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# Recent Experience in Collaborative Forest Management

A Review Paper

Jane Carter with Jane Gronow

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# Glossary

| ACM     | adaptive collaborative management   |
|---------|---|
| CFM     | collaborative forest management   |
| CPR     | common property resource  |
| DFID    | Department for International Development (of the British government); formerly ODA  |
| GELOSE  | Gestion Locale et Securisé des Ressources Renouvelables (local management and security [of tenure] of renewable resources) (Madagascar)                               |
| GTZ     | Gesellschaft für Technische Zusammenarbeit - German enterprise for international (technical) cooperation  |
| IDRC    | International Development Research Centre   |
| IIED    | International Institute for Environment and Development   |
| IUCN    | The World Conservation Union  |
| JFM     | joint forest management   |
| NGO     | nongovernmental organisation  |
| NRM     | natural resource management   |
| NTFP    | nontimber forest product  |
| ODA     | Overseas Development Agency (of the British government); now DFID   |
| RECOFTC | Regional Community Forestry Training Center for Asia and the Pacific  |
| SDC     | Swiss Agency for Development and Cooperation  |
| SIDA    | Swedish International Development Agency  |
| SPWD    | Society for the Promotion of Wastelands Development (India)   |
| TERI    | The Energy and Resources Institute (India)  |
| VSS     | van samdraksha samiti, Forest Protection Committee (India)  |
|         | ACM<br>CFM<br>CPR<br>DFID<br>GELOSE<br>GTZ<br>IDRC<br>IIED<br>IUCN<br>JFM<br>NGO<br>NRM<br>NGO<br>NRM<br>NTFP<br>ODA<br>RECOFTC<br>SDC<br>SIDA<br>SPWD<br>TERI<br>VSS |

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The World Bank first commissioned this paper as an independent background document to inform its forest policy implementation review and strategy development process. An issues paper was produced in July 1999 and discussed with key staff at the World Bank in Washington. Subsequently the paper was expanded into a review, including short case study material. It deliberately focussed on experiences other than those funded through the World Bank.

Prior to its publication by CIFOR, Jane Gronow updated the paper to incorporate issues and experience in collaborative forest management since 2000. The update was based on a brief review of current literature and recent Intercooperation and CIFOR field experience. Vanita Suneja of the Society for the Promotion of Wastelands Development provided helpful inputs on the Indian context.

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Both Jane Carter and Jane Gronow would like to apologise to anyone who provided input to the original paper but could not be reached for updates; and to anyone who otherwise contributed to the paper but has inadvertently not been acknowledged. Whilst some case studies that could not be updated were replaced by others, a few have been retained as they provide material that we felt to be still of interest, even if dated.

Finally, we express many thanks to the three anonymous reviewers (contacted by CIFOR) for their positive and constructive suggestions.

This paper grew and grew in length. In its final form, it has become more a document to dip in to than to read from end to end. We hope, nevertheless, that it serves to pool a diversity of worldwide experience into a useable form. The views expressed, and any errors that may have been included, remain our responsibility.

### Abstract

Collaborative forest management (CFM) is loosely defined as a working partnership between the key stakeholders in the management of a given forest—key stakeholders being local forest users and state forest departments, as well as parties such as local governments, civic groups and nongovernmental organisations, and the private sector. The paper reviews worldwide experience in CFM to date, considering the forms that it takes in different tenure situations. Overall, mechanisms of CFM are diversifying, reflecting a greater recognition of the need for partnerships in forest management.

Due to entrenched power structures within both government institutions and communities, it is not easy to promote social justice and sustainable livelihoods through CFM. Nevertheless, examples exist of local people gaining a strong, legally backed voice in forest management. Whether or not CFM is financially viable depends very much on local circumstances—an important issue is the inclusion of all costs and values. CFM can clearly lead to better forest management, although examples of silvicultural innovations specifically designed to meet CFM needs are limited.

Worldwide, the institutionalisation of CFM is proceeding at a different pace and to differing degrees. Whilst some of the most rapid recent CFM developments have taken place in the North, where government forest institutions are well funded and accountable, and civil society well organised, the most significant gains made to date probably lie in countries of the South and East, wherever local people have begun to enjoy real partnerships in forest management, based on recognised rights of use and access.

# 1. The Concept of Collaborative Forest Management

#### 1.1. Background

Taking a conventional view of forest management, a broad distinction may be drawn between

- professional forest management as a 'scientific' discipline that enables states and nations to control, regulate and exploit forest resources under their jurisdiction; and
- indigenous forest management systems, developed locally by forest-dependent communities and varying greatly in technical and social sophistication.

Professional foresters have not always recognised the latter form of management. Indeed, for many years local people were often viewed as destroyers of forests through agricultural activities such as grazing and land clearance. As the global forest area shrinks, the reasons for forest loss have been subject to intense debate and analysis, and forester perceptions of the role of local people are gradually changing from that of villains to potential collaborators.

In some countries (e.g. Sweden, Switzerland), professional foresters have long worked closely with local people. However, the development of a general, 'social' approach to forestry can be dated only to the late 1970s. As has been widely documented, the new approach focussed initially on encouraging communities to regenerate patches of degraded forest land to produce a range of subsistence products. Support for these programmes often focussed excessively on community mobilisation, participatory tools and technical prescriptions. Gradually professional foresters recognised the ability of local people to contribute more conceptually to forest management and acknowledged their right to participate in many forest-related decisions (Arnold 2001).

Approaches to involving local people in forestry have multiplied over the years. These include social forestry, community forestry, rural development forestry, joint forest management (JFM), shared forest management, co-management and participatory forest management, each of which tends to have a specific meaning and be associated with particular projects or programmes. All are essentially interventions, based to a varying extent on local people's knowledge and wishes, but 'legitimized and strengthened by government recognition' (Ingles *et al.* 1999).

Why, then, use the term *collaborative forest management* (CFM)? To collaborate means, ideally, to work in partnership. Collaboration becomes essential once social forestry moves beyond small-scale community forests to large, productive, public resources. While collaboration has often arisen out of a crisis, ultimately, the term recognises that, acting alone, neither communities nor forest authorities nor corporate entities are in a position to successfully manage multipleuse forest resources. The interest groups or stakeholders in a given forest resource are invariably numerous, diverse and potentially conflicting. Combining the strengths of different players is a rational response to the challenges of modern sustainable forest management. Even in small-scale community forestry programmes, it has become apparent that there is a continuing need for communities to engage in some sort of partnership with government and nongovernmental agencies.

The partnerships that arise through collaboration are diverse, but true partnership implies a degree of equity in decision-making among various interest groups in forest management. This aspect of collaboration has become particularly important as people-centred forestry has become a tool for poverty alleviation, better governance and social change.

This paper aims to review recent experience in collaborative forest management, focussing on the last 10 to 15 years. It begins by explaining the rationale for collaboration and the key players involved. Section 2 examines different forms of collaboration in a range of countries and tenure scenarios. Section 3 focuses on lessons learned to date, around themes that are central to collaboration, beginning with social justice and enhanced forest management. Promising mechanisms and strategies for developing collaborative forest management programmes are also reviewed and the challenges of institutionalising a collaborative approach are discussed.

Any review of CFM is a complex task, as the subject involves many interest groups, often with starkly different perceptions and objectives. As a document produced initially for the World Bank, this paper primarily reflects an international or donor perspective. Yet the perceptions and impact of CFM upon other stakeholders are documented as far as possible, particularly by field examples.

#### **1.2.** Definitions

CFM may be loosely defined as a working partnership between the key stakeholders in the management of a given forest. This definition includes a variety of partnerships, in different tenure situations, and implies a need to manage complex social and institutional, as well as silvicultural, issues.

The focus on partnerships is less ambiguous than the term 'participatory approach.' Many researchers (e.g. Cornwall 1996; Borrini-Feyerabend 1997) have found that 'participation' can mean different things, ranging from manipulation or co-option, in which lip-service is paid to local involvement, to autonomy<sup>1</sup> or self-mobilisation, in which local people control decision-making. A 'minimum standard' of participation will entail genuine consultation, respect for different perceptions and values, and the incorporation of such information into planning processes.

The nature of partnerships is clarified further by Berkes (1997), who stresses the importance of 'trying to develop equitable partnerships, drawing upon the complementary strengths of forest departments and local users' in the co-management of forest resources. Equitable partnerships imply that each partner takes on a share of the responsibility and reward for forest management based on a clear understanding of and respect for the other partners' rights or entitlements.

Collaborative approaches have arisen in both production and protection forests. In the conservation arena, Fisher (1995) and Hartanto *et al.* (2003) have proposed that collaborative management is a generic term to describe resource management approaches that combine three elements:

- recognition of the legitimacy of the values of development and conservation
- acceptance that development and conservation goals are not necessarily antagonistic
- commitment to engage local people in environmental management.

In North America, collaboration is increasingly seen as a key element of landscape-level natural resource management. Here, collaboration is regarded as 'a process in which two or more individuals or organizations collectively address issues that cannot be addressed individually'. Furthermore, 'collaboration is an approach to bridging the boundaries that subdivide ecosystems so that resource management decisions can be better informed and effective' (University of Michigan 2004).

<sup>&</sup>lt;sup>1</sup> Not all communities are aiming for autonomy (ODA 1996).

### 1.3. Who is collaborating?

Early efforts at CFM focussed on two partners: the government agency responsible for forestry, usually a forest department, and 'the local community'. Tools such as stakeholder analysis have since shown that interested parties in the management of a public forest often extend well beyond the forest department and local residents (Grimble *et al.* 1995; Davies and Richards 1999). Similarly, the existence of many interest groups within a community, each with differing agendas and access to power and influence, is now recognised. On private forest land, equitable partnerships between corporate interests and smallholder farmers are also increasing.

Some stakeholders have an enduring and inalienable right to be partners in forest management based on their position as resource owners or regulators or holders of customary rights. Examples include forest authorities required by law to submit management plans, local government authorities with a right to a share of forest revenue and villagers with rights to harvest medicinal plants on a sustainable basis. Other stakeholders have a weaker or more transitory claim to partnership, for instance development agents engaged for a limited period to provide a technical input or contractors hired to thin a particular stand of trees.

A summary of the various stakeholder groups with an interest in forest management as suggested by Ingles *et al.* (1999) appears in Box 1<sup>2</sup>. The task of acknowledging and working with many diverse groups claiming an interest in a given forest, and managing the inevitable conflicts entailed, is perhaps a daunting one, but it is the 'cutting edge' of CFM approaches today.



 $<sup>^2</sup>$  Other classifications could be made based on interest (e.g. subsistence use, commercial exploitation, conservation) and location (local, national, international), but both such classifications tend to simplify the complex reality of multiple interests and chains linking local and distant users.

### 1.4. Why collaborate?

A collaborative approach is often deployed as a rational response to a crisis in forest management and constitutes an acceptance that, under current arrangements, sustainable forest management is unworkable. Particularly in the case of large, public forest resources, where disaffection or conflict between government forest services and local communities has become the norm, collaboration is seen as a way out of stalemate. In these circumstances, the rationale for governments to collaborate can be to address the social injustices that undermine sustainable forest management.

Governments also collaborate in order to tap into the strengths of other partners, to share the responsibilities of forest management and to reduce costs. Communities living nearby have intimate knowledge of the forest, are able to monitor and police access, and respond rapidly to threats such as wildfires. NGOs can be skilled providers of social science expertise, such as training, facilitation and social surveys. The private sector brings investment and links to markets. By renegotiating responsibilities for forest management, forest services often hope to reduce staffing levels, share the responsibility for protection with communities and concentrate on strategic planning, consensus building, regulation, monitoring and compliance. In the United States, the Forest Service summarises this with the slogan 'partnerships for strong communities and healthy ecosystems'.

Even in cases in which management responsibility has devolved to local communities, the need for a continuing and evolving partnership with governments and NGOs often arises as the complexities (and inequities) of managing the resource unaided become apparent.

Box 2 expands on the rationale for collaboration from a government or donor perspective. Although government and donor rationales in favour of CFM have been conflated for brevity, it is important to recognise that their priorities do not always match. National governments with policies and legislation supporting broad-based partnerships in forest management include among others India, Lao PDR, Nepal and the Philippines

### Box 2. Rationale for CFM from a government or donor perspective

#### (a) Social justice and equity concerns

**Equity:** CFM will increase resource flows to communities and help reduce rural poverty. **Livelihoods:** Forests often act as a safety net for the poor; CFM can strengthen social security.

**Governance:** Involving community institutions may help introduce discipline into the management of the sector and offer significant checks and balances on otherwise unregulated public services.

**Development philosophy:** CFM fits well with international aid strategies stressing participation, decentralisation, good governance and subsidiarity.

(b) Technical, effectiveness and efficiency concerns

**Proximity:** Local people dependent on the forest are best placed to ensure effective management.

**Impact:** Local use directly affects forest condition; thus, CFM makes sound practical sense. **Capacity:** Local involvement, particularly in protection, should result in improved forest quality and condition, over and above the levels governments have been able to establish. **Indigenous knowledge:** Incorporating local knowledge of forest trees, pests, soils, seeds, etc. into management systems should increase management effectiveness.

**Cost-effectiveness:** Some of the responsibility for, and therefore cost of, forest protection is transferred to communities, while the government retains control of productive functions. **Regulation:** CFM allows the government to act as regulator and as an arbiter in disputes. **Adaptation:** Flexible and adaptive management cannot be delivered from the centre.

Source: Brown (1999) (with modifications)

in Asia; Cameroon, Ghana, Madagascar, Malawi, South Africa, Tanzania, Uganda and Zimbabwe in Africa; Bolivia, parts of Brazil, Guatemala, Guyana and Mexico in Latin America; and Canada, Sweden, Switzerland and the USA in the North. A number of countries in transition from centrally planned economies are also experimenting with CFM, for example, Kyrgyzstan and Vietnam.

What is the rationale for local communities to collaborate? There is unlikely to be a single community viewpoint; those groups that believe they can influence the process may hope for an economic advantage or opportunity from having a 'voice at the table'. Others may be less sure and feel they have no choice but to go along with the new scheme and hope for the best. Key reasons influencing local people to enter into a forest management partnership are outlined in Box 3.

# Box 3. Rationale for CFM from a local perspective

Securing tenure: CFM is a means of securing access to a given forest and use rights. Forest conservation: CFM is a potential mechanism for ensuring the future of the forest, which is essential to the livelihood and cultural identity of many forestdwelling communities.

**Sustainable production:** CFM ensures the availability of forest products for future generations.

**Economic incentives:** CFM creates new sources of income (but much effort is often required in product development, marketing, etc. to achieve this).

**Local decision-making:** CFM provides opportunity to participate in forest-management decisions.

**Good governance:** CFM is a means of empowerment, to improve governance (in state and community institutions).

**Better protection:** CFM provides opportunity to protect the resource from outsiders and to monitor the government's policing function.

Lack of choice: In some cases, CFM may be the only option available to local people.

A recent study of company-community partnerships found that the private sector is also increasingly seeking to collaborate with other forest partners in order to secure access to land, labour and raw materials. Communitycompany partnerships can also improve the image of the company and lessen the local risk of damage to or sabotage of company resources. Companies can provide communities with new income-earning opportunities and access to skills, technologies, raw materials and markets they would otherwise find hard to secure (Mayers and Vermeulen 2002).

Collaboration is generally initiated or sought by the more powerful partner, often in response to an ecological crisis (or at least a recognition of significant forest degradation) or major political upheaval. In India, the government initiated JFM primarily to regenerate degraded forest lands. In Ghana, the Forestry Department initiated CFM in recognition of the need to produce a flow of benefits from the gazetted forest reserves to local communities. In Europe and North America, public pressure has led to significant change in forest stewardship to allow for greater public involvement in planning processes. In poorer countries, only rarely has the call to collaborate come from communities, as they are simply not in a position for their voices to be heard. Well-known exceptions are initiatives by rubber tappers in Brazil and indigenous groups in the Philippines.

The role of third parties, such as donors, can be crucial in pushing for radical change in the institutional arrangements for forest management. NGOs, academics and other researchers may also play a strong role in some circumstances. The appropriate role of third parties, whether they actively promote or merely facilitate change, can be debated, but it remains significant.

As indicated in Box 4, CFM is an approach to which many community-based organisations, governments, donor agencies and research organisations are committed. Nevertheless, the power relations among them are complex. Integrating local people's needs and rights into forest management has become a widely accepted principle in international forestry; the debate is now focussed on how, where and to what extent it can be achieved in practice.

### Box 4. 'Key players' in CFM approaches

**Community and forest user organisations**: Identifying community groups that are leaders in CFM development is somewhat spurious, as their operations are localised. Organisations that have gained international prominence include the Federation of Community Forestry Users in Nepal, Comisión Centroamericana de Forestería Comunitaria in Central America, the *ejido* (farmer groups) of Mexico and some Native American organisations of North America.

**National governments:** Governments with policies and legislation supporting community participation in forestry include, in Asia, India, Lao PDR, Nepal and the Philippines; in Africa, Cameroon, Ghana, Madagascar, Malawi, South Africa, Tanzania, Uganda and Zimbabwe; in Latin America, Bolivia and Mexico; and in the North, Canada, Sweden, Switzerland and the USA.

**Donors:** Bilaterals that support CFM in their development programmes include AusAID (Australia), DFID (UK), IDRC (Canada), GTZ (Germany), SDC (Switzerland) and SIDA (Sweden). Supportive multilateral donors include regional development banks, the European Union and the World Bank.

International technical agencies, research organisations and foundations active in supporting CFM include the Aga Khan Foundation, CIFOR, Food and Agriculture Organisation of the United Nations, Ford Foundation, Forest Stewardship Council, International Institute for Environment and Development (IIED), MacArthur Foundation, Overseas Development Institute, World Conservation Union (IUCN) and World Wide Fund for Nature. Numerous Iocal NGOs also support CFM in-country.

