DISCUSSION DRAFT

DEVOLUTION OF CONTROL OF COMMON POOL RESOURCES TO LOCAL COMMUNITIES: EXPERIENCES IN FORESTRY

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INTRODUCTION

The paper reviews information about experience with a number of forms of local collective control over access to and management of forest and forest product resources. The strengths and weaknesses of this form of governance in comparison with alternatives are reviewed. Reasons for the decline in many historical forest common property systems are examined, as are factors likely to determine the viability of contemporary systems.

The emphasis is on lessons that can be learned from a number of contemporary experiences that have involved substantial external initiatives, intended either to strengthen existing systems of local collective management in conjunction with the state, or to create an enabling environment for new systems. The paper is based on analysis of documented information about a number of such experiences[1], and in particular the large and relatively well recorded initiatives in India and Nepal.

In the paper the term 'common pool resource' (CPR) is used to characterize a resource available for use by all, whether in unregulated ('open access') or regulated fashion. The term 'common property' (or 'common property regime') is used to denote situations in which a common pool resource is managed collectively, under rules which define membership of the group of users and which exclude others from access to the resource (McKean and Ostrom 1995).

Nearly all the systems studied involve multiple forest products and multiple users, with the state usually being a major stakeholder and the owner of the underlying land. They are exercises in co- or joint management by two or more categories of user, rather than systems where control rests exclusively, or predominantly, with the local user group or community. Most of the coverage in this paper is consequently concerned with access to a land-based resource (forests) rather than the land itself, and usually with control just over flows of particular products from that resource.

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[1] The paper is based on a larger review of information on managing forests as common property that was undertaken for FAO, and draws on studies of eight case situations researched for that review (Arnold in press). The case studies were: Village Forestry, Republic of Korea; Social Forestry Village woodlots, India; Hill Community Forestry, Nepal; Van (Forest) Panchayats, Uttar Pradesh, India; Joint Forest Management, India; Community (*Ejido*) Forests, Mexico; Stewardship Agreements in state forest areas, Philippines; and Forest Villages, Thailand.

HISTORICAL TRENDS

Common pool resources of forest products have been important in two main situations, which often overlap. One is where rural households fill gaps in the material and income flows from their own resources by drawing on nearby areas of forest, woodland or scrubland. The other is where forests and woodland formed part of larger livelihood systems in which land needed to be controlled by the users as a group - notably where the system is based on rotational agriculture, with periods of cultivation alternating with longer periods of forest fallow.

Historically, common property regimes have evolved where the demand on a resource has become too great to tolerate open access use any longer, so that property rights in the resource have to be created, and other factors make it impossible or undesirable to allocate the resource to individuals (McKean 1995). A common property regime can also emerge as a way to secure control over a territory or a resource, to exclude outsiders, or to regulate the individual use by members of the community.

Decline in local governance of forest CPRs

Over time, many CPRs, and their collective systems of management and use, have faced increasing pressures from growing populations and the effects of economic and political changes. Many have been greatly reduced and weakened, or have disappeared altogether. Nevertheless, land use practices that incorporate periods of forest or bush fallow, or that require access to off-farm forest or woodland resources, continue to be critical to the functioning of many rural farm household systems.

The process that has widely lead to decline can be illustrated by the results of Jodha's seminal study (Jodha 1986, 1990) of village CPRs in the dry rainfed areas of India . Traditionally the sustainability of these common pool resources was protected by an array of controls, mainly designed and enforced at the local level. Over the 30 years covered by his study there were huge changes in their availability, management and use. This has been a result of land reforms (which led to abolition of a number of levies and taxes on CPR users), the replacement of traditional village leadership with elected village councils (which resulted in decreased regulation of common land use), expanded private land ownership, expanded credit and subsidies for animals, more marketing links for common property related products (mainly milk, meat, wool, fuel, and various other bush and tree products), and the availability of technology (e.g. tractors) that enabled additional land to be brought under cultivation. Of the communities that in 1950 had exercised controls over CPR use, such as rotational grazing, seasonal restrictions and watchmen, only 10 per cent had such controls in 1980, while use of fines, taxes and fees had ceased altogether.

The much reduced remaining area of village lands is now typically heavily degraded and under open access usage, and the range, quality and quantity of products collected have often been sharply reduced. Nevertheless, the rural poor are still heavily dependent on the biomass resources on this land, but richer farmers increasingly favour privatization of products previously available

as common pool resources (and of the land itself). With this increasing differentiation within villages has come increasing conflict about the use to which such resources should be put.

Comparable patterns can be observed elsewhere across Asia, Africa and parts of Latin America. Much of the decline and disappearance of common property systems has thus come about as communities have opted for alternatives in face of economic, demographic and social change. Combinations of these factors can render collective control systems inoperable or no longer appropriate.

The impact of political and institutional factors

At the same time political and institutional changes have also had a major negative impact. McKean and Ostrom (1995) have pointed out that most common property regimes seem to have been legislated out of existence; ignored because they were never codified, or eliminated by land reform in favour of individuals or the government. Perhaps the most pervasive form of state intervention in local collective management of forest resources has been expropriation of the forests as forest reserves or some other form of state property. At a minimum, this involves replacing users' rights to the forest with a more limited set of privileges to use specified forest products, usually governed by restrictive regulations and exercisable at the whim of the officials of the responsible government department.

The ostensible reason for the state claiming forest lands has usually been to ensure sustainable use for environmental and economic outputs. The potential value of forests as a source of rent to governments helps explain the reasons for breaking down existing management systems. As Berkes (1993) has pointed out, "open-access ... is an efficient regime for the quick conversion of resources into money. Thus it is not surprising that colonialists often dismantled communal property regimes and institutions as a prelude to establishing colonial economies."

The impact of state intervention has often been intensified by failure to understand the functioning of the existing systems they were intervening in. A frequently cited instance was failure by colonial powers in Africa to recognise the role of fallow and common pool land, and to classify it as unoccupied and the property of the state (Shepherd 1992, Lawry 1989). There were similar failures of understanding when dealing with the sophisticated use and management systems in the forest areas in central India and the Amazon. Policies of encouraging settlement by colonists in the latter, together with the requirement that settlers put land granted to them to productive use, and the linking of land clearance with property rights, further undermined incentives for collective management, as does the process of sequential clearing-cropping-pasturing of successive plots by individual settlers that characterizes colonization (Ascher 1994, Perl et al. 1991, Southgate and Runge 1986).

The huge expansion in the areas designated as state forests in some of the main countries of the Southeast Asia region reflect (in addition to government interests in revenue from valuable forest resources) increasing pressures to exercise physical control over upland areas for strategic

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reasons, or because of their importance as a land bank for surplus lowland populations, and growing concerns to try and prevent downstream damage resulting from overuse of upland areas (Peluso *et al.* 1995, Lynch and Talbott 1995).

Another form of state intervention has been that of governments increasing their control over local activities generally. Inevitable conflicts with existing power structures and allegiances encourage measures to undermine and remove previously-functioning local governance and management systems, and replace them with political and bureaucratic structures and regulations. This has not been confined to forestry, but has had a particular impact in this sector because the state usually has been unable to provide effective control over such large areas. Existing systems have consequently been undermined or suppressed, but have not been replaced by an effective alternative (Baland and Platteau 1996, Thomson 1992).

Traditional local systems of governance of forest and woodland resources are also eroded because of lack of clarity about the rights involved under overlapping and poorly reconciled systems of national and community land law and custom. Local courts and administrative units that have taken charge of conflict resolution generally do not understand indigenous tenure systems and make decisions based on other criteria. In order to avoid the high social transaction costs of organizing the management of small areas of forest in such difficult and adverse circumstances, people increasingly leave management of local tree resources to the forest department (Birgegård 1993, Shepherd 1992, Lawry 1989).

Surviving and recent self-governing systems

In many situations, therefore, the circumstances favouring common property management of forest resources may no longer exist, or are much weaker, favouring individual private ownership or state management. However, there are numerous instances where people do still rely on common pool resources to some extent. In Africa, contemporary use systems are commonly made up of "multiple forms of overlapping and interpenetrating land and resource rights that encompass both group and individual claims (Neumann 1996)". Even in the Indian villages that were studied by Jodha (1986 1990), in 1980 84% to 100% of poor households still depended on village CPRs for fuel, fodder and food items.

There has also been growing evidence, from a variety of different situations, of spontaneous indigenous efforts to strengthen remaining existing control systems, or to create new arrangements to bring resources under more effective local control (e.g. Molnar 1981, Fisher 1989, Thomson and Coulibaly 1995, Pravongviengkham 1997, Ganjanapan 1995, Richards 1997). It has been estimated that in the forest belt across India there are at least 10,000 such forest protection groups, many of them dating from the 1970s, managing areas in forests designated as Protected Forests in which state control is less intense, and in which there is generally more scope for the use by local people than is the case in Reserved Forests (Poffenberger 1996, Kant *et al.* 1991).

