993-99)

⁶² Under the GTZ supported SFDP Song Da (Social Forestry Development Project)

⁶³ Community Forest Manual for Bhutan (draft), (2003)

Other, more sophisticated equipment can be utilized to reduce the time and effort required for management plan preparation, as well as ensuring that participatory processes are not lost. For example, a GPS is being effectively used in Bhutan for carrying out boundary surveys with local villagers. The boundary of a forest can be walked by a forest technician carrying a GPS accompanied by villagers who can show exactly where the boundary lies. The data can then quickly be downloaded onto a laptop and superimposed onto a scanned topo map to produce a boundary map which is then printed out – within a very short space of time. A map is therefore produced which the villagers immediately recognize as “their forest” whilst also saving a considerable amount of time during the survey process. An additional advantage of this system is that changes and modifications to the boundary can be easily accommodated and it is also easy to survey internal features e.g. footpaths which it would otherwise be too time consuming to do.

3.4 Forest Management Plans for individual small-scale forest owners

FMPs for individual forest owners are discussed here because they are also concerned with the developing simpler types of FMP.

Many of the FMP formats used by individual small-scale forest entrepreneurs collected during this study strongly emphasize silvicultural planning for ecologically sustainable forest management. As with FMPs for commercial forest enterprises, aspects of business planning are also generally weak.

3.4.1 Appropriate policy and legislation

A number of Latin American countries have made specific provision for FMPs for individual small-scale forest managers. This is mainly because individual ownership of forests is more common in the region compared with Africa and Asia, although an example from Bhutan is also described here. The FMPs described below are not necessarily simple or cheap compared with the expected returns from the small-scale forest managers’ point of view.

In Bolivia, forest concessionaires, private landholders as well as indigenous communities have to prepare FMPs for commercial forestry management. FMPs⁶⁴ for commercial forestry by individual forest owners (up to 200 ha) require 3 maps⁶⁵, a general management plan including 100% inventory (including number of trees, basal areas and volumes by species and by forest types), calculation of annual allowable cut, and annual operational plans. Similar FMPs are used in Chile (up to 150 ha⁶⁶), Costa Rica (with sampling inventory and 100% pre-harvest inventory⁶⁷), Guatemala⁶⁸, Brazil (up to 500 ha⁶⁹) and Paraguay (up to 50 ha with 10% sampling inventory⁷⁰).

⁶⁴ Normas técnicas para la elaboración de instrumentos de manejo forestal (censos comerciales, planes de manejo, planes operativos y mapas) en propiedades privadas con superficies iguales o menores a 200 hectareas en zonas tropicales y subtropicales, Resolución Ministerial No 132/97, Ministerio de Desarrollo Sostenible y Medio Ambiente. According to Pacheco (2001), forest logging in private properties equal or less than 200ha, by which land owners are wishing to log timber were exempted from the Forest Management Plan. This regime lasted longer than expected and was extended until August, 1998.

⁶⁵ The 3 maps are namely, 1. Territorial location base map, 2. Vegetation and tree cover map, and 3 operational map of harvest and silvicultural treatment.

⁶⁶ Norma de manejo aplicable al tipo forestal siempreverde (corta de regeneración), CONAF

⁶⁷ Acuerdo No 27388-MINAE (Principio No 7)

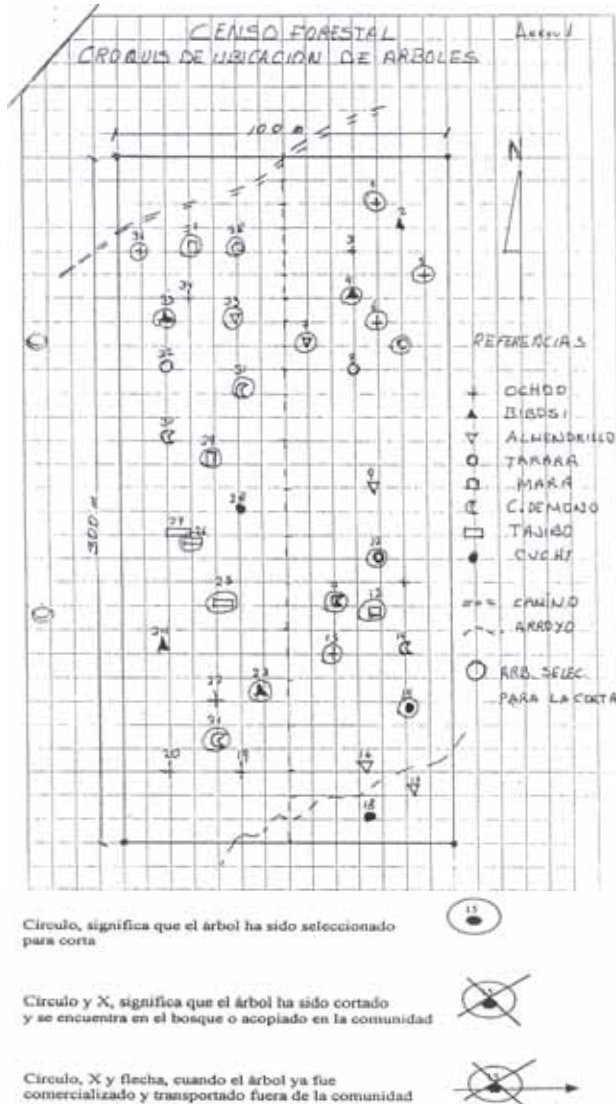
⁶⁸ The forest management planning requirements in Guatemala are differentiated into 7 categories according to the size of the forest and its vegetation; Broadleaf forest <45ha, >45ha, Coniferous forest <5ha, 5-15ha, 15-45ha, >45ha, and Mangrove forest.

⁶⁹ Under “Plano de Manejo Florestal Sustentável de Uso Múltiplo de Pequena Escala” (PMFS Pequena Escala), Instrução normativa No.4 (4 March, 2002)

⁷⁰ La Resolución No 07/2002

In Bolivia, a simpler FMP system for small-scale enterprises is administered under regulations called “exception regimes”. These promote a progressive adjustment of people’s forest use practices depending on the scale of the

Fig. 6: Hand-drawn sketch for felling of private forests smaller than 3ha (Bolivia)



operation e.g. small farmers are allowed to log timber in areas less than three hectares without the presentation of land-use plans at the parcel level providing that they produce a simple hand-drawn sketch for cutting (see fig. 6), a list of trees by species with diameter and heights, and follow minimum environmental guidelines⁷¹. At a slightly higher level, small-scale timber producers are allowed to carry out forest operations only with a logging annual plan (Pacheco, 2001). In Guatemala, forest managers are allowed to log without a land use plan in coniferous forests smaller than 5 ha on the preparation of a similar sketch and conditions as required in Bolivia⁷².

In Argentina⁷³, plantation and enrichment of natural forests smaller than 10 ha and pruning, thinning and coppicing of forests up to 50 ha does not require a management plan. Individual small-scale forest owners are also allowed to jointly register their afforestation activities with other owners when each of them has a forest smaller than 5 ha. They are eligible to apply for subsidies for reforestation and forest enrichment after the registration⁷⁴. In Chile, individual small-scale forest owners can apply for credit for the purpose of reforestation of degraded land or forests whose surrounding areas are degraded. Under these schemes forest managers are supposed to follow the management

⁷¹ These guidelines are; following minimum DBH (Diameter at Breast Height) for the selection of felling trees, only cutting trees reported in the map, no disturbing of streams especially during felling operations, leaving at least 20% of the trees above cutting DBH, no hunting of wildlife according to Procedimientos para la autorización de aprovechamiento forestal para pequeños propietarios (Instructivo técnico – operativo, OLSCZ – 006/2000, Superintendencia Forestal, Santa Cruz)

⁷² In Guatemala, tree cutting is regulated by annual allowable cut in volume. 100% pre-harvest inventory (>25cm DBH) is required for all the categories of forest management plans. Establishment of sample plots is required in order to estimate annual volume increase apart from coniferous forests smaller than 5 ha (Formato plan de manejo 83-86, - 99, Instituto Nacional de Bosque.

⁷³ Conceptos básicos para la presentación de proyectos en forma individual, Resolución No 22/2001

⁷⁴ Resolución 168/2000, Dirección de Forestación

guidelines specified in the application form but they do not need to prepare a forest management plan apart from a sketch map (for up to 5 ha) or a forest map with the application forms⁷⁵. However, they later need to prepare “Norms for management⁷⁶” including a 100% inventory in time for harvesting of mature forests.

In many countries it appears to be common for there to be no requirement for a FMP for forest utilization for small-scale private owners (usually less than a particular size threshold). E.g. in Vietnam, no inventory is required for the use of Protection Forests by individual forest managers but instead the use of these forests is regulated through the need to adhere to a compulsory standard⁷⁷.

In Bhutan, a simple system is still under development for FMPs for private forestry⁷⁸ where forest owners have prescribed legal rights to utilize timber from their forests once they are registered, but these must be managed according to a private forestry agreement or a private FMP agreement (see fig. 7)

Figure 7: Private forestry in Bhutan

Type of plan	Criteria
Private forest agreement	<ul style="list-style-type: none"> • Private forests with naturally grown trees up to an area of 0.5 acres • Private forests with planted trees up to an area of 5.0 acres
Private forest management plan agreement	<ul style="list-style-type: none"> • Private forests with naturally grown trees with an area larger than 0.5 acres • Private forests with planted trees of an area greater than 5.0 acres

The FMPs and forest management agreements in Bhutan for private forestry consist of a series of forms which have to be completed by the landowner. These require each stand of trees to be described and the number of trees counted (but no actual measurements are required). In addition, a surveyed map is also needed clearly showing the boundaries of the forest.