# 2. Forms of Collaboration

What forms of collaboration have arisen and why? The central feature of all effective CFM approaches is devolution of some control over the management of forests to local people. This approach goes considerably beyond earlier perceptions of community involvement that focussed on use rights. Collaboration can take many forms, depending on the roles assumed by each partner and the degree of control they can exert over forest management. This section looks at different forms<sup>3</sup> of collaboration that have arisen in different (legally defined) land property categories<sup>4</sup>. These are loosely grouped under the broad headings of state-owned land and non-state land.

# 2.1. State-owned land (forested and non-forested)

Much, if not most, experience in CFM has taken place on land that is legally recognised as State Forest Land or Protected Areas and officially controlled by state authorities (although local communities may also have traditional rights of usufruct). The conventional mechanisms by which the state controls access to and manages forests under its jurisdiction are standard across the world and include inventories, working plans, permits, concession leases, patrols, punitive sanctions, criteria and indicators and legislative instruments. In countries where professionalism is severely compromised, public forest resources are barely managed in a meaningful sense. The challenge for CFM has been to create new forms of partnership or forest stewardship in which communities or community interests have a real presence. The two most widely practiced forms of collaboration on state land-transfer of control over forests from the state to communities and sharing forest management roles amongst multiple stakeholders-are outlined below and illustrated by case examples.

<sup>&</sup>lt;sup>3</sup> Collaboration could also be examined according to the degree of devolution. In its Adaptive Collaborative Management programme, CIFOR classifies devolution simply as high, medium, or low (see Colfer forthcoming).

<sup>&</sup>lt;sup>4</sup> Recognition of tenure can vary amongst stakeholders. For instance, in some cases the state does not recognize locally accepted communal rights; in others, local people do not recognize state jurisdiction over land they claim as theirs.

# **2.1.1.** Transfer of control over forests from the state to communities

The goal of this form of collaboration is farreaching devolution of forest management responsibility from the state to local communities. It tends to arise where the futility of state management of an essentially communal resource is recognised. The individual forests are often small in scale and of minor strategic or revenue-generating value to the government. Management responsibility is generally devolved following the approval of a satisfactory forest management plan or agreement. The essence of the approach is to establish (or re-establish) systems of common property management founded on consensus-based rules. Sincere and accomplished partnerships with government and NGOs, particularly in the early stages of the programme, are often required to create effective and equitable management systems.

This 'model' is particularly associated with hill community forestry in Nepal, where experience over the last 25 years has been well documented (e.g. Gilmour and Fisher 1991; Hobley 1996; Shrestha and Britt 1998). In the case of Nepal, community forestry was seen as a rational response to the problem of managing tens of thousands of scattered forests in difficult terrain, many of which were degraded and of little national or commercial importance. Community forestry effectively reversed the earlier policy of nationalisation, which had led to widespread 'open access' and, in some areas, to the inequities of *de facto* private or feudal control. A brief summary of hill community forestry in Nepal is given in Box 5.

Similar but locally adapted schemes have been implemented in many countries, for example, contractual forest management in Madagascar (as outlined in Box 6), village forestry in Laos PDR (Bouahong Phanthanousy and Bonita 1998), community management of forested commons in Portugal (summarised in Box 7), community forestry in Bhutan and participatory forestry in Sri Lanka (Mackenzie 1998) and Bhutan.

In the case of the most notable example of devolution, Nepal, community forestry is now entrenched and the debate over its implementation has moved on to secondgeneration issues such as pro-poor benefit sharing. In other countries, the transition from state to community control proceeds at a slow pace (e.g. in Bhutan, where the government's approach is officially 'cautious'). In the Philippines, field organisations are hampered by inadequate resources, skills and power (Hartanto et al. 2003). The underlying problem is invariably reluctance within government to devolve control of productive resources to communities. The problem may be generational, as younger staff is often more committed to the new approach than their senior, more conservative colleagues.

Radical programmes to devolve control to local communities can take place following massive political upheaval, as was the case in Mali. In the wake of the popular revolution of

### Box 5. Hill community forestry in Nepal

Across the middle hills of Nepal, forests form a critical element of subsistence farming systems. In 1978 the government passed legislation enabling forests on public land to be handed over to local communities. Community forestry in Nepal has since evolved into a system whereby the users of a given forest area form a forest user group, represented by an elected committee, and take legal responsibility for managing the forest according to an agreed operational plan. Ownership of the land remains with the state, but the trees legally belong to the user group. Management control rests wholly with the user group, which also has the right to set the price at which produce is sold and to determine how the income is spent. The forest department has right of veto if management rules are transgressed. According to the Community Forestry Division of Department of Forest (cited in the RECOFTC 2004), more than 1,113,171 ha of forest area has already been handed over to 13,538 forest user groups comprising some 1,528,000 households. Independent service providers-some of whom are NGOs while others are more experienced user groups—now undertake many of the support tasks initially provided by the forestry department. Although there are concerns with equity and governance issues (now referred to as 'second-generation issues'), the Hill Community Forestry Programme is generally regarded as hugely successful.

# Box 6. Contractual forest management in Madagascar: negotiating to reach an agreed approach before initiating local management networks

In the mid 1990s, Madagascar began introducing a collaborative approach to forest management, under which communities are expected to take responsibility for managing local forests. This box concerns the Tapia (*Uapaca bojeri*) forests endemic to the highlands of Madagascar, which are increasingly under threat of overexploitation. Recognising this threat, and the practical impossibility of protecting the forests by police-style patrols, the Forest Service took the decision to develop a participatory, sustainable approach to forest management, working with the Swiss-supported support programme for forestry and small farmer development, Programme d'Appui à la Foresterie et au Développement Paysans<sup>5</sup>. The original strategy devised by the Forest Service, which involved the creation of a tripartite convention among itself, the villagers and the mayor of the local rural administration (*commune rurale*), gave villagers exclusive rights of exploitation of renewable resources from their forest, responsibility for conserving the forest, and the right to prosecute outsiders caught utilising it illicitly. It failed, however, to involve all villagers (particularly neglecting the more disadvantaged, who sometimes found themselves in conflict with other villagers assigned to 'police' the forest), and placed more emphasis on conservation than exploitation.

To overcome this shortcoming, and influenced by new experiences in participatory forest management in other parts of the country as well as the introduction of new forest legislation (forestry and GELOSE<sup>6</sup> laws), a decision was taken in 1998 to redevelop the approach, working closely with all the stakeholders. A key issue was including the regional forest authority, Direction Régionale des Eaux et Forêts (Regional Directorate of Water and Forests) (which saw its power base threatened by villager demands and local management contracts), and the GELOSE unit of the National Office for Environment (which has the task of testing the practical implementation of the GELOSE law). It was only after each of the authorities was satisfied that its requirements had been met that local-level stakeholder discussions could be instigated. The final crucial elements in the inter-authority negotiation process were

- inclusion of the formal requirement for mediators trained by GELOSE to negotiate with and mediate among all interested local parties in the management of the resource; and
- provisional topographic delimitation of the village territory and the transferred area of forest, as well as a cadastral survey of all plots under private ownership. (Insecurity of land tenure is recognised as a major hindrance to rural development in Madagascar.)

#### Changes in power relations

It took time and effort to convince the national administration to decentralise real decisionmaking power to the *communes rurales* and to overcome internal hierarchical conflicts within the services. Nevertheless, there is now greater mutual understanding on the part of the authorities, which has strengthened the position of the communities.

#### Need for real benefits

In most cases, the transfer of management rights to local communities has had a positive influence on social capital and organisation. The most successful cases, however, are clearly linked to economic benefits, such as silk production in the successful case of the Tapia forests. Where forest conservation is the major expected outcome of community management, external conservation incentives may be necessary to sustain community involvement.

Sources: Jean-Laurent Pfund and Jürg Brand, personal communication (2004)

<sup>&</sup>lt;sup>5</sup> Programme d'Appui à la Foresterie et au Développement Paysans, FDP - Support program for forestry and small farmer development.

<sup>&</sup>lt;sup>6</sup> Gestion Locale et Securisé des Ressources Renouvelables (local management and security [of tenure] of renewable resources).

### Box 7. Local management of forested commons (Baldios) in Portugal

Although modernisation of agriculture has led to a decline in many of the traditional values associated with the *Baldios*, or forested commons, they still serve many useful functions, including provision of timber and resin. In 1976 the government passed a law to restore the commons to the original community users. At the time, commoners' assemblies elected five-member councils to oversee management of their commons. Most (84%) of the councils elected to manage their commons in collaboration with the state. Since 1976, with the decline in the number of families involved in farming, many of the councils have been dissolved. Some 130 were still operational in 2000. Communities managing forested *Baldios* now organise auctions, negotiate with concessionaires, traders and the forest service and invest the revenues they receive from timber and resin for the benefit of the community.

Based on Jeanrenaud (2001)

1991, the hold that the quasi-military forest authority had on the forest resource was significantly weakened and new communitybased fuelwood markets established in its place. Further information on the Malian government's collaborative approach to fuel wood supply and forest mangement is given in Box 8.

A variation on transfer of management control to a community is the leasing of state forest land to individual households (but potentially also to groups). Governments commonly view leasing arrangements as a means of replanting degraded land (e.g. Kyrgyzstan, Nepal, Sri Lanka, Uganda, Vietnam), although they may also be considered at least in part for productive, well-stocked forests (e.g. Kyrgyzstan) (Carter *et al.* 2003; see also Box 9).

# 2.1.2. Sharing forest management roles amongst multiple stakeholders

In the second form of collaboration, the state resolves to share management responsibility with either local communities or a range of stakeholders. The most notable example of shared forest management is JFM, practised in India on state forest lands. The beginnings of JFM lie in the State of West Bengal in the 1970s. Concern at the degradation of local forests (*Shorea robusta*) led the forestry department to devise a scheme under which villagers would refrain from firewood collection and grazing, take on greater responsibility for protection and in exchange receive a greater share of the returns from the regenerated forest.

### Box 8. CFM as a result of the domestic energy strategy in Mali

Over 90% of energy needs in Mali are met by wood fuels. In the aftermath of the 1991 revolution, Malian forest policies changed dramatically. The domestic energy strategy encourages communities (in agreement with other villages) to claim the local state forest as theirs, based on management plans and local gazettement orders. Only 16% of the country's forests are to be managed by the authorities (in collaboration with local people through contracted management).

Private-sector operators (often ex-government staff) are encouraged to help communities establish rural firewood markets. Once a community is registered as a Rural Firewood Market, outside merchants cannot obtain local cutting permits.

The new strategy has strengthened local organisations and led to real benefits for many of the poor. The regulatory framework is far from complete, however; the forest service remains legally in charge of many aspects of forest management. In addition, the focus on commercial wood-fuel production leads to neglect of other aspects of resource management, and the imposition of unrealistically high forest management standards puts local efforts at risk.

Based on Kerkhof and Konate (2001)

#### Box 9. Forest leases as the mechanism of CFM in Kyrgyzstan

In the 1990s, increased pressure on the walnut-fruit forests of southern Kyrgyzstan forced the forestry authorities to think about alternative forest management methods. The introduction of CFM by the Kyrgyz-Swiss Forestry Support Programme, implemented by Intercooperation, dates back to 1998, when contractual partnerships between local people and *leshozes* (forest management units) were established in two pilot locations. Individual households gained usufruct rights to a forest plot, in exchange for management of the plot and an additional workload to be fulfilled for the *leshoz*. Plot sizes vary from 2 ha (riverside forest) to 5 ha (walnut forest) to 20 ha (any other forest type). The workload, which has to be fulfilled within five years, depends on the anticipated income from the plot. After the trial period of five years, contracts can be extended for 49 years. The participating families have guaranteed access to forest resources, while the authorities are guaranteed forest protection and the necessary forestry work.

New CFM regulations were approved in 2001, stipulating the rights and duties of the CFM partners and describing the series of steps CFM entails. A high level of local involvement in the CFM process is foreseen through participation in commissions that investigate the desirability of CFM in a certain locality, and, if deemed appropriate, which area should be reserved. After this exercise, local people can file applications of interest, which are judged by another commission. The primary criterion for qualifying for a CFM plot is a family's motivation. Additional factors include the existence of some forest management experience and knowledge, previous claims to the plot, place of dwelling, and possible other criteria as agreed by the commission. Contract conditions are negotiated individually between a family and the *leshoz* or, on some occasions, with groups of two to eight families. The extent of territory handed over now stands at around 6,000 ha managed by over 600 households.

There has been a sharp increase in poverty in Kyrgyzstan since it became independent in 1991 following the collapse of the Soviet Union, and poverty alleviation is now a nationwide programme. When CFM began, however, official recognition of poverty was lacking. Poverty issues were not explicitly addressed, e.g. by encouraging poor families to participate in CFM or reserving some of the contracts for vulnerable groups. The families that have received forest plots all claim to be in a better position than before, when they could have only seasonal contracts and thus, no long-term security. In years of good walnut yields, the harvest can provide up to 70% of families' incomes.

The long-term perspective offered through CFM has led to a higher level of responsibility for the care and maintenance of plots, and the forestry works implemented by the people are regarded as being of better quality than the work implemented by staff of the *leshoz*. In the early phases, the Kyrgyz-Swiss Forestry Support Programme worked closely with the *leshozes*; the fourth phase of the programme will focus on CFM tenants as primary project partners and aim to foster mutual collaboration among them as groups with decision-making powers and claims, rather than as scattered individuals.

Source: Brieke Steenhof, personal communication (2004)

JFM has subsequently been elaborated in concept and promoted by the national government, and is now implemented in most states across India. The essence of JFM is a partnership between local users, organised into Village Forest Protection Committees, and the State Forest Department in which management responsibilities and the benefits of production are shared. The forest department retains control over the partnership. The exact form the collaboration takes varies from state to state, as do the benefits derived by the community. (JFM is further discussed in section 3; see Boxes 20 and 21.)

In other countries, collaborative management is also appearing on large-scale public forest lands, which constitute resources that support multiple uses, including production forestry. Collaboration often emerges out of antagonism between different uses and values—commercial, communal and conservation. Moving towards more consensus-based, strategic decisionmaking that involves many stakeholders is often the best route out of potential deadlock. The essence of shared management is to recognise that no one stakeholder can, or should, take full control of strategic (and sometimes operational) management. At the strategic level, a negotiated long-term management framework for a given resource will often cover issues such as objectives, zoning, policy on exploitation, criteria and indicators, monitoring, consultation and reporting procedures. Successful collaboration in strategic planning requires a commitment to following through on consultation and not just lip service, as Box 10 illustrates.

After a turbulent period in the 1970s and 1980s, most forest authorities in Europe and North America are now committed to multiple-use forestry. Many countries have introduced consultative or collaborative planning procedures. Box 11 gives an example from Switzerland of participatory planning at a regional level.

In Europe and North America (and increasingly in other countries, too) environmental activism is only one of the factors leading to changes in forest management. The general public has a growing expectation of high levels of responsive public service, transparency and accountability across the board, be it in the health, transport, education or forestry sector. Box 12 provides an illustration of this in the case of the U.S. Forest Service.

In some countries, collaborative planning is beginning to replace old planning procedures that confined local concerns to the 'socioeconomic' section of a management plan and were, in the best cases, based on a recent socioeconomic survey and, in the worst cases, copied from the previous plan. In Ghana, for instance, forest reserve strategic planning procedures now include a significant element of local involvement in reviewing and debating longterm objectives during planning workshops.

In many developing countries, the underlying thrust of these changes is to recreate a professional forest service offering an acceptable level of stewardship for public resources, or more simply put, the desire for good governance. Creating new partnerships with the general public and local communities is often extremely difficult, particularly when old partnerships with timbermen, concessionaires, contractors and politicians (local and national) need to be dismantled first.

# Box 10. Collaboration in landuse planning in Clayoquot Sound, Canada

Clayoquot Sound is an old-growth coastal temperate rain forest encompassing an area of nearly 300,000 ha and trees up to 1200 years old. In 1979, statesanctioned plans for timber harvesting by a multinational corporation provoked protests from the peoples of the Nuu-chahnulth First Nations, local residents and environmentalists. Over the next 20 years, numerous public consultation processes took place with varying degrees of success. The consultative processes enabled the principal stakeholders to communicate their interests, but the government continued to demonstrate, through the logging-related decisions it made, that it did not feel obliged to respond to major issues raised by the consultation process it had initiated.

Twenty years on, a high-level review board institutionalised the participation of one key stakeholder, the First Nations. As a result, negotiations became more balanced, because once all the parties had an equitable amount of power, they began to deal with each other as partners rather than opponents. Gradually the government and the corporation were drawn into collaborative arrangements with the other stakeholders. Unique models for public land and resource management and for old-growth logging and marketing have now been established. The outcome was the creation of a UNESCO World Biosphere Reserve in 2000 and an environmentally sensitive, joint-venture, old-growth logging company.

#### Based on Parai and Esakin (2003)

While professional foresters are often initially wary of new planning approaches, many also come to recognise the value of the collaborative process and welcome the greater local appreciation and concern for their work. Unless a window of opportunity presents itself, however, replacing old procedures enshrined in law can take years.

# Box 11. Participatory regional forest planning, Freibourg Canton, Switzerland

The 1993 Swiss Law on Forests provided for participatory procedures in regional forest planning. Regional plans set medium- and long-term objectives that address society's interests in forests beyond the scope of a single public or private forest. The Canton of Freibourg was one of the first to try the new planning process. Its goals were to incorporate differing public interests, help create a sense of joint responsibility for the forests, build consensus among various actors, provide information on complex forest systems and create a forest lobby amongst the general public.

