Joint forest management: policy, practice and prospects

India's bold central policy change for joint forest management between government and communities has resulted in regeneration of considerable areas of forest, and has expanded the policy community through inclusion of more stakeholders. But these successes are matched by concerns that forestry departments are still calling the shots, whilst in some cases, serious local inequities are being exacerbated. This report describes the evolution of powers over policy – the legacy of colonial forestry, the inertia of 'fortress forestry' institutions, the favoured forest industries and the protectionist agenda, which seeks to lock away forests from people's use. These powers need to be tackled openly and concertedly for the ideal of joint forest management and the potential of farm forestry to be fully realised. The report shows how this can be done through policy processes, instruments, programmes and information which foster productive and equitable forest management.

Policy that works for forests and people series

Forest issues often concern large amounts of money, long time-frames, huge areas of land, and diverse livelihoods. The issues are complex and vary from place to place. However, a pattern of forest problems is common to many countries: continuing loss of natural forests; over-concentrated control and inequitable access to forests; an ill-informed public; and poorly resourced, inflexible forestry institutions. Policy is the root cause of many of these forest problems.

This series consists of six country studies – from Costa Rica, Ghana, India, Pakistan, Papua New Guinea and Zimbabwe – and an overview report. The series aims at a better understanding of the forces at play in contests over policy, the winners and losers, and the factors that affect policy outcomes. It also describes the processes that make and manage good policies, and the policy instruments that work in different contexts. By dealing with policy in practice – in the 'real world' of people and their institutions – the series aims to go beyond the frequently heard complaint that there is a lack of 'political will' to change, by showing *how* policy can change for the better.

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No: 3

India

Khare *et al*

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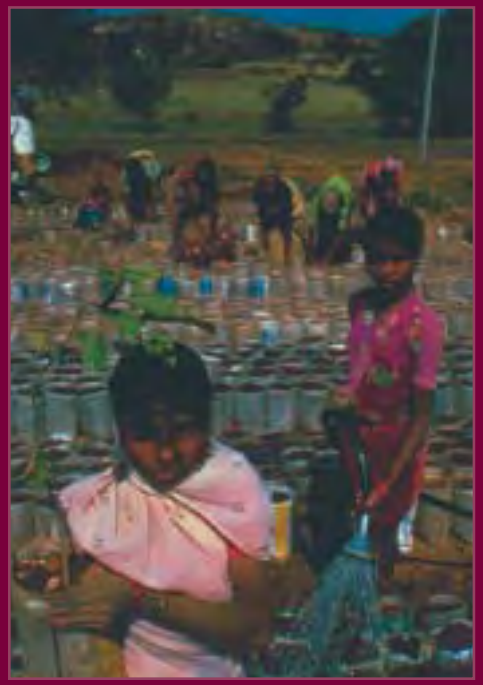

Photo: Elaine Morrison

Protected area, Madhya Pradesh. About twenty per cent of India's forest land falls within protected areas

Photo: Mark Edwards/Still Pictures

Collection of fuelwood, for both subsistence needs and as a source of income, is a major activity for millions of forest-dependent people

Photo: Sengupta-UNEP/Still Pictures

Fuelwood being transported across river by bullock cart. Fuelwood represents more than half of all energy needs in rural areas, and may only be available at considerable cost to some households

Photo: Mike Schroder/Still Pictures

Loading up timber in Kerala. Restrictions on transport of timber in the 1980s limited the spread of farm forestry as farmers realised that they would not be able to get their timber and poles to distant markets

Photo: Howard Davies/DFID

Farmer with seedlings ready for planting out. The farm forestry programme demonstrated that given the right information and market conditions, Indian farmers can meet most of the raw material needs of wood-based industries

Photo: Elaine Morrison

Alaknanda valley, Indian Himalaya. Forest biodiversity in such locations is high, and maintenance of biodiversity needs to take its place amongst other values in negotiations about forest management

Photo: Elaine Morrison

A village group celebrating tree planting in the Uttar Pradesh hills. The JFM programme generally needs to become better able to involve existing village institutions, as well as those created specifically for the programme

Photo: Elaine Morrison

Terraced fields with boundary trees, Uttar Pradesh hills. Trees on farms do not generally appear in official forestry statistics, yet they provide a wide range of forest goods and services for local people

Photo: Mark Edwards/Still Pictures

Much of the fuelwood required by rural households is collected by women. In practice many JFM deals prevent fuelwood collection in the forest – forcing women to go further afield. Such inequities need to be squarely addressed in JFM programmes

Photo: Elaine Morrison

Chir pine in the Himalayas, Uttar Pradesh. Conservationists want such landscapes fully protected; social activists advocate use of these trees for community development; whilst forest industrialists talk of logging for national development. Government needs to institute new negotiation mechanisms to reconcile such competing worldviews

Photo: Elaine Morrison

Women employed by Andhra Pradesh Forest Development Corporation preparing Eucalyptus cuttings. Commercial companies need to explore the potential of partnerships with local communities which go beyond direct employment to a negotiated sharing of rights and benefits.

INDIA
COUNTRY
STUDY

Policy that works for forests and people series no: 3

Joint forest management:
policy, practice and prospects

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no. 9 Discussion paper *Entering the fray*. International forest policy processes: an NGO perspective on their effectiveness. William E. Mankin

These studies are available from IIED at the address above.

Executive summary

Introducing the story

Forest policy in India has become more open to different actors in recent years, but there are continuing clashes between new policy, restrictive law and old style 'fortress forestry' institutions. The report aims to identify the winners, losers, successes and failures, and to work out how to notch up more sustainable outcomes for the people who need them most.

The story of Joint Forest Management (JFM) in India represents a major effort over the last few years to make policy work for both forests and people. JFM arrangements for protection and regeneration of degraded forest now cover around 70,000 km^2, and some of this forest has matured to the point where it can be harvested. But arguments rage on about who is paying, who is benefiting, and whether good forestry is being practised. Thus, JFM needs to be seen in the context of the many policy arenas and the maze of institutions which affect forests. The actual and potential role of forest goods and services in people's livelihoods is directly related to what's happening with forest reserves, protected areas, non-timber forest product (NTFP) use, farm forestry, the forest-product industry and the extent to which policy and institutions can influence all of these.

Some facts and figures

Indian forests cover about 633,400 km^2, or almost one fifth of the national land area. However, about 42 per cent of this is patchy or degraded. All forest land is state-owned, apart from small areas which are community- or privately-owned. Current statistical data shows a slight increasing trend in the area of forests. However, this data is an insufficient picture of the condition of India's forests, since levels of aggregation tell us little about trends in quantity and quality within forest cover categories, forest types, off-take of forest products, or land tenure and ownership arrangements.

About 200 million of India's population of around one billion are partially or wholly dependent on forest resources for their livelihoods. There are strong correlations between the locations of tribal people, high-poverty areas and

forests. Pressure from forest-dependent people causes much forest degradation. However, the overall process of degradation occurs through a series of human interventions, with multiple actors, including forest industry, involved in disturbing the same area of forest at different points in time.

Forestry is estimated to contribute about 1 per cent to GDP but this does not include subsistence use and local market transactions. Large-scale industry – mostly for pulp and paper – uses only about 10 per cent of forest raw material, while 90 per cent is processed by about 23,000 sawmills and a large number of cottage units.

The growing policy community

The evolution of forest policy and its changing orientation over time can best be understood in terms of the competing claims, and relative influence, of key interest groups. However, although profiled in separate groups below, we argue that policy debates themselves have stereotyped people too much – and such pigeon-holing needs to be questioned. In any apparently homogenous group there are goodies and baddies, intransigent conservatives and flexible radicals, and people may play all of these roles, or move between groups, at different times. We hope that our conclusions might cross the artificial boundaries created by entrenched positions and show both the legitimacy of alternative views and the practical necessity of dealing with them.

- *Government foresters* are charged with implementing policy, yet find that their traditional roles ill-equip them to cope with recent changes. Field-level officials have considerable control over access and products from state forests, but function within a political context which constrains their ability to act independently.

- *Forest industrialists* have benefited from subsidised supply of raw material and have used their close relationship with government to lobby for being granted leases in forest reserves to raise plantations. Other groups contend that industrialists have ridden roughshod over the rights and needs of forest-dependent people.

- *Conservationists* favour expansion of protected areas for biodiversity conservation, but are less concerned about forest-dependent people. They have considerable influence on forest policy which belies their small numbers.

- *Social activists* are the main proponents of pro-poor objectives and community-controlled forest management, but are sometimes a little unspecific about the mechanisms to achieve them. Despite being a rather uncoordinated group, they have made considerable gains since the 1970s, and more recently have been strong proponents of JFM.