⁷⁵ Estudio tipo de acreditación de ejecución de actividades de forestación para pequeños propietarios forestales, Estudio tipo de reconocimiento de suelos forestables para pequeños propietarios forestales, Estudio tipo de calificación de terrenos de aptitud preferentemente forestal para pequeños propietarios forestales, Corporación Nacional Forestal (CONAF), Gobierno de Chile

⁷⁶ Norma de manejo aplicable tipo forestal siempreverde (corta de regeneración), CONAF

⁷⁷ Regulation of 11 January, 2001 (No. 08/2001/QD-TTg) on Management of Natural Forests Classified as Special-use and Protection Forests and as Natural Production Forests specifies the standard requirements, such as: 1. Watershed protection forests must form a contiguous, multi-layered forests with a mixture of species and ages and also have a stable root system. The crown cover must be over 0.6; 2. The main belts of wind and sand breaks must be at least 20m wide. The main belt and subsidiary forest belts have to form a consolidated block. Forests protecting agricultural production and other economic enterprises shall be planted in bands or lines. Forest belts or bands consist of many trees close to each other, enabling the canopy to close both horizontally and vertically; 3. Coastal wave breaks must have at least one forest belt of several lines of trees with contiguous canopy and with a minimum width of 30m. The belts should be oriented at an angle in relation to the direction of major waves; and 4. Protection forests for ecological and landscaping purposes contain forest bands of trees scattered in residential, industrial and tourism areas. Such forests and trees are to restrict air pollution, create a clean environment and also provide an environment for recreation and tourism (Article 22). Traditional joint forest management system is out of the scope of current legal frameworks in Vietnam even though many successful examples of Community Forestry exist under the discretion of local governments and many forests are under *de facto* community group management

⁷⁸ Forest Extension Division (2002) Private forestry manual for DzFOs and DFOs (2nd draft).

Box 10: Analog Forestry

Analog Forestry is a system of forest management which originated with indigenous forest garden management in Sri Lanka. Analog Forestry systematically mimics the natural succession process of local forest from degraded land to a climax forest while selectively cultivating valued tree crops and non-tree crops in the forest. Facilitators assist small-scale forest garden owners to design and tailor their forest garden according to farm-specific variables (e.g. different needs and resource availability, condition of distribution and growth of wildlings of various species in the garden).

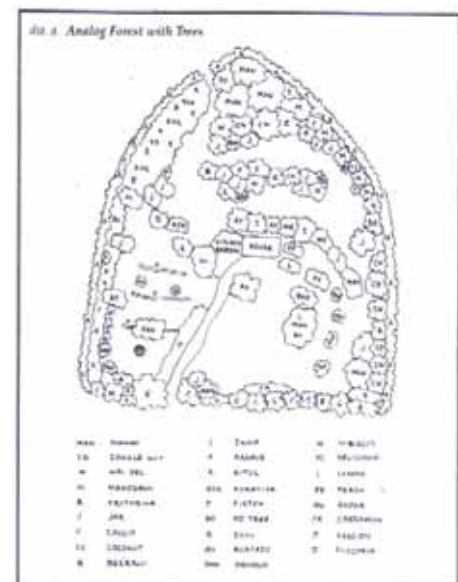
Indigenous knowledge of garden owners is utilised in the forest garden planning process and short and long-term joint planning allows forest garden owners with limited resources to predict their labour and input costs more accurately and to estimate challenges and risks they face in adopting Analog Forestry whilst providing them with analytical tools to trouble shoot their problems. Holistic business support such as seeds and tools, credit mechanisms, certification, and marketing support is also provided by the extension service. Repayment of the loan is tied to updated land-use plans, specific crop seasons, and proven agricultural production by the borrower.

Market studies are conducted locally and regionally to ascertain what products will secure the most profitable niches and at what times of the year. Extension staff and garden owners then incorporate this information into forest garden design. Cooperative capacity building activities are carried out in order to enable garden owners to achieve economy of scale, set product quality standards, process and transport products on a regular time frame, as well as gain business skills to increase their profit. Initial focus is placed on tapping into local markets (Becker and Goldman, 2001).

3.4.2 Simple planning techniques

Analog Forestry

Analog forestry (Box 9, fig. 8) is an example of a simple planning technique which has been used to assist with applying indigenous knowledge and combining it with comprehensive business planning support to strengthen forest garden management as a financially sustainable small-scale business enterprise. It has mostly been applied to private forestry situations, although it may also be applicable for CFMs. Under the system, the extension agency provides various types of business support such as credit, joint marketing and certification of Analog Forestry products.



**Fig. 8: Analog Forestry Planning
(Excerpt from Analog Forestry
Manual, 1997)**

Chapter 4

Guiding principles for FMPs for collective forest managers

Having examined and described some of the experiences with FMPs for livelihood-oriented forest management, small-scale forest enterprises and privately owned forests in Chapter 3, this chapter presents some suggested broad guiding principles for FMPs applicable to a range of situations in collective forest management. The guiding principles are aimed at promoting the concept of “simpler” FMPs (as outlined in section 3.1) bearing in mind that the level of simplification both necessary and possible will vary according to local circumstances and the type of forest management being carried out.

4.1 Overall conclusions

Analysis of FMPs in use across a range of developing countries has indicated the following broad conclusions:

4.1.1 FMPs for livelihood-oriented forest management

In this type of forest management by collective forest managers, a high level of simplification of FMPs is necessary and in many cases has been shown to be possible. However, a major constraint to developing this approach in many countries is prescriptive and often inappropriate legislation which, whilst often advocating a policy of collective forest management for rural livelihoods, frequently places unrealistic and unnecessary burdens on forest managers (the CFMs) for FMP preparation – the legislation often failing to distinguish this type of forest management from a more commercially oriented forest enterprise.

4.1.2 FMPs for enterprise-oriented forest management

For this type of forest management by CFMs there appears to be considerably less experience with developing simpler FMPs, even though these would be of considerable benefit to CFMs. In practice, the level of simplification for these types of FMP may not need to be as great as that for livelihood-oriented forest management. A major constraint is again the legislation, which in the case of enterprise-oriented forest management is often more prescriptive than that affecting subsistence use. However, there are also other problems including a lack of attention given to the business planning side of forest-based enterprises and the predominance of traditional forest inventory and mensuration techniques (time consuming, expensive and incomprehensible to many CFMs) without a more adaptive approach to developing alternative systems which can more easily be handled by CFMs.

4.1.3 FMPs for small-scale private forest management

For forest management for private small-scale forest enterprises there have been some innovative and constructive developments which have successfully allowed very simple FMPs to be developed and implemented. In this case, restrictive legislation appears to have been less of a constraint – possibly because the scale of such operations is normally very small, and because there is often a perceived need to stimulate and encourage forest management on private lands as a means of conserving forests on public or communally-owned land. There are some lessons from this situation which could be usefully applied to enterprise-oriented forest management FMPs for CFMs.

4.1.4 Regional variations

There are also some regional differences which have been noted during the collation of materials for this study:

In Latin America, whilst the majority of the countries have made legal provision for “simpler” FMPs for individual forest owners there are far fewer examples of provisions specifically adapted for forests under collective management. In Africa and Asia, the concept of “simpler” FMPs tends to relate more to livelihood-oriented forest management whilst FMPs for small-scale forest enterprises by CFMs are still based largely on regulations pertaining to larger-scale commercial logging and therefore remain too complicated for such CFMs to prepare and implement.

4.1.5 Simpler FMPs for livelihood-oriented or enterprise-oriented forest management?

It is evident from the analysis of many styles and formats of FMPs for CFMs from around the world that there has been much more success with developing simpler and more appropriate FMPs for forest areas being managed under a set of livelihood-oriented forest management objectives than as commercial forest enterprises.

In many ways, this is not surprising. The history of participatory forestry in many countries has been one where local control of government forests has been readily given over to CFMs proving that the forests themselves are either too degraded, lacking in commercial timber species, or too remote for commercial timber harvesting. As a result, it is in such forests, that experiences with simpler FMPs have developed. It has not been difficult to make the case for simpler FMPs where management of a forest resource is unlikely to generate much beyond subsistence forest products. In many countries the shift was one from no management and no FMP at all to basic management with a simple FMP developed by CFMs – clearly an improvement.

In many countries, this situation is now changing. Firstly, positive experiences with collective forest management of various types has prompted a shift away from only the most degraded forests to those where tree cover is still more or less intact and where potential for commercial timber harvesting is a reality (e.g. the changing scene for joint forest management in India⁷⁹). In other places, such as Nepal, the success of community forestry in terms of improvements in forest condition after a decade under community management, has increased the potential for forest use beyond simply subsistence bringing the focus more onto potential for enterprise-oriented forestry. Finally, more recent policy focus on collective forest management as a means of improving rural livelihoods (and in some countries more specifically on reducing levels of rural poverty) has stimulated more interest in forests as a source of income, employment and sustainable livelihoods implying a use of forests beyond that solely for subsistence.

The distinctions between livelihoods-oriented and enterprise-oriented forest management and their respective requirements for simpler FMPs are therefore somewhat blurred. At this stage, an important goal to aim for is to try to incorporate within enterprise-oriented forest management the positive lessons learnt from developing simpler FMPs for livelihoods-oriented forestry rather than continuing to distinguish and separate out these two types of management. Management objectives; forest conditions; capacities and needs of CFMs; and the range of forest products being utilized vary from forest to forest. FMPs need to encompass these local variations in an appropriate and practical

⁷⁹ In “Guidelines for strengthening joint forest management in India “ a letter circulated to all Forest Departments in India in February 2000 from the Ministry of Environment and Forests, extension of Joint Forest Management into “good” forest areas (crown density > 40%) is endorsed on a pilot basis.

way. The broad guiding principles developed here therefore apply to all collective forest management situations regardless of management objectives.