Representatives of many organisations were invited to participate. These included leisure and recreational associations, conservation and nature protection NGOs, officials, politicians, municipalities and private forest owners among others. Over a 17-month period many participatory methods were employed (e.g. working groups, role plays, workshops, public meetings). The results were built into a 14-year regional forest management plan. The initiative was regarded as successful largely because of the willingness of forestry professionals to embrace new ideas and the presence of a moderator.

The new process also increases time required for planning, however, as well as costs and complexity. For example, the canton is required to answer all queries, ideas and comments submitted by the public.

Based on Jeanrenaud (2001)

# Box 12. Making collaboration part of the core business of the U.S. Forest Service

In November 2003, Chief Bosworth joined leaders of the National Park Service, Bureau of Land Management, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, Bureau of Reclamation and the Bureau of Indian Affairs in signing a pledge to affirm the importance of working jointly as partners with the public in stewardship of public lands in the USA. His remarks included the following.

'As great as our jobs are, sometimes they are not without conflict. There will always be controversy surrounding public land management, heritage preservation, and natural resource conservation. It's frustrating sometimes, but we have to remind ourselves that it's democracy in action. People in this country care about their natural resources and they voice their concerns, sometimes pretty strongly. That's not going to change. We will never just get it fixed and then move on to something else. As old issues fade away, new ones arise because ecosystems are dynamic living systems.

Honest public debate also helps us work with people upfront instead of doing our own thing and engaging people later. Many of you know this as "collaboration," but it is really about working together. In today's world, people expect to be informed and involved in decisions that affect them. They also expect us to work effectively with each other to carry out our respective agency missions. The Healthy Forests Initiative and the stewardship contracting authority are two opportunities the Forest Service has to integrate partnership activities into our daily work...'

Excerpts from a speech by Chief of the U.S. Forest Service, Dale Bosworth, to the Interagency Joint Ventures: Partnership in Stewardship Conference, November 2003, Los Angeles.

### Box 13. Canada's Model Forest Program

The Canadian Forest Service launched the Model Forest Program in 1990. Model forests were created, in part, as a response to increasing polarisation of interests in Canadian forestry. Growing public anxiety about the nature of modern forestry practice was also a key concern. A network of 10 model forests was proposed in 1992, representing six of the main forest regions of Canada. A model forest brings together and forms a partnership between individuals and organisations with the common goal of sustainable forest management.

Partners typically include industrial companies, parks, landowners, all levels of government, aboriginal peoples, academic institutions, environmental groups, labour and youth. A model forest provides a unique forum where partners can gain a greater understanding of conflicting views, share their knowledge and combine their expertise and resources to develop innovative, region-specific approaches to sustainable forest management. A model forest acts as a giant, hands-on laboratory in which leading-edge techniques are researched, developed, applied and monitored.

The result of this approach is solutions that work and earn local support. Projects undertaken to date encompass partnerships with logging companies to develop new harvesting systems that minimise disturbance, adoption in Saskatchewan of a new integrated forest management planning process, multidisciplinary work on management of wildfires, protection of the Pine Marten and software development to enable First Nations to model the economic impact of a proposed forestry business on their community.

Some model forests are set up as associations, others may take the form of a not-forprofit corporation. A board of directors, management committee or other management body administers funds. The internal structures of model forests differ. Most use committees to oversee project initiatives that act in an advisory role to the main management committee or board of directors. The model forest does not supersede the rights of participating landowners and land managers.

Source: http://www.modelforest.org

Collaboration in strategic planning is made easier if rational policies are in place to guide choices between competing land use options. Following years of conflict in the forests of the Pacific Northwest of the USA, the new strategy of establishing Adaptive Management Areas gives priority to local value-added processing of wood and other products. Adaptive management implies a willingness to experiment and learn in partnership, an approach also used by the Canadian Model Forest Program, outlined in Box 13; and at CIFOR Adaptive Collaborative Management research sites (see later Box 34).

Forest authorities have long shared operational responsibility for large tracts of public forests with the private sector through means contracts and concession leases (and often show distinct double standards in refusing to extend similar options to communities). In some countries, operational responsibility for certain aspects of forest reserve management (protection, production, research) is also being shared with communities, e.g. on a contractual basis in Ghana and Mali, through partnership agreements in Madagascar (refer back to Box 6) and co-management arrangements in Malawi (Box 14), and through community forestry concessions in Guatemala (Box 15).

Limited rights of access and use permitted in protected areas or buffer zones can also be regarded as 'borderline' CFM, in that rights afforded to local people may not be very great. However, Integrated Conservation and Development Projects (ICDPs), may have a strong CFM component—especially in Latin American countries (eg Bolivia, Ecuador) and on a cross-national basis (eg the Central American biological corridor and the Andes, see Box 16).

### Box 14. Co-management of Chimaliro Forest Reserve in Malawi

In Malawi, several laws promulgated in the late 1990s decentralised much forestry decisionmaking. Partnerships with local communities are part of the new *modus operandi*, but implementation has been marred by uncertainty about rules, slow-moving bureaucracy and near-absence of skills relating to participatory processes within the forestry department.

Chimaliro Forest Reserve covers 160 km<sup>2</sup> of semi-deciduous *miombo* woodland. In 1997, the forestry department divided part of the reserve into three blocks (of 18 ha, 74 ha and 118 ha respectively) for co-management with nearby communities. Village and Block Natural Resource Management Committees (VNRMC and BNRMC) were established for each of the blocks. Under the co-management arrangements, communities may harvest nontimber forest products (dry firewood, thatch grass, mushrooms, reeds, bamboo, caterpillars, cattle forage and wild fruits) from the blocks they manage, but harvesting of live trees for firewood or construction is prohibited. Seventy per cent of the revenue from forest products accrues to the government and 30% to the community. The VNRMC, with approval of the village head, decides how the income should be used, based on development needs in the community.

The VNRMCs have been fairly successful, reportedly because of the respect with which villagers view their traditional leader, who has the final say on management rules. There are also a relatively small number of interest groups in the reserve, the most important being local communities, research officers, Kasungu District Office, Chimaliro Forestry Compound staff and PLAN International.

Based on Kamoto and Milner, CIFOR, unpublished

### Box 15. Community Forestry Concessions in Guatemala

Nestled between south-eastern Mexico and Belize, the Petén region of northern Guatemala shares with them the large tropical lowland forests of the Mayan Biosphere Reserve, established in 1990 by the United Nations and Consejo Nacional de Areas Protegidas, the newly created national commission for protected areas, which is the principal government agency present in the region, but not a forestry extension service. In this hinterland region known for its 'ingovernability', the Petén had suffered from consecutive waves of official and spontaneous colonisation from such diverse interests as logging, mining, agriculture, cattle ranching and archaeological digging, not to mention drug trafficking.

Yet, in striking difference from many conservation projects—where intentions fail because of the ensuing competition between actors or new tensions arise from exclusionary policies, leading to community disenfranchisement—the Guatemalan combined effort for conservation and development has actually brought about increased 'governability' of the region, while improving community livelihoods. The proposal allowed the multiple-use areas buffering the 2 million hectare Biosphere Reserve to be organised under community forestry concessions, a legally sanctioned and government-supported set of community usufruct rights guaranteed for 25 years and renewable.

Today, management and control of just under 500,000 ha of these forests rests largely in the hands of community organisations, where timber felling, transport and, now, processing at saw mills run by the communities themselves are growing and prospering. Support from multiple donors has been crucial. Most of the timber is certified by the Forest Stewardship Council, making the Petén the largest area of certified wood production in contiguous community-managed lands in the world. Ongoing monitoring studies show a dramatic decrease in forest fires and illegal logging, while indicators of biodiversity are improving.

An unusual feature in this case of community forest management is that the communities themselves are of relatively recent establishment and highly heterogeneous. Having lived the longest in the region, dating back 90 years, traditional *chicle* or gum harvesters and

### Box 15. Continued

timber extraction labourers and their families form the core of the communities. Indigenous communities exist, but are in the minority, with some participant cooperatives containing highland indigenous groups who resettled here following their return from exile after the war.

A key factor leading to their success has been the organisation of communities into the broad, Petén-wide Association of Community Forestry Concessions, known as ACOFOP. Representing 22 community organisations, ACOFOP serves as the central governing body in the region and helps mobilise technical assistance, create market linkages and provides the necessary political support to its members in the face of competing interests in the region. It is a continuous organisational challenge as they struggle to be taken into consideration for large-scale archaeological tourism projects, respond to the growing activities in nonwood forest products of their membership and face increasing needs for enterprise development and financing for the commercialisation of their production.

Source: Nittler and Tschinkel (forthcoming)

# Box 16. Collaborative approach to the regional conservation of Andean native forests

Andean native forest ecosystems are generally highly degraded; they exist in reasonably good condition only as a few relicts. No law specifically protects these forests and little effort is invested in their conservation. Andean native forests do, however, possess immense biological diversity and play a crucial role in water conservation, an increasingly scarce commodity in the Andes. In 1993, a new cross-national conservation programme known as PROBONA<sup>7</sup> was launched in Bolivia and Ecuador. PROBONA aims to generate sustainable management models in representative Andean forest zones and promote the models in other areas.

The programme uses a collaborative approach by building consensus on management among local communities, farmer organisations, local municipalities, NGOs, private sector, conservation NGOs, IUCN and government agencies. The results to date are encouraging as communal and municipal rules for sustainable forest use have been developed and community enterprises from small and medium scale have been established, for example in ecotourism, honey, forest seeds and jam. The critical condition for success has been the ability of local communities to exclude outside short-term interests. Other factors include:

- participatory processes for formulation of forest management (use) rules and regulations
- move from territorial management plans to resource management at the farm level
- a competitive funding system that brought in new actors and innovations
- alliances amongst stakeholders for acquisition of additional funding (e.g. for vegetation mapping)
- measures to enhance the self-esteem of communities
- strengthening of individual families and community groups
- strategies tailored to the social landscape
- policy dialogue based on social discussions

Source: Patrick Robinson, personal communication (2002); additional material supplied by Alfredo Carrasco, personal communication (2004)

<sup>&</sup>lt;sup>7</sup> The programme was initiated by the Swiss Agency for Development and Co-operation, SDC in agreement with the governments of Bolivia and Ecuador and implemented by Intercooperation with a variety of local partners.

## 2.2. Forestry on non-state land

#### 2.2.1. Community- or customaryowned forest land

Local claims to customary or community land tenure were often ignored or swept away during colonial times and by subsequent governments—particularly where productive land was concerned. Degraded communally owned lands have been the subject of social forestry style afforestation schemes, often with similar problems of poorly defined rights and responsibilities and, hence, a lack of interest or commitment from local people.

Community and customary ownership of productive forests remains strong in a few countries, such as the Pacific Island states (Filer and Sekhran 1998; Wyatt et al. 1999). As the rights of local and indigenous people gradually gain ground, increasing legal recognition of land tenure rights reflects this shift, particularly in Latin America (e.g. Brazil, Nicaragua). In some countries (e.g. Bolivia, Mexico), the presentation of a sound forest management plan is even a criterion on which the granting of land tenure to community groups is based (Lawrence and Sánchez Román 1996). Examples of some form of partnership in forest management between communities and state authorities include Australia (Dargavel et al. 1998), Bolivia (Bebbington and Kopp 1998), Guyana (Hobley restricted report for Guyana Forestry Commission and DFID), Papua New Guinea (Filer and Sekhran 1998), Sweden (Carlsson 1996/7), Switzerland (Küchli 1996/7) and North America (Poffenberger and Selin 1998).

Reversing long-standing inequities that have effectively turned communally held land into private property 'held' by the timber industry is exceedingly difficult. One successful example is that of community forestry in Mexico (refer to Box 17). Once community ownership is reestablished, the relationship between state and community changes from one of regulator and user to one of service provider/regulator and owner. The community often has high expectations of the level of service the state can provide.

#### 2.2.2. Private forests

The term 'private forest' is used to describe both land to which title is held by a single individual, and less commonly, land held by an exclusive group of individuals—the latter being the case in certain 'community forests' in Switzerland, for which property rights are hereditary (Dürr personal communication).

# Box 17. Community management of forests in Mexico

Much of Mexico's forest resource stands on community land. Communities (*ejidos*) received ownership rights to these lands after the 1910 revolution. In practice, however, the government controlled the forest resources and granted logging concessions to the forest industry, while community members received little benefit beyond opportunities for paid labour. A nominal stumpage fee was paid into a community development fund, but little reached the *ejidos*.

In the mid-1970s, peasant organisations supported by policy reformers in the government campaigned to change the system so they could participate more directly in control of their forests and receive greater benefits. In 1986 a new forestry law transferred decision-making power over the forests to the ejidos on condition that they meet sustainable forest management requirements (such as a management plan drawn up by a forester) to be monitored by government. Stumpage fees, set by the market, were to accrue directly to the ejidos. The role of the state was reduced essentially to one of supervision and support. Ejido organisations that took on management and operational roles were encouraged to participate in cooperative federations set up to provide technical and organisational support.

Based on Richards 1993; Wentzel 1999 unpublished report for GTZ; Arnold 2001

A number of countries in transition from a Soviet- or strict communist-style economy (e.g. Vietnam, Kyrgyzstan) have privatised much of the former state forest land. This is the case in much of Central and Eastern Europe, where, by a rough estimate, the number of forest owners swelled by at least 1 million between 1985 and 1995. The rapid growth of small private forest owners is a major challenge to governments and raises questions as to how such owners may be served by newly developing forestry extension services and how they might organise themselves for practical collaboration and information exchange. The task may be made more difficult by the general mistrust often reported between private owners and government forestry officials (FAO 1997).

Collaboration among private owners of small forest plots is also important in many frontier forest areas of Latin America, including Costa Rica and Ecuador. In the former country, smallholder forestry organisations have become an important body for lobbying at national level (Watson *et al.* 1998) (see Box 25). In Europe, there is also growing interest in small forest owner associations, particularly in Finland.

# 2.2.3. Company-community collaboration

Company-community collaboration on private land is on the increase, in particular in plantation development (as illustrated in the example provided in Box 18 from West Kalimantan). Plantation partnerships take a number of forms. The most common arrangement are outgrower schemes, whereby farmers are contracted to grow trees for a forestry company on their own land. For the private investor, working with communities can bring increased and secure access to land, labour and raw material supply. For the community or smallholder, the partnership can furnish an income, access to markets, employment, loans, quality seedlings and technical expertise. A number of organisations are making efforts to help ensure community-company collaboration is undertaken based on 'equitable partnerships' (Mayers and Vermeulen 2002; CIFOR and FAO 2003). (See also Box 26.)

Community-company partnerships can also exist in reverse: whereby local people gain greater access to the fruits of land owned by the company. In South Africa, private forestry companies that, during apartheid, vigorously excluded local people from their land are now entering into negotiations over usufruct and tenure; more details are given in Box 19.

Company-community partnerships are also becoming a feature of production forestry on state land, for instance forest land held under concession. Historically, any such arrangements have rarely entailed the real participation of local people in forestry decision-making. Control at local level often rests heavily in the hands of the concessionaire, which may effectively take over the role of the state in the provision of services such as roads, health care and schools. However, concessionaires increasingly see an advantage in collaboration in order to seek efficiencies in resource protection (for example through collaboration on fire-fighting), to improve their public image or to meet the requirements of government legislation, for instance on social responsibility. In many cases,

the degree of community control over the partnership is limited.

In summary, while the extent of collaboration varies, the forms it takes are clearly increasing in diversity. There appears to be a greater acceptance of the need for and advantages of some degree of partnership in the management of many of the world's forests than in previous decades. Whether the increase in collaboration represents a fundamental shift in forest governance or is a relatively minor shift at the fringes of management is not yet clear, and cannot be generalised at a worldwide level.

## Box 18. Plantation company partnerships with communities in West Kalimantan

Since 1996, an Indonesian-Finnish joint venture, PT Finnantara Intiga, has created 23,000 ha of industrial plantations on degraded forest lands. The present aim is to establish a forest plantation of 30,000-40,000 ha by linking industrial pulpwood production and traditional agriculture. The available land would be used for both plantations and farming by replacing part of the swidden fallows with tree plantations, while avoiding drastic disruptions of native ecosystems and land use patterns. The company leases land from villagers and in return promises a share of plantation revenues and infrastructure improvements. The company also helps develop agroforestry systems and supplies planting stock of improved rubber tree varieties and preferred local tree species.

The authors' findings suggest that wellimplemented industrial forest plantations have positive impacts on rural livelihoods. Integration of forest plantations into the local traditional livelihoods is possible if sufficient areas are left outside the plantation activities to decrease villagers' risks and reliance on the company. The report also highlights the need to recognise that communities are not homogenous entities regarding the formulation of contracts and distribution of benefits accruing from plantation schemes, lest benefits accrue largely to village elites.

Based on Tyyneal *et al.* and PT Finnantara Intiga in CIFOR and FAO (2003)

# Box 19. A changed relationship between the forest industry and communities in South Africa

Clarke and Foy (1997) noted that South Africa's forest industry plays a central role in the national economy and provides jobs for 250,000 people in mostly rural areas. However, the relationship between the forest industry and rural communities has been characterised by conflict over access to land and water resources. The forest industry owns 1.4 million ha of land, part of which was acquired through racially motivated dispossession. Since the end of apartheid, steps have been taken to restore ownership rights to local people. The development of business links, based on a changed relationship between the forest industry and rural stakeholders, offers the potential to improve local livelihoods and reduce conflicts.