Some other groups are also involved in the growing community of those involved in policy. *Larger farmers and locally powerful political elites* often have political control of local decision-making structures allowing them to seize the major benefits from development interventions, including those in forestry. *International agencies* have considerable influence over some state forest regeneration and wildlife conservation programmes. They have also variously attempted to use their financial muscle to influence state and central government policy. Last, but not least, *local communities* may or may not be coherent groupings: some over-exploit forests while others have organised to protect them; many are in conflict with government and in some cases industry, for assertion of their rights to livelihood resources.

The 'national interest' versus the 'public good'

Government is tasked with managing forests in the 'national interest'. But what is the 'national interest'? The prevailing view on this has changed over the years. Initially forests were required to be host to accelerated extraction for national development. Since the late 1980s, the emphasis has been on conservation of forests. In a mixed economy such as India's, it might be assumed that the role of the government in protecting the 'national interest' is to look after the infrastructural or welfare needs of the people, whereas the private sector addresses market needs. But the farm forestry programme of the late 1970s and 1980s represented an attempted reversal of these roles. Public forest lands were expected to meet the commercial needs of the economy, and farm lands were supposed to produce 'fuelwood and fodder' under a notion of community welfare. In practice, both failed while the main beneficiaries from the 'public good' were the mills of forest industry and the coffers of both central and state governments.

A dramatic change of policy in the late 1980s

By the late 1980s it became clear that, with multiple demands for forest goods and services, simplistic calls to respect or represent the 'national interest' in forests were no longer a sufficient rationale for government's role. With the forest policy of 1988 a radical shift occurred, with conservation becoming a priority, along with an emphasis on meeting the subsistence requirements of forest-dependent people. JFM subsequently emerged – requiring forests to be protected and managed through

partnerships between forest departments and communities. Over the last twelve years, these groups have jostled for positions of influence, attempting variously to fulfil or subvert implementation of the pro-poor forest policy.

JFM policy is a sapling with feeble roots. The main JFM policy statement can, in theory, be withdrawn at any time in the absence of greater legal recognition. Many of the initial state JFM orders were pushed through by *ad hoc* initiatives taken by interested individuals without any open debate or discussion. As a result of these *ad hoc* origins many JFM orders continue to be riddled with serious contradictions. Some state JFM orders have been issued under pressure from donor agencies who started demanding inclusion of JFM as an important component of large, externally-aided forestry projects. In states such as Madhya Pradesh and Andhra Pradesh, where JFM has obtained political support, the approach is likely to outlast donor support, but in other states such arm-twisting shows signs of generating non-cooperation from forestry field staff.

The institutional challenge – policy ahead of capacity

The new policy direction is still well ahead of the capacity to implement it, and remains the aspiration of only a few who, whilst they may gradually gather converts, are yet to galvanise sufficient institutional motivation to win through. Implementation of forest projects and policies is under the control of the state governments, and the bureaucracies at that level have different political compulsions, and different pressures on their budgets, from central government.

However, whether government foresters support it or not, the extent of forestry department control within JFM is significant. Most importantly, village organisations in most states have no autonomous status and can be dissolved by the forestry department. The transfer of decision-making authority to local users implies a corresponding reduction in the power of the forestry department and, unsurprisingly, this continues to be resisted by many forest bureaucrats. Furthermore, over time a plethora of government notifications have created major ambiguities about the rights and concessions available to forest-dependent communities.

For forestry departments to be able to work with a large number of diverse and scattered local institutions, radical changes in forestry department centralised planning are required. Modules on tribals and forests have been added to some training syllabi and a few short, compulsory training courses on participatory planning for forest officers have been introduced, sometimes with non governmental organistion (NGO) facilitation. Some

forest officers have broadened their perspectives through exposure visits and overseas training linked to externally aided projects. A slow attitudinal change is apparent among many officers and the overall relationship between foresters and villagers has improved in many areas. However, even in the more 'progressive' states, there is as yet little evidence of a transfer of power from forestry departments to village organisations. Indeed, in some parts of the north-east, the forestry department seems to be attempting to *increase* its authority via JFM rather than *vice versa*.

JFM is good for timber – what about people?

It is becoming clear that the forestry department and the village community often view JFM quite differently. Many forestry department officials see JFM primarily as a means to ensure rehabilitation of degraded forests. Village communities, on the other hand, tend to view JFM as a solution to the growing shortage of biomass, a means to ensure daily requirements of forest products and/ or a way to increase income.

JFM has provided many village communities with greater legitimate access to an important livelihood resource. Several local JFM groups have also been able to create village funds, enabling them to undertake other development activities. In the World Bank supported JFM villages, wages for plantation work are a major incentive. But the enthusiasm in state government supported villages, with limited or no budgetary allocations, is more muted. Within communities, perceptions of JFM benefits and costs vary greatly by gender, caste, class and occupation.

Furthermore, the JFM 'package deal' implicitly assumes production of timber to be the primary management objective. Deals based on timber tend to benefit better-off villagers with minimal forest dependence, but may impose disproportionate opportunity costs on the most marginalised villagers, who are heavily dependent on other forest goods and services. However, recent developments have significantly altered even this balance of incentives. Policy directives following Supreme Court orders have severely restricted felling in natural forests – reducing considerably the returns from timber for both communities and forest departments.

NTFPs represent a vital basis for livelihoods for many people, but some have been nationalised, or monopoly collection rights have been granted to government or private organisations. Careful moves towards denationalisation are needed, alongside development of NTFP markets which benefit local livelihoods.

Farm forestry is the key to JFM

Farm forestry in the 1970s and 1980s was seen by government as a programme that would release industrial forestry on nationalised forest lands from social pressures. Forest lands were still to be used for production of commercial timber, but in order to keep people out of the way it was necessary to make them cultivate on village lands produce that they had previously collected from forest lands.

The initial take-up of farm forestry was dramatic, but farmers' response was quite different in both scale and purpose of planting, from what was planned by government. Farmers planted eucalyptus more for sale as small timber, poles or pulpwood, than for use as fuelwood. However the forestry department was unprepared for such enthusiasm and was unable to assist farmers with marketing; consequently the timber markets crashed in many states, forcing most farmers out of farm forestry. Nevertheless the programme had demonstrated that, given the right incentives and a remunerative price, Indian farmers can meet most of the raw material needs of wood-based industries.

Today, new opportunities for farm forestry have emerged, including the potential for direct relationships between industry and individual farmers in outgrower schemes and other joint ventures. If state governments can re-orient various regulatory and extension policies to increase the incentive for tree planting, farm forestry can become a major vehicle for realising the pro-poor national policy.

However, for as long as industry perceives that it may gain access to forest reserve land, through its unresolved proposal to lease forest reserves, there will be little incentive for it to pursue new arrangements with farm foresters. Furthermore, imports of timber and pulp are still significantly cheaper than domestic sources, which further reduces the economic imperative for industry to compromise on its demands for land.

Perceptive policies depend upon good quality information on existing and projected forest resources and the goods, services and markets that can be accessed. In general, the type of information currently gathered, and the way it is analysed, is leading to unclear policy signals and constraining effective planning. But key terms, such as 'degraded' land, to which JFM is currently restricted in most areas, are interpreted by different state forestry departments in different ways.

Recommendations

Here we avoid saying 'government must do this', 'industry must do that', since we hope that inspired people from a range of groups will find it in their interests to cross the artificial boundaries that separate them and jointly pursue the following recommendations.

Policy processes – keep negotiating

1. Convene multi-stakeholder dialogue at national and state level – to transform stale debates, to promote experimentation, and to develop an autonomous scale for assessing competing claims.

2. Improve central government priority-setting processes – integration of dispersed, existing statements of priority; agree on definitions and common language in key debates to lubricate jammed discussions and enable a few shared goals and targets to be set, publicised and achieved – National Forester's Network should take the lead.

3. Introduce further democratic process into forestry departments – policy makers trained in facilitative frameworks; coherent human resources development policy in every state; formal leeway for frontline staff for well-monitored experimentation; new forms of reporting, planning, participatory monitoring and senior-junior consultation mechanisms; curriculum development and staff placements with other departments and NGOs to develop social skills and new management approaches.

4. Upgrade policy analysis capacity and redefine central government roles – re-orient the Inspector General's role; stronger policy analysis, implementation and monitoring wing in Ministry; network state JFM working groups, NGOs and field-oriented academic institutions doing policy analysis; collaboration with national and international institutions on policy analysis.