In general, the trend for communities to try and revive or recreate control over a local resource

seem to reflect responses by communities to one or more of the following:

- ♦ growing shortages of forest products and other forest outputs of value to the user community;
- ♦ increased pressures from outside interests to use forest resources which are still important to the community (pressures that may be coming from the state as well as from loggers, neighbouring communities or other outsiders);
- ♦ new challenges that need, or would be more effectively handled by, collective action (e.g. collaboration by colonists in maintaining infrastructure and services in early stages of settlement in the Amazon (Rudel 1995)); and
- ♦ new needs or opportunities, such as the opportunity to assert or reassert local control if government policies or practices make this possible and expedient (as happened in Nepal in the late 1950s and again from the late 1980s).

Increasingly, such groups have been seeking more formal authorization for their activities, in order to strengthen their position in dealing with outsiders and the state.

Increased recognition of such spontaneous moves has contributed to the revival in interest in local collective management that is reflected in recent government and donor initiatives of the kind discussed during the rest of this paper. However, the main stimulus underlying most of them, at least initially, has been recognition by governments that centralised management of forests in situations where local people also draw upon the forests simply does not work adequately. The need to find more effective, decentralised, approaches involving local users has been given added impetus subsequently by the strategies adopted under structural adjustment, and by policies giving greater priority to rural development, and doing so in ways that enable greater participation of those involved.

FOREST RESOURCES AS COMMON PROPERTY

The relative advantages of common property for natural resource management have been discussed in the paper by Ostrom for this meeting (Ostrom 1998). Three aspects of this debate have been of particular importance in clarifying the characteristics of situations in which the latter may prove to be the most appropriate form of management for forest resources:

- Recognition of the need to distinguish between rights to use a resource and the rights related to the resource itself. Rights may exist or be established that enable persons, or groups of persons, other than the owner to use the resource or some specified output of that resource. This is particularly important in understanding uses in forests, because much of the resource is owned by the state, but most usage is by individual, collective or industrial entities, frequently with multiple users exercising rights to different products or to use at different times of the year. In practice, resources are often held in overlapping combinations of private, state, common property and open access regimes. Common property management systems for such resources therefore usually need to be based on

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recognition that the system needs to accommodate the concerns of more than one participating interest group (Bruce in preparation, Campbell 1990).

- The distinction between stock (the forest) and flow (output). The institutional arrangements for producing and selling forest products (flow units) are quite likely to be different from those controlling and managing the forest stock (the resource). Problems and issues can arise separately in each, and the governance arrangements it takes to handle both successfully are frequently complex (a factor that contributed centrally to the failure of some of the programmes that focused on creation of communal woodlots such as the Social Forestry programmes in India that are discussed later).

- The argument that private property and common property should be seen not as mutually exclusive, but as two types of property with a good deal in common (Bruce in preparation). As access to use of common property is confined to members of a defined user group, which excludes other potential beneficiaries, it therefore has some of the attributes of shared private property. It is therefore argued that "Like individual parcellation, common property gives resource owners the incentive to husband their resources, to make investments in resource quality and to manage them sustainably and thus efficiently over the long term" (McKean 1995). However, where common property use rights apply just to particular forest products, as is usually the case, user groups are likely to lack the right of alienation.

McKean (1995) identifies a number of types of natural resource situation in which placing property rights with groups can be more efficient than trying to allocate the rights, or the resource, to individuals. Drawing on this, the potential advantages of self-governance of forest resources can be summarised as follows:

♦ Some resources are simply indivisible or, like many forest ecosystems, have to be managed in their entirety in order to maintain the interactive environment needed to produce some of their outputs (including mobile resources such as wildlife).

♦ In some large resource systems, such as range and woodland in arid areas, the location of the most productive zones can vary from year to year.

♦ In resource systems subjected to heavy population pressure or with congested and competing uses, coordination among users is essential to cope with problems caused by multiple uses or with interrelationships such as the effect of forest use in upland areas in a watershed on farmers and land use in lower areas.

♦ Group control and thus group enforcement of rules can be an efficient way of coping with the costs of monitoring otherwise porous boundaries and of enforcing restraints on use within those boundaries.

Forest resources that exhibit some or all of these characteristics are likely to be good candidates for management as common property regimes. However, even where this is so users of forest products often have the option of obtaining supplies from sources other than the forest. For

example, fuel may be obtained from trees managed by households on their farm lands, or from agricultural residues. Therefore, the arguments for and against management of a forest or woodland resource as common property may be less clear-cut than it is for resources such as irrigation water or many fish stocks, where there is no effective alternative that would ensure sustainable supplies. In addition, where there are multiple products as well as multiple user groups, the potential for dispute and conflict may increase the difficulty and cost of developing and maintaining effective institutions of governance.

During the past decade, considerable progress has been made with the design of analytical models that help us understand what factors and interactions determine the circumstances under which common property management is likely to be appropriate and successful, and when it is not (Ostrom 1990, Bromley and Cernea 1989, Wade 1988, Oakerson 1986, NAS 1986). Common components among the analytical models that have been proposed include the following:

The resource
♦ the size and boundary conditions of the resource
♦ the ease with which it can be used by several or many users (subtractability); the ease with which those who are not members of the user group can be excluded (excludability); and its appropriateness for management communally rather than by individuals (indivisibility)
♦ the role of technology in its management and use, and the cost of alternative technologies
♦ the availability, structure and stability of markets for its outputs

Decision-making arrangements
♦ mechanisms for collective and constitutional choice, i.e. procedures to set and change operational rules
♦ operational rules, e.g. who has access, what actions must or may be taken or not taken, what information must be exchanged, limits on user behaviour, ways and means to obtain compliance, jurisdictional boundaries
♦ roles of external legislation and regulations, and of enforcement and support bodies

Operational features
♦ number of users and their legal positions
♦ dependence of users on the resource
♦ patterns of reciprocity and non-reciprocity
♦ degree of homogeneity in assets, information, skills, cultures, values and payoffs
♦ efficiency and equity outcomes.

In the rest of the paper we draw on this list and framework, in examining the experiences of selected contemporary initiatives that have attempted to develop systems of varying degrees of self-governance or co-management of forest resources and forest products flows.

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CASE STUDIES

Five of the programmes and projects to create or support contemporary systems of collective management of forest resources that are discussed here are on forest lands classified as being the property of the state. In the three that involve communal or private land, the state has dictated what use to which the land may be put. All involve some form of contractual arrangement between the state and local users, designed to improve management of the resource, and to increase the benefits from its use that flow to the latter.

The cases have been selected as being amongst the largest, best documented and most influential among government initiatives of this kind. All but one have their origins in the past 30 years, and reflect to some degree the trends and shifts in approach outlined in the first section. This section relates the origins and evolution of each of the programmes, and briefly describes its principal features, as background to the discussion of the reasons for success or lack of success that follows in the two following sections.

Woodlot resources outside the forest

Two of the earliest instances to attract attention focused on creating common property systems of supplying forest products *outside* the forests. They are located in areas of settled agriculture where new and more accessible sources of forest products were needed in the form of woodlots, in order to improve local supplies and reduce pressures on remaining natural forests.

Village Forestry, Republic of Korea

The village forestry programme of the Republic of Korea was initiated in the early 1970s in response to growing shortages of fuelwood and mounting problems of erosion, flooding and downstream damage to agriculture as hillsides were stripped bare by harvesting for fuel and timber. As 73 per cent of forest land was in private ownership, and many private landholdings were small, any move to improve the situation had to focus at the local level and be based on local involvement. New legislation and regulations were therefore enacted that required that forestry should be the main land use on lands with over 36 degree slope, and empowered the Office of Forestry to require landowners unable to reforest lands falling under this law to make that land available to Village Forest Associations (VFAs) to reforest on a cost-sharing basis. It thus created common property rights on private land (and in doing so implicitly redistributed benefits towards those in each community who had least land).

VFAs were established in all villages, with all households as members, building upon a tradition of forestry cooperatives, which were voluntary organizations operating in many areas to protect local forest resources with varying degrees of effectiveness. It also benefitted from being part of the broader structure of the *Saemaeul Undong*, or New Community Movement, established in 1970 as a framework for collective self-help actions of all kinds. VFA activities had access to subsidized credit, but members had to contribute their labour (with benefits being allocated

proportionately).

VFAs were grouped at county level into forestry associations (FAU) which in turn were members of a national federation (NFFAU), which was the mechanism through which the government channelled support and funding to the programme. The technical packages introduced were strongly oriented towards short-term results and income generation, with fruit and timber species as well as fuelwood, and an array of commercial activities.

The programme thus contained strong elements of both government pressure and incentives to get it started, but as its effectiveness became evident at the village level it acquired a momentum of its own. At its height there were more than 20,000 VFAs, and by 1978 they had replanted more than one million hectares of denuded land[2] (Gregersen 1982).