4.2 The four functions of forest management plans for collective management

Before identifying some of the broad principles which can be used for supporting and promoting simpler FMPs for CFMs, it is important to distinguish the four main functions of FMPs in these situations. These can be expressed by considering a FMP as:

1. An output of an interactive learning, capacity-building and negotiation process
2. A technical guide for management planning, implementation and monitoring
3. A legally required document
4. An instrument to describe and regulate local forest governance⁸⁰ based on multi-stakeholder agreements

The guiding principles for simpler FMPs for CFMs are developed and described in terms of these 4 main functions. The actual format of a FMP will depend on the local situation. It may therefore be necessary to give different emphasis to each of these 4 FMP functions under different situations. For example, FMPs for livelihoods-oriented collective forest management need to include a means to regulate local forest governance and decision-making whilst FMPs for individual small-scale forest owners are often more closely related to business plans. FMPs for community-based forest enterprises need to have both of these functions. Consequently, there can be no blueprint for simpler FMPs for CFMs and these principles are merely intended as guidelines.

4.3 FMPs as the output of an iterative learning, capacity-building and negotiation processes

4.3.1 Provide support for capacity building and negotiation during a graduated planning process

FMPs cannot be prepared only through a one-off series of PRA⁸¹ exercises or planning meetings. In most situations CFMs in developing countries have a limited capacity in technical forestry, literacy and numeracy. Therefore capacity-building is an essential part of the FMP preparation process to ensure that they understand and agree with the final FMP. This will invariably take some time since every step in such a process builds on previous steps – thus slowly building capacity.

FMPs for CFM also has an important function as a negotiation process during which primary stakeholders consolidate appropriate local forest governance mechanisms (see also section 4.6). Again, a step-wise process is needed to do this. Normally a planning process for an FMP for a forest area to be managed under a livelihood-oriented system can be expected to take months rather than weeks to complete.

A structured planning process is also needed build mutual trust and confidence with other local institutions and to reach consensus on broader local forest governance (also see section 4.6). A good

⁸⁰ In the context of this study, a working definition of governance could be “the structures and processes that determine the translation of policies and regulations into reality and the power relationships between the stakeholders involved in this process (Dubois, 2002, personal communication)”.

⁸¹ Participatory Rural Appraisal

example of this is the formal provision for capacity building during the probationary period for community forestry in Gambia and Tanzania.

Accountability mechanisms and check and balance systems in the local forest management framework should also be defined as part of the FMP. Negotiation amongst stakeholders on these issues is another part of the planning process i.e. negotiation should not take place after the period of the FMP has already started, but during its preparation, and following a sufficient period of capacity building and learning amongst CFMs.

4.3.2 Ensure that the planning process is in the hands of the local collective forest managers

Although there may often be a temptation amongst forest service staff to drive the FMP preparation process forward in order to save time and to achieve targets, it is important to ensure that this type of pressure does not take the process completely out of the hands of the CFMs. The danger is that capacity building will be reduced, and understanding, negotiation and agreement will be lessened with the result that problems will appear later – probably during implementation of the FMP, and will normally require additional resources amongst support services to address them.

4.3.3 Ensure that FMPs are objective-led

The FMP preparation process needs to include a series of steps which link local problems and/or opportunities with management objectives and forest management activities. This will allow FMPs to be produced where (a) they are addressing genuine local needs and priorities as identified by CFMs, and (b) where implementation of the FMP will lead to achievement of identified management objectives. A methodology to do this is already available (e.g. logical framework methodology based on problem analysis) although it is very likely that support staff will need development of their skills to enable them to facilitate this process effectively.

4.3.4 Provide multi-faceted service delivery for the FMP preparation processes

Frontline staff from forestry services need to widen the scope of their service delivery in order to better cover the varied aspects which are needed in relation to participatory and community forestry. Often this can be better done through designing service delivery structures which are cross-sectoral rather than limited to a particular government department (traditionally forest departments).

Many countries (e.g. India) are now using a “watershed” approach to provide needs-based services to rural people implying a considerable degree of collaboration and shared working. Usually this covers aspects for support for village-based forest management. In some districts of Nepal⁸² there have been successes with the concept of “service providers” who provide a range of services to forest user groups “on demand”. Service providers can include local NGOs, professional associations (e.g. forest rangers’ associations); forest user groups themselves, or federations of forest users groups. Similarly, in the Philippines, an NGO is contracted by the Government to act as an intermediary to strengthen the capacity of a local groups, train them in accounting procedures and assist them in becoming established as a legal entity⁸³. The NGO shoulders the requirements of a legal entity on behalf of the CFMs during the capacity-building period and thus reduces the task of the formal registration process. Eventually it can be expected that this type of system will become self-supporting as CFMs begin to pay for the services they really need.

⁸² This system was instigated through the Nepal-Swiss Community Forestry Project and is now becoming more widespread in Nepal.

⁸³ Loyche-Wilkie, (2002), personal communication

Box 11: Widening service delivery among Range Post staff in Nepal

In Nepal, Range Post staff act under the direction of the District Forest Officer (DFO), who will decide where, and to whom training or other services should be given. Requests from Forest User Groups (FUGs) must be processed by the DFOs who usually plan where and when to undertake various types of training. Training or credit programmes are often focused on a few FUGs within a Range Post.

Confidence in providing the wide range of services required to support FUGs depends on the training and clarity of guidance which frontline staff receive. In Kushmisera Range, staff are confident that they can provide FUGs with general technical support, information on technical assistance from other organisations and information on new policies, and directives. One forest guard had recently received training as a trainer in NWFP management, and is thus able to state this as an available service. On the other hand, the same Range Post staff do not get involved in conflict resolution in FUGs, but expect FUGs to resolve such problems by themselves.

Dissemination of government policy and circulars (orders and instructions) of Ministry/Forest Department is another problem for forest users. Any changes in policy and legislation are usually communicated orally by the Range Post staff, and are therefore subject to their interpretation. An example of this is a circular, which was aimed at banning forest users from harvesting green wood from community forests. It was sent directly by the Ministry of Forests and Soil Conservation to DFOs throughout the country, without the necessary consultation and approval from other ministries. Even though there was little legal basis for such a circular, it was communicated orally to FUGs causing considerable confusion. Forest users must know the legal basis of any information they receive – and Range Post staff and DFO must be able to provide written evidence on these matters.

Source: Malla *et al* (2002)

4.3.5 Build skills amongst front-line staff and local people

There are varying skill levels amongst frontline staff of government forestry services. Unfortunately, traditional forestry training often still does not include the social and communications skills which are extremely important in order to facilitate and support participatory processes. Often it is difficult for CFMs to seek out and identify the assistance they really need from forestry extension services because of this lack of capacity (Malla *et al*, 2002) – Box 11.

As a general principle, any financial resources available for frontline activities within such government services are more effectively used by improving service delivery to CFMs through training, capacity building and information management at the frontline, rather than for preparation and implementation of overly detailed FMPs.

4.3.6 Emphasise the importance of social agreements amongst local forest user groups and other institutions before addressing “technical” forestry issues

If an FMP is to be prepared through a process of participation or stakeholder involvement, the first question to ask is “Who should participate?”. This can only be answered by carrying out a stakeholder analysis with the CFMs to ensure that all interest groups are identified and that a means of involving all those who need to be involved is identified. With livelihoods-oriented FMPs, this is often carried out, but for enterprise-oriented forest management where the planning emphasis is more frequently on the technical aspects of silviculture, harvesting and utilization it is frequently missing. However, stakeholder analysis is a critical step for all these plans to ensure that each stakeholder’s

roles, responsibilities, rights and returns/benefits are defined⁸⁴. For small-scale private forest enterprises the issue of stakeholders is less important – normally the forest owner is the most important.

4.4 FMPs as technical guides for management planning, implementation and monitoring

4.4.1 Use “minimum environmental standards” as a guide for forest management activities

As an alternative to a highly prescriptive and complex FMP preparation system, the “minimum environmental standards” approach may be a suitable alternative. Ribot (2001 draft) argues that the “subsidiarity principle” which states that decisions should be located at the lowest political-administrative level for decentralized natural resource management could be effectively applied with this approach. This would imply a relatively simple plan, with decisions being made by the CFMs against a clear set of environmental and social standards (or Criteria and Indicators). Actions which contravene these standards would not be permitted by the CFMs – the assumption being that they are themselves in control of the resource and can control use by outsiders. Flexible resource use by CFMs would not need to be excessively controlled provided that it adheres to the minimum environmental standards as defined in the legislation. Appropriate training and extension services on reduced-impact harvesting of forest products may be needed as a prerequisite for implementing such a system.

The use of simple environmental standards in place of a highly elaborated FMPs is not a new concept. Autonomous collective forest use and management systems are usually regulated by similar simple environmental norms, in addition to social codes of conduct (e.g. benefit- and responsibility-sharing arrangements). These norms are sufficient for the purposes of achieving sustainable forest management, as long as the authority in charge of enforcement is strong enough.

4.4.2 Allow management standards to be set and agreed by CFMs

Forest management standards and obligations set by central government often exceed the minimum requirements for sustainable forestry, and have often been used as means of maintain or increasing state control over forests. In practice, the potential for local discretion in relation to national mandates for natural resource management is often greater than many environmental ministries are typically willing to admit (Kaimowitz and Ribot, 2002) and local knowledge and social assets (e.g. trust, local institutions) are often sufficient to begin to work towards sustainable forest management. Self-imposed local rules and standards are anyway often more specific and stricter than the official laws⁸⁵ (Hilhorst and Coulibaly, 1998).