One mechanism explored is equity sharing through the sale of shares in an existing enterprise to employees. An example is a scheme under which workers on a fruit farm in the Western Cape obtained a 50% financial and decision-making stake in the enterprise. Equity sharing has provided local people the opportunity to gain a foothold in the formal economy, participate in decision-making and increase their income through a share of profits. From the point of view of the previous owner (now co-owner), there have been advantages in increased worker motivation and commitment, an injection of new capital through the sale of shares and opportunities to settle land claims out of court

Further to these observations, Mayers and Vermeulen (2002) reviewed company-community partnerships in South Africa, and reported outgrower schemes to involve some 12,000 smallholder tree growers on about 27,000 ha of land. The two largest forestry companies in the county operate the two schemes with the largest memberships, providing smallholders with tree seedlings, credit, fertiliser and extension advice and then buying the product for pulp. For the companies, the key benefits have been 'fibre that would otherwise be unavailable due to land tenure constraints' and 'a progressive image at a time when the distribution of land rights in South Africa is being called into question'. Benefits to outgrowers have included secured land rights, infrastructure development in some areas and access for even the poorest landholders because of ready credit. The landless have also reaped some gains in terms of wage labour opportunities.

### 3. Lessons Learned

Whereas the previous section explored the diverse forms collaboration has taken to date, this section examines the key lessons learned from the experience. To what extent has collaboration achieved its dual aims of addressing both social issues—including sustainable livelihoods, rights of access and control, equity, promoting local governance and, ultimately, social justice—and sound forest management? Can promising mechanisms for developing collaborative programmes be identified?

Section 3 also considers the challenges of institutionalising collaboration, including policy and legislative concerns and the circumstances under which collaboration is most appropriate. It should be stressed, nevertheless, that these lessons are not static. CFM is a dynamic, evolving process. Field practice must be open to adaptation based on further experience. Furthermore, it is dangerous to extrapolate too far from one situation to another. Key thematic issues are shared, but regionally, Asian, Pacific, African, Latin American, North American and European experiences differ—and CFM arrangements must be tailored locally, both to the stakeholders and the forest concerned.

# 3.1. Has CFM led to social justice and sustainable livelihoods?

CFM aims to help local people to improve their lives, no matter how modestly, through greater access to and control over local forest resources. This often—especially with regard to state land—entails addressing longstanding inequities in forest management. Thus increasingly, and especially where inequities are blatant, CFM is seen as a tool for empowerment and for promoting social justice. This 'vital but troublesome notion' (Mayers *et al.* 2005) may be defined as 'the equitable access to resources and the benefits derived from them; a system that recognises inalienable rights and adheres to what is fair, honest, and moral' (Cunningham *et al.* 2003). Given the diversity of situations under which CFM can occur, the promotion of social justice—certainly in this sense—is of course not always intended. Nevertheless, it is still worth posing the question: Has social justice been brought about through collaborative approaches to forestry anywhere in the world?

From the examples of CFM cited in the previous section, it is clear that important progress in local people's empowerment has been made in many countries. Where previously communities had no access to public forest resources, no rights to take management decisions, no opportunity to obtain technical support from the forest agency, there has been a significant change in the framework of forest management. Critically, in many countries, communities that enter into forest management partnerships do so in the knowledge that their rights of access to the resource, and the benefits that may accrue from the time invested in management, are secured by legislation.

User groups in Nepal now have the legal right to manage their local forests and accrue revenue, while village communities in Mali have taken control of local fuelwood markets. Communities in Guatemala have timberharvesting rights through forest concessions. In parts of West Bengal, studies have shown that JFM has led to an increased availability of fuelwood and a reduction in seasonal out-migration, suggesting that incomes from employment and from the sale of nontimber forest products (NTFPs) have increased, particularly for the poor (Pattnaik and Dutta 1997). As noted in Box 17, communities have been able to gain a source of income from commercial use of the ejido-managed forests of Quintana Roo in Mexico. In Bhutan, communities are now able to harvest timber from community managed forests (Bill Buffum personal communication 2003).

Increasingly rigorous scrutiny of the benefit flows from collaboration has led to concern, however, that it is often the elites in local communities who gain most from new forest management partnerships. In Nepal for instance, while thousands of forest user groups have been successfully established, local patterns of exploitation and hierarchy have often been reproduced within the groups. In India, similar concerns have been expressed about inequities within JFM institutions (see Box 20 as an example). Arnold (2001) notes that committees dominated by elites and management regimes that give preference to commercial usage over subsistence can disadvantage the poor.

# Box 20. A decade of experience of JFM in Andra Pradesh, India

Participatory approaches to forestry have been underway in Andra Pradesh since 1992, first as JFM and more recently as community forestry (as supported under a World Bank project in collaboration with the State Forest Department). Recent legislative orders increased the benefit share from 25% to 100%, albeit restricted to incremental volumes in timber and bamboo and a 50% share in net revenue in beedi leaf (used to make local cigarettes). Local forest management committees are also required to put aside 50% for forest development.

Studies have shown that shifting cultivators, head loaders and goatherds have been denied access to the forests in the name of forest protection. The Forest Department, ignoring the community, took most of the management decisions. Goats were made scapegoats in entire JFM project areas, and goat rearers were forced to sell their animals. In 2002 it was found that in the majority of Van Samdraksha Samiti (VSS), or forest protection committees, no regular elections to the management committee were being held. In some committees, meetings were held because they were mandatory to draw money from the World Bank. While allotting works (providing wage labour opportunities), outsiders were given preference over VSS members-whereas the opposite should have been the case.

The success of JFM programmes depends on the long-term sustainability of these institutions. It is necessary that forest department, people and the broader government have a firm commitment to policy, and the process of democratisation has yet to be strengthened.

Source: V.R. Sowmitri, G. Satya Srinivas and B. Venkat Reddy, Andhra Pradesh NGOs Committee on PFM, Hyderabad, personal communication 2004 An additional concern is that the benefits that flow from collaboration are often paltry in comparison with the overall wealth of the forest resource and often restricted by the state to products and services that are of minor commercial significance. In devolved and shared forms of collaboration, the forests 'handed over' to communities are often degraded resources.

There are various factors that militate against CFM becoming a mechanism to achieve social justice and local participation in forest management. Drawing from Arnold (2001), these include

- vested interests unwilling to devolve power to new forest management partners,
- 'community participation' becoming vulnerable to capture by community elites and
- protagonists which promote collaboration for reasons completely other than those linked to advancing social justice.

The first two of these are discussed further below, with examples.

# 3.1.1. Vested interests unwilling to devolve power to new partners

The benefit flows to local communities from CFM programmes are often unduly modest because of the state's unwillingness to allow an equitable share of the returns from commercial exploitation to accrue to local users (after retaining a reasonable portion to cover management costs). In Nepal, restrictions on the transportation of forest products and, more recently, the (unimplemented) government attempt to restrict any commercial harvesting in community forests have indicated that devolution of power to communities is still not fully institutionalised.

Unwillingness to devolve power can be rooted in a genuine belief in the supremacy of technical, 'scientific' approaches and doubts about the advisability of an increased involvement of local politicians and community leaders in resource management. Feigned government concern, however, at the purported unreliability of local people ('as soon as you give them the forest, they'll destroy it'), and thus the need to maintain full jurisdiction over public resources, is now largely discredited as no more than an excuse to hold on to power-for instance the power to disburse budgets, occupy secure government positions and dispose of valuable forest products-and the opportunities for personal gain such power provides. Referring back to Box 9 on CFM in Kyrgyzstan, it may be noted that even in a country where the technical supremacy of the forest agency was previously unquestionable (and unquestioned), it is now accepted that the quality of forestry work conducted by local people can be better than that implemented by the agency itself. A similar finding of improved forest management under community forestry has been made in Nepal (Malla 2001).

A recent diagnosis of policy-based reasons for underperformance in some aspects of JFM in India is instructive. Based on a number of studies, Damodaran (2003) argues that the entire JFM exercise can be seen as 'a battle between the Centre and State Governments to operationalise their respective policy and property right perceptions on forests'. This argument is further substantiated in Box 21. While the central government aimed to achieve a balance between the needs of conservation and local livelihoods, the tendency of state governments was to exploit the general nature of the 1990 JFM circular issued by the Government of India to ensure the prevailing system of property rights and forest governance was maintained. This view, however, is perhaps a little stark; Vanita Suneja (personal communication 2005) points out that the central and state officers are often 'faces of the same coin', with officers at the ministry being on deputation from the state cadres. Nevertheless, the point remains that different views and tendencies often exist within one government agency.

The developments in JFM over the last decade illustrate some of the obstacles and counter-tactics an agency must overcome if it is to successfully re-instate a balance among conservation, community, and industrial interests in a forestry sector. A particular lesson learned from the JFM case is that general exhortations are insufficient to effect change; practical details need to be carefully worked out and persistent, strategic efforts made on many fronts (legislation, planning procedures, memoranda of understanding, job descriptions, finance, propaganda) to put a viable collaborative framework in place.

In European and North American countries, where there is generally a degree of openness and rationality in forest governance, these struggles are often played out in public debates and protests against an overt industry bias (refer back to Box 12, on debate in the USA). In developing countries, where the state bias towards industrial or other interests may be

### Box 21. Central versus state government priorities for JFM in India

Since 1990 (when the Government of India issued the first JFM circular), the focus of the central government has been on a 'graduated shift in forest property rights through a systematic revival of the role of local communities in forest management'. This thrust is in keeping with a general move to decentralise development decision-making to local levels, as set out in the 73<sup>rd</sup> amendment to the constitution, which vests many powers in the Gram Panchayat, the lowest level of administration. While forest policy makers at the centre sought to balance 'conservation with the needs of local communities', the old thinking, which deemed protection and conservation to be the overriding objective, persisted amongst state governments (with the exceptions of Haryana, Punjab and Jammu and Kashmir).

'The contradiction between the policy intent of the Government of India and the policies pursued by the State Governments lay at the roots of the ineffectiveness, inefficiencies and negative ramifications of the JFM process in India'. In 2000 and 2002, the central government issued new circulars in an attempt to tighten the loopholes that had hitherto hampered the functioning of VSSs. The loopholes included:

- lack of legal status and financial and executive powers for VSSs
- arbitrary powers on the part of the forest department in certain states to dissolve VSSs
- absence of participation by women in spite of their formal representation in VSSs
- unreasonable control over the duration of exploitation of admitted resources leading to lower exploitation of admitted NTFPs far below their regeneration potential
- total exclusion of grazing practices even though it was undesirable
- denial of valuable NTFPs to VSSs on the grounds that they are nationalised and therefore the cooperative corporations have a monopoly on their use.

The 2000 and 2002 Guidelines on JFM Issued by the Government of India for strengthening JFM in the light of experience since 1990 included the following provisions:

- legal backup for JFM committees<sup>8</sup>
- memoranda of understanding to be signed by state governments and JFM committees, clarifying roles and responsibilities
- JFM programmes to cover both degraded and nondegraded areas<sup>9</sup>
- all adults of the villages to become members of the JFM committees
- quorum for holding meetings to be one third of women executive members
- JFM committees to be given authority to act and adequate monetary and other incentives to participate as genuine stakeholders
- microplans to reflect the livelihood needs of local communities and to account for market linkages for better returns on NTFPs
- national multiple stakeholder JFM network to act as mechanism for consultation between various stakeholders.

Vanita Suneja (personal communication 2005) nevertheless notes that an important reason for the guidelines not being taken seriously was that they were suggestive by nature, rather than binding like Government Orders.

One of the challenges for the future is to integrate JFM committees into the working of the Gram Panchayats as complementary, democratic, local institutions. Views on the feasibility of this approach vary, but as the local level of administration, empowered under the Indian Constitution to decide on local development issues, Gram Panchayats cannot be ignored.

Based on Damodaran (2003) (with minor additions)

<sup>&</sup>lt;sup>8</sup> The 2000 Guidelines stated that all VSSs and management committees be renamed JFM committees.

<sup>&</sup>lt;sup>9</sup> In good forest areas JFM would concentrate on NTFP management and would not deviate from working plan prescriptions. Timber would be distributed only if the committees had satisfactorily protected the forests for at least 10 years and the sharing percentage was not to exceed 20% of the revenue. The implementation of JFM in good forest areas had to be done on a pilot basis, which had to be monitored carefully.

covert and at odds with stated policies and norms, a programme of enhanced participation risks exposing long-standing anomalies. In such countries, creating an environment in which a balance of interests is possible and collaboration can flourish is extremely difficult, and opposition to increased participation can be particularly intransigent.

The experience of collaborative forest management in southern Ghana is instructive. The framework of forest governance in Ghana is rooted in systems devised to serve a colonial interest in timber and other cash crops, and later harnessed by politicians, timbermen and co-opted forest department staff in post-Independence Ghana. (Ghana achieved a degree of self-governance in 1951 and Independence from the British in 1957.) In 1994, the Ghanaian government promulgated a new forest policy, which arguably for the first time in a century 'provides Ghana with a rational Policy that operates in the interest of all segments of society' (Smith 1999). A central feature of the policy is an attempt to re-assert the legitimacy of community interests (through CFM) alongside national interests. The government underestimated the degree of covert intransigence it would face in introducing the new policy. Smith (1999) identified the diverse mechanisms that maintain the forest governance status quo in southern Ghana (Box 22).



As in India, the government of Ghana gradually realised the extent of the legislative and procedural change and public support needed to implement the new policy (Box 23).

# Box 23. Extent of changes needed to effect new forest policy in Southern Ghana

The forest estate of southern Ghana should serve multiple functions of watershed protection, biodiversity conservation, maintenance of local livelihoods, supply of industrial raw materials and revenue generation. To overturn the pre-eminence of timber exploitation and put in place a new, rational framework for forest governance requires far-reaching changes, including:

- stakeholder involvement in strategic planning for reserves, clarification of roles and responsibilities
- local collaboration in forest management operations (including cash contracts for communities)
- reform of forest department staff to become professional foresters working to implement agreed strategic plans (instead of being *de facto* timber agents)
- timber companies as contractors or forest users, not *de facto* resource owners
- competitive tendering for timber contracts, outlawing discretionary allocation by forest department
- enforceable standards for forest department revenue disbursement to communities
- independent databases to inform policy and the general public
- public debates on forestry and broadbased working groups to inform policy
- recognition of the considerable local knowledge of tree management on fallows
- re-focussing on rural economies (not just exports) and the value of NTFPs

Based on Smith (1999)

The Ghanaian and Indian cases also demonstrate that resistance to collaboration can no longer be viewed as a simple clash of state and community interests. Government forest agencies are rarely monoliths; forestry departments and ministries are characterised by internal cliques and divisions, some championing the introduction of collaboration and some working against it.

The cases referred to above also illustrate the degree of change often needed to encourage collaboration, and the depth of resistance. A lesson learned in recent years is that a soft (often donor-supported) approach to enhanced collaboration, using methods such as participatory toolkits and capacity building, is unlikely to succeed on its own (e.g. Bryant and Bailey 1997).

A renewed focus on public sector reform in the North, however, and good governance (and sustainable livelihoods) in the South, has led in recent years to more determined calls for genuine and far-reaching forest sector reform. The possibility of tackling vested interests under the general rubric of good governance (see Box 24), poverty alleviation and sector approaches (such as national forestry programmes) may increase the chances of collaboration succeeding in the future. For example, in seven African countries, the informal Forest Governance Learning Group is exchanging experience and ideas on forest governance. Constituted in August 2003 and facilitated by IIED, the group comprises interested individuals belonging to independent agencies and governments in Ghana, Malawi, Mali, Mozambique, Niger, Uganda and-most recently-South Africa (Mayers et al. 2005).

# Box 24. What are the elements of good governance?

The following factors are generally perceived to be some of the indicators of good governance:

- rule of law and compliance with rules and decisions
- transparency and accountability
- decentralisation and devolution of power and authority
- defined roles and responsibilities
- participatory decision making
- gender sensitivity, equity, representation and power balance
- bidirectional flow of information horizontally and vertically

#### Based on RECOFTC (2002)

Turning to communities themselves, access to information and information exchange, and the use of technology to this effect, is becoming an increasingly important tool in the empowerment of forest users. This truth is strongly demonstrated in Nepal, where forest user groups are now organised into networks (Shrestha and Britt 1998; Arora-Jonsson 2000). As a result, users have gained a greater voice, and can now bring greater influence to bear on decision makers. While power is often viewed as a 'zero sum game' (that is, one interest group has to lose power for another to gain it), this is not necessarily so (Jackson personal communication 1999). Situations can arise in which many parties gain in power, as (potentially) in the case of improved information exchange. Another example of forest users networking and gaining political voice is found in Costa Rica (Box 25).

A common feature of forestry sector reform is the growing privatisation of what were public functions in forestry. Arnold (2001) cautions that there are risks to communities from increased privatisation (and from market liberalisation that exposes communities to market forces). An increasingly challenging aspect of social justice in collaboration is the creation of equitable partnerships between the private sector and local communities. Equitable partnerships in timber production regions are often focussed on outgrower schemes or attempts to ensure concession operations are undertaken in a socially responsible manner, for instance in Ghana and Indonesia. The right of local communities to compete for contractedout services in public forests is also an issue in some countries.

# 3.1.2. 'Community participation' vulnerable to capture by community elites

This section focuses on the vulnerability of new community-based arrangements to capture by one group within the community. As Damodaran (2003) notes in the case of JFM, 'the only moot issue is the extent to which these initiatives [new JFM circulars] promote social equity. It is quite likely that in the absence of free and fair elections to Management or Executive Committees, dominant economic and social groups would control the Forest Protection Committees. This could further marginalise the socially and economically weaker stakeholders from the process.'

Recent studies in Nepal, taking into account the full costs of devolved management to community members, have also concluded that the net returns of collaboration to the poor can be negative. In the early days of social

### Box 25. The national smallholder forestry assembly of Costa Rica

In the mid 1990s, Costa Rica's primary forest cover was estimated at 35% of the national territory, just under one third of which was in private hands. Much of this area consisted of small patches of forest scattered on smallholdings. Past policies offered no incentive to manage and expand these patches of forest. Smallholders were poorly organised and had little capacity to influence policy decisions. However, an IIED study (Watson *et al.* 1998) found this situation to be changing.