Social Forestry woodlots, India

In contrast to Korea, the woodlots established under Social Forestry programmes and projects in India were created mainly on village lands, and other uncultivated government lands available to villagers for communal use (e.g. revenue lands). The focus was in the drier plain areas of the country where existing village CPRs had been subjected to the kind of degradation documented by Jodha (1986, 1990).

The woodlots were to be established on non-arable communal land, to be managed collectively by the user community. Initiated in most states in the early 1980s, the programme expanded very rapidly. The woodlots were usually established by the state forest departments, and the village lands to be planted were frequently transferred into the temporary control of that department for this purpose. Planning of the woodlot was intended to be in conjunction with the *panchayat* (the lowest level of political and administrative organization), or some other community level body, which was to take over responsibility for management in accordance with rules prescribed by the forest department and a management plan drawn up jointly with the latter. Benefits were to be split between the forest department and the community.

Forest department liaison with the communities was usually poor, and under their management the projects have created primarily tree stocks and wood products of commercial value, with few intermediate products such as fuelwood and grass that previously were harvested from the areas and used by villagers. Villagers and *panchayat* bodies now appear to perceive the Social Forestry woodlots primarily as sources of communal income, rather than as sources of produce to meet village needs. The main benefit to the poor has usually been from the wage employment created.

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[2] Subsequently, large-scale rural-to-urban migration in the 1980s, and the rapid rise in rural incomes and access to electric power and other services, greatly reduced the demand for fuelwood, removing the need for the programme in most rural locations.

Though tens of thousands of woodlots have been established in this way, there has been reluctance on the part of the *panchayats* to assume control of them. The focus of support for local collectively managed forestry in India has consequently shifted from woodlots outside the forest to the programmes of joint management within the forest discussed below (Arnold and Stewart 1991, Chambers *et al.* 1989, World Bank/USAID/GOI 1988).

Co-management of forest resources

The high profile and achievements, or apparent achievements, of the Korea and India village woodlot programmes heavily influenced other 'community forestry' approaches in the late 1970s and 1980s. There was a marked preference for creating new resources over management of existing forest stocks, and for locating these initiatives outside the forest, or on degraded sites in the forest. Three of the four cases outlined below reflect an evolution from this initial strategy to a focus on collective management of forest resources. They are consequently concentrated in forested areas, many of which are in hilly or mountainous regions, where people often earlier had *de facto* use rights. These cases involve state forest land, on which forest departments have reversed the usual trend of increasing control over large tracts of degraded forests. Local control and authority was increased under agreements whereby villagers would get a much larger share of future produce, provided they managed the forests to meet agreed conservation and sustainability criteria. In the fourth case, in Mexico, earlier state control over forests on communal land has similarly been reversed in favour of the communal owners.

Joint Forest Management, India

In order to try and avoid some of the weaknesses and failures of the Social Forestry woodlot programmes, the Joint Forest Management (JFM) programmes in India moved collective forestry from *panchayat* and revenue lands to forest lands, on which competing claims should be less and forest departments would have a clearer remit. JFM built on a number of state or project-level initiatives of the 1970s and 1980s that had incorporated such a participatory strategy, with some apparent success. Of these, the one that had the most influence was a programme of Village Protection Committees (VPCs) in West Bengal.

VPCs were created in an area where most of the land was previously a mixed forest dominated by sal *(Shorea robusta)*, that had been substantially altered by heavy cutting and more recent plantations. VPC members agreed to restrict fuelwood cutting and cattle grazing in forest areas, in return for employment in forestry work, and a substantially greater share of the eventual proceeds from the resource.

By 1993, there were 2350 VPCs, covering 350,000 ha of forest. Originally the villages were chosen by the forest department, but the selection process has gradually given a greater voice to local *panchayats*. Since a second government order in 1990 opened membership to all, most if not all households usually belong to the VPC, which selects its own officials (Saxena 1997, Roy

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Largely on the strength of the West Bengal experience, the government of India issued a circular to state governments in June 1990, recommending the adoption of Joint Forest Management. In summary, the principal features of the circular were as follows:

● JFM should involve an "arrangement" between the village community, NGOs and the State Forest Department, with the selected area of forest is managed in accordance with a working scheme approved by the state government, and prepared "in consultation with the beneficiaries."

● Beneficiaries should be entitled to usufructuary rights to such items as grass, loppings and minor forest products, in accordance with conditions set by the State. They may also be given a share of the proceeds from the sale of trees when they mature. They may also plant fruit trees.

● Only people willing to participate and organized in groups specifically for forest protection are to be made beneficiaries and thereby granted access and benefits; access and benefits are not to be granted to individuals.

● Neither the beneficiaries or any NGO may acquire ownership or lease rights over the land in question. No grazing or agriculture is allowed on the site.

● Ideally, the selected site should be free from the claims of anyone who is not a beneficiary; anyone who currently has a claim to forest produce should be given the opportunity to join the beneficiary group.

● The work of the beneficiaries is to be closely supervised by the forest department. If the work has been done in an unsatisfactory manner, "the usufructuary benefits should be withdrawn without paying compensation to any one for any work that might have been done prior to it." (Lindsay 1994)

By 1995, 15 states had adopted such collaborative programmes involving local communities in the management and protection of forest lands in return for rights to use specified forest products. This huge programme has attracted much attention, as a possible general model for local governance of forest resources, in other countries as well as across India.

The principal problems that have arisen in implementation relate to how to create VPCs, to their relationship to the forest department, to the functioning of VPCs (in particular as concerns their links with the *panchayat* system), and to the distribution of benefits among different categories of user. Experience has also highlighted issues within forest departments.

Some of the problems have arisen because of the speed and vigour with which JFM has been

disseminated, and the difficulties in applying a single formula to a country with the ecological, economic and cultural diversity of India. It is now coming to be seen more as a set of principles and a process rather than a preset formula, to be modified and adapted to local circumstances, but is still at a relatively early stage in this process (Saxena 1997, Poffenberger and McGean 1996, Kurup 1996, Hobley 1996a, Femconsult 1995, Sarin 1993, SPWD 1992).

Van Panchayats, India

Although they attracted relatively little attention in the development of JFM, the Van (Forest) Panchayats in the hill areas of Uttar Pradesh in India constitute a co-management system that has been in existence for a much longer period. They were introduced in the 1920s by the civil administration after a prolonged period of intense agitation by villagers against a major expansion of British control over forest resources in the area. In order to resolve this dispute, a category of forest of little or no commercial importance was established to provide for local needs, to be managed by a village body (Van Panchayat) in accordance with a set of government regulations and legislation. The forest department retained control over timber and resin management in these areas but the village received any profit made from sale of these products. Though many of these village bodies have ceased to function, new Van Panchayats continue to be formed. In 1995 it was reported that in the Kumaon region there were nearly 3000 Van Panchayats controlling 35 percent of the forests.

The *panchayat* body selects a leader from among its members, establishes management rules consistent with the authority established by the Forest Panchayat Act of 1931 (amended in 1976), establishes measures to ensure enforcement of these rules, and manages the disbursement of funds that accrue from forest activities. The collection of a tax, either at harvest or monthly, reinforces the legitimacy of the local institution, and provides the necessary funds at the village level.

The focus in most Van Panchayats has been on production and distribution of annual products such as grasses and leaf fodder. Where the level of annual use is kept to a reasonable level, natural regeneration has led to significant improvements in productivity. In many cases, however, the heavy demand for forest products has simply meant that harvesting has been shifted to other forest areas (Agrawal and Goyal 1997, Agrawal 1994, Ballabh and Singh 1988, Triparthi 1987, Saxena 1987).

Hill Community Forestry, Nepal

The system of local management of forest areas that has evolved in the hill areas of Nepal differs from the Indian experience in that it has incorporated central features of indigenous local collective management systems that are widespread in these areas. Historically, forests were controlled under a variety of forms of tenure - some feudal, some in the name of the state, and some under communal forms of control. The overthrow of the feudal system in the 1950s led to the forests of feudal owners being brought under the control of the state, under the Private Forests Nationalization Act of 1957. Where local leadership was strong, more local groups appear to

have taken steps to bring the forest areas they used under their own control, in order to secure their access to them.

In 1978, the government passed legislation enabling substantial amounts of public forest land in the middle hills to be handed over to local communities to manage, in recognition of the practical difficulties of managing the country's dispersed forest resources through the forest department. Local management was to be achieved through the *panchayats*, which would enter into agreements with the government to manage local areas under agreed forest management plans. Subsequently, a succession of adjustments have shifted the government programmes in the direction of the indigenous control and management systems being practised in many hill communities. Following passage of the Decentralisation Act in 1982, the government initiated a series of measures that moved the focus from the *panchayat* to the user group, with more authority and responsibility progressively devolving to these groups.

Much of the experimentation with new institutional formats has been formalised in a 1989 Master Plan for the Forestry Sector, with the user group approach given legal authority in the 1993 Forest Act. Ownership of the land remains with the state, but trees legally belong to user groups, though the state reserves the right to take back possession of the community forest if the terms and conditions of handover are not met. Management control rests solely with the users of the resource, who now develop their own operational plans, set the prices at which the produce is sold and determine how surplus income is spent. The process of formalizing a largely self-governing system for managing local forest areas has thus proceeded further in Nepal than in most countries.