Policy signals – pointing the right way

5. Remove legal hurdles to community rights over forest resources, and settle parks-versus-people conflicts – review central and state law to remove unjust or ambiguous provisions, and shore up existing rights for local forest management; extend JFM to non-degraded forests; commissions of inquiry to review cases of protected area conflict; and phased introduction of joint protected area management.

6. Provide clear policy signals to the forest-based private sector – develop more socially and environmentally astute proposals to consider leasing in certain reserves; policy guidance for industry to access its raw material from

partnerships between companies and farmer groups outside forest reserves; Planning Commission working group to lead and include representation from progressive enterprises both large and small.

7. Remove monopolies on sale of JFM timber and NTFPs, and develop JFM for true multi-purpose use – village forest institutions to deal directly with the market; NTFPs to be gradually denationalised and controls on sale lifted; learn from, and extend, recent legislation to transfer ownership of NTFPs to tribals; detailed microplanning exercises in all areas, developing more flexible silvicultural prescriptions and accommodating multi-product flows.

8. Remove bottlenecks to farm forestry and cut back on subsidised supply of raw material to industry – review lifting of felling and transport restrictions in some states and consider removing restrictions at national level; industry to buy from the farmers at a remunerative price; consider taxing imports of pulp and paper for a few years.

Practical programmes – focusing on real motivations and livelihoods

9. Tackle intra-community inequity – re-orient forest management to meet current needs and long-term livelihood security of poorest; facilitate village forest institutions to identify existing users, lay clear ground rules ensuring everyone's participation; and initiate dialogue with the poorest and voiceless, particularly poorer women.

10. Build on existing village norms and institutions – village forest institutions to take various forms, without having to seek the forestry department's permission for all activities; accountability of community leaders through *Panchayat* not the forestry department; community-based organisations, NGOs and forestry department to facilitate increasing involvement of women and marginalised groups; restructure forest corporations, tribal marketing federations and other introduced constructs on a case by case basis.

11. Encourage companies to forge direct links with farmers – draw lessons from existing company-farmer partnerships; explore tree growers' associations especially near existing mills, urban sale depots and mechanisms for primary processing at site; work towards relocating paper and pulp mills nearer to the raw material producing regions.

12. Incorporate farm forestry in watershed development programmes – agro-forestry as a key focus for new collaborations between extension

agencies and government departments; watershed programmes to increase the role of farm forestry in preservation of soil and moisture.

Information – fuelling good policy and practice

13. Improve market, extension and research information at local level – forestry department extension to provide good information on timber and NTFP prices and marketing channels; marketing boards to reduce market constraints; silvicultural research for JFM; management information systems to network training and research findings.

14. Develop information systems to feed into policy – results of monitoring used for regular review and adaptation of policies; make better use of 'good-enough' information and aim to continuously improve information on forest assets, demands and uses.

In summary, India's forest sector is in a jam. Many policies progress no further than their pronouncement whilst others are overridden in practice. The ongoing tug of war between different policy interest groups has ensured that no radical changes are made. However, at the same time, the major formal policy shift of 1988 has not been overturned; the scope of JFM implementation has been impressive, though its success has been patchy, and the potential for its more concerted implementation grows by the day. Thus, the apparent stalemate masks sporadic but vigorous interaction between interest groups which constitute a vibrant policy community – albeit a poorly connected one. What is now needed is a concerted drive by all in the policy community to promote accountable ways of working, involve previously marginalised stakeholders and spread the benefits of more flexible negotiated solutions.

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The opinions reflected in this study are those of the authors and not necessarily of their organisations, DFID, DGIS or SDC.

Acronyms

AKRSP	Aga Khan Rural Support Programme
AP	Andhra Pradesh
CBO	Community-Based Organisation
DFO	District Forestry Officer
FD	Forest Department
FPC	Forest Protection Committee
FSI	Forest Survey of India
GoI	Government of India
HP	Himachal Pradesh
IFS	Indian Forest Service
IIED	International Institute for Environment and Development
IIM	Indian Institute of Management
IIPA	Indian Institute of Public Administration
JFM	Joint Forest Management
LAMPS	Large-scale *Adivasi* Multi-Purpose (Cooperative) Societies
MoEF	Ministry of Environment and Forests
NCA	National Commission on Agriculture
NCAER	National Council for Applied Economic Research
NGO	Non Governmental Organisation
NTFP	Non Timber Forest Product
PA	Protected Area
SPWD	Society for Promotion of Wastelands Development
UNCED	United Nations Conference on Environment & Development
UP	Uttar Pradesh
UT	Union Territory
VFI	Village Forest Institution
VP	*Van Panchayat*
VSS	*Vana Samrakshana Samiti* (Forest Protection Committee)
WLPA	Wildlife Protection Act

1 lakh =	one hundred thousand
1 crore =	ten million

Exchange rate: 69 Indian rupees: £1.00, 44 Indian rupees: US$1.00 (January 2000)
1 rupee = 100 paisa

Contents

Introduction

1.1 What this report is about

Forests are crucial to the livelihoods of millions of people in India, and the implementation of effective policy is vital to ensure the continuation of forests as a resource for them. However, policy affecting forests is at a watershed: despite a dramatic change of emphasis in recent years, consensus on how India's forests should be managed, by whom, and for whose benefit, has not been achieved. Now is a critical time to take stock, to learn from and build on successes to date.

The Forestry and Land Use Programme of the International Institute for Environment and Development (IIED) embarked on a project "Policy that Works for Forests and People" in January 1995. The project seeks to analyse the range of policies and processes that have impacts on forests and people, and to promote successful examples of forest policy processes. The project supported six country studies, of which the India study was one (the other five country studies are listed opposite page i).

Since the introduction of Joint Forest Management (JFM) in India in the early 1990s, much has been written about the policy which enables it, and the practice of its implementation. Despite it being the most visible expression of the current forest policy, much less has been said about what happens next: what are the prospects for JFM and for forest management in India in general?

This report analyses policies and processes concerning JFM and other local participatory management techniques, and studies their effect on forests and stakeholders. It looks at the prospects for improved forest management, building on the lessons of experience of participatory forestry in India. The study also considers whether JFM is conducive to local sustainability, and whether gender issues and the needs of marginal groups are addressed. Key forest sector stakeholders are identified, and the institutional factors facilitating or hindering their participation in the policy process are assessed.

The report ends with conclusions on the prospects for JFM in the wider context of policy affecting forests and people, and makes recommendations on how to move forward.

The system of forestry as practised in India, as well as the relationship between forests, forest-dependent communities and the state, has undergone significant changes since the colonial period. This has been facilitated through a series of national policy initiatives that have often been in favour of meeting the ever-increasing demands of industry and less so to meet the resource requirements of local communities. Besides consolidating its legal control over virtually all of the country's forest area, the state has also systematically alienated local communities from any potential role they may have in the preservation and management of forests.

While forests have been exploited to the fullest for their resources, especially timber and non-timber forest products (NTFPs), attempts by the state to integrate conservation and development have been either weak or non-existent. As evidence of the adverse impacts of forestry practices on both communities and forests themselves has increased, there has also been a demand for change in policy and management from community representatives, NGOs and to some extent from within the forest department.

The 1988 National Forest Policy of India reflects the need to provide greater control over forests and forest resources to local communities and their representative institutions. However, the implementation of the National Forest Policy has been slow and lackadaisical. Over a decade after it was accepted by the government as the national policy of the country, it has not been seriously acted upon, perhaps with JFM being the only exception. However JFM is still subject to certain restrictions regarding its jurisdiction, and in terms of social, cultural, economic and institutional factors.

JFM has been a good example of achieving institutional change without any corresponding amendment in law, which can be a cumbersome process in the Indian political and administrative system. However the collective pressure and demands of local communities, NGOs and innovative officers of the forest department helped create an enabling climate for change through the 1980s and early 1990s. This resulted in the overwhelming acceptance of JFM as a means of providing limited public control over forest resources and forest management through alternative institutional mechanisms.

But although JFM has been broadly accepted at the policy level, the commitment that is required for its effective implementation has often been weak or even absent at various echelons of the forestry administration. This has partly been due to the confusions persisting in the minds both of political leaders and a significant number of administrators and foresters across the country. This report tries to address many of the problem areas, and to help clear these confusions. Further, it is timely in highlighting some major mismatches between policy goals and the institutional arrangements designed to translate them into practice on the one hand, and the need to refine the learning loop linking field practice with continuing policy adaptation on the other. While JFM, as an institutional mechanism for achieving the 1988 policy objective of promoting people's participation in forest management, is commonly perceived to be better meeting the livelihood interests of the poorest forest-dependent women and men, there is a need for constant monitoring and evaluation of whether that is actually the case in reality.