These standards would also function as simple criteria and indicators (C&Is) for monitoring. They need to be presented in a way that CFMs can readily make use of. For example in Chhattisgarh, India simple “People’s Criteria” have been developed based on indigenous knowledge and experience (e.g. in yield regulation of NWFPs) under the provision of People’s Protected Area in the new state forest policy (Sharma, 2002, personal communication). CIFOR’s initiative on “Criteria and Indicators of Sustainability in Community Managed Forest Landscapes” also provides a basis for developing such standards. This system suggests use of 4 core areas for indicators on which local people can build their own sets of indicators (Ritchie *et al* 2000):

⁸⁴ See Dubois and Lowore (2000) and Messer (2001) for further analysis of these “4Rs”.

⁸⁵ On the other hand, there is a risk that poor voiceless forest users may as well suffer from such strict local rule imposed on them (e.g. Logging ban/fencing off of the forest). Careful monitoring on “participatory” process especially in local decision-making is very important (Kubo, 2002, personal communication)

- people's well being;
- community (institutional) well being;
- forest landscape health; and
- the external environment.

Examples of this “minimum environmental standards approach” can be seen in the legislation from Gambia and Tanzania (see section 3.2.1). The use of a minimum 30% canopy cover for forest exploitation as set by the central government be seen as “national minimum environmental standards” whereas local forest management is regulated by more detailed village by-laws developed through discussions amongst local citizens (forest users and other concerned villagers) and village level authorities. The forest management standards also include social elements such as fair representation; transparency; participatory decision-making; task-sharing, and benefit-sharing, etc.

Social responsibility agreements (SRAs) have also been used since 1998 in Ghana between logging companies operating on customary land (Mayers and Vermeulen, 2002). These include the right to certain forest products, the right to be consulted in the management and exploitation of their forest resources and the right to maintain cultural sites and practices without disturbance from the company. Agreements are legally enforced and overseen by national government and have effectively contributed to sustainable and equitable forest management.

4.4.3 Collect only the minimum of information needed for forest management purposes by CFMs

The requirements for data collection and analysis (often in the form of forest inventory) contribute much to the complexity and preparation time requirement for forest management plans. As a guiding principle, only the minimum amount of information should be collected according to the specific objectives of forest management. Simple systems have been devised to do this:

- blocks of forest which will have no harvesting in them for the duration of the management plan may not need to have any inventory carried out e.g. on steep slopes or in younger stands;
- wedge prisms or other simple relascope devices can be used to get rough basal area figures without the need for individual tree measurements (see section 3.3.4);
- trees can be counted rather than measured for an assessment of overall stocking;
- basal area can be used as a measure of forest condition rather than standing volume; and
- qualitative measures of forest condition can be used as an alternative to measurement e.g. canopy density; regeneration availability.

As well as the quantity of information collected, its nature is also important. For example, for the development of harvesting rules by CFMs it is much more useful to consider annual allowable cuts in terms of the number of trees which can be harvested in each diameter class in a particular part of the forest rather than by timber volume. Such information is easier to collect and to understand. Similarly, local measurement units should be used (e.g. headloads of fuelwood rather than weight in kg); numbers of poles rather than volumes.

4.4.4 Develop and build on existing practices and knowledge systems

The starting point for the development of a forest management plan for CFMs whether for livelihoods-oriented forest management or small-scale forest enterprises needs to be to establish what existing practices and management systems are already in place (or were previously in place) with a view to building on these, rather than developing an entirely new management system. For example,

local people often have a considerable amount of knowledge concerning the current status of different tree species and their regeneration requirements. Such information can be used to build up simple silvicultural systems. Often local rules or arrangements may still be in place for collection of forest products – these need to be identified and documented before imposing newer management prescriptions.

4.4.5 Build capacity for research and learning amongst CFMs rather than imposing technical prescriptions

Provision for participatory research or experimentation is an important part of local forest management planning, including FMP preparation. This allows local site-specific information to be generated which can be used to continually build CFM capacity and improve on FMP implementation. It allows CFMs to identify promising silvicultural treatments in order to meet site-specific and multiple objectives. Often there is no known existing technical “solution” to a particular forest management situation. Even when there is, it is important that it can be tested by CFMs on a pilot basis to give them the confidence to apply it more widely.

FMP preparation processes and formats need to incorporate the possibility for such activities to take place and for their results to be incorporated into the FMPs at a later stage.

4.4.6 Focus on multiple objective, multi-strata forest management for a range of products and services

Transfer of forest management responsibility from state to local CFMs often takes place with the tacit assumption that whilst management responsibility will change, silviculture will continue more or less unaltered. In practice, once a new set of forest management objectives have been derived through a participatory planning process by CFMs, almost inevitably, the management activities required to achieve these objectives will also differ. Rathore and Campbell (1994) discuss a number of components of silvicultural innovation under community based (Joint forest management) in India:

- managing for multiple products (in the same space);
- multiple time horizons (different rotations for different products);
- site specific prescriptions (local level silvicultural solutions);
- landscape level linkages (aggregation of small forest patches);
- maximization of growing space (multi-storey forest management);
- encouraging natural regeneration;
- mimicking natural forest in plantations (for forests of mixed native species);
- individual plant manipulation (pruning, single tree selection, lopping); and
- innovative grazing and fire control.

Whilst timber-oriented forestry may continue to be important to CFMs, it is likely that other products and services will also be required and these may be equally if not more important. The result will be a more complex forest management system which leaves much more to the skill of the individual forest managers and for which the main source of ideas and information will be local knowledge rather than external technical advice. This level of complexity cannot be captured effectively in an FMP e.g. on an individual tree basis therefore it is important that the overall plan structure is simple allowing such detailed and site-specific resource manipulation to take place.

4.4.7 Include aspects of business planning for forest enterprise-oriented forest management planning

Income generation by forest-dependent poor is promoted in many community forestry initiatives whilst in other situations, collective forest managers have gained control of a forest resource which has some potential for income generation and employment creation through sustainable forest management and utilization. By contrast, a lack of business-oriented planning in forest management plans which incorporate a forest-enterprise approach has been identified. Business endeavours may pose considerable risks to CFMs especially if their main management objective is income generation. Without a clear business orientation, there is a danger that the proposed enterprise will fail with the consequent effects on local livelihoods and possibly on the forest resource.

The principle of including aspects of business planning within simpler FMPs is therefore particularly important. Comprehensive information on forest resources; yield estimates; market projections; cost-benefit analysis; investment planning including infrastructure development; staff training; and labour management planning may be needed.

Collective forest managers do not necessarily have to carry out all of the tasks implied by this themselves. Some could be contracted out (implying that they have some financial resources to do so). Consideration should also be given to private sector involvement in all these aspects⁸⁶. Alternatively, information can be gradually expanded as the enterprise business grows. For example, starting with forest product cultivation, they could later move on to transportation, processing and marketing. This strategy avoids risks especially where CFMs have limited capacity and experience. Capacity building and information support for CFMs is also needed so that they can consider the costs and benefits of the planning exercises and decide whether they feel the costs of the exercise are too high compared with the expected profits.

4.5 FMPs as legally required documents

4.5.1 Develop the legal framework for collective forest management planning based on actual field based practices

Legal frameworks regarding FMPs for collective forest management are often developed out of regulations for logging under commercial concession management systems and are inappropriate for small scale CFMs. In most countries there has been considerable experience with pilot implementation of CFM of some type. This has often been sufficient experience to understand the needs and potentials of CFM with the result that it would be possible to restructure the legal framework to be more supportive rather than restrictive to collective forest management either for livelihood needs or as an enterprise-oriented activity.

As a general principle, all aspects of the legal requirements for FMPs should be minimized so that CFMs can operate without being too bound up by excessive regulations. Adherence to a set of clearly

⁸⁶ Arrangements could take various forms such as out-grower schemes, product supply contracts, joint ventures, out-processing, land rental for tree growing, access and compensation agreements, timber utilisation contracts, intercropping or grazing schemes, Taungya systems, eco-tourism enterprises, payments for environmental services, bioprospecting deals, credit or product supply agreements and shared equity (Mayers, 2000). Partnerships between private sectors and CFMs develop especially where companies have no alternative source of forest products due to government legislation (Mayers and Vermeulen, 2002). In South Africa and Indonesia, companies can no longer simply throw people off their land and exploit their forest in the tide of democratic social/political change (Kaimowitz, 2002).

defined standards is a more effective way of regulation and monitoring rather than a restrictive legal framework with regard to the content of FMPs

4.5.2 Ensure sufficient flexibility in the legal framework to accommodate local needs and diversity

Legal frameworks affecting FMPs have generally proven to be a constraint to simpler FMPs especially for enterprise-oriented forest management where there are frequently more external regulations and controls. Although the legal framework is important because it validates the decentralized governance arrangements implied by participatory forest management, in most cases there is insufficient flexibility to allow for revisions, alterations and accommodation of local and site-specific needs. Therefore, during any restructuring of the legal framework, it is important to build in increased flexibility implying fewer top-down controls combined with increased local capacity and opportunity for innovation.

4.6 FMPs as instruments to regulate local forest governance⁸⁷ based on multi-stakeholder agreements

4.6.1 Ensure that the forest management planning process includes the development of systems for accountability, representation, equity and decision-making

Whilst preparation of a conventional FMP as a document which simply sets out how a particular forest will be managed could be considered as a non-political action, this is no longer the case under a system for devolved local governance in forest management or collective forest management. The planning process in this case needs to emphasize the development of local systems for accountability, representation, equity, and decision-making. All these should find a place in the FMP within what may be a complex environment of different local institutions each with separate interests and capacities (see fig. 9) Four elements are critical to ensuring a local forest governance system which works (adapted from Donnelly-Roark *et al*, 2001):

- local institutional accountability⁸⁸;
- local technical & intellectual capacity for management;
- economic strategies based on existing local resources; and
- cultural and emotional resonance.