By June 1997, there were 6000 user groups, managing 450,000 ha, with a further 6000 waiting for formal registration. User groups are now coming together and forming larger network organizations. The largest network, the Federation of Community Forestry Users in Nepal (FECOFUN), with more than 1000 user group members, is taking on a negotiating and mediating role, and the provision to members of some services previously provided by the Forest Department (Shrestha and Britt 1997, Malla 1997, Hobley 1996a, Srestha 1996, Gilmour and Fisher 1991, Fisher 1989, Campbell *et al.* 1987, Arnold and Campbell 1986, Molnar 1981).

Ejido Forests, Mexico

The development of collective management of forests on community (*ejido*) lands differs from the previous three cases in that communities already controlled the land, having been granted rights of use after the 1910 revolution. However, until legislation in 1986, the forest resources on these lands were in effect controlled by the government which granted logging concessions to forest industries, some of them state-owned. The residents of the *ejidos* benefited very little in income or employment.

Following campaigning in the mid-1970s by peasant organizations, new legislation, culminating

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in the 1986 Forestry Law, transferred decision-making power over forest harvesting to the *ejidos* (subject to their getting approval for a management plan, to be drawn up by a forester). By 1988, there were at least 23 *ejido* organizations managing their forests in 13 states, with variable results.

The earlier arrangements usually proved to be heavily entrenched and those benefiting from them frequently have been reluctant to accept change. It became apparent that change would often need new institutions and the withdrawal of existing organizations. Consequently, the technical assistance functions previously assumed by the state were first decentralized and then privatized, with the state reduced essentially to a supervisory role. In 1992, another Forestry Law established a national coordinating body, with regional bodies to provide fora for consultation by all interested parties.

In one of the apparently more successful initiatives, the *Plan Piloto Forestal* (PPF) in the tropical region of Quintana Roo, 10 *ejidos* have, since 1983, progressively taken over responsibility for management and exploitation of their forest resources (initially producing mainly *chicle*[3], but now principally harvesting mahogany). An autonomous institutional structure (*Sociedad de Productores Forestales Ejidales de Quintana Roo AC* (SPFEQR)) was created at an early stage in order to provide a single voice in dealing with the government and the market, and to provide legal and technical assistance. The PPF has already been replicated three times, and by 1995 had been extended to about 50 *ejidos* covering 500 000 ha. Active marketing has increased prices and expanded the range of species sold, ensuring larger income flows and an ability to finance further capitalization of the enterprise. The larger *ejidos* with mahogany-rich resources have been able to invest in processing.

In 1992, constitutional reform effectively privatized *ejido* land allocated to individuals and the rights of users of communal land. This has strengthened *ejido* legal rights to own and manage forest land, but makes it easier, if a majority of community members so wish, to clear the forest and parcel out the land (Richards *et al.* 1996, Goldring 1995, Perl *et al.* 1991, Richards 1991, Snook 1991).

Co-management on forest lands

The last two cases are in countries where very large areas are classified as state forest land, but have on them large numbers of people practising agriculture and other non-forestry activities. As a result, the resource has been widely degraded. In each case, the government has looked to a measure of local collective control as one way of stabilising the situation, and maintaining under tree cover those parts of the area that should more appropriately stay as forest.

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[3]. A coagulated latex tapped from chicozapete trees (*Manilkara zapote*), and used in the production of chewing gum and other products.

Stewardship and ancestral domain certification, Philippines

The Philippines has seen a range of initiatives, in particular in the post-Marcos era, designed to provide meaningful local autonomy. The largest forestry-related programme has been the Integrated Social Forestry (ISF) Program initiated in 1982. This is based on the concept of 'stewardship', granting exclusive rights to use and occupy land for 25 years, renewable for another 25 years, to individuals, associations and indigenous communities.

However, it became evident that stewardship agreements have the potential to provide only limited tenurial security. Ownership remains vested in the state, and agreements can be revoked by the Department of Environment and Natural Resource (DENR) if the latter considers that the community has failed to comply with the terms of its agreement. There has consequently been growing interest among long term occupants in forest areas in Certificates of Ancestral Domain Claims (CADC), which cannot be revoked by the government. By June 1997, 1.18 million hectares had been incorporated into CADCs awarded to 79 indigenous groups.

The programme of delineating, assessing and awarding CADCs is designed both to protect their tenure and ensure sustainable development of the forests in the certificated areas. However, implementation has encountered familiar problems of overly bureaucratic procedures, disputes between and among those with claims on the areas (forestry and mining, immigrants and indigenous people, etc.), and organisational and leadership problems within the local groups. (Sabban 1997, Hilario and Sabban 1997, Lynch and Talbott 1995, Sabban 1992, Plantilla 1991, Gibbs *et al.* 1990, Borlagdan 1990)

Forest Villages, Thailand

One of the initiatives that the government of Thailand launched in the mid-1970s authorized the Royal Forestry Department (RFD), and other government agencies, to set up forest villages. The objective was to regroup people already farming inside the forest into villages, in order to facilitate provision of infrastructure and services, stabilize the area under cultivation and encourage reforestation.

However, the incentives provided generally did not prove attractive to potential participants, and the mixture of local and migrant populations often created highly factionalized villages, making it difficult for village committees to command support from all sections of the community. The focus consequently increasingly shifted to the National Forest Land Allotment Project, which assigned rights to use forest land to individuals rather than communities.

At the same time the RFD greatly extended the area classified as Protected Areas rather than Forest Reserves, which had the effect of further restricting the position of hill communities practising indigenous collective management in these areas. Efforts to provide them with more formal institutional basis for their forest management initiatives have been opposed by those who argue that this could put urban water supplies at risk. Nevertheless by mid 1997 a Community

Forest Act had been drafted and had achieved a considerable measure of agreement. This would have given indigenous groups more tenurial security, but only limited rights of control - a compromise they were prepared to accept because of the protection the Bill would have provided against outside encroachers. Unfortunately further progress of the Bill has been jeopardised by the current economic and political problems of the country (Wittayapak 1996, Vandergeest 1996, Lynch and Talbott 1995, Ganjanapan 1995, Hirsch 1995, Chuntanaparb *et al.* 1993, Pragtong and Thomas 1990)

CONDITIONS FOR SUCCESS

Because local collective management of forest resources is by definition situation specific - tied to particular local user groups or communities - most attention has been focused on the micro factors that bear on its functioning at this level. Investigation and intervention have mainly been concerned with interrelationships between the resource, the community and its institutions, and other features of the local situation. However, effective local control, or joint control with the state, requires the willingness and ability of government to legitimize and empower the local institutions and help them enforce their rights. Thus, the success of local solutions is ultimately governed by broader political and institutional factors that determine whether or not common property is a viable option.

The issues that determine whether this wider framework of policies and macro level institutions are supportive of collective management, or could create a supportive environment, are dealt with in the next section of the paper. In the present section we look at the local factors that are likely to influence success, or lack of success, when the broader framework is supportive, or at least tolerant, of local management. This discussion draws on conclusions that can be drawn from the cases reviewed in the previous section, and on the broader literature relating to management of forest resources as common property.

As was outlined at the end of the section on Forest resources as Common Property, the literature on the subject suggests a number of factors that might affect the capacity of communities and user groups to organize to manage natural resources as common property. The discussion that follows concentrates on three key areas:

> ♦ characteristics of the resource and of the products to be managed (ease of protection and management, relevance to user needs, competing uses, etc.)
> ♦ characteristics of the group of users (commonality of interests, sources of potential conflicts, size of group, leadership qualities, etc.)
> ♦ local institutional arrangements (representative and equitable, rule making and enforcement, etc.)

Resource, product and demand factors

Aspects of the location, composition, size, productivity, and product characteristics of a particular forest area can have a bearing on whether is likely that it can be managed as common property, and whether this would be more effective than alternative forms of governance.

physical characteristics

A basic characteristic that bears on these issues is whether the resource has definable boundaries and can be protected for the exclusive use of the members of the controlling group. In West Bengal, past land use practices had resulted in a dispersed forest resource which could not easily be managed by the forest department, while the topography allows each forest unit to be identified with one village, or a group of villages. It has been argued (Saxena 1997) that this helps explain the relative ease with which collective management was developed there; and why it has proved more difficult in the more usual situation where these features are not present. In Nepal it has been shown that proximity of a forest area to the user group facilitates monitoring and hence effective self-governance.