JFM has been regularly debated, evaluated and criticised through studies (both government and independent), project reports, conference proceedings, journal articles, etc, as well as at national and international fora looking for emerging trends in forestry in India. A National Network of JFM practitioners has been meeting annually for several years, and more recently a Foresters' JFM Network has been established. The sub-groups of the National JFM Network have been carrying out ongoing studies on all aspects of JFM including: the productivity of jointly managed forests and changes in biodiversity therein; the institutional arrangements between communities, NGOs, and the forest department; gender and equity concerns both within and between communities, and between communities and the forest departments; training and attitudinal change challenges; conflict resolution mechanisms; marketing of forest produce and financial management, etc. The sub-studies commissioned as part of this initiative have made extensive use of this information.

In the past decade there has been a significant increase in investment, especially by external agencies, which have supplemented the existing state budgets for forestry. Many of these come with stipulations/ policy guidelines of involving local communities and NGOs, greater transparency of functioning, biodiversity conservation components, etc. Under these circumstances there is now enhanced interest in knowing what works, under what circumstances and why. This report is a consolidation of the JFM experience in India, both its limitations and achievements, set in the context of significant policy change over recent decades. It attempts to serve the

purpose of a mid-term review by examining the entire package of activities and identifying changes required.

JFM offers a window of opportunity for change from a system of forestry that has been exclusively dominated by state policy and state implementing agencies, towards one that recognises the legitimate needs of local communities, their potential for managing their own resources, and the mediating role that NGOs can play. This report is an attempt to fill this gap in available information and understanding.

1.2 The process of the study

A planning workshop was held at the World Wide Fund for Nature, New Delhi, on 2 March 1996, to discuss the process of the India country study. It was decided that four sub-studies should be commissioned, and that the outcomes of these studies should then be discussed in three regional workshops. This arrangement, it was hoped, would provide greater opportunity to a larger number of people in the forestry sector across the country to participate in the project. Accordingly the following sub-studies were commissioned:[1]

- Forest policy in India: Dr. N. C. Saxena
- Policy goals and JFM practice: an analysis of institutional arrangements and outcomes: Madhu Sarin
- Externalities impinging on Participatory Forest Management in India: Seema Bathla
- Structural changes in forest departments: S. Palit

These sub-studies were discussed in three workshops held in Hyderabad (14-15 March 1997), Calcutta (25-26 April 1997), and New Delhi (6-7 May 1997). It was gratifying to note that the three workshops attracted large participation from forest bureaucracy, foresters, NGOs, researchers and academics.[2] The inputs provided by these workshops helped the authors to revise their sub-studies.

This synthesis report attempts to capture the findings of the commissioned sub-studies and the essence of the workshop discussions.

[1] Reports of these studies are available from WWF-India and IIED: see contact details opposite page i.
[2] Participants in the three workshops are listed in annex 1.

1.3 The study team's 'vision'

It is important for policy analysts to be open and explicit about their core values and beliefs. There is no 'value-free' analysis, and policy is a political business. However, such openness is rare! In an effort to encourage transparency in other 'policy players' we would like to emphasise here a few of our own core values – which also become clear in this report.

The authors of this study have a strong social development orientation, grounded in a belief in social justice and the need to balance economic efficiency and environmental stability. Hence, whilst including the views of other stakeholders, the study is presented largely from the standpoint of those people who are dependent on India's forests for their livelihoods. As such, it includes significant amounts of material on the use of non-timber forest products, which are in many cases vital components of such livelihoods, and emphasises the need for greater community participation in the management and control of forest resources.

The study team's interpretation of 'policy' is a broad one: it includes process as well as content, and that process includes policy making as well as implementation, thus it encompasses intentions as well as actual practice.

Forests and people in India

2.1 Diversity, inequity and forest politics

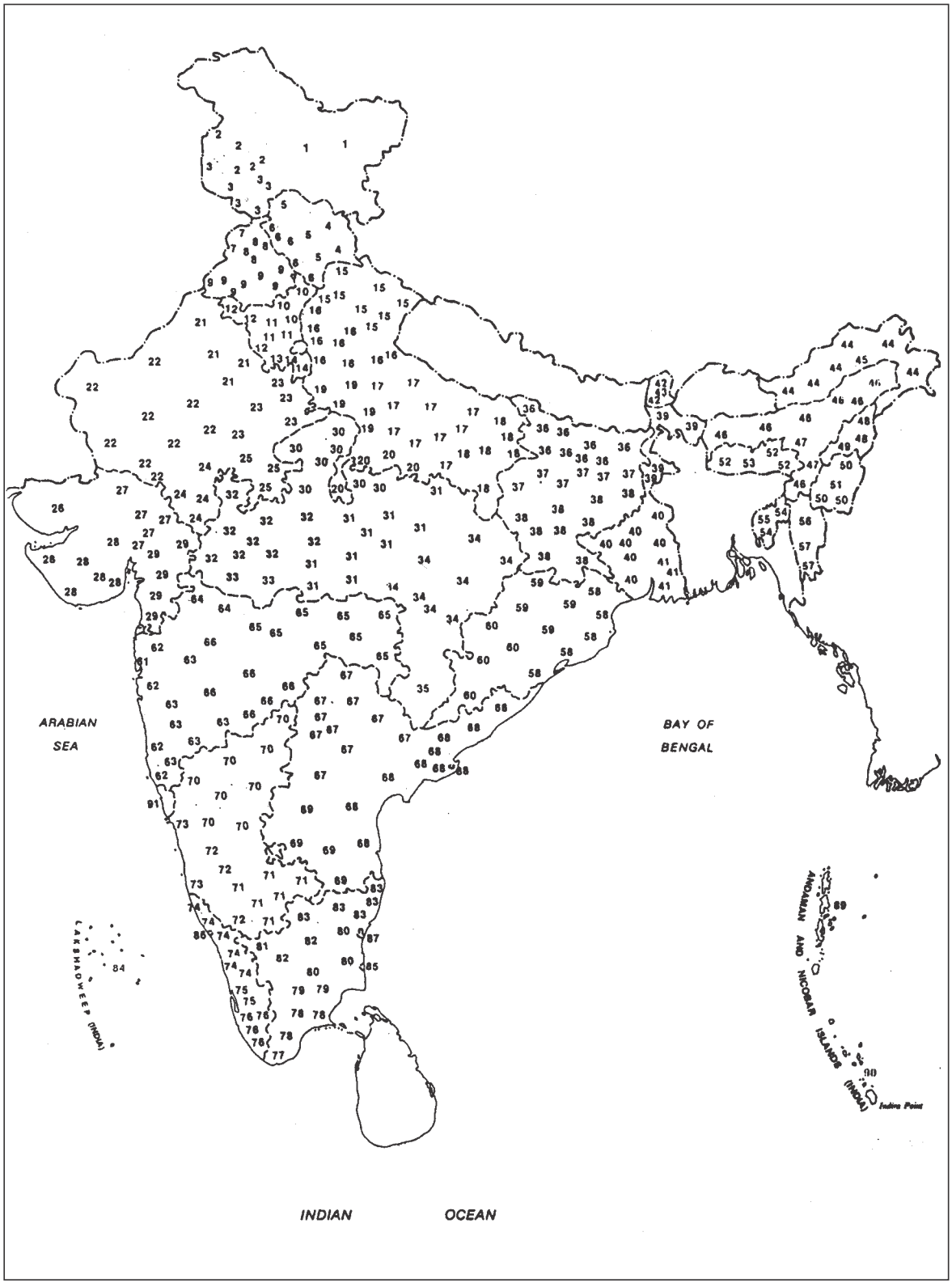
The 329 million hectares of land area of India is a unique mosaic of biological, anthropic, cultural, physiographic and climatic diversity. From trans-Himalayan alpine pastures in the north to the confluence of the Arabian sea and Bay of Bengal in the south, and from the arid desert in the west to the mangroves of the Sundarbans in the east, it is home for around one billion human beings, who are as diverse as the country's geography.

Due to its physiographic and climatic conditions as well as its location at the confluence of three major biogeographic realms – the Indo-Malayan, the Eurasian and the Afro-Tropical – India is a 'mega-diversity' country, and has ten biogeographic zones: trans-Himalayan, Himalayan, Indian desert, semi-arid, Western Ghats, Deccan peninsula, Gangetic plains, north-east India, islands and coasts (Rodgers and Panwar, 1988). These biogeographic zones represent a broad range of ecosystems, containing 6 per cent of the world's flowering plant species and 14 per cent of the world's birds. There are over 45,000 identified plant species; one third of its 15,000 flowering plants are found only in India. It has 81,000 identified species of animals. Some 14 per cent of its 1,228 bird species, 32 per cent of its 446 reptile species and 62 per cent of its 204 amphibians are unique to India (World Bank, 1996). There are no firm statistics about biodiversity loss in India. It is, however, estimated that "at least 10 per cent of India's recorded wild flora and possibly a larger fraction of its wild fauna are on the threatened list, many of them on the verge of extinction" (Kalpavriksh, 1995).