Junta Nacional Forestal Campesina (Junaforca) was established in 1991 with the mission to 'integrate, strengthen and represent medium and small farmer organizations so that they may contribute to development through the appropriate use of natural resources'. The 56 organisations that made up Junaforca varied in character, but at the time of the study represented 27,000 producers across Costa Rica.

Through negotiation at national level, Junaforca gained support for the establishment of regional organisations, and became involved in policy dialogue. Known for producing clearly formulated proposals on policy issues, Junaforca became accepted as a discussion partner by government organisations, participating, for example, in the National Forestry Office and the National Forestry Finance Fund. It has worked on various national commissions and has facilitated discussion on forest certification. In creating bottom-to-top links among local initiatives, regional organisations and national-level policy, Junaforca generated 'significant political space for small-holder forestry'.

Source: Watson et al. (1998)

### Box 26. Creating equitable company-community partnerships

The use of partnership schemes for industrial wood supply is now well established and their popularity is growing rapidly. Equitable partnerships operate on the basis of empowering smallholders and communities in negotiation and management processes. Equitable partnerships recognise that while the principal objective of any private-sector involvement is financial, principles can be laid down that help companies to negotiate lower-risk partnerships with communities and smallholders resulting in less conflict and measurable positive impact on communities. The same set of principles can also enable smallholder groups and communities to negotiate better deals with respect to planting and harvesting rights, tree species, products and payments, which in turn enhances their livelihoods. Partnerships are thus based on financial and business principles—within a framework of equitable social and environmental indicators (CIFOR and FAO, 2003).

An IIED study of 57 examples of company-community forestry partnership in 23 countries found that the main impacts could be generalised as follows.

- Some of the main mutual benefits arising out of company-community forestry deals are:
- · clear economic advantages, for both company and community
- enterprise diversification, such as expanding the resource base of raw materials for companies or encouraging mixed cropping for households
- new opportunities, including development of skills for communities and new business pathways for companies
- achievement of corporate goals, from profitability and market standing to staff development and public responsibility
- · contribution to security of land rights for communities or individuals
- · development of infrastructure for communities
- sharing of risk (e.g. allocation of production risk to growers and market risk to companies in a typical outgrower scheme)
- better job opportunities
- positive environmental effects (in some cases)

Issues on which partnerships so far have produced unproven or neutral impacts include:

- poverty reduction—for most communities, partnership activities are supplementary rather than central to livelihoods
- conditions of employment
- development of collective bargaining power

The most common problems encountered are:

- high transaction costs on both sides
- misunderstandings between partners, leading to financial losses or litigation
- · perpetuation of low-wage labour and inequitable land distribution
- negative environmental effects (e.g. where natural forests are cleared for plantations, where plantations are badly managed or promote the spread of exotic species)
- exclusion of disadvantaged community members (when possession of land and other initial capital resources is required)

Source: Mayers and Vermeulen, 2002

forestry, the priority was often to 'convince' communities to participate in new development programmes. Increasingly, concerns are being voiced about who benefits from devolved management (see Box 27).

management (see Box 27). qu Challenges at the community level when to attempting to facilitate CFM include the following:

 Avoiding the domination of decision-making by elected representatives (e.g. forest committee) or certain interest groups (e.g. political or social elites, men); systems or quotas by themselves are often insufficient to ensure representation of all groups.

### Box 27. Voicing concern over equity in community forestry management

Liz Alden Wily, an international development consultant based in Nairobi, states: 'Despite the progress and hopes, the process of facilitating community-based natural forest management is clearly not inviolable. It may be corrupted on the one hand, or diluted through everaccelerating replication, on the other... It has not been uncommon at some point or another, for one or two more powerful individuals to attempt to reconstruct control of the forest to their own ends.'

Source: New Agriculturalist on-line. Points of view in Community Forest Management. 2004. www.new-agri.co.uk

'Securing rights of access for the poor can be difficult—methods such as PRA [Participatory Rural Appraisal] proved inadequate—almost everywhere women's interests are not heard. Transaction costs of building new organisation are high and new committees can effectively privatise the resource if they are not held accountable. There is a tendency in response to go for smaller institutions, e.g. user groups and more emphasis on negotiation, conflict resolution methods, targeting the poorer sections and building their confidence.'

Source: Arnold (2001)

'Community based timber projects [in Brazil] represent an effort to transfer some government forest decision making and administrative power to local people and to improve their standard of living through the production of timber. The failure to address gender issues in these projects, however has resulted in men having almost exclusive access to and control over the management and selling of timber.'

Source: Porro and Stone (2005)

- Ensuring that certain views are not suppressed; this may be a particular risk when it is officially required that decisions be reached by consensus.
- Incorporating locally recognised rights and forest management practices; these may in some cases give greater benefits than the new laws, but in others the reverse is true.
- Maintaining transparency and fairness over eventual benefits, particularly regarding commercial harvesting and processing, and who controls it; in many cases, users have received less than the expected benefits.
- The question of whether benefits should be weighted towards the poor or be divided equally amongst all users; this issue may best be left to local-level negotiation.
- Giving consideration to those who have no access to forest or access to only poorquality forest; this issue concerns not only the benefits provided by the forest itself, but also the development of benefits that may be associated with forestry projects, e.g. in Scotland (Inglis and Guy 1996/7; Jeanrenaud and Jeanrenaud 1996/7).

The full complement of forest users and their existing rights needs to be carefully identified in order to generate healthy management agreements based on inclusive negotiations. Acknowledging the diversity of local interests in a forest requires time and sensitivity, lest a minority group is overlooked or misunderstood. When the users of a forest resource are highly diverse, geographically scattered and include migrant populations (as in the example of Mount Cameroon, Box 28), acknowledging and involving all stakeholders becomes even more of a challenge.

Even where resource users are all located in one or a few discrete settlements, involving all parties is not easy. Those with power and influence tend to dominate official meetings. The views of socially disadvantaged groups, which may be particularly dependent on the forest, are unlikely to be considered unless a deliberate attempt to involve them is made.

At the heart of many forms of CFM are committees, established to negotiate or implement management agreements. Stakeholder representation on forest management

committees is often skewed and, in some cases, 'community representatives' have become the proxies of the government service that helped establish them. A study by The Energy and Resources Institute (TERI) of JFM areas in India observed inequality in protection committees covering several villages or hamlets. The study recommended that this disparity be avoided by 'government resolutions that ensure representation of all hamlets or all villages on the protection committee. The sharing of responsibilities on a rotational basis would also improve access to equal opportunities. The executive committees and the general body should ensure that women, landless and those below the poverty line have a representation in the JFM institutions. In the Karnataka resolution, of the ten elected members on the executive committee, one seat is reserved for landless labourers, and one for village artisans.'

An important emerging lesson is that collaboration does not necessarily—and in fact usually does not—mean consensus, but rather 'agreement to disagree'. Equity may be a distant goal, but at least CFM approaches should not entrench or promote inequitable power structures, or become a mechanism for excluding certain interest groups. Equity issues are being particularly highlighted where successful forest management has resulted in once degraded forest resources becoming commercially valuable, but mechanisms for the distribution of benefits have not been fully established (Falconer personal communication 1999). One lesson learned from the experience of developing company-community partnerships is that legitimate interest groups need to be able to sit at the negotiating table as equal partners, free of fear of victimisation or coercion. Increasingly, the facilitating agency is required to ensure negotiations are equitable, for instance by refusing to devolve power until equity is apparent or by boosting the confidence of weaker groups.

Incorporating local rights and forest management practices may give greater benefits than the new arrangements in some cases, but in others the reverse is true. In the early years of CFM there was general and often uncritical support for any form of indigenous custom or practice. More recently it has been recognised that building on local, indigenous institutions runs the risk of perpetuating nonparticipatory practices, particularly if local protection regimes are enforced through coercion and even violence, and underpinned by private capture of common resources. Gender inequity may also be a particular issue in this case, as traditional management practices are often male-dominated (one commonly quoted example is the Solomon Islands, where customary law is dictated by men) (Pimbert 2004).

# Box 28. Re-thinking the concept of community on Mount Cameroon, West Africa

The Mount Cameroon Project was set up to introduce participatory natural resource management approaches into the region around Mount Cameroon. The project found that organising users into stakeholder groups was difficult when some users were (a) more influential than others, e.g. urban interests involved in the lucrative bush-meat trade; (b) widely dispersed, e.g. farmers with forest plots who come from distant settlements; or (c) regarded as 'strangers' (migrants) by the indigenous peoples.

The project realised that the prevailing concept of 'community' had been oversimplified, and that three different types of community could be identified:

- communities of interest, e.g. Prunus exploiters, legal and illegal traders and forestry services
- communities based on tribal or ethnic allegiance
- communities based on locality

The rethinking of 'community' had a profound effect on project policy: a stakeholder forum involving all key stakeholders and resource users was initiated to develop land use options that were acceptable to all concerned. Secondly, all activities with resource users were located on site (e.g. in the forest for timber exploiters, on farms for farmers) rather than in settlements.

Source: Brocklesby et al. (1997)

In countries where equity is of growing concern, the key question is often whether or not to institute explicitly pro-poor measures and management prescriptions. For instance, TERI in India argues that equity should not mean equal, but rather that the needs of the underprivileged be catered to first. Similar arguments are also increasingly being voiced in Nepal; see Box 29. TERI advocates giving priority in all wage labour and employment activities to the landless, marginal farmers, Scheduled Tribes and those below the poverty line (TERI 2003). As an example of the marginalised being given priority, in the southern Indian state of Tamil Nadu a government order that came into force in April 2003 specifically gives tribal peoples the right to harvest NTFPs free of charge. Proposed legislation at national level, the Scheduled Tribes (Recognition of Forest Rights) Bill (which is awaiting cabinet approval at the time of this writing), will give legal rights to forest products for tribal peoples across the country. However (mainly because it goes beyond the provision of rights of access and use, and proposes the allocation of plots of forest land to tribal families), it has generated sharp controversy—with the Ministry of Tribal Affairs supporting the bill in the face of repeated objections from the Ministry of Environment and Forests and conservation activists. As an indication of the thinking that prevails amongst the latter, one activist, Valmik Thapar, is quoted as saying 'The draft Bill makes a mockery of all conservation efforts. Give them land rights today and expect total chaos as their population grows' (RECOFTC 2005).

In the early days of collaborative forestry, benefits to communities were primarily a matter of simple forest usufruct, ensuring that the basic needs of communities for wood fuels and other products were met and degraded resources restored. As Arnold (2001) notes,

### Box 29. Community forestry in Nepal: pro-poor measures

In Nepal, there are now over 10,000 forest user groups, each managing an average of 50 ha of forest. A recent study examined the distributional impact of community forestry in two such groups. The results indicated that when all the management costs and benefits were taken into account, poor users are getting negative benefits, while middle-income groups get the highest net benefits followed by rich households. The study concluded that the views of the weaker sections of the community were not incorporated into agreements. Forest management and distribution systems were mostly controlled by the local elites, and community forestry extension alone cannot be expected to reorient the entire sociopolitical structure.

Pokharel and Nurse (2004) propose a number of explicitly pro-poor strategies in order to address the livelihood needs of the poor in community forestry:

- identification of the poor at hamlet and household level on the basis of specific criteria for poverty and social differentiation, using well-being ranking
- improved governance of forest user groups (to create an environment for equitable decision-making and benefit sharing), using governance coaching (e.g. ensuring user group funds accounts are kept and available for scrutiny)
- pro-poor integrated development planning to gain an understanding of the priorities of all user group members, including the poorest, in forest- and nonforest-based activities
- strategic alliances among government, project and NGO service providers to support and implement the chosen activities, both forest- and nonforest-based

Forest-based pro-poor activities suggested by Pokharel and Nurse include:

- forest land allocation to the poor, e.g. through leasehold forestry
- free subsistence products to the poor
- inclusion of poor in study tours and workshops

Nonforest-based activities include fund mobilisation for

- low-interest loans for livestock promotion
- relief from shock of natural disaster, bereavement or ill health
- scholarships for poor children

Based on Bhattarai and Ojha (2001); Pokharel and Nurse (2004)

# Box 30. Impact of a forest fire management programme on rural livelihoods in Namibia

'Life in East Caprivi is full of uncertainties. Community members interviewed considered damage from wild fires as one of the many risk factors that affect their lives. The Integrated Forest Fire Management Program was established to reduce fires in East Caprivi region of Namibia in order to improve the living standards and the environment of the local people. The two main implementation strategies were provision of temporary employment through subsidized cut line work, and protecting people's subsistence base and income earning opportunities by reducing the incidence of "wild" fires.

'Livelihoods analysis of the impact of the two strategies found that the contribution to the enhancement of local livelihoods would have been larger when fire would have been addressed in a more integrated manner and cut lines would have been offered as one of the options from a whole package of techniques and strategies.

'The issue of different costs and benefits of fire management according to tenure zones and (intensity of) land use has not been addressed at all. It is likely that areas or resources under a relatively extensive land-use system and a common property tenure regime will benefit more from a holistic strategy aiming at reducing the possible impact of wildfire (e.g. by influencing grazing pressure; water supply). Areas or resources under more intensive use (e.g. thatch grass; pastures nearby village centre) on the other hand might benefit more from strategies towards the protection and more optimal use of fire (e.g. controlled prescribed burning).

'From a livelihoods perspective, there is a need to move away from a blueprint approach focussed on forest fire prevention towards a more people-centred and broader resource management perspective. Only then will both the people and the forest benefit in an optimal and socially and economically sustainable manner.'

International Forest Fire News No. 25, July 2001

approaches have shifted away from forest product supply towards understanding the possible role of trees and forest products in generating sustainable livelihoods-and removing the constraints to this goal-be they in terms of natural, physical, financial or human and social capital. Adopting a 'livelihoods approach' requires a deep understanding of the strategic importance of a forestry activity in the lives of different members of the community. This is an enormous shift from the days when CFM interventions could be designed around simple forest product supply and demand gaps. These developments have significantly changed the nature of the partnership underpinning CFM, as the collaborating agency (e.g. forest department) or NGO service provider is increasingly expected to facilitate complex and 'holistic' livelihood support processes. Box 30, drawing on the example of a forest fire management programme in Namibia, illustrates this point.

Concerns for equity in benefit sharing and increasing use of livelihoods analysis have led agencies to take a broader and more sophisticated view of benefit flows. Opportunities for obtaining loans from CFM funds, gaining wage labour, building 'social and human capital' and building forest-based enterprises all now come under the ambit of 'benefit flows'. Rules and norms to govern benefit sharing and ensure equity in distribution become increasingly necessary.

Taking a still broader view, Nurse (2004) notes that 'in macro-level poverty literature and policy making, generally little recognition is given to the role of forests. There remains great potential to improve the way forestry is perceived in poverty reduction or prevention, with much scope for integrating forest issues into poverty reduction strategies. Furthermore, in most countries, tangible benefits from community forestry have barely started to flow because of the considerable lag time between the establishment of effective community forestry regimes and the commencement of utilization. Hence, the potential future benefits are clearly enormous. The challenge for the future is to see how the significant benefits that can accrue from the management of forests by communities can be used explicitly to alleviate rural poverty.'

### 3.2. Is CFM economically viable?

The potential for income generation through CFM has been widely recognised for some time (Victor 1996). Such opportunities from wider sources-ecotourism, or nonforest-based activities-are also much discussed. Ecotourism tends to require considerable investment to provide the necessary infrastructure and may not necessarily result in substantial returns to local people. Nonforest-based activities, ranging from livestock programmes to sewing workshops for women, may result in improvements to local livelihoods, but are difficult to link directly to forest activities. A major challenge for CFM appears to be making this link between sustainable, productive forest management and improved livelihood opportunities. Although it is mainly degraded or low-value forests that are under CFM, through effective management they can produce a range of timber and nontimber products.

Unfortunately, however, forest productsparticularly timber-are often undervalued, whilst other positive uses of forests, such as biodiversity conservation and environmental protection, are all too rarely attributed a market value. This problem seems to be particularly acute in Latin America, where timber prices have been depressed due to oversupply, often from illegally logged, un-managed sources. Virtually all forms of land use other than sustainable forest management tend to be far more profitable. In a detailed review of the literature for Latin America, Richards (1999) found that the prospects for local communities generating income through sustainable natural forest management were not encouraging. He noted that returns from natural forest management were likely to be low because of slow natural growth and high discount (or interest) rates. High discount rates encourage forest mining, not forest management.

Ease of access to forests and low capital and skills requirements enable large numbers of people to generate some income from forest products—though rarely enough to escape poverty altogether. The elites are likely to capitalise on lucrative products such as timber and the poor to engage in labour-intensive, household-based production like basket making, activities with low returns and soon abandoned when better options arise. At the same time, these low-value products can provide a good entry point for developing market opportunities for poor groups exactly because they are less likely to be of interest to elites. At the local level, key issues in promoting income generation from forest products include:

- Access to resources: local people's rights to harvest, including for commercial gain, must of course be clear.
- Forest management: technical knowledge (e.g. for multiple NTFP production) may be limited. Focussing on products that do not involve destructive harvesting may be a wise choice.
- Forest certification and eco-labelling: particularly in the case of timber, certification and eco-labelling may provide an opportunity for improving revenue, but it must be balanced against the costs of certification (which can often be high, and only worthwhile if conducted on a relatively large scale or with considerable help from third parties).
- **Processing** should focus on adding value at the local level. It often requires an external input of credit and technical advice.
- Marketing: the marketing of many NTFPs as well as timber is often heavily controlled both by the state and/or through chains of brokers and agents.
- Equity in benefit distribution: NTFP collection is often the traditional domain of women and the poor. Equitable benefit distribution though CFM is a major challenge, requiring transparency in accounting and firm mechanisms to prevent powerful influences from taking control.