Another basic question is whether the resource might be more effectively managed to meet the users' needs individually rather than collectively. An area of forest that can produce multiple products only as long as its multi-species structure is maintained more or less intact is more likely to induce collective management than tree stocks that could be split up into individually managed units, such as woodlots, or that generate outputs that can be produced from tree resources that households can grow on their farms. In parts of the middle hill areas of Nepal where collective management of forests has in the past been strong, there has recently been a big increase in tree stocks on farms, and a related decrease in the harvest from locally managed forest areas. This appears to be, at least in part, because out-migration to wage employment elsewhere has reduced the availability of labour, leading to withdrawal of marginal areas from cultivation (thus making farm land available for trees) and increasing the cost of collecting produce from more distant forest areas (Gilmour 1995).

Such shifts from forest to on-farm tree resources have been widely observed elsewhere as factor availability and cost patterns change (Arnold and Dewees 1995). Where this happens the incentives to engage in collective control and management of a local common pool forest resource may consequently become weaker, because the viability or competitiveness of CPR products declines relative to supplies from other sources (Byron and Arnold 1997).

Productivity and relationship to user needs

The incentive for users to invest in collective management is likely to be greater if the resource is capable of meeting a substantial part of users' needs, and if these benefits can be obtained rapidly and regularly. Their small size relative to local needs proved to be one of the main disincentives underlying the failure of the Social Forestry woodlot projects in India - as did their focus on producing poles and timber rather than fuelwood, fodder and green mulch (Arnold and Stewart 1991). An early survey of indigenous user group systems in Nepal (Molnar 1981) found

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that these were not likely to be active if users felt their local resource was too poor or small to generate additional outputs commensurate with the efforts needed to protect and manage it. In the Plan Piloto Forestal project in Mexico, interest has been greater in those *ejidos* where the forest is rich in mahogany and *chicle* than in those where returns from poorer forests compare less favourably with what can be earned from agriculture (Richards *et al.* 1995).

By the same token, situations involving forest that is producing already are likely to provide a greater incentive to local collective management than woodlots that will produce only after several years. In West Bengal, the VPC programme has been more successful in areas well endowed with sal forest, which regenerates rapidly and produces early returns from non-timber products, than in areas where returns had to be concentrated on slower growing plantations.

Consequently, the tendency in most of the programmes reviewed to allocate degraded forest or scrubland for collective management has often weakened the incentive for users to participate. Though some forests classified as 'degraded' by foresters can be rich in the non-timber products of value to local users, others are not. Many of the sites available for Social Forestry woodlots were so poor as to require substantial investment in site preparation first, putting their use beyond the reach of the local community (Arnold and Stewart 1991).

Excluding richer and more productive areas of forest limits the potential benefits users can obtain, which is likely to reduce their commitment to forest management - as has been noted in JFM projects (Saxena *et al.* 1997, Hobley 1996a). In the more comprehensive and robust initiatives in self-governance in Nepal, in contrast, user groups manage and directly benefit from the whole output from their forests (Malla 1997).

Ease of management

The ease with which the resource can be managed by the user group is also important. Most functioning local collective systems in practice involve easily managed products such as fodder and fuel, which are also products that members of the user group can benefit from in an equitable manner. Managing a wider range of forest products can introduce levels of complexity and skills that groups may not wish to take on. A study of management practices by indigenous forest user groups in the hill areas of Nepal (Arnold and Campbell 1986), showed that these were very conservative, focusing on restricting access or what could be harvested in ways that would avoid any risk of over-exploitation. This reflects the risks associated with running down a resource which takes so long to build up again, the limited knowledge that exists about yields and responses to intervention in multi-species forests, and the high costs of obtaining information on which to establish more intensive management and use practices.

It has proved difficult to develop more intensive forest management practices that could be handled by user groups, and this task has not been helped by the tendency to develop management plans for local use based on conventional forestry practices, requiring skills found in forest departments. These problems are often compounded when the products are to be produced for

the market, particularly for industrial products such as timber which can involve complex and costly processing.

It has been argued that collective management is best suited to meeting subsistence demand rather than production for the market (Baland and Platteau 1996). Though there are many instances where this form of management has handled commercial production successfully (McElwee 1994), one of the factors that may need to be taken into account in assessing whether a resource is suited to collective management can be the extent to which its output is likely to attract commercial rather than local use.

Characteristics of the group of users

This sub-section looks at a number of key issues that appear to affect whether or not the group of users are likely to be able to collaborate effectively in the control and management of a local forest resource, and what aspects of their group dynamics appear to be most important in shaping that collaboration.

Shared or conflicting interests

One of the main factors that can complicate governance of forest resources is the presence in a single location of more than one group of users, each with different interests and objectives. Though user objectives are usually concerned with access to supplies of particular forest products, there can be other goals. Groups practising indigenous management systems are often primaril concerned, as in Orissa and north Thailand, with protecting and legitimising their rights to the areas that they already occupy and use (Poffenberger 1996, Gananapan 1995). The primary interests of participants in many Social Forestry and JFM projects in India, on the other hand, appears to have been access to government benefits in the form of employment and income (Saxena *et al.* 1997, Arnold and Stewart 1991).

While some among multiple objectives for a forest area may be complementary, e.g. for different products, or for use at different times of the year, others may be more competitive or incompatible. In the areas studied by Jodha, for instance, the continued and often growing dependence of the poor on local CPRs conflicts with the interests of the wealthier in privatization of the CPR areas and their transfer to private agricultural uses (Jodha 1990) The consequence of such conflicting pressures is likely to be increased transaction costs associated with maintaining a collective management system, sometimes to the point where such management is no longer possible.

Even in less fragmented and fractious situations, common property use and management is vulnerable to conflict and dispute by its nature, because the creation of common property excludes users from outside the user group. In addition, not everyone within the group is likely to agree with the creation of a common property regime for the resource. As Bruce (in preparation) has argued, "We should expect the legal basis of common property to be challenged from both inside

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and outside the community". In addition to exclusion, there can be disputes over collective choice processes, and disputes over rules for resource management and enforcement of rules on members (Rose 1996).

Size and composition

It has been widely argued that such difficulties and constraints can best be minimised by organising collective management around small homogeneous groups, with membership of each confined just to those with similar views on the use of the resource. There is considerable evidence that such small uniform groups do find it easier to establish and maintain collective control. For instance, these emerged as characteristics of surviving indigenous systems in the villages studied by Jodha (1990). Similarly, they were among the features identified by Sarin (1993) as facilitating successful establishment of JFM village institutions.

However, the thesis that smallness is invariably desirable is being increasingly challenged. Although the task of dividing responsibilities and benefits may favour small and cohesive user groups, the task of managing and exercising control over the resource may call for a larger body that encompasses all those with a claim on the resource. Powers of negotiation with the state and of protecting boundaries are also likely to favour larger bodies (Ascher 1995, Stewart 1991). For example, a recent study of the Van Panchayats in India has shown that moderately sized *panchayats* are better able to protect their resource than small *panchayats*, because they have greater resources to hire watchers, etc. (Agrawal and Goyal 1997).

Similarly, though homogeneity of interest, needs, etc., among users can have obvious benefits in terms of internal cohesion, the thesis that this is necessary in order to manage collectively is also being questioned. Baland and Platteau (1996) argue that although cultural differences, or differences in the nature of the interests of participants, can make collaboration difficult, differences in economic endowment need not necessarily be an impediment. It has been suggested (Arnold and Stewart 1991) that one of the reasons why self-governance is more prevalent in the hill areas in India (by comparison with the lowland areas) is because rich and poor in communities there have common use patterns, and consequently a shared interest in how local CPR forest areas should be managed. The presence in West Bengal of component sub-groups with complementary interests, with poorer members benefitting from increased supplies of traditional products, such as sal leaves, while wealthier members among the village elite are interested in the income from sale of plantation timber, has been suggested as one of the reasons for the relative success of self-governance there (Saxena 1997).

It has also been suggested that heterogeneity can encourage the emergence of leadership and cooperation (Ostrom, 1990). In addition, having different categories of user within a group can increase the likelihood of a negotiated agreement among them.

Leadership

The importance of leadership has been stressed by many. Baland and Platteau (1996) put the case as follows "Good leaders are essential to ... help people become aware of the real challenges confronting them; to convince them that they can ultimately benefit from concerted action; to show others the good example; to mobilize a sufficient number of them for enterprises requiring co-ordinated efforts; and to ensure impartiality and fairness in the designing and enforcing of rules and sanction mechanisms."

Trust in the *panchayat* leaders, and in the process by which they were elected, has been identified as one of the factors associated with Van Panchayats that have survived in Uttar Pradesh (Vishwa and Ballabh 1988, Saxena 1987). Conversely, lack of trust in their leaders has proved to be one of the main constraints to progress with ancestral domain certification in the Philippines (Hilario and Sabban 1997).

Local institutional arrangements

The rules relating to control and management of common property, and the local institutions to develop, apply and enforce these rules, lie at the heart of any collective management system. Study of long enduring systems has allowed the identification of a number of general design principles relating to these institutional aspects of successful collective management of natural resources (Box 1). In the discussion that follows we look at the experience of the local institutional arrangements in the cases reviewed, in terms of the main thrusts of these principles. In particular, we examine their effectiveness in securing rights for the user groups to set, modify and enforce their own rules; the performance of different kinds of local arrangement in satisfactorily representing and responding to the needs and concerns of their constituency; and ability to craft situation specific institutional arrangements appropriate to the complexities that can arise with multiple product and multiple user forest CPRs.