Within this complex governance system, the preparation of collective FMPs is a sensitive and potentially risky process. It needs careful and structured facilitation to ensure that iterative discussions take place and that local people are actively involved in decision-making processes based on their perceptions and experience in forest management rather than those imposed by planners or technical “experts”.

⁸⁷ In the context of this study, a working definition of governance could be “the structures and processes that determine the translation of policies and regulations into reality and the power relationships between the stakeholders involved in this process (Dubois, 2002, personal communication)”.

⁸⁸ Local institutional accountability means that local groups want development initiatives to be accountable to their own local institutions – e.g. committees, councils, and traditional chiefs. Accountability only to local government or donors is not enough (Donnelly-Roark *et al*, 2001).

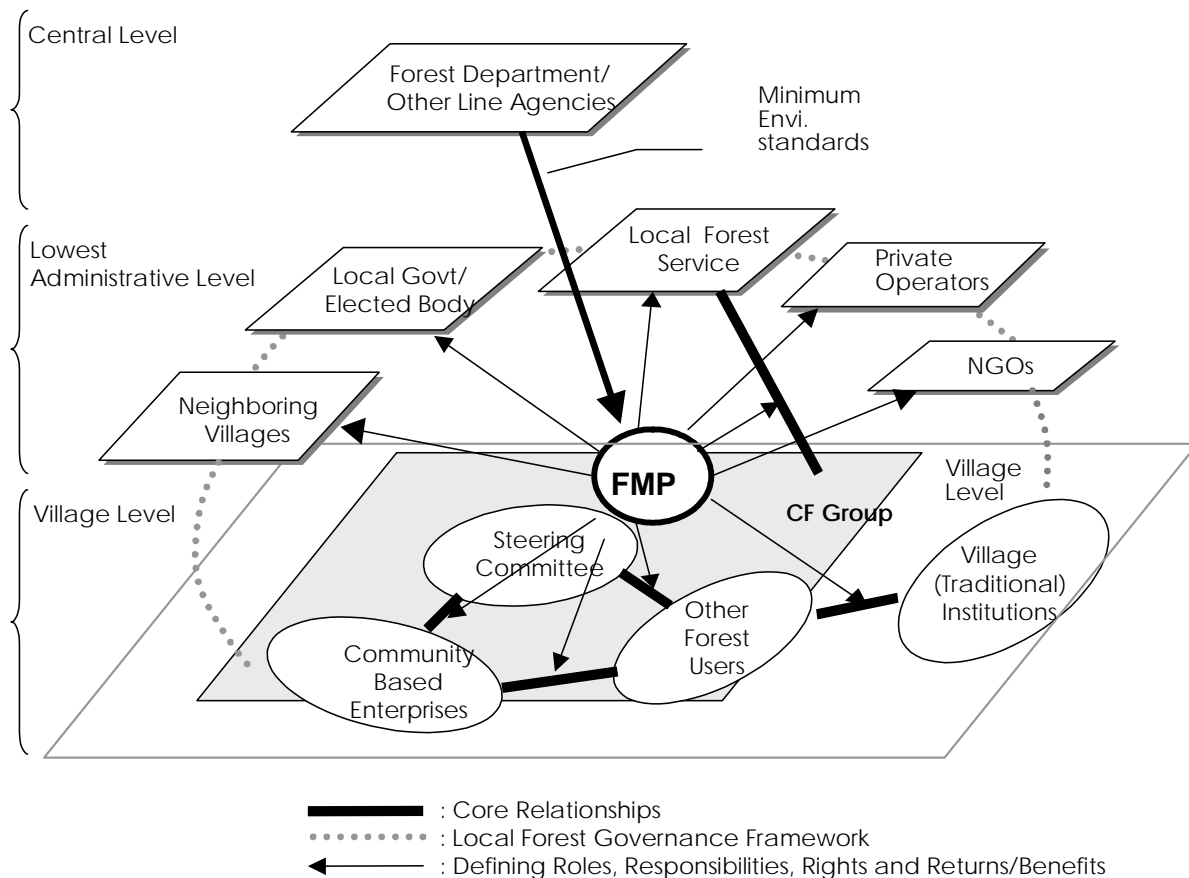


Fig. 9: A Forest Management Plan within the Local Governance Framework

4.6.2 Build on existing institutional structures but do not reinforce inequalities

The process of making FMPs is as important as their contents. Ideally, it is important that such FMPs should be rooted in local institutional structures with which people are familiar and which they respect. However, an additional consideration is to ensure that by using existing institutional structures inequalities of gender, religion, culture, and economic or social status or ethnicity are not simply reinforced by the legal institutionalization of a local forest management institution. This has happened in terms of the limited women's' participation in many village forest committees in India for example. Giving official sanction to collective forest management practices through FMPs carries a risk that certain injustice or inequality may be condoned or perpetuated.

Traditional does not necessarily mean unable or unwilling to change. Hountondji (2001) points out that even the most traditional communities are based on internal pluralism (i.e. differences between individuals) and are just as unbalanced, dynamic and liable to change as any other culture in the world⁸⁹.

⁸⁹Forest peoples face internal and external challenges. For example, Chidley (2002) introduces indigenous societies in Indonesia in the wave of change. Decision-making within traditional indigenous communities may be hierarchical.

4.6.3 Focus on empowerment of disadvantaged stakeholders

The participatory planning process which is appropriate for most CFM situations, involves a series of facilitated sessions using participatory methods with and amongst the stakeholders who will take key responsibility for FMP implementation. Often, the core decision-making group consists of all the prime stakeholders such as groups of CFMs (e.g. Community Forestry User Groups) plus other local institutions or their representatives and in many cases the local forest service representatives are involved.

Involvement of other stakeholder groups in the FMP preparation process (i.e. neighbouring villages, migratory forest users, logging companies, local government) sometimes takes place, but is often conveniently ignored because it is difficult to do. Forest-dependent people in particular are often socially weak and need a space in which they can express their concerns. It is therefore important for the planning process should be proactive in to providing this space.

There are therefore two critical steps in the FMP preparation process concerning the empowerment of disadvantaged stakeholder groups. Firstly, the stakeholder analysis which ensures that all stakeholder groups are identified with some indication of their stake and their capacity to participate. Secondly, the identification of practical ways of bringing the most disadvantaged stakeholder groups into the process of forest management planning and implementation. This is of course much harder to achieve, but an experienced proficient facilitator using appropriate participatory methods should be able to take this challenge on..

Whilst poverty reduction may not be a specific aim of collective forest management in all situations (although it often is), it is nevertheless essential to ensure that vulnerable groups are not further disadvantaged or marginalized. Ways of doing this are not always easy to identify – this being another reason why the FMP preparation process needs to concentrate on capacity building and empowerment. It is only when such groups are enabled by an experienced facilitator to input their own concerns and needs that they will start to be effective participants in the FMP preparation process.

4.6.4 Ensure a balance between individual and collective costs and benefits

Social expectation (e.g. equity and solidarity) and private economic pursuit should be carefully balanced in the benefit sharing arrangements. This is particularly important for enterprise-oriented forest management where a few people may be interested in the financial benefits from the forest whereas the majority may prefer to see the resource used for individual or subsistence use.

For example, in Nepal it is common for richer households to prefer to develop a community forest structure which focuses on trees and timber production as the main product. This is because as larger landowners they can well afford to wait for many years for such benefits to materialize whilst depending on their private lands in the meantime. Poorer households who own little or no private land

Women, the poorest members of the community - particularly the landless or low status families - and seasonal forest users may not have a say in how resources are apportioned. And they also undergo changes: people who practiced subsistence forest farming and had little need for cash even a generation ago now want money to pay for clothing, medical care, outboard motors for canoes (and diesel for them), school uniforms and books. They are also under the pressure of the wider political and economic imperatives of international financial institutions which prioritise revenues from timber, central government policies entrenched in the past, rampant corruption, the threat of violence and intimidation arising from the weak judicial system coupled with a military and police force which continues to act with impunity. Indonesia's forest peoples are well aware of the need to adapt their institutions to a changing world and are discussing such issues as identity, sovereignty and legal representation both within their own communities and with others.

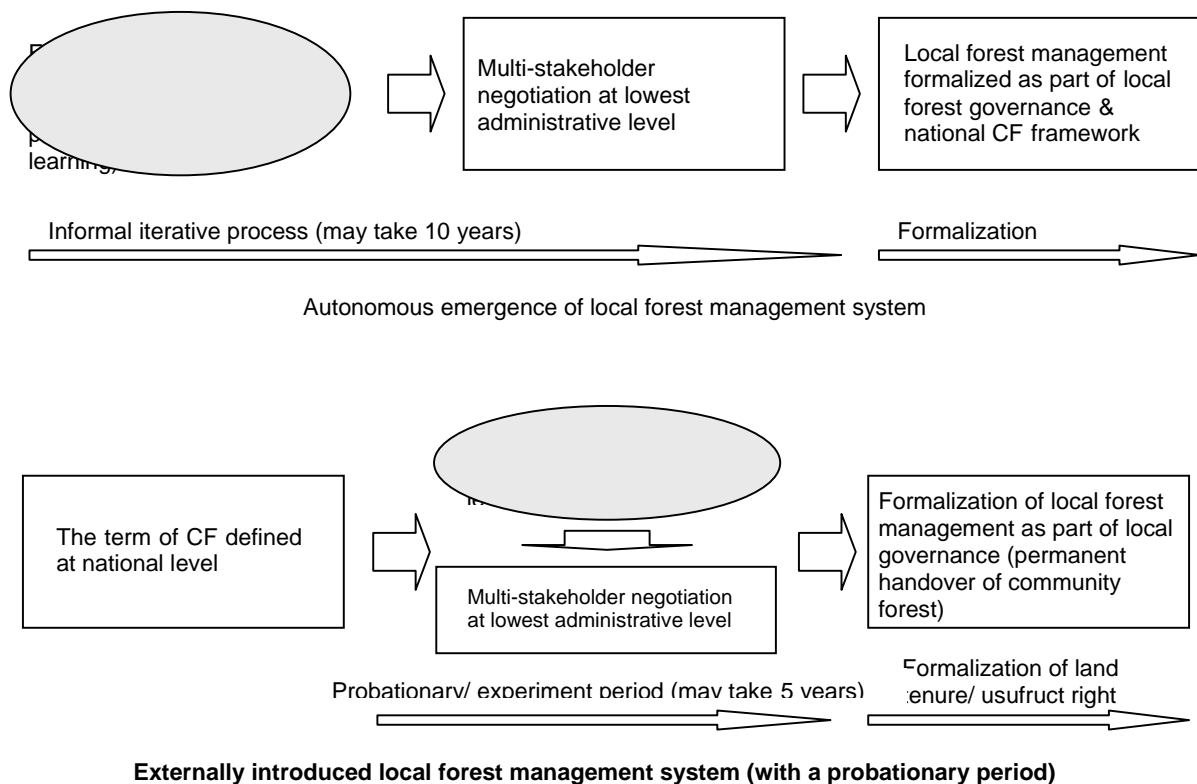


Fig. 10: Comparison of the two models of local forest management system development