At the national level, the successful improvement of income generation for local people through CFM represents a double-edged sword. On the one hand, it has potential for significant poverty alleviation and major improvements in sustainable rural livelihoods, particularly if the poorest members of forestdependent communities are specifically targeted. On the other hand, the more wealth is generated through such forests, the more concern may arise about the transfer of national assets from the state (and state control) to a limited group of individuals at local level. This redistribution is now an issue in Nepal, for example.

Governments often perceive CFM as a means of shifting the costs of forest management from state to local level. However, CFM approaches entail substantial transaction costs (Vira 1997) in determining roles, negotiation, establishing cost and benefit sharing arrangements, monitoring and evaluation. To date, these financial costs have often been borne (in recipient countries) by donors, frequently in the form of grants. Essentially, CFM in such situations tends to be slow and costly to set up, if eventually cheap to run. In a detailed review of devolved forest management in a number of Asian countries (notably China, India and the Philippines), Edmunds and Wollenberg (2003) found that devolution of forest management had indeed reduced the cost to the state, but, paradoxically, had also resulted in increased state control. They also noted concern that it was often the poorest who suffered in this process.

An important issue to consider if the introduction of CFM is funded by loans is that it may be difficult to raise funds directly from CFM to pay back such loans. This is especially the case if optimal financial returns from forest management are not permitted (that is, focus continues to be placed on subsistence versus commercial production; see below). The issue of who pays for the costs of conserving biodiversity and the protective functions of forestswhether local people should be expected to perform without direct compensation a function that is for the wider good-is only now being seriously considered (e.g. Madagascar; see Box 6). Payment for Environmental Services is now a topic of considerable international interest, but there is little practical experience of mechanisms by which local people can benefit through CFM (or otherwise).

# 3.3. Has forest management improved?

To what extent has collaboration delivered on the promise of improved forest management, in terms of both resource condition and management practice? Sufficient evidence has accumulated to indicate that CFM approaches can result in improved ecosystem functions and quality, primarily through enhanced protection of the resource from unregulated open access, destructive practices such as wildfires and through exclusion of outsiders. Also, the first decisions communities make upon assuming management responsibility tend to be quite conservative, focussing on protection and regeneration of the resource. Experience shows that devolved management can also improve the quantity of forest area and products, as well as, for the local people concerned, the maintenance of part of their cultural and spiritual identity.

Emphasis is now shifting, however, to protection through sustainable production of multiple, timber and non-timber products. The potential of commercial production is becoming increasingly apparent as a means of income generation for forest users, stepping beyond originally perceived subsistence needs. Because of the multiplicity of forest products involved, collaborative management invariably creates a need for innovations in forest management practice. This push creates new challenges for the forest management partnership in order to combine the scientific principles of the professional forester with the site-specific experience of the local forest managers.

CFM experience has taught many foresters to respect and value indigenous knowledge systems and organisational mechanisms. There is an art, however, to incorporating the positive aspects of these into new management systems, which is not always achieved. Donovan (1999) has argued that CFM is failing at this juncture, for this and other reasons (see Box 31).

Donovan (1999) has rightly called for increased collaboration in silvicultural action research. The author also highlighted a number of the institutional reasons why this is difficult to promote in many forest bureaucracies-in which innovations may be regarded as subversive, rather than being encouraged and rewarded. However, there are also many positive examples of innovative, small-scale forest management practice based on participatory action research. Two examples of technical innovation are given in Boxes 32 and 33, the former looking at participatory approaches to land demarcation and assessment, the latter at thinning methods. Other areas of innovation are silvicultural techniques and tools for assessing sustainable levels of harvesting by local people (e.g. Branney 1994; Carter 1996) and criteria and indicators by which sustainable forest management can be assessed and monitored with or by communities (e.g. Prahbu et al. 1998; Patricia Shanley, personal communication 1999).

Major technical challenges nevertheless remain, particularly in developing appropriate management strategies for multiple plant types (not just trees) and, more generally, in adapting methods and tools to different forests and social settings. There are also dangers in generating overly sophisticated management techniques or prescriptions that reduce the autonomy of the group or exclude illiterate community members.

### Box 31. Where is the forestry in community forestry?

According to Donovan (1999), the focus of CFM over the past two decades has been mainly on forest organisation, while the technical aspects of forestry, especially the scientific elements, have effectively been marginalised.

'As community forestry developed, most forest departments could offer technical assistance only in prescriptions for plantations of exotic species or natural forest management for a few industrial timber species. Instead of re-evaluating production objectives and reorienting silviculture research, foresters often just scaled down operations, or concentrated on delivering forestry concepts through extension programmes.

'The tendency in community forestry has [thus] been to abandon "scientific" forestry and revert to traditional systems, most of which are protection oriented. These systems rely mainly on limiting access to forest resources to prevent over exploitation and to preserve the natural regenerative capabilities of the forest. Levels of outputs, as well as inputs, often remain relatively low reflecting the failure to develop opportunities for enhanced non-destructive exploitation with improved silvicultural techniques.

'The participatory planning and "learning-from-locals" techniques applied to the development of new systems of forest management were less often applied to the . . . development of silvicultural systems. In effect the forestry profession has failed to bring its greatest strength—the understanding of the scientific principles of forest ecology and the protocols of forestry research to bear on the development of more productive silvicultural systems for natural forests under community management.' Contributing factors include (a) the pressure from higher authorities for immediate actions; (b) the low level of support given to forestry research; (c) the preference of many government departments to work by fiat and formulas rather than facilitation; and (d) the limited recognition of the existence, validity or utility of local knowledge.

'Support for applied or "action" research is a hard-won victory in many instances. Hopefully this will change as rural people increasingly resist the planting of only a few, often foreign, species in their community forests and demand assistance to address their specific needs.'

Source: Donovan (1999)

# Box 32. Community empowerment through map making: extractive reserves, Brazil

Extractive reserves are owned by the federal government of Brazil, but resource use is bequeathed to traditional local users, including rubber tappers. The nearly 1 million ha Chico Mendes Extractive Reserve (CMER) is populated by a variety of communities and contains areas rich in mahogany. Until quite recently, the most up-to-date geographical information about the reserve consisted of 1:100,000 scale maps based on 1977 surveys. The local rubber tappers needed more accurate information for management planning and as a basis for negotiations with Brazilian and international agencies.

A new mapping process used satellite images to plot the location of families living in the CMER. Residents were then presented with the satellite images and asked to name the family clearings. The tracing-paper maps thus produced were transcribed into 1:100,000 scale maps by government technicians. Lastly, a digital map was produced. The mapping of the CMER served two purposes: (1) to generate key information for reserve management, e.g. showing the incursion of loggers and the establishment of agroforestry systems, and (2) to encourage rubber tappers to learn more about their reserve and to acquire skills in mapping and natural resource management.

The use of high-technology equipment can be criticised for taking information out of community hands. This problem can be avoided, however, if communities are in charge of the process and the end use of the maps. There is the risk that the new maps will be used by unscrupulous outsiders, for example to identify rich timber areas. However, the community awareness generated by the mapping has given optimism that such tactics will be resisted.

Source: Foster Brown et al. (1995)

# Box 33. Innovative small-scale forest management in Nepal: thinning regimes

A guidebook to help forest department staff, NGOs and forest user group members prepare operational plans for productive use of community forests has been produced in Nepal. The guide contains advice from professional foresters, traditional practice of forest user group members and new knowledge based on 'learning by doing' in community forests. The general guidance on thinning includes the following:

- If the crowns of trees are not touching or canopy density is less than about 60%, thinning is probably not needed.
- It is usually safe to remove about 30% of the trees or stems in one thinning.
- Before thinning make sure you know what the management objective is.
- Most forest user groups are finding that a space after thinning of 2-3 m between trees is best for young, pole-stage forests.
- The appropriate interval between thinnings varies, but can be five years in young forests.
- Some forest user groups mark trees to be kept with paint. Trees that are to be cut can then be marked or slashed with a knife or axe.
- Lest there will be chaos, mark trees before getting all the users to come and cut them.
- Thin forest in winter or early spring (before March).

Source: Branney et al. (2001)

In addition to the development of new silviculture for small-scale community forests, collaborative approaches, combining different types of expertise, are also proving their worth in solving forest management problems in large-scale public resources. In Canada, the Model Forest programme has used partnerships to develop new harvesting systems and integrated forest management planning processes and to protect rare species (refer back to Box 13).

Smith (1999) reports the enthusiasm of community leaders and professional foresters in Ghana at the outcome of a participatory planning workshop: by publicising their technical work (inventories, sample plots, etc.) professional foresters garnered new esteem, while community leaders found their freely given, site-specific knowledge (e.g. the location of seed trees) was in fact invaluable.

# 4. Where Is CFM Most Likely to Work?

This section reviews our understanding of the factors that determine whether CFM is likely to succeed. Under what conditions is CFM most likely to be appropriate, and how (if at all) can these be promoted? This question needs to be examined both at the local level and at broader institutional and political levels. The section

ends with a brief consideration of regional differences.

# 4.1. Forest management at the local level: theory and practice

Locally, lessons from common property resource (CPR) theory (particularly, Ostrom 1999) can provide insight into some of the social dynamics and forest characteristics that may militate towards successful CFM—although recent work by CIFOR has questioned some of these assumptions.

#### 4.1.1. CPR management theory

With regard to social dynamics, the fundamental social prerequisite for effective collaboration among local users is that they perceive an advantage in collaborating with other interest groups. CPR theory (Ostrom 1999) indicates that local forest management organisations are most likely to succeed if

- forest users are clearly identifiable;
- all users depend at least in part on the resource for their livelihoods;
- users have a common understanding of the forest resource, and how exploitation affects it;
- users of higher social, political, economic status are similarly affected by the pattern of use;

- users trust each other and are willing to enter into a management agreement;
- users can determine access and harvesting rules without the authorities contradicting them;
- users perceive a sufficiently low discount rate in relation to future potential benefits;
- users already have some organisational experience on which further action can be built;
- user groups are small, which makes it easier for them to meet and to reach agreement on CFM; and
- interests of groups are homogeneous.

Turning to forest characteristics, CPR theory suggests that the most favourable for CFM are forests that

- are used, but perceived to be under threat (i.e. management is advantageous);
- are 'sufficiently small' for users to develop accurate knowledge of the external boundaries and internal condition of the forest resource;
- can provide some productive benefits within a relatively short time frame;
- have reliable and valid information available to users about the forest; and
- have relatively predictable availability of forest products.

Case examples given in this document can be used to substantiate a number of these factors. Nevertheless, as the next section argues, any generalisations should be used with caution.

#### 4.1.2. CPR management in practice

Recent fieldwork undertaken by CIFOR in 11 countries as part of its adaptive collaborative management (ACM) research programme indicates that the reality of local forest management is less predictable than CPR theory may suggest. The ACM programme tried to identify early on a set of variables considered likely to be important in an analysis of the conditions under which ACM might be an effective strategy or approach. These included determinants such as forest quality, population pressure and diversity of stakeholders (see Box 34).

Yet upon analysing the results from all 30 ACM sites, Colfer (forthcoming) concluded that 'none of the conditions we identified based on extensive literature review and personal experience among the team members proved to be linked in a determinant way with the impacts seen in the communities and forests. Factors like length of time on site and motivation of facilitators proved to have more relevant impacts on success, although these are also not determinant.' Colfer goes on to note that ' the most fascinating and thought provoking observation is the apparent tendency for ACM to work better in chaotic and difficult settings.' It appears that what matters is finding effective ways to address the unique set of circumstances that each forest and its set of users presents, rather than trying to identify a set of ideal conditions for attempting CFM.

# 4.2. Institutionalising CFM: promoting learning processes

There is growing consensus that CFM is best engendered or catalysed by embarking on a participatory (action learning) process with the potential management partners to address the particular problems arising locally. This entails a process of jointly defining problems and jointly searching for solutions. A number of agencies has successfully used this approach for both research (Hartanto *et al.* 2003) and implementation (forest services of Canada, U.S., and Ghana), the processes being remarkably similar in each case. Some of the principles of collaborative learning in the U.S. are presented in Box 35.

Numerous mechanisms and tools have been devised to support the various stages of a successful collaborative learning process. These include:

- problem tree analysis—to identify problems and causes
- SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis to assess possible new actions or strategies
- criteria and indicators to design monitoring systems
- strategic planning workshops to finalise roles, responsibilities, management plans
- statutory working groups to link multiple stakeholder problem solving to policy development
- statutory public review of management plans and agreements.

### Box 34. Variables explored by CIFOR at ACM action research sites

Researchers explained their reasons for selecting sites as follows. 'We opted for a range of values on each of these important variables. We wanted, for instance, some sites where a great deal of authority had been devolved to local communities and some where virtually none had; we wanted some sites with high population densities and some with low population densities. We determined that all sites would have:

- one or more communities involved to some degree in forest management (broadly defined),
- more than one stakeholder, and
- a medium to high level of conflict.

'Community involvement in forest use and management was necessary since that was central to the problems we were trying to address and the solutions we hoped would be forthcoming with ACM. We needed more than one stakeholder because of our interest in collaboration; and we sought some significant level of conflict, on the assumption that it was wasteful of our time and resources to address situations where there was none (if there are indeed any such contexts), given the ubiquity of conflictridden forest settings and the urgency of forest-related problems. Other important dimensions included:

- Devolution status (formal and informal)
- Forest quality
- Population pressure
- Management goals (timber, conservation, subsistence)
- Diversity of stakeholders
- Level of social capital.

'We expected that devolution in the form of official laws or policies aiming to devolve authority over natural resources to local communities might make the ACM process we were trying to catalyze easier and more sustainable.

'Forest quality (whether a location was generally "forest rich" or "forest poor", as well as whether or not there were valuable commercial species in the forest) had been identified as relevant in the willingness of governments to allow communities to become formally involved in forest management; the general perception was that the more degraded the forest the more willing were governments to involve communities. Population density also seemed worth examining. Some have suggested that higher population densities might lead to greater eagerness on the part of communities to solve natural resource problems.

'We anticipated that the different management goals of timber concessionaires, plantation managers, conservation agencies, and other communities would influence our efforts to spark ACM processes. The extreme power and high stakes involved in timber production seemed likely to affect local communities' capacity to make their views known, in comparison to situations where there were only significant interactions between communities and governments, for instance.

'The number and diversity of stakeholders seemed likely to be important, both in their connection to the previous issue (management goals), and in regard to the theoretical question as to whether diversity is good or bad for collective action. Finally, we anticipated that the level of social capital would play an important role, as a precursor to collective action... if nothing else.'

Source: Colfer (forthcoming)

### Box 35. Collaborative learning in the USDA Forest Service

Collaborative learning is a framework that has been successfully used for natural resource policy decision making and for public involvement in policy discussions. The key principles are:

- focuses on concerns and interests rather than positions
- targets progress rather than success
- stresses improvement rather than solution
- encourages systems thinking rather than linear thinking
- emphasises situation rather than problem or conflict
- seeks desirable and feasible change rather than desired future condition
- recognises that considerable learning—about science, issues and value differences will have to occur before implementable improvements become possible
- features communication and negotiation interaction as the means through which learning and progress occur

Based on: Rose (1995)

Ideally, as a collaborative approach gains momentum, the collaborators themselves learn what works and what does not work; new tools and methods become more practical and rooted in real-life experience. As is now happening in community forestry in Nepal, equity or 'pro poor measures' can become a particular focus of learning.

There are now literally hundreds of examples of collaboration in resource management in the USA, sufficient to provide the basis for a comprehensive assessment of almost 200 successful cases (see Box 36).

Effective CFM ultimately requires an institutional umbrella of values, rules and forest management practices under which organisational structures of agreements, rules, committees, sanctions, etc. can be built. Experience indicates that in many CFM approaches to date, most effort has been focussed on resource-level management organisations. This method is of course important; the types of organisations through which local decisionmaking is channelled are often critical to the outcome, as indicated in Box 37. Where there are no existing organisations for natural resource management and it is necessary to create them, this task is a major challenge in itself, especially with regards to long-term sustainability.

The potential consequence of focussing strongly on organisations is that insufficient emphasis is given to the institutional umbrella, that is, not just national forest policy and legislation, but the practices and attitudes of the organisations and individuals implementing them. The reasons for this may be debated, but clearly organisational structures are relatively easy to develop or alter when compared with institutional aspects, which are often both politically sensitive and loaded with vested interests that are highly resistant to change (see Dove 1995). An important distinction in approach can be made between focussing activities:

- at the local level, learning from experience and then scaling up (a 'start small' approach, characterised by local-level NGOs and some donor agencies) and
- at state or similar level, and then tailoring the grand design to local needs (a 'broad sweep' approach, characterised by, for example, national governments and the World Bank).

The former approach carries the potential risk of focussing too much on the local-level organisations (and not securing a mandate to scale up). The challenge of the 'broad sweep' approach lies in incorporating sufficient flexibility to learn from experience and to adapt to local needs.

A promising, but ambitious approach is to link the participatory learning processes described in the previous section to institutionalisation. This connection can be attempted by focussing learning processes on three distinct goals first described by David Korten (personal communication): (1) learning to be effective, (2) learning to be efficient and (3) learning to expand. Learning to be effective is primarily concerned with working at the local level to create new, equitable partnerships for forest

### Box 36. Making collaboration work-lessons from the USA

A study on 200 cases of collaboration in environmental management in the USA found that collaboration is practised under many names: dispute resolution approaches, ecosystem management, collaborative stewardship or civic environmentalism. Whatever term is used, the schemes are generally place-based, cooperative, multiparty and grounded in high-quality information. Of necessity, they involve building relationships between individuals and groups who have been isolated from each other. Some of the lessons from the U.S. experience of how to make collaboration work are, briefly:

#### Recognise interdependence

- Focus participants on shared goals, common problems, a sense of crisis or a sense of place.
- Create joint vision statements to encourage groups to attack a problem rather than each other.
- Foster a sense of interdependence, e.g. through joint field trips.