Freedom to set, modify and enforce group rules

All the co-management cases reviewed have been characterised by a substantial measure of direction from the state. Overly tightly formulated government rules for the operation of co-management arrangements can create an array of possible problems. The very process of imposing rules itself undermines a basic principle of devolving responsibility - namely that the local body being empowered needs to be able to create rules appropriate to its own situation, and to modify these rules as the need to do so arises. Preset formulaic rules are unlikely to match the needs of many of the groups to whom they are applied. Rules that cannot be altered by a group can freeze a constantly evolving relationship between people and the resource they draw upon at a particular point in time, preventing its adaptation to further change (Hirsch 1997).

The inflexibility that governments introduced nearly everywhere by intervening in this way has clearly contributed to many of the problems these programmes have encountered. In most there is progression now towards more flexible and general rules, and to local adaptation. However, even in Nepal, where this has gone further than most, there remains considerable dispute and

• friction between FUGs and the forest department over the rules laid down and monitored by the latter (Srestha 1996).

Representative and accountable institutions

In some situations, the authority to manage common pool forest resources has been entrusted to an existing local institution. Sometimes this will be a body or group dedicated to the task of forest management. More frequently, it will be a local body with general local administration responsibilities. However, the capacity of the latter to manage forests may be limited if, as is often the case, its boundaries and jurisdiction do not coincide with the boundaries of the forest to be managed, or it has no relevant experience in collective management of other local activities.

The extent to which the interests of those who run or control the organization coincide with the interests of the forest user group, or groups, is also often an issue. The elected *panchayat* bodies in India and Nepal proved to be unsatisfactory in this respect largely because of their predominantly political and bureaucratic agendas, and because they generally covered much larger areas and populations than the forest user group (Hobley 1996a). Elected local bodies in parts of west Africa have similarly been criticised as being not representative and accountable to their constituents; often effectively privatising use of local forest resources handed over to them (Ribot 1996).

Another issue that has arisen widely is that an existing institution, reflecting social values from the earlier period when it came into existence, and long standing and entrenched patron-client relationships within a community, may not adequately reflect the current interests and concerns of all its present members. In particular, there can be continued widespread exclusion of, or failure to properly involve, women and other disadvantaged groups (Hobley 1996b, Sarin 1993).

Where suitable local institutions did not exist, programmes to encourage and support local management of forests have usually tried to create them - e.g. the VPCs in India and the VFAs in Korea. The danger is that a new institution may not adequately reflect the reality of the situation; e.g. excluding some previous users of the CPR or leaving them worse off. An important step in refining the system of user group management in Nepal has been the recognition that there are different categories of users interested in a particular forest resource. These range from primary users who depend on the resource for all of their forest product needs, to secondary users who use it for a more limited purpose, to other interest groups such as collectors of medicinal products (Hobley 1996a).

Attempts to construct institutions to a particular formula can create groups which lack sufficient cohesion, so that they collapse or become dominated by particular interests or by the forest department (Hobley 1996b, Ascher 1994). For instance, it has been suggested (Malla 1997) that the local elites who are likely to become leaders of FUGs in Nepal are often those who effectively controlled local forest resources in the period prior to the 1957 nationalisation of forests; implying

that the process of devolving control to user group level has in effect enabled them to reassert their control.

In recognition of the difficulties in creating effective new local organizations to manage forests, a recent study on the subject (Thomson and Freudenberger 1997) has stressed the importance of carefully weighing the potentials for basing a common property management intervention on existing institutions, even with the limitations these are likely to exhibit, against the problems of creating new institutions. Where it does prove necessary to set up separate village or user groups to manage local forest resources, or particular product flows, they will usually need to be recognised by, and affiliated with, the formal bodies of local government in order to get access to government resources, services and authority. The involvement of higher level bodies can also be necessary for negotiations among different stakeholder groups when the forest is used for multiple products by more than one user group, and for conflict management.

Thus, as the Panchayati system becomes more firmly entrenched in India as the channel through which government resources flow to the community level, increasing attention is being given in to how to link VPCs created under JFM to the related *panchayats*. Such linkages may often be achieved by 'nesting' the user group body in a larger local organization, such as the village leadership, a *panchayat* committee or the District Council. Alternatively, user groups can join together to form larger and more influential organizations, as the VFAs in Korea did in the NFFAU (Gregersen 1982), and FUGs in Nepal through FECOFUN (Srestha and Britt 1997). However, concerns have been voiced that such associations may unduly strengthen the position of those who provide leadership in the constituent user groups - who tend to be the village elites (Malla 1997)

Coping with complexity

Because forest user groups are so often exposed to conflict arising from multiple use and user disagreements, the issue of conflict resolution and management in community level forestry has attracted a particular attention in recent years (Chandrasekharan 1997). This has highlighted the need to make provision for arbitration and dispute resolution (Pendzdich *et al.* 1995). It is also increasingly recognised that, at the project level, more attention needs to be paid in the design and introduction of new or modified local level institutional arrangements to trying to avoid, remove or reduce likely causes of future disagreement and conflict (Fisher 1995).

Market forces tend to introduce particular complications. Commercial demands on a common property system are likely to increase pressures from users both inside and outside the user group, attract the interest of privatizers and encroachment, and cause breakdown of the mechanisms for exclusion and control (McElwee 1994, Runge 1986). More complex controls are therefore likely to be needed (Stewart 1991).

In both the Mexico and Korea cases it proved necessary to create separate co-operative organizations to handle marketing, and provide access to support services. In the Plan Piloto

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- Forestal, organizational structures are also being created that will enable local communities to run industrial forestry and processing operations. Arrangements for distribution of benefits within communities have reflected traditional conventions such as annual rotation of posts, uniform salaries and consensual decision-making. While this has encouraged social cohesion, it has weakened business efficiency. With the project still requiring considerable outside support it is still too early to make a judgement as to whether this will prove sustainable (Richards *et al.* 1995)

In co-management schemes the more complex longer rotation commercial components of the forest, such as timber, may be managed by other stakeholders - such as the forest service in the case of the Van Panchayats. Alternatively, commercial components may be handled through contracts with the private sector, as in the Sukhomahri project in the Shivalik hills in northern India, where fodder grass for local self-use is protected collectively and distributed to all member households, while the rights to the commercially valuable bhabbar grass are auctioned to private contractors (Saxena 1997).

It is clear that in some situations it will be difficult to establish the conditions for effective local group management at all. When local institutions have broken down under market, demographic and political pressures, it is not to be expected that new local institutions capable of controlling resource allocation and use can be created easily. Under such circumstances, the low returns and high social cost associated with trying to control common resources may prove so unacceptable to users that they prefer to let the resource be exploited in an unregulated open access manner, or within rules laid down by the forest department or some other arm of government. Where this is the case, it is likely that it will be necessary to move to a lower level of devolution, with the state taking responsibility for management of the forest resource, but encouraging as much local involvement in management decisions as possible (Baland and Platteau 1996).

POLITICAL ECONOMY OF IMPLEMENTATION AND REPLICATION

As was discussed earlier, common property systems have long been subjected to pressures by governments wishing to increase their control over local activities and resources. Conflicts with existing power structures and allegiances encourage governments to take measures to undermine and remove previously functioning local governance and management systems and replace them with political and bureaucratic structures and regulations (Thomson and Freudenberger 1997, Baland and Platteau 1996).

This constitutes one of the main constraints to achieving sustainable contemporary regimes of self-governance of forest resources. If the influence of such changes is not understood, and taken into account, there is a danger that interventions are put in place that try and sustain or create common property regimes and institutions that are not appropriate, or feasible, in a particular situation. That this danger has not been avoided has been evident in much of what is proposed in support of a greater role for common property regimes. As Campbell (1990) has pointed out, "the arguments for increased community control of common property too often call for ... a wholesale

change in the patterns of political life".

In the rest of this section we look first at evidence that governments are, or are not, prepared and able to provide an appropriate policy basis for collective management of forest resources in some situations, and to back this with the necessary legal provisions. We then look at what the actual experiences reviewed earlier suggest about the effectiveness of such policy and strategic shifts; looking in particular at the performance of the government agencies most responsible for delivering and supporting such change - forest departments.

Policy changes in favour of local collective management

The recent upsurge in initiatives to increase local control and management of forest resources broadly coincides in time with the growth in strategies to bring about structural adjustment, and a reduction in the size and the role of government. It seems likely that the current interest in more local forest management is related to their relevance to the devolution and decentralisation strategies through which these new priorities are being pursued in part. It is also, more clearly, linked to the higher priority attached to rural development, and to ensuring greater participation by rural stakeholders in decisions and actions affecting them.