are highly dependent on community forests for their subsistence needs. If they are to invest time in forest protection or even attending forest user group meetings, they need to feel that they will get sufficient short-term benefits as a result of their efforts. This may favour a forest structure which produces fuelwood and fodder as a priority (Malla, Neupane & Branney, 2003).

4.6.5 Ensure a balance between external inputs and existing local capacity

There is a tendency on the part of some advocates of community autonomy to try to keep external intervention out of the internal workings of local groups. However, there are many places where there is a lack of confidence over the accountability of decentralized local forest governance amongst local leaders and forest users. “Handing over” responsibility to communities if local institutions are weak or inequitable will not ensure effective forest stewardship. A balance is needed “*between granting local powers from the ‘outside’ and taking local powers from the inside, which is unique to time, place and circumstance*” (Mayers and Bass, 1999).

There is a striking difference between the gradual emergence of autonomous forest management systems and externally introduced local forest management promoted through community forestry-related government schemes. This is illustrated in fig.10.

The strength of the self-initiated model is that villagers get together first and learn, before they start negotiating with external stakeholders. They thus gain confidence and experience whilst also creating evidence of sustainable forest management. This in turn, increases their credibility and strengthens their bargaining power with other stakeholders. Under such circumstances, it may be possible for core elements of their endogenously developed forest management system to be formalized and

legalized. Unfortunately, this autonomous model can not be easily replicated because it requires a certain level of trust based on high internal cohesion, good leadership, high dependence of local people on forest resources (normally), moral drive and above all, a sense of “crisis”⁹⁰.

By contrast, when a local forest management system is built through an externally induced community forestry scheme it cannot be assumed that the community has an appropriate representation mechanism which is accountable to the real forest users⁹¹. There may be a risk of manipulation and dominance by the local elite in local decision-making which will require skilful facilitation by government field staff to control – often they themselves being part of the complex power relations.

4.7 A four-stage process for collective forest management planning

Based in these broad underlying principles for appropriate simpler FMPs for collective forest managers, a 4-stage FMP preparation process has been suggested. Note that these are broad stages which could be broken down into much more detailed steps to suit local situations.

The four broad steps are:

1. through consensus, develop local institutional structure, membership, capacity, governance arrangements and social standards;
2. develop forest management options and minimum environmental standards, local experimentation and monitoring arrangements;
3. develop enterprise, marketing and business requirements; and
4. formalize and approve collective forest management agreements at local administrative level.

4.7.1 Stage 1: Through consensus develop local institutional structure, membership, capacity, governance arrangements and social standards

This stage is a process consisting of a series of planning exercises, meetings and public fora in order to stimulate discussions and reach consensus. This cannot be done during a single meeting. Some important areas which need to be covered include:

- agreeing clear boundaries of the forest and addressing conflicts regarding land tenure and forest use;
- identifying primary and secondary stakeholders who will be involved in the planning process;
- establishing a local forest management institution. This will depend on the local legislative framework or rules. Agreement on the constitution of the forest management institution (e.g. forest user group, forest management committee) should be based on consensus defined through culturally appropriate internal debates covering: membership and equitable representation systems; information-sharing mechanisms; decision-making mechanisms; responsibility and benefit sharing; internal sanctions; internal accountability mechanisms covering decision-making and financial management; and adequate representation of all other stakeholders;
- agreement on roles; responsibilities; rights and returns (benefits) of each stakeholder group in the local forest governance system;
- clarifying the authority and responsibility of the forest management institution relation to other internal (village level) and external institutions and stakeholder groups;

⁹⁰ See Bass *et al* (1998) for the argument on critical importance of a sense of “crisis” in breaking institutional lethargy.

⁹¹ As opposed to it, local elites may co-opt the process and often reap the benefits of “participation” (Dubois, 2002, personal communication).

- agreeing minimum social standards;
- agreeing appropriate checks and balances (e.g. forest monitoring and financial monitoring agreement); and
- agreeing arrangement for carrying out the tasks needed for the next stage.

4.7.2 Stage 2: Develop forest management options and minimum environmental standards, local experimentation and monitoring arrangements

This stage is the one which equates most closely to the “conventional” FMP preparation process, although significant adaptations are needed to ensure that the resulting FMP is simple enough to be of real use to the collective forest managers. As with the first stage, this should consist of a series of participatory planning exercises covering the following:

- assessing the condition of the forest resource and its ability to produce different products sustainably;
- assessing local demand (or markets) for forest products;
- analysing forest-related problems and/or opportunities;
- agreeing forest management objectives and strategies (on a site by site basis within the overall forest area) and activities needed to achieve them;
- agreeing the minimum environmental standards to be applied and associated monitoring arrangement (including responsibility);
- agreeing benefit sharing arrangements and responsibilities for implementing agreed activities;
- agreeing on areas suitable for local-level experimentation and use of information obtained in this way; and
- identifying and documenting other activities needs for funds or public grants, extension and awareness activities.

4.7.3 Stage 3: Develop enterprise, marketing and business requirements

This stage is most important where at least some of the forest management activities proposed for the FMP include elements of forest enterprise. Some of the areas could be addressed by the local forest management institution themselves, but external support is also likely to be needed to:

- identify forest products with market potential;
- identify technologies for utilization and adding value;
- collect and analyse market-related information; and
- for financial and business planning (including estimation of cash flows).

4.7.4 Stage 4: Formalize and approve collective forest management agreements at local administrative level

This stage (which may not be reached until many months or even 2 years after starting the planning process) includes the formalization and legalization of the collective forest management arrangements to enable the FMP to be implemented. Several tasks are involved in this stage including:

- preparing the written FMP;
- validation of the final FMP by all stakeholders concerned (or their representatives);
- validation of the FMP on technical, social, financial and environmental criteria; and
- approval of the FMP by the legitimate body (according to legislation and rules).

Chapter 5

Policy and Legislation Issues

The aim of this analysis of collective FMP and plan is to promote appropriate changes in forest policies and legislation which will support the effective scaling up of local forest governance. This chapter tries to give a brief overview of some of the actual policy and legislative changes needed and how to achieve them.

5.1 Use of By-Laws

Many decentralized local forest governance systems are based on use of local by-laws. Whilst by-laws may appear to offer legal backing to these arrangements, there are some risks involved as exemplified by the case study from Zanzibar (Box 12) by Lindsay, (1998). Collective forest managers do not necessarily have long-term legal security under by-laws because the legal authority of the local institution granting self-governance authority may itself be uncertain. This may cause problems relating to power relationships with other stakeholders outside the community (e.g. with timber concessionaires, neighbouring villages, nomads, local government) because by-laws cannot formally define the rules by which CFMs can interact with outsiders nor can locally derived rules define the limits of state power. The rights of CFMs to manage and utilize forests need to be exclusive to prevent access by outsiders. Clarity is needed as to what these rights actually are⁹² and that they cannot be taken away or changed unilaterally. The example from Zanzibar illustrates the fragile legal security of many CFMs.

Many community forestry initiatives have used the local by-law option as a means of operating within the local political context. This is often a positive choice to work with imperfect legal instruments and concentrate on persuasion and building alliances rather than pushing immediately for major legal changes that may upset delicate coalitions

In India, the JFM programme continues to be mostly a creation of state notifications and administrative orders⁹³. The national Forest Act of 1927 has not been revised, and there are almost no examples of revised State Forest Acts to provide a firmer legal basis for JFM (Lele, 2000). This has provided some initial flexibility in responding to experiences and problems encountered in implementation but it also fosters a sense that the rights of participants are malleable and temporary, and can be changed unilaterally government decides that conditions warrant it (Kant and Cooke, 1998 cited in Lindsay, 1998).

⁹² Lindsay (1998) introduces striking examples of laws that state that “customary rights of forest-dwellers will be respected as much as possible” or “customary law shall be respected unless the national interest requires otherwise”. He claims this is partly because it may suit some people in power for rights to be vaguely defined.

⁹³ For example, in February 2000, the government of India approved a new set of JFM Guidelines (as the JFM Circular and Notification of the Ministry of Environment and Forest – not through the amendment of the Forestry Act of (1927). Though the policy has been approved at the national level, it requires careful facilitation at the state, divisional, and local levels to ensure that it is rapidly and systematically implemented (Poffenberger, 2000).