The people and communities of India also show tremendous diversity. A project undertaken by the Anthropological Survey of India, the People of India project,[3] has identified 91 eco-cultural zones in India (see Figure 2.1).

[3] This is one of the largest projects undertaken by the Anthropological Survey of India, with the aim of comprehensively identifying all the different communities in India.

Figure 2.1 Eco-cultural zones in India.



Key to map: eco-cultural zones and states

1.	Ladakh	Jammu & Kashmir
2.	Kashmir Valley	Jammu & Kashmir
3.	Jammu Region	Jammu & Kashmir
4.	Upri Pahari	Himachal Pradesh
5.	Majhia Pahari	Himachal Pradesh
6.	Nichla Pahari	Himachal Pradesh
7.	Manjha	Punjab
8.	Doab	Punjab
9.	Malwa	Punjab
10.	Nardak	Haryana
11.	Khadar	Haryana
12.	Bagar	Haryana
13.	Ahirwal	Haryana
14.	Mewat	Haryana
15.	Uttarkhand	Uttar Pradesh
16.	Rohilakhand	Uttar Pradesh
17.	Oudh	Uttar Pradesh
18.	Bhojpuri	Uttar Pradesh
19.	Braj	Uttar Pradesh
20.	Bundelkhand	Uttar Pradesh
21.	Sekhawati	Rajasthan
22.	Marwar	Rajasthan
23.	Dhundari	Rajasthan
24.	Mewar	Rajasthan
25.	Hadoti	Rajasthan
26.	Kutch	Gujarat
27.	North Gujarat	Gujarat
28.	Saurashtra	Gujarat
29.	South Gujarat	Gujarat
30.	Bundelkhand	Madhya Pradesh
31.	Baghelkhand	Madhya Pradesh
32.	Malwa	Madhya Pradesh
33.	Nimar	Madhya Pradesh
34.	Chatisgarh	Madhya Pradesh
35.	Bastar Plateau Region	Madhya Pradesh
36.	North Bihar	Bihar
37.	Plains of South Bihar	Bihar
38.	Chotanagpur Plateau	Bihar
39.	North Bengal	West Bengal
40.	Radh Bengal	West Bengal
41.	South & Lower Bengal	West Bengal
42.	Hill Region—Sikkim	Sikkim
43.	Plains Region —Sikkim	Sikkim
44.	Hills—Arunachal	Arunachal Pradesh
45.	Plains — Arunachal	Arunachal Pradesh
46.	Plains —Assam	Assam
47.	Hills —Assam	Assam
48.	Nagaland —Hills	Nagaland
49.	Nagaland —plains	Nagaland
50.	Manipur —Hills	Manipur
51.	Manipur —Plains	Manipur
52.	Meghalaya — Hills	Meghalaya
53.	Meghalaya —Plains	Meghalaya
54.	Hill Region —Tripura	Tripura
55.	Plains Region—Tripura	Tripura
56.	Mizoram —Hills	Mizoram
57.	Mizoram —Plains	Mizoram
58.	Coastal Plain Region	Orissa
59.	Orissa Highlands	Orissa
60.	Dandakaranya Region	Orissa
61.	Greater Bombay	Maharashtra
62.	Konkan	Maharashtra
63.	Western Maharashtra	Maharashtra
64.	Khandesh	Maharashtra
65.	Vidarbha	Maharashtra
66.	Marathwada	Maharashtra
67.	Telengana	Andhra Pradesh
68.	Coastal Andhra Pradesh	Andhra Pradesh
69.	Rayalaseema	Andhra Pradesh
70.	Northern Maidan	Karnataka
71.	Southern Maidan	Karnataka
72.	Malnad Region	Karnataka
73.	Coastal Region	Karnataka
74.	Malabar	Kerala
75.	Cochin	Kerala
76.	Travancore	Kerala
77.	Nanjil Nadu	Tamil Nadu
78.	Pandiya Nadu	Tamil Nadu
79.	Chetti Nadu	Tamil Nadu
80.	Chola Nadu	Tamil Nadu
81.	Chera Nadu	Tamil Nadu
82.	Kongu Nadu	Tamil Nadu
83.	Tondai Mandalam	Tamil Nadu
84.	Lakshadweep	Lakshadweep
85.	Karaikal	Pondicherry
86.	Mahe	Pondicherry
87.	Pondicherry	Pondicherry
88.	Yanam	Pondicherry
89.	Andaman Islands	Andaman & Nicobar Island
90.	Nicobar Islands	Andaman & Nicobar Island
91.	Goa	Goa

Source: Singh, 1992

According to this approach, a community is best understood in terms of its relationship with the resource endowments of these zones and its relationship with other communities in the control and exploitation of those resources (ASI, 1992). These 91 eco-cultural zones are inhabited by 4,635 communities, speaking 325 languages or dialects. Conservation practices are as diverse as this cultural diversity suggests. Indigenous knowledge of uses of local plants, animals, habitat preference, life history and resource availability is passed on from one individual to another within and across generations in the same manner, though not necessarily in writing, as scientific knowledge (Gadgil *et al*, 1995). It is important to understand this relationship between the diverse communities of India and its biological resources.

Approximately 300 million of India's people live, in the terminology of economists, below the poverty line. Amongst them one can count one fourth of the world's tribal people, who are the indigenous inhabitants of India. At the same time there are people who are as rich and as consumerist as any in the western world. Clearly the fruits of India's economic development are unevenly distributed. There is little wonder then that the political organisation of a country of this size, diversity and inequity is not without its problems.

India is a federal democratic republic consisting of 25 states and seven union territories (UTs).[4] There is a clear delineation of powers between the central government and the state governments. With the 73rd Amendment[5] to the Constitution of India, a third statutory level of local self-governance through three tiers of *Panchayati Raj* Institutions (at the district, intermediate and village levels) has, at least, a theoretical chance of asserting itself. Given the size and complexity of the country this seems to make sense. In this context, some recent changes in Indian politics are of great significance. These changes show that the state governments are becoming increasingly powerful and have a greater influence on the government at the centre.

This situation has led to an ambivalent response from Indian conservationists, who are a strong, widespread 'species', although not necessarily united. While they applaud the decentralisation of powers to local institutions of self-government (*panchayats*) for development functions, they remain opposed to including forest management and conservation among their responsibilities. They are equally apprehensive of trusting even the state governments with such powers. In fact, many of them have lauded the centralisation of forest management powers by the central government through measures like the 42nd Constitutional Amendment – this amendment undermined the prevailing sole jurisdiction of the state governments on matters relating to forests and, in 1976, made forestry a subject of concurrent jurisdiction of the central and the state governments[6] – and the Forest (Conservation) Act, which made it mandatory for states to

[4] Union Territories are areas that are governed by central government through a Commissioner. These include the Union Territories of Andaman and Nicobar Islands; Chandigarh; Dadra and Nagar Haveli; Daman and Diu; Lakshadweep Islands; and Pondicherry.

[5] The 73rd Amendment Act of the Constitution of India was passed in 1993. It provides for devolving administrative powers – and hence greater control over local resources and development funds – to two local level bodies. One is the *gram sabha*, which comprises the general assembly of all resident adults with voting rights. The representatives elected by the *gram sabha* comprise the *panchayat*. A *panchayat* may have from 1 to 21 villages within it, depending on the population norms specified by different state governments. In 1996 the government passed the *Panchayats* (Extension to Scheduled Areas) Act, which provides greater scope for involvement of the *panchayat*, especially in natural resource management; it applies to areas covered by the Vth Schedule of the Constitution which generally have a majority tribal population, outside the north eastern states.

[6] This empowers the Government of India to legislate despite the fact that the administration of forests continues to be with the state governments. Forests were centrally administered in India only up to 1935.

obtain permission from the central government to divert forest lands to other uses. One observer of the central government conservationist orientation noted that "State governments were seen as hostages to special interests that would prevent any long-term programme from getting off the ground. If necessary, additional areas [of forest] could even be leased by the centre for ninety-nine years and administered for posterity" (Krishnan quoted in Rangarajan, 1996). There is, however, nothing to suggest that there is any difference in the general conservation orientation of the central or the state governments.