In forestry the shift towards a greater involvement of rural users dates back to a major shift from exclusively industrial and conservation objectives that started in several countries in the late 1970s (FAO 1978, World Bank 1978). This was primarily triggered by recognition that existing forestry strategies and methods were failing to conserve essential aspects of the forest estate. The huge initiative in the 1970s by the South Korea government to encourage villages to create collective woodlots on their lands, was stimulated by the perception that this was needed in order to stop destructive use of hill forests that were protecting downstream agricultural lands. Hill community forestry in Nepal similarly had its origins in increasing concern about deforestation of watershed areas. In India, the Social Forestry initiatives arose from arguments by the 1976 National Commission on Agriculture that the country's remaining timber production forests needed to be protected against local users of fuelwood, etc. In the Philippines and Thailand there were growing concerns over the depletion of both the economic and environmental functions of the forest.

As has been documented earlier, much of the earlier effort to respond to the conservation priority focused on trying to mobilise local users to collective activities that would move their production out of the forests, or that would recreate tree cover in critical areas. Subsequent moves to forms of co-management within forests reflected both perception of the flaws in the earlier approach, and growing response to arguments that forestry needed to become more responsive to meeting local needs and concerns. In initiatives such as the Mexican programmes to enable *ejidos* to take effective control of the commercial forests on their lands, the latter seems to have become the primary objective.

It would appear that the shift towards more co-management and local self-governance within forestry has in some countries been facilitated by the declining economic importance of the forest

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sector at the national level. It has been argued that the 1978 decision by the government in Nepal to legislate to enable public forest land to be transferred to local communities reflected both a recognition that this dispersed resource could not be effectively controlled from the centre, and also the declining importance of forests as a source of revenue to the central government (Malla 1997). In India, the 1988 Forest Policy radically changed the objectives for the forest sector, subordinating direct economic benefit to environmental stability and meeting subsistence needs, and stating that forests were not to be commercially exploited for industrial uses (Saxena 1997). Recent Supreme Court rulings that have severely restricted timber harvesting in natural forests have meant that JFM is assuming increased importance as a form of forest management. In Thailand, on the other hand, where the direct value of the forests also declined sharply because of a logging ban, a shift towards greater emphasis on their environmental value has resulted in a stricter protective regime that has hampered the development of local management (Vandergeest 1996, Wittayapak 1996).

Legal base

At least in the particular countries reviewed, the policy environment has therefore usually shifted in ways that are more favourable to devolution of control to the local community level. But this has not always been accompanied by necessary legislation and regulations, or by measures to implement policy.

The programmes in Mexico, Korea and Nepal have benefited from having legislation specifically designed to support common property systems. In each there are legislation and regulations that provide authority both to communities and government agencies that enable them to generate the necessary rules, regulations and operational measures, and give them authority to implement and enforce them.

In India, though individual states have often promulgated measures to support JFM, there is no national legislation. The 1988 Forest Policy which provides the authority for the JFM initiatives is a non-statutory and advisory statement issued by the government, not backed by law (Saxena 1997). That it has not been translated into legislation is said to be because there is a lack of a political constituency for legal change in this area at the national level (Vira 1997a).

Lack of enabling legislation does not necessarily mean that programmes to support local self-governance of forest resources cannot happen. Security of tenure can often be more important than type of tenure (Fisher 1995). In a number of Asian countries where legislation restricts what people can do in the forest, forest departments have arrived at extralegal arrangements with communities to enable them to continue to manage the forest areas from which they draw supplies (Fox 1996).

However, without a legal base, community-based rights can be challenged in terms of national law, and local groups can encounter difficulty in using the law to assert their rights (Seymour and Rutherford, 1990). Without secure legal backing, local people are also left in a weak position in

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negotiating change with government and can be left exposed to risk by even the best intentioned initiatives introduced by the latter (Singh, 1986). In Thailand, inability to arrive at agreement on community forestry legislation among the different political constituencies with interests in the management of forests has seriously impeded progress towards recognising and empowering those with long standing de facto rights of control and use of areas of hill forest (Wittayapak 1996).

Such problems are often aggravated because the legal base is weak and confused. In most countries, Western tenure, and more recent systems designed to transfer control over land from local to the new political elites, co-exist with community systems, undermining the latter but seldom providing a satisfactory alternative because they are not enforced. This causes confusion, because the legal status of land and forest resources becomes unclear (Bruce in preparation). The existence of a dual or multiple legal system means that people can be faced with different fora for settling a dispute under the different legal systems. This complicates the task, at minimum causing lack of clarity and confusion to claimants. This has been particularly evident in Africa (Birgegard 1993, Shepherd 1992, Lawry 1989).

Policies of devolution of control in practice

Some of the broader policies and programmes of devolution and structural adjustment have themselves had an impact on the practice, and potential, for management of biomass resources as common property. For instance, the widespread titling of land to individuals in many countries of Africa, on the grounds that this would encourage agricultural growth, often threatens the complex of overlapping rights that previously enabled different categories of users to access some part of the resource on those lands (Neumann, 1995). Similarly, concerns have been expressed that the new law allowing Mexican *ejidos* to sell land, again undertaken in the name of increased agricultural efficiency, could undermine the present collective use and management of forest resources on that land (Goldring, 1995; Richards *et al.*, 1995). Lower budgets have reduced the support that the forest department can provide to the Van Panchayats in Uttar Pradesh, diminishing their ability to prevent encroachment by outsiders (Ballabh and Singh 1988).

There are also concerns about who benefits and who loses when governments decentralize responsibility for forest management to local levels. As was noted earlier, there is a danger in multiple user situations that formalising rights of access and use may leave out or disadvantage some of those who previously had de facto use rights. For example, the Social Forestry programmes in India were widely perceived as having adversely affected those who previously used the common lands on which the trees were planted for grazing, fodder, fuel and other produce - generally the landless and poorer members of a community (Arnold and Stewart, 1991).

A more widespread concern is the extent to which the state actually relinquishes power and responsibility through some of the community or village forestry programmes. One observer has pointed out that: "Recent decentralisation activities within the forest sector in India could be considered to have led to greater penetration of the state into the village, without the villagers

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• acquiring an equal degree of power to question the actions of the state. As the state continues to reassert effective ownership over forest land through forest management organizations, the presence of forest officials in these groups is considered to be an essential controlling feature. In many situations, village forest committees established under joint forest management have effectively become an arm of the Forest Department, rather than being developed as independent organizations that could challenge the authority of the department" (Hobley 1996b).

Concern has been expressed that in nearly all programmes the state retains ownership of the land, and reserves the right to reverse the process of devolution of control over forest land to local groups (e.g. Wily 1997). However, some of these concerns may be mistakenly equating rights of access and use with ownership. Also, these are *joint* management systems, in which the state has a continuing role, often both as a stakeholder and as a regulator. Forests frequently need to be managed *inter alia* to produce goods and services, such as watershed management, that are more logically the task of the state than local user groups.
In addition, despite the criticisms of the continuing presence of forest department staff in user group institutions, there is growing evidence in many situations that groups recognise that they can serve a useful function. Not only can department representatives act as a source of technical advice and a channel to government support services, but they can also act as arbiters against internal or external expropriation. Where transfer of control to local bodies would otherwise lead to the resource falling into the hands of local elites or being sold to outsiders, a measure of continuing external monitoring or control may be desirable or necessary (Ribot 1996).

The question then arises, in the many situations in which social capital has been so seriously eroded as to make it difficult for users to organise effectively, as to how best to provide such external support. Is it the forest department that is best placed to do so? Or is it some other arm of government? Or is it best accomplished by a non-governmental body?

Bureaucratic attitudes and practices

Co-management of forest resources with local user groups confronts forest departments with tasks that are radically different from those conventionally associated with management of state forests for timber and watershed protection. Recent studies have highlighted a number of issues that can arise as forest departments attempt to make this transition.

Forest departments are now generally responsive to the arguments that their traditional approach has failed to secure sustainable forest management, and is no longer appropriate to the demands currently being placed upon the forest sector. There is often considerable concern within departments that they become more successful and be seen as being more relevant to current government (and donor) concerns (Vira 1997a). But this may result in them moving in directions, such as the higher environmental and protection profile adopted by the forest service in Thailand, which makes co-management even more difficult (Wittayapak 1996).

Even where they do accept a greater degree of resource sharing as an objective, it can be difficult

for forest departments in practice to give up the power, status and control over budgetary and extra-budgetary resources and income that stem from their control over large areas of forest. Existing practices are usually well entrenched and strongly linked to the "patronage systems and rent seeking within government organizations and with outsiders [that] are often the real determinants of institutional behaviour" (Hobley 1996b). The benefits of involvement in participatory forestry seldom appear to be as substantial or satisfactory.