Box 12: The by-law status of community-based mangrove management in Zanzibar

The mangroves of Fumba in Zanzibar (Tanzania) are disappearing at a tremendous rate. Alarmed by this trend, in the early 1990s the residents of Kisakasaka village, in collaboration with Zanzibar's Subcommission for Forestry, took some modest steps to address the problem at the community level. Villagers and foresters agreed that the cause of the problem was the irresponsible and destructive exploitation of mangroves by both local people and outsiders. Increasingly, little respect was being shown for traditional local knowledge regarding sustainable management of these resources.

With the encouragement of government foresters, the villagers designed a new approach to mangroves management. They formed a conservation committee and worked out a set of by-laws to help stabilize the situation and give the mangroves a chance to regenerate. Cutting periods were established, closed areas were identified and harvesting limits were set. The by-laws created a simple system of penalties for violations, and a rotation system of monitoring by committee members. Finally, access to the area by outsiders was to be limited and subject to an entrance fee and permit.

However, all mangroves are considered forest reserves under Zanzibar's forest law. In such reserves, all decisions regarding management are to be made by the government, and all forest resources belong to the government. Although the Subcommission for Forestry agreed to village use of the mangroves, nothing in the law or in the Subcommission's informal agreement with the community could prevent it from unilaterally changing its mind. As a result, the rights of the community to manage the mangroves and to reap the benefits of the management were legally insecure.

Zanzibar's Forest Reserves Decree (1950) pre-dates involvement of people in forest management. Under a loose reading of the law it could be argued that powers and responsibilities can be delegated to communities in forest reserves but many officials disputing this, claim that there is nothing in the law giving communities such powers. Thus, the legal authority of the Subcommission for Forestry to allow community initiatives in mangrove forests was perceived as uncertain.

The group of villagers involved was largely self-selected and informally constituted. Their relationship with existing local government institutions and their powers to issue by-laws was uncertain. Consequently, the legal status of the management group and its authority to make and enforce rules was also unclear. In short, the overall legal environment was poorly suited to collaborative forest management and could jeopardize its success.

Source: (Lindsay, 1998)

5.2 Forest devolution in the wider political environment

The use of simpler FMPs for more effective local forest management implies more devolved decision making since it is the local CFMs who will be ultimately responsible for preparing and implementing such plans. However, devolved forest management is not a politically neutral strategy. In most places it requires an agenda of political reforms to support it.

Devolved natural resource management has been particularly problematic where the sector is a net

Box 13: Importance of political support for forest policy reform in India

The famous *Arabari* experiment, a pioneer initiative of participatory forest management in India, (see http://www.wri.org/wr2000/pdf_final/chapter3/box3_11.pdf for more information) would have remained a local experiment but for the support from the Left Front that came to power in West Bengal in 1977, eventually leading to the spread of JFM throughout West Bengal. In this case the Left Front government's radical decentralisation through Panchayati Raj legislation spilled over subsequently into the JFM programme.

In Andhra Pradesh, the JFM concept initiated under a World Bank supported project starting in 1994 caught the attention of the current Chief Minister. In 1996 he initiated his own JFM programme to bring additional areas under such management – this has become more widespread than the World Bank programme. The strong populist style of ruling Telugu Desam party was a thrust of their jumping on to the JFM bandwagon.

Source: Lele (2000)

contributor to the state budget⁹⁴. This true for the forestry sector in many countries where forest revenues fund other sectors of government. Therefore, scaling up of small-scale initiatives in participatory forest management and their legitimization by the state does not normally take place without political backing. Box 13 gives two examples from India of this.

There is now a general trend for top-down governance and resource management to be consciously replaced by more participatory and devolved approaches across all sectors – usually because the state is convinced of the economic, social and environmental benefits of these approaches (Lele, 2000). However, as Lindayati (2000) points out, policy formulation is not necessarily about a rational decision-making process and selecting the best (economically, socially and ecologically) policy options. For example, policy decisions are often determined by the interests and ideals of those who have power to make them. Some are a direct response to natural calamities or disasters⁹⁵ whilst some are strongly influenced by the political mood in a society⁹⁶. Often a “sense of crisis” is needed to “unfreeze” policy makers and introduce changes (Bass *et al*, 1998).

⁹⁴ Lele (2000) points out that devolution of authority in common resource management is more popular in the irrigation sector because it is a heavy drain on the state budget, contrary to the forest sector. Irrigation departments deliver a single service with significant operation and maintenance costs and form an easy target for criticism when the returns are not even enough to cover these costs hence the political popularity of joint irrigation management in India.

⁹⁵ The 1998 logging ban in China after Yangtze River flood and 1989 national logging ban in Thailand after disastrous floods and land slides are examples.

⁹⁶ Lindayati (2000) argues that changing political-economic structures (i.e. from dictatorship to democracy) opens up more opportunities to pursue progressive community forestry policy. For example, in the Philippines, the Leyte Island's devastating 1991 floods helped to reduce government support for commercial logging and provided a more favourable political climate for community forestry under progressive Aquino regime. A similar phenomenon such as disastrous 1982 forest fires took place in Indonesia, although the direction of policy change has not been in favour of forest-dependent communities but led to tighter government control over local forestry practices under Soeharto regime. The underlying thrust of the latter regime was rather to drive local communities away from forests by providing them

As shown by this study, there are many examples of simpler forest management planning from many countries. The extent to which successful initiatives can provide a stimulus for effective policy change leading to a greater spread of benefits depends on a number of factors identified by Mayers and Bass (1999):

- extent of 'gap' left by government;
- viability of local forestry options;
- viability of local institutions;
- strength and equity of incentives, leaders and organization at local level;
- degree and equity of devolution of power; and
- degree of support from enlightened national/state elite.

Collective forest managers therefore need the opportunity, within policy frameworks, to experiment with such new ideas. Foresters can assist in the facilitation process by linking successful field-based initiatives with supportive policy changes.

5.3 Overloaded government institutions

The supportive role of forest administrations is important for initiatives such as learning-oriented FMP preparation processes. It is common for frontline staff of such institutions to be overloaded with ever expanding service delivery for collective forest management approaches in addition to their other duties and their own subsistence needs.

Under conventional extension approaches, frontline staff are usually expected to be carriers of predetermined technical information and normally do not need to be highly qualified professionals with a range of skills. However, as has been described here, participatory planning processes require support and facilitation – invariably is the frontline staff who are expected to provide this despite the fact that they are frequently underpaid, de-skilled, poorly motivated and provided with little or no infrastructural support.

Shepherd (1998) argues that such frontline staff, standing at the extension-client interface, have to act as liaison persons, spokespersons, disseminators, resource handlers and negotiators between the forestry administration and collective forest managers. This is a complex job requiring ability, commitment and confidence.

Policy and legislative change in support of collective forest management (with all the implications of simpler FMPs), therefore needs to be backed up by organizational changes within forestry administrations which recognize the critical role being performed by frontline staff. Often this means rebuilding the organizational structure itself based on the new task requirements and, perhaps not surprisingly, decentralizing and devolving powers and responsibility within such government institutions.

5.4 Dealing with power differences

Local elites including large landholders, traders, traditional leaders, and other individuals who have had power to influence many of their neighbours in matters of forest management are often in the position of informal policy makers shaping the outcome of devolution policies – usually against the

alternative livelihood sources). CBFM implementation in Indonesia has been greatly speeded up in the social movement of *reformasi* after the fall of Soeharto regime in 1998 (See Poffenberger, 2000).

interests of the poor, (Edmunds and Wollenberg, 2001). Frontline forest administration staff are expected to facilitate the sensitive process of realigning these local power arrangements as part of the decentralized forest management planning process – clearly not an easy job.

Local bureaucrats may be reluctant to challenge the position and interests of local elites because of historical “patron-client” relations between these groups (Malla, 2001). In this situation, the local representation process can be easily manipulated with participation of the forest-dependent poor in planning and decision-making being especially difficult and often an ideal rather than a prevailing practice. Ironically, the organization (forest administration) which has been given the responsibility for devolving control of forests to local communities has traditionally represented the interests of those same elites (Gilmour and Fisher, 1991). One solution would be to improve the levels of skills and professionalism amongst frontline staff (see section 5.3) although some would argue that as this is never likely to be really effective a better model would be for other organizations (NGOs) or other service providers to become more involved – particularly with negotiation between local elites and other local people.

Chapter 6

Conclusion

There is no single solution which will lead to simpler FMPs for CFMs. FMPs should be purpose-built and used as an enabling forest management and (where appropriate) business tool. Although in practice plans for livelihood-oriented forest management have been more successfully simplified than those for enterprise-oriented forest management this should not be seen as a standard. Opportunities exist for all types of FMP to be significantly simpler than those currently being produced, or those which are required by legislation, at present. The most suitable level of complexity should be defined according to the capacity and needs of the collective forest managers rather than according to any historical or imposed formats. The broad guiding principles for preparing simpler FMPs can be applied to a range of different forest and socio-economic situations with benefits both in terms of sustainable forest management, and livelihood improvement and the socio-economic status of forest dependent communities.

FMP preparation is an important opportunity for an interactive process leading to more equitable management and use of forests within local societies. Forest extension services need to play a key role in this process as facilitators, communicators and technicians assisting local communities to develop their forest management capacity leading to resource sustainability, social & institutional sustainability, technical sustainability and market sustainability.

Iterative processes, experiments and learning-by-doing among CFMs and communities are crucial for establishing equitable and objective-led local forest management and governance mechanisms driven by CFMs themselves. Policies need to provide space for local institutions to experiment through more locally appropriate legal provisions. Sufficient time should be given to communities for this learning and planning period. However, policy changes need to be much wider than simply providing for FMPs at an appropriate level of simplification. In particular, they need to include provisions for better services frontline staff and the associated organizational changes needed to achieve this.