Similarly, there is little evident difference between levels of dispensation of justice on environmental matters. While the cases of millions of tribals and other rural poor relating to settlement of their rights, dispossession of their lands and usurpation of their rights languish in lower courts for years without a hearing, there is little in the 'judicial activism' of the higher judiciary to rejoice about for them. Except for the places where grassroots environmental activists are organising them, the rural poor are increasingly turning to the protection of the local underworld or seeking solace in the violent methods of militant groups. The recent increase in the activities of the Peoples' War Group, an extreme left-wing organisation in Andhra Pradesh, where forest rights are at the heart of the struggle, is an example of the desperate state of affairs. This kind of dichotomy in Indian society, reflecting relative political strengths of different stakeholders, continues to influence the debate and policies of the forestry sector as well as the country as a whole.

2.2 State of the forests

2.2.1 Forest area

In India, the term 'forest area' has come to be used by foresters as synonymous with legally designated forest areas. Thus, according to the *State of Forest Report 1997*, an assessment undertaken by the Forest Survey of India, the total recorded forest area is 76.52 million hectares (FSI, 1998). Recorded forest area is defined as "all lands statutorily notified as forest though they may not necessarily bear tree cover". Statutory notification of forests began in colonial days. At the time of India's independence in 1947 the recorded forest area was reported to be about 40 million hectares (as per the records of the Central Statistical Organisation). By 1950-51 the area increased to 68.02 million hectares, due to governmental control over forests being extended through two main processes. Firstly, following the abolition

of the princely states and landlordism, all uncultivated lands under their control became vested in the state; of these, the larger tracts were handed over to the forest department. Secondly, laws enabling the acquisition of private forests were passed by various state governments in the two decades following independence. Thus, by the early eighties, the recorded area further increased to 75.18 million hectares, largely due to consolidation. Another factor in the increase in forest area in recent decades was the spread of plantations (discussed further in Section 2.2.3).

The increasing trend in the area recorded as forests however reveals nothing about the actual coverage or quality of forest on this land, and hides the reality of the parallel process of diversion of forest land for non-forestry purposes.[7] While the recorded forest area increased by 8.5 million hectares between 1950-51 and 1997, this should be set against the 5.3 million hectares of forest area diverted to non-forest use between 1951 and 1997 (TERI, 1998). Diversion of forest land – for agriculture and regularisation of encroachments, as well for large development/ resettlement projects (large dams, coal, iron, bauxite mines, steel and other industrial plants and townships for their staff, resettlement of displaced persons, roads, etc) was, and continues to be, a major pressure. The current rate of diversion is about 16,000 hectares annually, however unofficial diversions and illegal encroachments are estimated to be much higher (*ibid*). Furthermore, prior to the Forest Conservation Act of 1980 (see Section 4.1), much forest land was denotified and put under agriculture; although, despite this, the total notified forest area has still increased between 1950-51 and the present day.

Overall, forest area appears to be increasing, despite diversion of some forest land for non-forest purposes. However, this does not reflect the deteriorating condition and extent of actual forest cover. It is important to distinguish between *forest land area* and *forest cover*, given that recorded forest land may not necessarily bear tree cover. While the recorded forest area (76.52 million hectares) is more than 23.6 per cent of the geographical area of India, the actual forest cover is only 19.27 per cent (63.34 million hectares), and that includes forest areas of varying densities. The Forest Survey of India provides forest cover data in three categories:

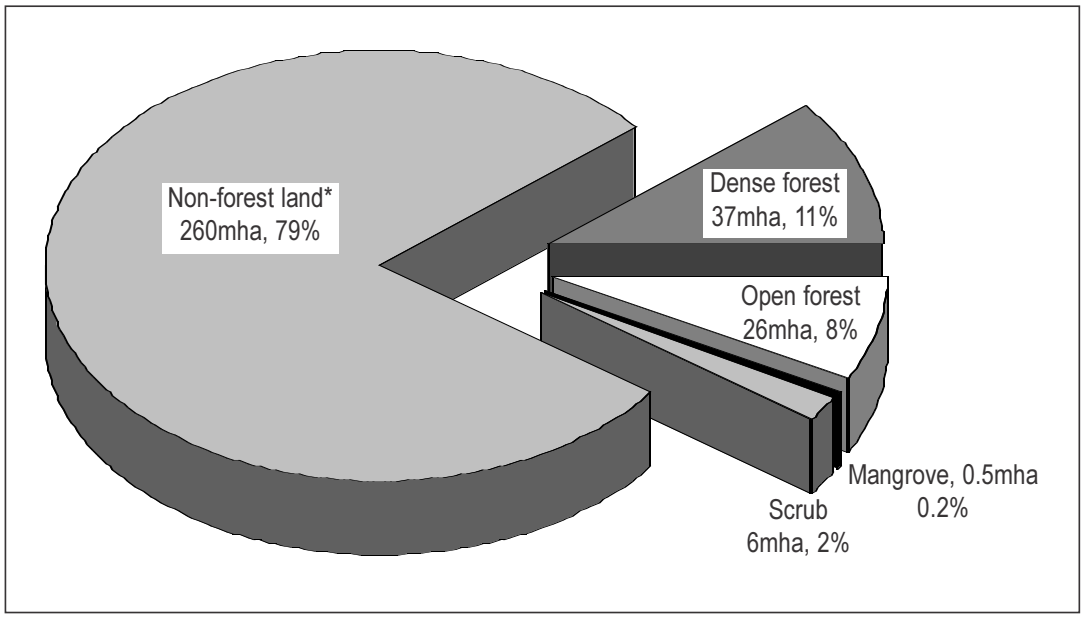
- *Dense forests*: All lands with a forest cover of trees with a canopy density of 40 per cent and above
- *Open forests*: All lands with a forest cover of trees with a canopy density between 10 and 40 per cent

[7] The term 'non-forestry purposes' includes all activities that seek a change in the land use of forests to any other purpose as per the provisions of the Forest Conservation Act 1980 (see section 4.1). This includes plantation crops such as tea, coffee and rubber, as well as mining and infrastructural development such as roads and dams.

- *Mangrove*: Salt-tolerant forest ecosystem found mainly in tropical and sub-tropical inter-tidal regions.

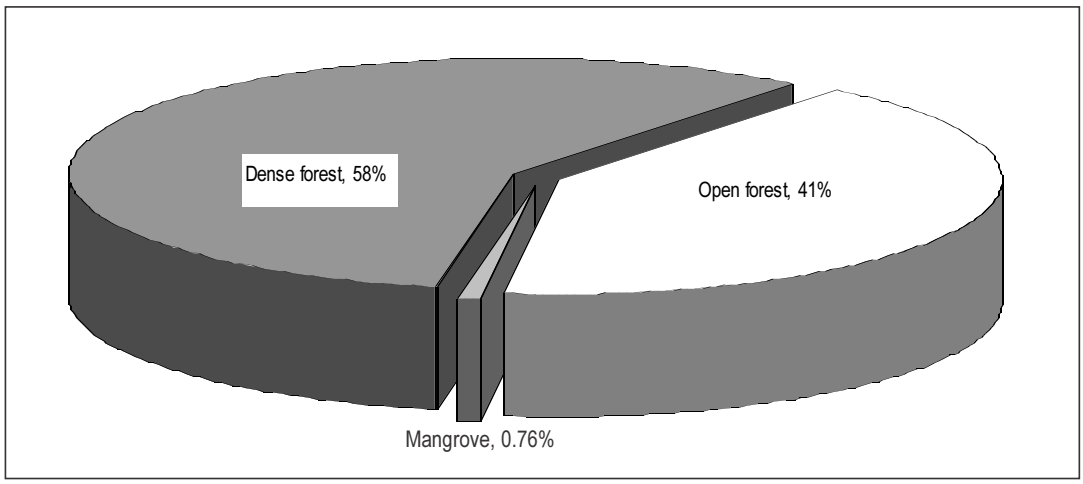
Forest cover with a canopy density of less than 10 per cent is described as *scrub,* and is not included in the FSI forest cover data.

Figures 2.2 Classes of forest cover as a percentage of geographic and of total forest area



Total land area = 328.7263mha
Source: FSI, 1998

*Non-forest land includes land without any forest cover, or scrub, which falls inside legally-designated forest areas, as well as land outside these areas.