The transition can be complicated by the fact that, in many countries, forest departments continue to be responsible for regulatory functions and direct management of large parts of the forest estate. Trying to combine this with transfer of control of parts of the forest estate to others creates understandable internal tensions and confusion. For instance, the comment has been made in relation to Nepal that: "A major problem is that the organization which has been given the responsibility for devolving control of forests to local communities also represents the interests of those who have most to gain by maintaining control of forests themselves. The Forest Department is being asked to use its authority to give away its authority!" (Gilmour and Fisher 1991).

Some of the problems encountered in co-management programmes reflect the ambivalence, or lack of clarity about seemingly conflicting objectives, that this dual role can engender. It can lead, for instance, to reluctance to authorize indigenous local forest protection groups, because of a concern that this would enable them to encroach on the position of the forest department, as happened in Orissa (Poffenberger 1996). Restrictions on sale of particular forest products, to protect the position of the forest department as a producer, is likely to reduce local users' potential to generate income (Saxena et al. 1997). The distribution of benefits between forest departments and local users, have similarly frequently been heavily biased in favour of the former (Saxena 1997). Poor communications with user groups can lead to misunderstandings over interpretation of rules, and unnecessary friction over incorrect assumed infractions (Srestha 1996).

A second problem area relates to the contrast in approaches appropriate to the traditional and new tasks foresters face. Public forests are most effectively managed by development and application of management models and techniques that can be applied uniformly over large areas. This encourages risk averse behaviour that conforms to the norms associated with these standardized tasks. This contrasts strongly with the diversity of physical and social situations that participatory forestry represents. These factors put a premium on innovation, responsiveness, willingness to take risks, learning from experience and flexibility - attributes unlikely to be nurtured in the highly structured bureaucracy of the usual forest department (Hobley 1996b).

It is also becoming clear that it is important to ensure that the institutional underpinnings of change are in place before initiating interventions. Though recognition of the importance of changes in attitudes and skills has led to a strong donor focus on training, this is unlikely to be productive unless it is preceded or accompanied by changes in the underlying culture and operating structures of forest departments (Hobley 1996b). Until this happens, field staff in particular, caught between the need to conform to the values of their service and being able to

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respond to the needs and aspirations of the communities whom they are expected to assist, are likely to become severely overloaded (World Bank, 1991; Campbell and Denholm, 1993).

These difficulties encountered within forest departments help explain the problems that foresters have been encountering in responding appropriately to a role of supporting forest management by local user groups. Real progress is likely only when field staff feel involved and committed to the new approaches. Encouragingly, there are signs in countries where the transition is relatively far advanced, such as India and Nepal, that such a change in attitudes is beginning to happen (Kurup 1996).

Intermediary institutions

The rigidities and constraints faced by many forest departments in making the transition to their new role has resulted in NGOs occupying an important role in many collective forest management programmes. NGOs can play an intermediary role between state and users, can facilitate change at the village level and can act as trainers of government staff in community organizing skills.

In the Philippines and Thailand, NGOs have helped communities press their case for greater community rights, and in the former play an important part in helping them meet the requirements for ancestral domain certification. In the Philippines and India, NGOs play a prominent role in providing training and extension services, and producing guidelines and manuals that provide a framework for fieldworker activities.

As has been described earlier, the programmes in Mexico and Korea have involved the creation of umbrella NGOs to perform the critical function of linking producer groups to the market and to government support services, and the FECOFUN federation in Nepal is taking on a somewhat similar function. These intermediary organizations are generally encouraged by forest departments, as they can take on tasks that the latter find difficult or contentious, particularly where there has been a history of poor relations between people and the department. However, there is a danger that forest departments are sometimes delegating tasks to NGOs in order to "avoid internal change" (Dove 1995). Concerns have also been raised in Nepal that organizations such as FECOFUN can become too closely associated with the forest department, or could become politicised (Srestha and Britt 1997, Malla 1997).

There is, therefore, considerable evidence that non-governmental institutions can be more effective than government bodies in helping communities and user groups develop a self-governing capacity and capability. However, not all NGO activity has been supportive of co-management. Not all are better equipped or skilled, or more appropriately motivated, than the government departments they seek to displace. There has been increased awareness that some NGOs are pursuing agendas (e.g. related to environmental issues) that are not necessarily congruent with the interests of the populations they work with.

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CONCLUSIONS

The role of local forest resources controlled by the user communities or groups has been much reduced over time, as demographic, economic and political change make alternatives more appropriate or feasible. Nevertheless, over a wide range of situations there is still some reliance on common pool resources for local supplies of forest products. However, their management as common property is often constrained or discouraged by government policies that are directly or indirectly biased against local management of forest resources.

The recent growth in government programmes that do devolve more control over forest resources to local communities in co-mamagement with the state reflects a number of factors, prominent among which has been recognition by governments that control by the state was no longer effective in conserving and capturing forest values. Choice between collective and private alternatives appears to be influenced *inter alia* by the relevance of the former to meeting local needs, and the fact that co-management enables the state to continue to exercise a considerable degree of involvement. Though co-management can also be a logical solution for communities where erosion of group social capital has weakened their capacity to manage their resource base unaided, and where the presence of multiple uses and users indicates the need for some form of pluralistic planning (Vira 1997b), there is a danger that it will be, or is being, pursued by forest departments primarily as a means of achieving better protection of the forest at low cost, rather than in terms of impacts on villagers' lives (Shepherd 1992).

One of the main weaknesses to emerge from this review of some of the main co-management exercises, has been frequent failure to adequately understand the circumstances under which this is, and is not, likely to succeed - leading to many inappropriate interventions. A second weakness across nearly all the programmes has been the poor record of governments, and specifically of forest departments, in developing effective and user-responsive support measures.

This being so, it must be a matter of concern that co-management is being vigorously pursued through government and donor programmes, often on a very large scale, with so little having being done to understand the lessons from what has been put in place so far. In India, Joint Forestry Management was adopted on a countrywide scale in place of Social Forestry without any systematic attempt to analyse what positive and negative lessons might be carried forward from those earlier projects. Within JFM the evolution of suitable systems in different parts of the country has been hampered by an initial framework that implicitly assumed that a single model would be appropriate everywhere. This assumption that co-management can be built around a single model extends to other countries, many of which, in particular in Africa, look to JFM in India as their starting point.

Needs for change have sometimes been promoted ahead of the capacity to implement them. Heavy promotion of communal management, often at the urging of donors, has frequently imposed pressures on forestry bureaucracies that they have often found difficult to absorb. It could be desirable if there is now a period of consolidation, moving from promotion to critical analysis, with more consideration of how best to address the difficulties that forest departments

have encountered (Vira 1997b).

There is a clear need to encourage a more flexible and responsive approach; one that is more situation specific and less formulaic. Even in Nepal, with its record of imaginative development of local collective forest management in the middle hills, little progress has been made towards developing a system that functions for user groups in the terai. The difficulties in moving to a more flexible approach have been aggravated in some countries by governments (and donors) setting very ambitious targets for participatory forms of forestry. Moves to introduce collective management as quickly and widely as possible have, on occasion, resulted in programmes on a scale so large that centralized control and uniform patterns of intervention proved unavoidable, as happened with Social Forestry projects in India. Approaches that allow for incremental change, and pilot projects that test and refine different approaches initially on a small scale, could be sounder. However, these have a higher cost in terms of the time and resources of the implementing agency, and it is necessary to develop strategies for moving from the pilot to the operational scale.

At the same time, the exaggerated expectations that co-management has given rise to need to be corrected. As Saxena (1997), writing about the Indian experience has emphasised,
a programme such as JFM cannot take care of everybody's interests. It is necessary to harmonise it with other community level government initiatives. In short, it is important to recognise the limits to how much change can be achieved within the framework of forest-oriented programmes.

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Box 1

Design Principles Illustrated by Long-Enduring Common-Pool Resources Institutions

♦ **Clearly defined boundaries**: individuals or households with rights to withdraw resource units from the common-pool resource (CPR) and the boundaries of the CPR itself are clearly defined.

♦ **Congruence**: (a) the distribution of benefits from appropriation rules is roughly proportionate to the costs imposed by provision rules; (b) appropriation rules restricting time, place, technology, and/or quantity of resource units are related to local conditions.

♦ **Collective-choice arrangements**: most individuals affected by operational rules can participate in modifying operational rules.

♦ **Monitoring**: monitors, who actively audit CPR conditions and appropriator behaviour, are accountable to the appropriators and/or are the appropriators themselves.

♦ **Graduated sanctions**: appropriators who violate operational rules are likely to receive graduated sanctions (depending on the seriousness and context of the offense) from other appropriators, from officials accountable to these appropriators, or from both.

♦ **Conflict-resolution mechanisms**: appropriators and their officials have rapid access to low-cost, local arenas to resolve conflict among appropriators or between appropriators and officials.

♦ **Minimal recognition of rights to organise**: the rights of appropriators to devise their own institutions are not challenged by external governmental authorities.

♦ **Nested enterprises**: for CPRs that are part of larger systems, appropriation, provision, monitoring, enforcement, conflict resolution, and governance activities are organized in multiple layers of nested enterprises.

Source: Ostrom 1997