#### Focussing on the problem

- Focus on interests not positions.
- Define problems in a way that allows creativity rather than being focussed on one possible solution.
- Create a sense of shared ownership of the problem.
- Work on communication that shatters misconceptions framed by years of mistrust.
- Step back from the issue of who is to blame.
- Commit forest service staff to 'let go' and provide follow-up support.
- An agency response of 'that is not the way we do it' does not help.
- Pursue a process of mutual learning: share experience and combine perspectives and expertise.
- Engage in joint research and fact-finding.

#### Partnerships are people

- Get to know people to help build trust, e.g. organise shared meals, trips and other activities.
- Involve people from the beginning.
- Go beyond consultation, e.g. create stakeholder steering committees to oversee implementation.

#### An entrepreneurial approach

- Individuals involved in successful collaboration were entrepreneurial: taking chances, assuming risks and seizing opportunities;
- Agency incentives and rewards for being entrepreneurial are needed, e.g. focus on objectives rather than procedures and plan flexible budgets.
- Look for seams in the bureaucratic wall, for ways to work around rigid rules.

Based on Wondolleck and Yaffee (2000)

management. The second stage is concerned with the same process, but includes learning how to undertake it within realistic resource levels. The third stage is concerned with learning how to expand the approach across the region. At each stage, capacity and, most critically, ownership are created amongst the general public, local forest users, NGOs and forest agency staff. Ideally, the participants also have a mandate to publicise and debate their findings more widely, and gain the opportunity to influence policy makers.

This approach has a higher chance of succeeding than attempts to train and re-orient staff. In many forest bureaucracies, keen young staff are often frustrated by the fact that their

# Box 37. Different organisational models for devolved natural resource management

A review of the outcome of devolution policies in the natural resource management sector from the perspective of local people in Asia and southern Africa (Shackleton *et al.* 2002) found a variety of different organisational models. From the various case studies, the following organisational models were identified.

#### **District organisations**

Agencies on the district level included local government organisations such as Rural District Councils in Zimbabwe and *panchayats* (although they act on a much smaller scope than district) in India, and multiple stakeholder district structures aligned to line departments such as Wildlife Management Authorities in Zambia and forest farms in China. The measure of downward accountability varied from very little (Communal Areas Management Project for Indigenous Resources and Zambia) to modest (as among *panchayats* in some parts of India).

#### Village committees facilitated by government departments

Examples included Village Natural Resource Management Committees in Malawi and Forest Protection Committees in India. Here, accountability related to the degree of control transferred by the state (in Malawi and Tanzania committees could formulate their own by-laws, while committees in Zimbabwe and much of India and the Philippines were weak and largely controlled by forestry officials) and the extent to which local elites captured the process.

#### Corporate, legal organisations composed of all rights holders and/or residents

These included Trusts (Botswana), Conservancies (Namibia), Communal Property Associations (Makuleke, South Africa), Villages (Tanzania), and Range Management Associations (Lesotho). Since the foundation and legitimacy of these organisations derived from the community itself, interference by the state was less pervasive than in the preceding arrangements, but the state still retained ultimate authority and continued to make decisions with negative impacts on local interests.

#### Household-based and individual management

Found in China and the Philippines, in these cases individuals exercised varying degrees of authority over species selection, harvesting practices, sale and consumption, and the distribution of benefits. The state maintained its control through providing access to processing technology, permit systems, planning requirements and fees and taxes.

#### Self-initiated organisations operating outside the state hierarchy

Cases ranged from traditional leaders in one Zimbabwean case, to Residents' Associations in South Africa, to share-holding schemes in China. Self-initiated schemes often were accountable to disadvantaged resource users (e.g. Orissa, India), but were co-opted by elites or officials in the absence of a supportive policy and legal framework. Where these organisations were representative and accountable, a lack of official support often limited their effectiveness in achieving sustainable and equitable natural resource management.

Source: Shackleton et al. (2002)

superiors are learning averse. Particularly if an agency is corrupt, learning is regarded as subversive and threatening. Outsiders trying to promote new approaches to CFM often remain unaware of the degree to which conformity is enforced within forest bureaucracies and the risks run by staff members who try to innovate. One of the future key challenges for CFM will be the attempt to foster a culture of learning or, more ambitiously, create learning organisations where none exists.

Learning processes can generate an almost overwhelming grasp of the barriers to institutionalising CFM (for instance, CFM processes are time consuming and require facilitation, but the responsible agency is under-funded owing to a legacy of an underpriced public resource as well as, in some cases, entrenched corruption). If donors have a good insight into these issues, they can support the process, particularly through programmes of governance reform, and, in a collaborative paradigm, also be open to joint identification of problems and solutions and to being challenged.

In parts of North America (e.g. the Pacific Northwest), collaboration has become a permanent feature of natural resource management practice; it has been accepted as a valued approach by the leadership of the USDA and operationalised through various directives, legislation, definitions, official toolkits, detailed procedures, budgets, resource centres and supportive web sites. Nevertheless the question remains: how easy will it be to institutionalise CFM in other countries, particularly in countries where the professionalism of the forest service is compromised?

# 4.3. Broader political factors: practicing pluralism

At national-government level, one analysis is that CFM is most likely to be adopted if there is

- willingness and ability to experiment with new ideas and to modify policy and legislation;
- at least some key personnel in the forest authority committed to the concept of CFM;
- respect for customary law and formal legislation;
- political commitment to decentralisation;
- political commitment to the rights of indigenous peoples;
- political stability and trust in government structures; and

regular dialogue between the different donors and the national government.

Another factor is the timing of a CFM intervention. As Dove (1995) notes, there may often be a window of opportunity for the concept, which is shut, or at least becomes more difficult to prise open, if the idea is introduced too early or too late. Dove suggests that a key determinant of the best time for intervention is 'the receptivity of the forest agency and the broader society'.

The challenge of current CFM initiatives is to develop mechanisms that can build equitable partnerships out of the diverse interests and power bases of different stakeholders. This challenge is particularly acute in public resources where failure to put in place mechanisms for forest users to coordinate amongst themselves runs the risk of 'escalating and entrenching social conflicts, increasing injustice, open access and wilful destruction' (Colfer 2005). Policy mechanisms by which these issues can be addressed are listed in Box 38.

In some countries, such as Mali and Nepal, institutionalisation of CFM may require a massive shift in forest management frameworks from control of a resource by one, often poorly accountable agency to a situation in which all stakeholders are held to account by a public agreement on forest resource conservation and development. Forestry thus becomes a highly political issue.

The principles underpinning the concept of pluralism are also helpful when considering how to accommodate multiple interests. Key principles of pluralism are that

- different groups have legitimate, different views and objectives in forest management, and no single group has superior knowledge or control over decision-making; and
- in any given land use situation, there is no single, absolute sustainable forest management scenario, that is, there are many 'sustainable scenarios'.

It follows from this definition that, consensus among politically weak and strong actors being unlikely, focus has to be placed on effective communication and learning, mediation and facilitation among interest groups in order to reach a series of working arrangements. A number of broad observations may be made about the wider adoption of the concept of pluralism, particularly with respect to power differences among stakeholders (adapted from Arnold 2001 and Colfer forthcoming).

### Box 38. Policy that works for forests and people

An IIED study (Bass *et al.* 1997; Mayers and Bass 2004) provides a detailed analysis of 'policy that works for forests and people'. In summarising their findings, the authors list seven important processes which, though written for forest policy overall, tie in closely with CFM principles.

- 1. A forum and participation process—enabling the understanding of multiple perspectives. Governments may organise the forum, but the wide involvement of civil society is needed, with strong links being developed both vertically (local-national-global) and horizontally (among sectors and disciplines). It is essential that policies be 'owned' by stakeholders, not just forest authorities.
- 2. Agreement on a national definition of, and goals for, sustainable management—focusing on the forest goods and services needed by stakeholders, rather than forestry *per se*. In this respect, the authors suggest that criteria and indicators can be useful both in the process of developing understanding and as tools in their own right.
- 3. Agreed ways to set priorities in terms of, for example, equity, efficiency and sustainability so that everyone knows the procedure and expectations will not exceed what is feasible.
- 4. Engagement with extrasectoral influences on forests and people-using strategic planning approaches, impact assessment and valuation, but also emphasising information and advocacy in political and marketing processes.
- 5. Better monitoring and strategic information on forest assets, demand and use-linking local-level information to the national level.
- 6. Devolution of decision-making power to where the potential contribution to sustainability is greatest. Thus, for example, large forest allocation decisions need to be made at the national level, whereas plans for implementing sustainable forest management should be devised and agreed at local level.
- 7. Democracy of knowledge and access to resource-conserving technology. It is important that information from all sources be used in policy development, transparency be practiced in the process itself and the policy as well as information on policy impacts be disseminated. Access to information can, as noted previously, itself be a form of empowerment for local forest users.
- Mediation has to be perceived to be neutral.
- Care is needed to ensure that the complexity of a pluralistic approach is not used as a stalling procedure.
- Pluralism requires that different views be respected, not that each claim have equal validity.
- Special efforts need to be made to enable the disadvantaged to participate effectively.
- Representatives must be accountable to their interest groups.
- The legitimacy of negotiation processes must be regularly evaluated.

• A narrow line separates facilitation and manipulation.

It is commonly argued that social capital—the numerous civil society organisations and social networks linking people in government, society and business, and the relationships based on trust and shared values—has considerable potential in building effective consultation. But social capital may not exist in newly settled areas (such as forest frontiers), and attempts to build it may, as with forest user committees, be subverted by vested interests. (A brief discussion of civil society as a force in policy making is provided in Box 39.)

### Box 39. The involvement of civil society: different perspectives

In attempting to explain the concept of civil society to foresters new to the term, Bass (1997) stated that 'civil society comprises participatory citizen institutions; it emphasizes local groups such as NGOs and voluntary/professional associations working at regional and community levels'. The term is not new, but came into prominence in the 1990s, with the strengthening of civil society being seen as a positive development goal (Carothers 1999). Yet, like many commonly used terms, its meaning may be variously understood and applied.

In 'Theories and Practice of Civil Society' (1999/2000), a number of interpretations of civil society in Asia were given. A Cambodian development worker defined civil society as 'a group of opinions, a thinking which is non-governmental and non-militaristic that tries to influence the ways the government works... [Its] role is to advocate and influence society and government to ensure that the progress of the country is serving the interests of the people.' A Burmese activist described civil society as 'where all the different ethnic groups come together and have equal rights in terms of political, economic and social systems. It is living together without civil war.' The common thread between these varied perceptions is of citizens campaigning to alter rigid government decision-making.

Civil society is not, however, always separate from or antagonistic to government. Civil society organisations do coordinate with public agencies, and although there may be tensions in such collaborations, the effects can still be positive. Such collaboration appears to be most likely when trust has developed between the parties concerned, and when the government is perceived to be relatively open and accountable, and it is able to fulfil commitments made. Decentralisation can also facilitate such collaboration, and may even lead to individuals moving into local government in order to pursue approaches that they previously advocated outside government (Tony Bebbington, personal communication 1998).

NGOs are only one part of civil society, and in some cases they represent narrow, vested interests. Furthermore, the role and extent of NGOs varies widely in different countries, and it is erroneous to equate the strengthening of NGOs with support for civil society. As an American observer on Central Asia has noted, 'The very people who advocate the non-governmental route to... fostering civil society are often the ones who least trust their fellow citizens with the task' (Abramson 1999).

Furthermore, strong civil society and democracy are not two sides of the same coin; one may lead to the other, but not necessarily so. In the context of involving civil society in policy development, sensitivity to the local context and the variety of actors involved is crucial. As Borneman (1998) noted, 'The relevant question is not who controls social groups in public life but for whom, for what purposes, with what results.'

### 4.4. Regional differences

One key lesson is that it is dangerous to extrapolate too far from one situation to another. Regionally, African, Asian, European, Latin American, North American and Pacific experiences are different—and CFM arrangements must be tailored locally, to both the stakeholders and forest concerned. Principles and experiences from other countries can undoubtedly provide useful insights, but successful CFM must be 'home grown'. Much of the material quoted in this paper stems from South Asia, notably India and Nepal, and from North America, as so much CFM experience has been generated in these regions. Box 40 briefly considers regional differences from an African perspective, whilst Box 41 considers challenges in countries in transition from Soviet-style, planned economies to market economies.

#### Box 40. Is African experience with CFM so different?

In a review of community-based forest management in Africa, Heermans and Otto (1999) commented on the relatively slow uptake of CFM on that continent (compared with Asia and Latin America), and identified the key factors constraining its wider implementation as:

- 'A reluctance by African governments to allow communities to legally participate in forest management programmes
- 'A lack of knowledge and understanding by governments, local communities and donors about [community-based forest management]
- 'A preference for afforestation projects that are relatively simple to implement and require more inputs, thus providing more financial opportunity to forestry departments
- 'An emphasis on conservation and wildlife in protected areas and national parks that does not consider Africa's vast forests that are not protected to this degree
- 'Alliances between private sector logging companies and government entities that ignore the rights of communities'.

None of these factors necessarily makes the African situation particularly unique, but a number of CFM practitioners in Africa have commented on the dangers of extrapolating field lessons in CFM from elsewhere, particularly Asia, to African situations (Brocklesby *et al.* 1997; Wily 1999). Culturally, socially and politically specific aspects that seem particularly important to understand include the identity of 'communities'; the role of forests in rural livelihoods; the nature of the relationship between local people and the state, and the potential to change it; and the role of local people as forest managers, rather than forest users (Wily 1999). In a review of community-based natural resource management that included case studies from eight southern African countries, Shackleton *et al.* (2002) found that one factor that was particularly important in Africa was the role of traditional leaders. Where traditional leadership was strong and legitimate (as in their case studies from Lesotho, Malawi and Makuleke, South Africa), it had positive outcomes in promoting local people's priorities.

The negative observations of Heermans and Otto (1999), however, can be contested. Positive examples of CFM in African countries are emerging (e.g. Dubois and Lowore 2000; Shackleton *et al.* 2002; see also Boxes 6, 8 and 14).

## 5. Conclusions

This survey set out to review current experience in CFM. The essence of collaboration was defined at the outset as being 'a working partnership'. It is clear that, worldwide, the number and form of forest management partnerships is increasing; the past decade or so has been a period of proliferation. There is a growing acceptance of the value of collaboration in both the 'North' and the 'South', in both developing and industrialised nations. In some instances, CFM represents a fundamental shift in the framework of forest governance, in others, it constitutes a small adjustment to address a specific problem or to improve efficiency.

In both developing and industrialised nations, CFM often appears as a pragmatic response to failures in prevailing forest management frameworks. Collaboration may be seen as the only way out of conflict or crisis, and can signify a loss of confidence in rigid, isolationist forms of state-led forest governance. Taking a long-term, historical view, collaboration may represent an attempt to restore balance between competing industrial, environmental and community interests in forest resources—a balance that in some developing countries has been skewed since colonial times.

The methods and processes used to develop CFM are remarkably similar in industrialised nations, countries with transition economies and developing nations—being centred on processes of participatory or joint action learning. These processes are generating a diverse and imaginative assortment of partnership initiatives, rooted in local circumstances, ranging from user group forestry in Nepal to co-management of forest reserves in Mali and model forests in Canada.

## Box 41. CFM in countries in transition

A broad comparison between the intended approach under collectivist versus collaborative forest management indicates the gulf between former management regimes and the new concepts of CFM, which are now being introduced in many former Soviet and other centrally controlled countries.

| 1              | Collectivist forest management  | Collaborative forest management  |
|----------------|---|--|
| ļ              | Planning  |  |
|                | Top-down approach. Centralised planning<br>and organisation; no participation of ground-<br>level staff in decision-making.   | Bottom-up approach. Ideally, participation<br>of all stakeholders in forest planning,<br>decision-making and management, and<br>policy dialogue.                                       |
|                | Value judgements over knowledge<br>Scientific, technical knowledge valued<br>above local knowledge (the latter rarely<br>recognised).   | Different knowledge of different stake-<br>holders valued and respected.   |
| ,              | Communication   |  |
| :              | Lack of free speech; social relations between staff characterised by political discretion.  | All stakeholders encouraged to speak their mind.   |
|                | Collective action   |  |
|                | Forced group work and collective action (no choice).  | Stakeholders choose voluntarily to work together.  |
| l              | Production  |  |
|                | Focus, quantity and quality of forest<br>production decided according to state<br>requirements.   | Production decisions made by the key<br>stakeholders, according to local needs and<br>markets (which in ex-Soviet states may<br>need re-identification). Benefits generally<br>shared. |
| 1              | Forest protection   |  |
|                | Watershed protection and regional and<br>national conservation measures centrally<br>planned and supervised. Managed and<br>implemented by forest farms.  | Protection largely through productive management—with potential for agreed bans on the harvesting of some species/ products.   |
|                | Social facilities   |  |
|                | Facilities such as nursery facilities,<br>schools, health centres, meeting halls, etc.<br>provided by the collective forest farms.<br>Women encouraged to work, and salaried<br>employment readily available for all. | Social facilities need to be provided by local communities and/or the state. Salaried employment is rare.  |
| Ye<br>Co<br>19 | et despite these challenges, promising CFM<br>ountries in transition, e.g. China (Cao <i>et al</i> . 1<br>997), Kyrgyzstan (see Box 9) and Vietnam (Hol<br>o SIDA and the government of Vietnam; Howa                 | initiatives are documented in a number of<br>999), various Eastern European countries (FAO<br>oley, Sharma and Bergman draft internal report<br>rd 1998).                              |

The degree to which collaboration is institutionalised varies greatly, however. In North America, the need for multiple partnerships in the management of extensive public forest resources is now broadly accepted. In some developing countries, notably Nepal, India and Mali, the concept of devolving chief responsibility for forest management planning and operations to local communities is now firmly enshrined in legislation. In other countries, CFM is at a formative stage (e.g. the Philippines, Thailand) and the nature of possible partnerships is not yet clear or fully accepted.