Total forest cover area = 63.3397 mha
Source: FSI, 1998

With respect to the legally-designated forest area (total: 76.52 million hectares), these figures imply the following breakdown, in 1997:

- dense forest: crown cover >40% — 48% forest area
- open forest: crown cover 10-40% — 34% forest area
- scrub: less than 10% crown cover — 7% forest area
- mangrove: — 1% forest area
- non-forest: — 10% forest area

2.2.2 Changes in forest cover

No firm data are available for the extent of loss of forest cover in India or its annual rate of deforestation. However, there is general agreement that losses were high during the 1970s, but that the trend was reversed from the early 1980s onwards.

Figures derived by the Planning Commission (1998) from the FSI data imply the following changes in forest cover since 1981, assessed according to remote sensing data. From 1981-1985 there was an average annual loss of 147,000 hectares of forest cover; by the early 1990s small gains in forest cover were observed (eg, an annual gain of 28,000 hectares between 1989 and 1991), although these gains once again turned to losses (average 25,000 hectares per annum) by 1995. However, bearing in mind statistical error and improved methods of assessment, the smaller gains and losses may not be significant. Change between the 1995 and 1997 FSI assessments by category of forest cover is give in Table 2.1:

Table 2.1 Forest cover in 1995 and 1997 assessments (in hectares)

Category	1995 Assessment	1997 Assessment	Difference
Dense forests	38,503,700	36,726,000	– 1,777,700
Open forests	24,930,900	26,131,000	+ 1,200,100
Mangroves	453,300	482,700	+ 29,400
Total	63,887,900	63,339,700	– 548,200

Source: FSI, 1998.

These figures imply that:

- within a two year span there was a complete loss of 548,200 hectares of forests;
- there was significant deterioration in the condition of remaining forests whereby 1.78 million hectares of dense forest were lost, mostly through reduction of cover to open forest, although some was also converted to scrub or non-forest.

However, whilst these changes appear significant, they occur over the short period of two years, which is too short a period over which to assess overall trends.

Considering trends in dense forest cover only, the following figures are available:

Table 2.2 Changes in dense forest cover over 25 years

Year	Dense forest cover (million ha)
1972-75	46.42
1980-82	36.14
1985-87	37.85
1987-89	38.50
1989-91	38.56
1991-93	38.58
1995-97	36.73

Source: NRSA based on data published by FSI, 1998

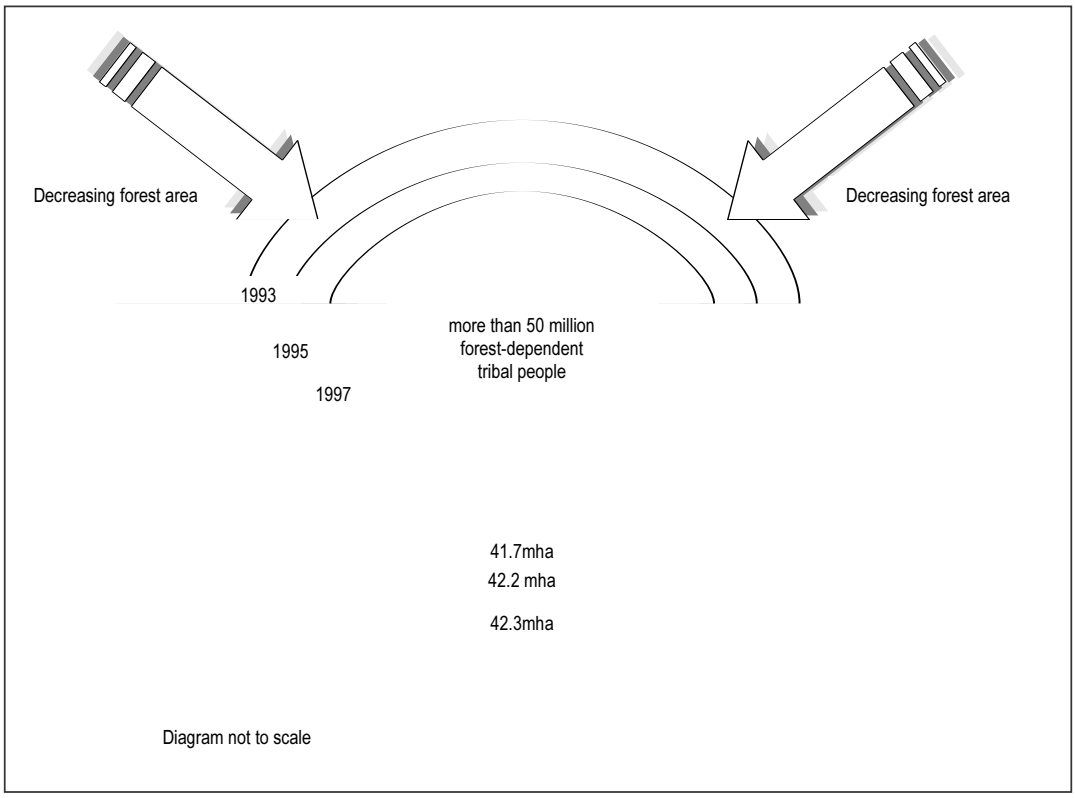
These figures show that since the early 1980s the area under dense forests has remained relatively stable.

Of the area under forests, 37 per cent is tropical moist deciduous forest (predominantly *Shorea robusta*), 29 per cent is tropical dry forest, 8 per cent is tropical wet evergreen forest, and 26 per cent is subtropical, temperate, alpine and other forests.

The FSI figures also report the changes in forest cover in tribal areas (see Section 2.4.1 for information on the extent of tribal areas). A disturbing trend is that most of India's deforestation is taking place in the tribal areas, as is evident from the following figure. There are limitations to the usefulness of this data for indicating trends, given that it covers a period of only four years. The FSI did not assess forest cover specifically in tribal districts before 1993.

As seen from the figure, the total forest cover in the tribal area as per the 1997 assessment is 41,717,400 hectares, which constitutes 65.68 per cent of the total forest cover of the country. Forest cover as a percentage of geographic area of tribal districts is 35.21 per cent. However the deforestation is more intense in the tribal areas: these areas account for 89 per cent (489,900 hectares) of the deforestation that took place between the 1995 and 1997 assessments. Given the high dependence of the tribal population on forests for subsistence and livelihood needs (as described below in Section 2.4), the deforestation and deterioration in the quality of forests affects them most adversely.

Figure 2.3 Changes in forest cover in tribal districts from 1993 to 1997 (in hectares)



Source: FSI, 1998

2.2.3 Limitations of forest information

The deterioration in India's forest cover is quite clear, although it should be noted that the FSI statistics reproduced above do not give the full picture. There are a number of limitations to the current provision of statistical data to describe the 'state' of India's forests:

- The figures give no information on trends *within forest cover categories*. For example the 'dense' forests category includes a wide range of canopy cover, from 40 per cent to 100 per cent, but changes in dense forests are only recorded when the cover drops below 40 per cent cover and it is downgraded to open forest.

- These assessments do not distinguish between *types of forest*: natural forests, plantations and the areas of natural regeneration (that is taking place, among other reasons, due to the recent collaborative management practices [see Section 5]). Nor do the figures reveal what changes in forest

cover comprise: they leave the impression that dense forest cover coincides with natural forests though this is not necessarily the case.

- There is little information on types of forest according to *land tenure and ownership*: although India possesses the largest area under plantations in the world, little is known about how much of the plantation area is on the state-owned forest lands, non-forest government lands, *panchayat* lands or private farmlands. However it is thought that most plantations consist of farm forests (Agarwal, 1997).

- State level data reaches such a level of aggregation that it is difficult to understand or analyse specific causes of changes in forest cover.

- There is apparently little information on changes in offtake of forest products.

Some of the information that the FSI survey lacks appears to be provided by the FAO 10-yearly global assessment of forest cover (FAO, 1993). This shows a markedly different picture of India's forest cover (despite FSI being the agency which supplied the FAO with much of its data); however the two assessments are in quite different formats and cannot be compared.[8] FAO figures do distinguish between types of forest, and a comparison of the 1980 and 1990 FAO assessments indicates that in that decade, the area under natural forests decreased by 3.39 million hectares, whilst the area under plantations increased by 15.72 million hectares. (However the actual increase in plantation area is unlikely to be so high as indicated by FAO figures, which are based on area planted and do not take into account survival rates). FAO figures show a dramatic increase in the area of industrial plantations since independence (Agarwal, 1997).

Agarwal (1997) suggests how information on the state of India's forest, vital to those charged with taking decisions on the management of forests, might be improved.[9] This is summarised in Box 2.1:

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[8] Part of the problem is definitional. The FSI data refers to tree cover and includes plantations on farms and degraded land (whatever can be observed by satellite), whereas the FAO calculates the rate of deforestation only on natural forests, and discusses the figures for plantations separately, based on government data.