Community based forest management rests on the principle of local forest-governance ingrained in the values and institutions which local people trust. Part of building such trust involves better communication in order to transfer management planning rights over resources to collective forest managers – part of the process of “*turning ‘participation’ into citizenship*” (Brown *et al*, 2002). Simpler FMPs can help to build this level of trust and ensure that the potential benefits from collective forest management can be realized.

Next Steps

The following actions are suggested in order to facilitate simpler FMPs for collective forest management:

What communities and community-based institutions could do:

- allow plan preparation processes to become vehicles for discussions on stakeholder participation; local forest governance; negotiation of local powers and controls; pro-poor benefits and appropriate local democracy;
- define responsibility-, benefit- and risk-sharing mechanisms based on local concepts of equity and justice;
- carry out experiments to improve capacity through learning and information sharing;
- cultivate a business consciousness in community-based forest enterprises; and
- evaluate the effectiveness and equity of forest management through regular monitoring and reflection.

What frontline support institutions (e.g. Forest Department, NGOs and projects) could do:

- provide and coordinate appropriate technical advisory services especially in multiple-objective forest management and business planning;
- link CFMs with wide range of services such as marketing support, micro-credit and other company-community collaboration;
- facilitate group learning and experiments in communities;
- offer a facilitation and negotiation service as part of the forest management plan preparation process and establish a system for checks and balances in this through third-party monitoring, public reporting and civic education;
- carefully analyse political aspects of local CBFM. Support disadvantaged groups with selective coalition building and strategic information;
- improve personal and institutional capacity for service provision;
- introduce new organizational arrangements which support better service delivery by frontline staff; and
- strengthen capacity to monitor and cross-check the performance of CBFM.

What policy-makers could do:

- reduce legal barriers regarding FMPs. Make legal provisions specifically tailored to both livelihood-oriented and forest-enterprise oriented collective forest management based on simple environmental and social standards in place of full forest inventories and concepts such as annual allowable cut;
- allow for sufficient time for an effective FMP preparation process to take place by not imposing external targets or controls;
- provide secure land tenure and forest management rights to successful CFMs;
- provide legislation facilitating company-community collaboration;
- support forest departments in organizational changes; and
- establish feedback – feed-down mechanisms for iterative forest policy revision.

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Annex:**Suggested contents of a simpler forest management plan for collective forest management****Administrative and background information**

- Location of the forest, villages and administrative information
- Cadastral information of the forest
- Other relevant background information on the forest and local people e.g. brief history of local forest management, population and livelihoods of local people, other social composition of the population (i.e. ethnic groups/castes, religious/linguistic social groupings, immigrants) and the records/evaluation of previous forest management phases if applicable)

Natural resource assessment:

- Simple participatory resource assessment: The result of participatory assessment of forest resources and current land use shown on a sketch map.
- System of blocking or dividing the forest into locally understood management units (shown on a map)

Social Agreements:

- Forest boundaries: based on resolving any conflicts on land tenure and forest use (indicated on maps)
- Objectives of forest management as agreed during multi-stakeholder negotiation.
- Forest governance system including:
 - Forest management institution membership
 - Institutional structures e.g. steering committee; treasurer; auditing system; representation system; information-sharing mechanism; decision-making mechanism; benefit and responsibility sharing; internal sanctions and rules; internal accountability assurance mechanism (especially for decision-making and financial management); authority and responsibility of the management body (in relation to other institutions); authority of decisions made by the forest management institution (in relation to other stakeholders); and representation system in relation to other stakeholders
- This information should be presented as a written constitution with special attention should be paid on the preparation, presentation and language of these information if the use of oral codes is a common local practice
 - Multi-stakeholder arrangement in the local forest governance framework: primary stakeholders⁹⁷, secondary stakeholders, roles and responsibilities of each primary stakeholder, authorities/rights of each stakeholder, benefit sharing, coordination mechanism, system for mutual checks and balances system in performance evaluation of each stakeholder.

⁹⁷Primary stakeholders are the ones who actually take responsibilities in forest management and governance and its checks and balance.

- Agreement on the basis for operating any community-based enterprises (CBEs) within the collective forest management institution (where appropriate)

Silvicultural agreements:

- Environmental Criteria and Indicators for guiding the use of forest resources and management based on minimum environmental standards specified in the legislation e.g. crown cover, maximum number of trees felled per ha, restrictions against harvesting on slopes and watershed areas, minimum diameter at breast height for tree felling, a list of species to be protected, cutting techniques to optimize natural regeneration, prohibition of particular silvicultural treatments (e.g. ring barking for apiary, lopping of the trees for the collection of fruits/leaves), regulation on the use of fire and fire control.
- For each identified forest management unit (or block), the specific management objective(s) and the related management activities (table)
- For each identified management unit (or block) a simple treatment plan for the duration of the management plan and including the following e.g. protection system, use and extraction of forest products, forest enrichment activities, control of the unwanted species, experiments, and monitoring.
- These operations should be presented as a simple calendar of activities or using annotated maps indicating the persons responsible for each activity and the time when it is proposed to carry it out.

Business plan (if needed)

The community-based forest enterprise should prepare a business action plan (see Box 14 for an example) covering analysis of:

- Market and economy (see below)
- Resource management and environment (see below)
- Social and institutional issues (see below)
- Science and technology (see below)
- Business action plan (based on the above)
- Potential risks identified
- Capacity building needs identified
- Other support needed
- Financial projections
- Necessary financial services (including loans)

Key areas of analysis⁹⁸

- Market and economic analysis: demand, competitors, infrastructure, distribution, access to credit (local savings system), market positioning, economic forces and constraints, quality requirements, potential distribution and promotion agencies at different appropriate levels e.g. at district, province, national, and international level
- Resource management and environment analysis: environmental impact, sustainable forest supply, resource management experiences and models, forest inventories, comparative yield studies
- Social and Institutional analysis: access and control of resources, taxes and fees, role of local institutions, seasonal activities, permit application procedures, impact of gender,

⁹⁸ Based on Lecup and Nicholson (2000)

cultural and social perspective towards a product, policy constraints, regulations, international trade agreement.

- Science and technology analysis: local technology (harvesting, extraction, storage), support services/partners, new technical research, processing, human resources.

Box 14: Example of a business action plan for a community-based honey enterprise (Quang Binh, Viet Nam)

MARKET/ECONOMY

Products

Action. One member of each interest group is to be assigned to form a market study team for that product and to visit the potential buyers and market places (including Ho Chi Minh City, Hanoi, Vung Tau, Dong Nai and Cuc Phuong National Park). The study tour is to be organized with the assistance of the facilitator and the IFSP (Integrated Food Security project). Quality requirements, such as acceptable moisture content, are to be determined, and suppliers of equipment for production and for monitoring quality are to be found. Possible trainers from extension departments and funding to organize training are to be identified. Suppliers of bottling and packaging materials are to be investigated. Institutions at the national level that can provide training, technical assistance and extension support are to be identified. Potential graphic artists for labelling are to be identified. The target export markets and the type of honey they are interested in (dark or light, single-flower or wild honey, and moisture content), in addition to their packaging requirements, are to be identified. A strategy for building up the image of the producers with export buyers is to be developed. The weaknesses and strengths of honey from other countries also exporting to European buyers are to be assessed.

Time. Representatives are to be selected following this action-planning workshop, and the study tour is to be completed within two months.

Price

Action. The market study team is to gather information on existing prices in the retail/wholesale domestic and export honey markets. The team is to be assisted in planning their information gathering with the help of a marketing consultant, and in identifying ways of developing a market information system. A break-even analysis is to be done with the help of a business analyst in order to evaluate the pricing strategy.

Time: The study tour is to be completed within two months.

Place/distribution

Action. Representatives of the interest groups, with the assistance of the facilitator, are to visit the buyer and draw up the contract, to organize a storage and management unit in the market town and to arrange financing in order to buy the product from all the interest groups.

Time. This is to be done two months before the harvest season began.

People

Action. The strategy for interviews with buyers is to be planned before the study tour representatives have their meetings, and during the meetings the representatives are to try to obtain as much information from buyers as possible regarding their needs and interests.

Time. This is to be completed within two months.

Promotion

Action. The process of designing and printing a promotional leaflet with the assistance of the IFSP facilitator and a graphic artist is to be planned for the following year.

Time. This is to be completed within a year.

Cont.

Box 14: cont.**RESOURCE MANAGEMENT/ENVIRONMENT**

Action. Institutions and the support services they can provide are to be identified and surveys of the resource and interviews with local villagers are to be organized. This is done by the interest group, with the support of the facilitator.

Time. This is to begin immediately.

SOCIAL/INSTITUTIONAL**Gender issues**

Action. The identification of women who could join each interest group is to be initiated, with the support of the facilitator.

Time. This is to begin as soon as possible.

Organizational structure for the enterprise

Action. The relevant formal structures are to be determined, and that information is to be shared with all members. The enterprise plan is to be finalized. The kind of structure that would serve the purpose of marketing the products is to be decided, then the implications of the choice are to be discussed with all interest groups. An executive committee is to be formed and applications are to be submitted to the government officials concerned. This is to be done with support of the facilitator and one representative from each interest group for a product in each village.

Time: This is to begin as soon as pilot marketing had taken place successfully.

Institutional support

Action. The group members are to be assisted by a facilitator from the IFSP in identifying and contacting potential supporting institutions and sending a delegate to obtain information about them.

Time. This is to be done as soon as possible.

SCIENCE AND TECHNOLOGY**Research and development**

Action: The IFSP facilitator is to assist the group in identifying suppliers of equipment and in linking up with national institutions.

Time: This is to be completed within the following three months.

Source: Adapted excerpt from Lecup and Nicholson (2000, Booklet E, p.p. 44-45)