In the North, collaboration is often seen as a rational way of accommodating multiple interests in forest resources, to increase efficiency and to ensure forests are seen to be a public good. In industrialised nations, public and community lobby groups are generally highly confident and well organised, while forest agencies are relatively well resourced and professional; in such situations, change can be rapid.

In less wealthy nations, CFM is emerging not just as a way to reduce forest degradation or to increase the supply of subsistence forest products, but as an attempt to address the long-standing and severe injustices in forest governance that adversely affect people's lives. In this context, CFM can be a mechanism to support sustainable livelihoods, reduce poverty, and promote decentralised governance-but only if a concerted effort is made to address power relations. Whilst creating multiple partnerships in forest management is a major achievement, a sufficient momentum of change needs to be generated to ensure that the previously marginalised can continue to participate equally and fairly alongside other stakeholders. The old, relatively simple views of community and government relations are being replaced by a more realistic, critical and politically informed analysis of what CFM entails. Nevertheless, there remain many challenges to putting equitable partnerships in place.

## References

- Abramson, D.M. 1999 A critical look at NGOs and civil society as means to an end in Uzbekistan. Human Organization 58(3): 240-250.
- Arnold, J.E.M. 2001 Forests and people: 25 years of community forestry. FAO, Rome.
- Arora-Jonsson, S. 2000 Networking for dialogue and action. Forest Trees and People Newsletter 40/41: 54-58.
- Bass, S. 1997 quoted in editorial, Commonwealth Forestry Review 76(3): 161.
- Bass, S., Mayers, J., Ahmed, J., Filer, C., Khare,
  A., Kotey, N.A., Nhira, C. and Watson, V.
  1997 Policies affecting forests and people:
  ten elements that work. Commonwealth
  Forestry Review 76(3): 186-190.
- Bebbington, A. and Kopp, A. 1998 Networking and rural development through sustainable forest management: frameworks for pluralistic approaches. Unasylva 49(194): 11-18.
- Berkes, F. 1997 New and not-so-new directions in the use of the commons: co-management. The Common Property Resource Digest 42: 5-7.
- Bhattarai, B. and Ojha, H.R. 2001 Why the poor benefit least from community forestry in Nepal. http://www.nepalnet.org.np.
- Borneman, J. 1998 Subversions of international order. State University of New York Press, Albany.
- Borrini-Feyerabend, G. 1997 Participation in conservation: why, what, when, how? *In*: Borrini-Feyerabend, G. (ed) Beyond fences: seeking social sustainability in conservation. Vol. 2, A resource book, 26-31. IUCN, Gland, Switzerland.
- Bouahong Phanthanousy and Bonita, M. 1998 Towards institutionalizing village forestry in Lao PDR. *In*: Victor, M., Lang, C. and Bornemeier, J. (eds.) Community forestry at a crossroads: reflections and future directions in the development of community forestry, 249-256. RECOFTC, Bangkok, Thailand.
- Branney, P. 1994 Handbook for baseline forest assessment. Project Report G/NUKCFP/03 Nepal-UK Community Forestry Project, Coordinator's Office, Kathmandu.
- Branney, P., Malla, Y.B., Bhattarai, B., Tamrakar, P.R. and Neupane, H.R. 2001 Innovative forestry: a synthesis of smallscale forest management practice from Nepal. A field worker's guidebook for supporting community forest management.

ODI, London, UK. http://www.odifpeg. org.uk/publications/greyliterature/Pa rticipatory%20forest%20management/ innovative%20forestry/index.html.

- Brocklesby, A., Ambrose Oji, B. and Tekwe, C.F. 1997 Developing participatory forest management: the user group analysis on Mount Cameroon. *In*: Proceedings of the conference on African Rainforests and the Conservation of Biodiversity, Limbe, Cameroon, 17-24 January 1997, 51-61.
- Brown, D. 1999 Principles and practice of forest co-management: evidence from West-Central Africa. European Union Tropical Forestry Paper 2. ODI, London, UK and European Commission, Brussels.
- Bryant, R.L. and Bailey, S. 1997 Third world political ecology. Routledge, London, UK.
- Cao, G., Lianmin, Z., Zhengdong, Y., Juzhang,
  W. and Mingzhu, D. 1999 Learning from local communities: understanding forest management through FTPP criteria & indicator template in Yunnan Province China. Institute of Community and Environment, Southwest Forestry College, Kunming, P.R. China.
- Carlsson, L. 1996/7 The Swedish common forests: a common property resource in an urban, industrialised society. From the Field, Rural Development Forestry Network Paper 20e. ODI, London.
- Carothers, T. 1999 Civil society. Foreign Policy 117: 18-29.
- Carter, J. (ed.) 1996 Recent approaches to participatory forest resource assessment. Rural Development Forestry Study Guide 2. ODI, London.
- Carter, J., Steenhof, B., Haldimann, E. and Akenshaev, N. 2003 Collaborative forest management in Kyrgyzstan: moving from top down to bottom up decision making. Gatekeeper Series 108. IIED.
- CIFOR and FAO 2003 Towards equitable partnerships between corporate and smallholder partners: relating partnerships to social, economic and environmental indicators. CIFOR, Bogor and FAO, Rome.
- Clarke, J.M. and Foy, T.J. 1997 The role of the forest industry in rural development and land reform. Commonwealth Forestry Review 76(3): 175-178.
- Colfer, C.J.P. (ed.) 2005 The equitable forest: diversity, community and resource management. Resources for the Future and CIFOR, Washington, D.C.

- Colfer, C.J.P. Forthcoming. The complex forest: community, uncertainty, and adaptive collaborative management. Resources for the Future and CIFOR, Washington, D.C.
- Cornwall, A. 1996 Towards participatory practice: PRA and the participatory process. *In*: de Koning, K. (ed.) Participation and health. Zed Books.
- Cunningham, W.P. Cunningham, M.A., Saigo, B.W. 2003. Environmental Science: A Global Concern, 7/e. McGraw-Hill Higher Education. http://highered.mcgraw-hill. com/sites/0070294267/student\_view0/
- Damodaran, A. 2003 Joint forest management in India: assessment of performance and evaluation of impacts. Paper submitted to ZEF in connection with Research Project titled Alternative Institutions for Natural Resource Management.
- Dargavel, J., Guijt, I., Kanowski, P., Race, D. and Proctor, W. 1998 Australia: settlement, conflicts and agreements. IIED, London.
- Davies, J. and Richards, M. 1999 The use of economics to assess stakeholder incentives in participatory forest management: a review. European Union Tropical Forestry Paper 5, ODI, London, UK and European Commission, Brussels.
- Donovan, D.G. 1999 Where's the forestry in community forestry? Programme on Environment, East-West Center, Honolulu, Hawaii.
- Dove, M.R. 1995 The theory of social forestry intervention: the state of the art in Asia. Agroforestry Systems 30: 315-340.
- Dubois, O. and Lowore, J. 2000 The journey towards collaborative forest management in Africa: lessons learned and some navigational aids—an overview. Forestry and Land Use No. 15, IIED, London. 138p.
- Edmunds, D. and Wollenberg, E. (eds.) 2003 Local forest management: the impacts of devolution policies. Earthscan, London.
- FAO 1997 Issues and opportunities in the evolution of private forestry and forestry extension in several countries with economies in transition in Central and Eastern Europe. FAO, Rome. 163p.
- Filer, C. and Sekhran, N. 1998 Loggers, donors and resource owners. Policy that works for forests and people series No. 2: Papua New Guinea. National Research Institute, Port Moresby, PNG and International Institute for Environment and Development, London.

- Fisher, R.J. 1995 Collaborative management of forests for conservation and development: issues in forest conservation. IUCN and WWF, Gland, Switzerland.
- Foster Brown, I., Alechandre, A.S., Sassagawa, H.S.Y. and de Aquino, M.A. 1995 Empowering local communities in land use management: the Chico Mendes Extractive Reserve, Acre, Brazil. Cultural Survival Quarterly 18(4): 54-57.
- Gilmour, D.A. and Fisher, R.J. 1991 Villagers, forests and foresters. Sahayogi Press, Kathmandu, Nepal.
- Gilmour, D.A. and Fisher, R.J. 1998 Evolution in community forestry: contesting forest resources. *In*: Victor, M., Lang, C. and Bornemeier, J. (eds.) Community forestry at a crossroads: reflections and future directions in the development of community forestry. RECOFTC, Bangkok, Thailand.
- Grimble, R., Chan, M., Aglionby, J. and Quan, J. 1995 Trees and trade-offs: a stakeholder approach to natural resource management. IIED Gatekeeper Series No. 52, International Institute for Environment and Development, London.
- Hartanto, H., Lorenzo, M.C., Valmores, C., Arda-Minas, L., Burton, E.M. and Prabhu,
  R. 2003 Learning together: responding to change and complexity to improve community forests in the Philippines. CIFOR, Bogor, Indonesia.
- Heermans, J. and Otto, J. 1999 Whose woods these are: community-based forest management in Africa. Report for USAID Africa Bureau Sustainable Development Office.
- Hobley, M. 1996 Participatory forestry: the process of change in India and Nepal. Rural Development Forestry Study Guide 3. ODI, London.
- Howard, C. 1998 Forestry in transition in Vietnam. Commonwealth Forestry Review 77(4): 249-253.
- Ingles, A.W., Munsch, A. and Qwist-Hoffmann, H. 1999 The participatory process for supporting collaborative management of natural resources: an overview. FAO, Rome.
- Inglis, A.S. and Guy, S. 1996/7 Rural development forestry in Scotland: the struggle to bring international principles and best practices to the last bastion of British colonial forestry. Rural Development Forestry Network Paper 20b. ODI, London.
- Jeanrenaud, S. 2001. Communities and forest management in Western Europe: a regional

profile of the working group on community involvement in forest management. IUCN The World Conservation Union. Gland, Switzerland. 150p.

- Jeanrenaud, S. and Jeanrenaud, J.P. 1996/7 Thinking politically about community forestry and biodiversity: insider-driven initiatives in Scotland. Rural Development Forestry Network Paper 20c. ODI, London.
- Kerkhof, P. and Konate, A.B. 2001 The role of forestry in poverty alleviation: country profile prepared for the forum on The Role of Forestry in Poverty Alleviation. FAO, Rome.
- Küchli, C. 1996/7 Changing forest use and management in the Alps and the Himalayas: a comparison between Switzerland and Nepal. Rural Development Forestry Network Paper 20d. ODI, London.
- Lawrence, A. and Sánchez Román, F. 1996 The role of inventory in the communally managed forests of Quintana Roo, Mexico. *In*: Carter, J. (ed.) Recent approaches to participatory forest resource assessment. Rural Development Forestry Study Guide 2. ODI, London.
- Mackenzie, C. 1998 The challenges of participatory forest management in Sri Lanka. *In*: Victor, M., Lang, C. and Bornemeier, J. (eds.) Community forestry at a crossroads: reflections and future directions in the development of community forestry, 231-245. RECOFTC, Bangkok, Thailand.
- Malla, Y. 2001 Changing policies and the persistence of patron-client relations in Nepal. Environmental History 6(2): 287-307.
- Mayers, J. and Bass, S. 2004 Policy that works for forests and people: real prospects for governance and livelihoods. Earthscan, London.
- Mayers, J., Bila, A., Khaukha, S., Opoku, K. and Simwela, W. 2005 Forest governance and social justice: practical tactics from a learning group approach in Africa. Paper prepared for the 17<sup>th</sup> Commonwealth Forestry Conference, Colombo, Sri Lanka 29 February to 5 March.
- Mayers, J. and Vermeulen, S. 2002 Companycommunity forestry partnerships: from raw deals to mutual benefits. IIED, London.
- Nittler, J. and Tschinkel, H. Forthcoming. Community forest management in the Maya Biosphere Reserve of Guatemala: protection through profits. University of Georgia.

- Nurse, M. Report of a RECOFTC review of the linkages between community forestry and poverty. Community Forestry E-News 2004.10. http://www.recoftc.org (31 October 2004).
- ODA 1996 Sharing forest management: key factors, best practice and ways forward. Overseas Development Administration, London, UK.
- Ostrom, E. 1999 Self-governance and forest resources. CIFOR Occasional Paper No. 20. CIFOR, Bogor.
- Parai, Brian J. and Esakin, C. 2003 Beyond conflict in Clayoquot Sound: the future of sustainable forestry. *In*: Castro, A.P. and Nielsen, E. (eds.) Natural resource conflict management case studies: an analysis of power, participation and protected areas. FAO, Rome.
- Pattnaik, B.K. and Dutta, S. 1997 JFM in south-west Bengal: a study in participatory development. Economics and Political Weekly (13 December).
- Pimbert, M. 2004 Natural resources, people and participation. PLA Notes 50: 131-139.
- Poffenberger, M. and Selin, S. (eds.) 1998 Communities and forest management in Canada and the United States: a regional profile of the working group on community involvement in forest management. Forest, People and Policies. Working Group on Community Involvement in Forest Management.
- Pokharel, B.K. and Nurse, M. 2004. Forests and people's livelihood: benefiting the poor from community forestry. Journal of Forest and Livelihood, Forest Action, Nepal (July).
- Porro, N.M. and Stone, S. 2005 Diversity in living gender: two cases from the Brazilian Amazon. *In*: Colfer, C.J.P. (ed.) The equitable forest: diversity, community and resource management, 242-255. Resources for the Future and CIFOR, Washington, D.C.
- Prabhu, R., Colfer, C. and Shepherd, G. 1998 Criteria and indicators for sustainable forest management: new findings from CIFOR's Forest Management Unit Level Research. Rural Development Forestry Network Paper 23a. ODI, London.
- RECOFTC 2002 The Initiative on Promoting Good Forest Governance in Asia-Pacific. Forests: used by many, managed by few, governed by whom? A Summary Report from a Workshop held as part of the Global PrepCon IV for WSSD. Nusa Dua, Bali, Indonesia, 1-2 June

2002. RECOFTC Training and Workshop Report Series 2002-2004.

- RECOFTC 2004 Community Forestry E-News No. 2004, 12 http://www.recoftc.org (31 December 2004) Regional Community Forestry Training Center for Asia and the Pacific.
- RECOFTC 2005 Community Forestry E-News No. 2005, 4 http://www.recoftc.org (30 April 2005) Regional Community Forestry Training Center for Asia and the Pacific.
- Richards, E.M. 1993. Lessons from participatory natural forest management in Latin America: case studies from Honduras, Mexico and Peru. Journal of World Forest Resource Management 7(1): 1-25.
- Richards, M. 1999 Internalizing the externalities of tropical forestry: a review of innovative financing and incentive mechanisms. European Union Tropical Forestry Paper 1. ODI, London and European Commission, Brussels.
- Rose, B. 1995 Cispus Adaptive Management Area, Randle and Packwood Range Districts, Gifford Pinchot National Forest. Executive Summary. USDA Forest Service.
- Shackleton, S., Campbell, B., Wollenberg, E., and Edmunds, D. 2002 Devolution and community-based natural resource management: creating space for local people to participate and benefit? NR Perspectives 76. ODI, London.
- Shrestha, K.N. and Britt, C. 1998 Crafting community forestry: networking and federation-building experiences. In: Victor, M., Lang, C. and Bornemeier, J. (eds.) Community forestry at a crossroads: reflections and future directions in the development of community forestry. RECOFTC, Bangkok, Thailand.
- Smith, K.E. 1999 Developments and setbacks in forest conservation: the new political economy of forest resource use in southern Ghana. Technical Paper of the Ministry of Lands and Forestry, Ghana.
- Theories and practice of civil society 1999/2000 Watershed 5(2) (November-February): 8-19.
- TERI 2003 Joint forest management issues: institutional and benefit sharing issues. The Energy and Resources Institute www.teri. org/jfm/issues/benefit.htm.
- University of Michigan 2004 Learning from experience: a national resource for collaboration and partnerships. Ecosystem Management Initiative. University of

Michigan. Julia Wondolleck and Steven Yaffee. http://www.snre.umich.edu/ ecomgt/lessons/index.htm.

- Victor, M. (ed.) 1996 Income generation through community forestry. RECOFTC Report 13. RECOFTC Kasetsart University, Bangkok, Thailand.
- Vira, B. 1997 Analytical tools for assessing institutional pluralism in forestry. Paper prepared for the FAO workshop on Pluralism, Sustainable Forestry and Rural Development, Rome, 9-12 December 1997.
- Watson V., Cervantes, S., Castro, C., Mora, L., Solis, M., Porras, I. and Cornejo, B. 1998

Making space for better forestry: Costa Rica study. Policy that Works for Forests and People Paper 6, IIED, London, UK.

- Wily, L.A. 1999 The evolution of communitybased forest management in Tanzania. Independent Rural Development and Land Tenure Specialist, Nairobi, Kenya.
- Wondolleck, J. and Yaffee, S.L. 2000 Making collaboration work: lessons from innovation in natural resource management. Island Press. Washington D.C., USA.
- Wyatt, S., Bartlett, A. and Mathias, A. 1999 Developing a forest policy in a small nation: the Vanuatu national forest policy. International Forestry Review 1(2): 102-111.

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