[9] Although chiefly a "classical" forest survey agency, it is understood that the FSI is beginning to collate information on forest social and environmental values, which would greatly boost the usefulness of its information base for forest management. Other survey bodies – such as the Wildlife Survey of India – have responsibility for generating information on some other forest functions, however, and the effective integration of information will rely on the MoEF (Devendra Pandey, personal communication. November 1998).

Box 2.1 Improved information for forest planning and management

Improved information on India's forests might include:

- separate categories for natural forest and plantations
- figures for areas under natural forests broken down into pristine/ mature secondary/ natural regeneration, etc
- information on the extent of degraded forest areas and scrub, and how much of that is undergoing natural regeneration (with or without JFM)
- information on plantations by land ownership
- information on what areas and what types of forest or plantation are being logged
- assessment of which districts are undergoing rapid erosion
- disaggregation of data to enable analysis of specific causes behind the change in forest cover.

India's state forest departments and the FSI gather a great deal of information on the forest resource, and some of the 'gaps' could probably be filled from existing data. However, improved analysis of the existing data will be required to make the information more useful to those charged with overseeing the management of India's forests. Essentially, the type and composition of information gathered on the state of the forests should be that which is useful in the pursuit of policy goals.

Source: Agarwal (1997).

2.2.4 Nature and causes of forest loss

As noted by the Planning Commission (1998), the relative contribution to deforestation of the two main categories of 'consumers' of forest products – forest-dependent people and industry – has been a subject of controversy that has blurred objective analysis. Forest department officials argue that since commercial and industrial requirements account for only around ten per cent of the total demand for wood, people's demands for fuelwood and other subsistence needs, and the subsequent restriction of natural regeneration, must play a major role in forest destruction. On the other hand it is argued that subsidised supplies to industry, and the priority that is given to them, has reduced availability of forest products for forest-dependent people and resulted in such people's further alienation from the forests, turning it into an open access resource.

Further, some observers point to the cutting of fuelwood for urban areas, which use mainly logs and larger branches – and hence reasonably sized trees – as distinct from fuelwood for rural areas, which comprises mainly twigs and small branches, and is potentially less destructive. Thus collection of fuelwood for sale in urban areas is seen to contribute to much destruction and degradation of forests. Ironically it is often tribal women, themselves heavily dependent on forest resources, who have become compelled to engage in 'headloading' (harvesting fuelwood for sale) due to the

destruction of traditional livelihood systems (see Section 2.4.3) to supply the urban demand for fuelwood.

Other factors contributing to forest loss were noted by the Planning Commission's discussions with field officers. It is not unusual for forest departments to be instructed by their state governments to produce more revenue, and pressure to do so is maintained through comparisons of revenue raised during the previous year. Also, forest officers reported cases of Ministers ordering that forests be opened for unsustainable harvesting prior to an election – only for the same Minister to demand more revenue following the election. Deforestation is also associated with sudden policy change or periods of uncertainty, and political unrest.

It is important to note that forest loss is nothing new in India: during colonial times, there were nearly 100 years of extensive destruction as forests were worked to produce timber for the British navy, for export, and for the creation of the railway network. Extensive tracts of forest were also converted into plantations of tea, coffee, rubber and other commercial crops, plantations which themselves required woodfuel for labour and processing, and even for marketing (eg, for tea crates). In addition forest fires have also long contributed to forest loss; efforts to control them have been limited since they were not particularly destructive to the commercially important species.

The Planning Commission concludes that whilst it is not possible to determine the relative contribution to deforestation of each factor, on the whole, pressure from forest-dependent people does contribute a great deal, compounded by subsidised supplies to industry (see Section 3.4). "The alienation of forest land from the people who need it for satisfying their needs, and consequently forests turning into open access lands, has been one of the main causes for degradation as well as increasing misery of the people" (Planning Commission, 1998). However, the overall process of degradation generally occurs through a series of human interventions, with multiple actors involved in disturbing the same area of forest at different points in time (Poffenberger, McGean and Khare, 1996).

However, as noted in Section 2.2.2, the area under dense forests has remained relatively stable since the early 1980s. One factor contributing to this may be the green felling ban which many states have imposed since the late 1980s. In addition other factors, such as imports, spread of *prosopis* shrubs, and the success of farm forestry may have helped to reduce pressure on forests. The success of JFM in certain areas – discussed in Section 5 – may also have slowed the rate of forest loss.

2.3 Tenure and administration of forests

Most of India's forest land is state-owned. It is thought that very roughly 10 per cent of the forest land is community and privately owned; however there is no comprehensive, up-to-date assessment of forest land ownership.

The proportion of privately-owned forest land is very low, at around 4 per cent of the total forest land. Not only is the private sector not permitted to own natural forest, but its ownership of planted forests is limited by the Private Forests (Acquisition) Act of the 1950s and the Land Ceiling Act of the 1960s (see Section 4.1).

Community-owned forest land primarily belongs to tribal communities in the north east, due to its not having been taken over by the state – although small areas of community-owned forest land are also scattered in other parts of the country.[10] The area of community-owned forest land is noticeably small compared to the large forest-dependent tribal and non-tribal population outside the north east, described in Section 2.4.1.

According to the Indian Forest Act of 1927 (which is still in force), legally-designated (government) forests are divided into the following three categories:

- *Reserved Forests*: are areas so constituted under the Indian Forest Act or other State Forest Acts. In practice, and from the point of view of communities, no activities are allowed in Reserved Forests unless specifically permitted (the increase in reserved forests as an attempt to arrest deforestation is discussed in Section 3.4.1).

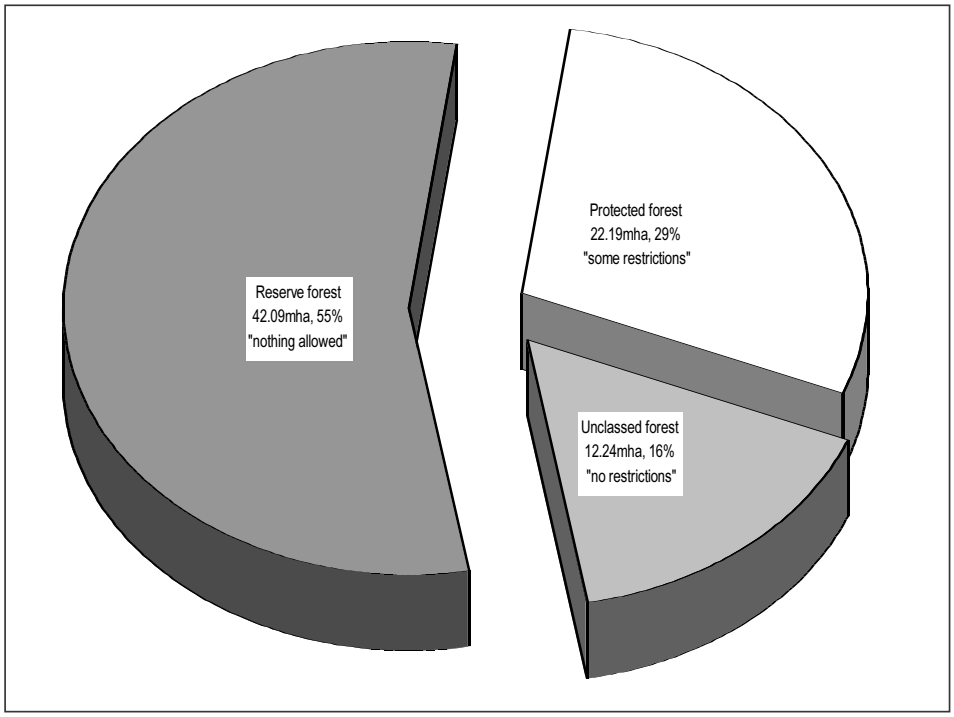
- *Protected Forests*: are subject to a limited degree of protection under the provisions of the India Forest Act or other State Forest Acts. In practice, everything is allowed unless specifically prohibited.

- *Unclassed Forests*: represent forest land owned by the government but not constituted into a Reserved or Protected Forest. There are no restrictions on Unclassed Forests, which are also the most degraded forests.

Forest area by administrative classification is shown in Figure 2.4.

[10] The north eastern states enjoy a special status, receiving higher subsidies than in the rest of India, and have much higher literacy levels. Poverty levels are not as extreme as those in other tribal areas.

Figure 2.4 Administrative status of forest area



Total forest area = 76.52 million hectares
Source: FSI, 1998.

The area under reserved forests increased markedly (from 26 million hectares in 1951) under the first forest policy of 1952, (see Section 3.4.1).

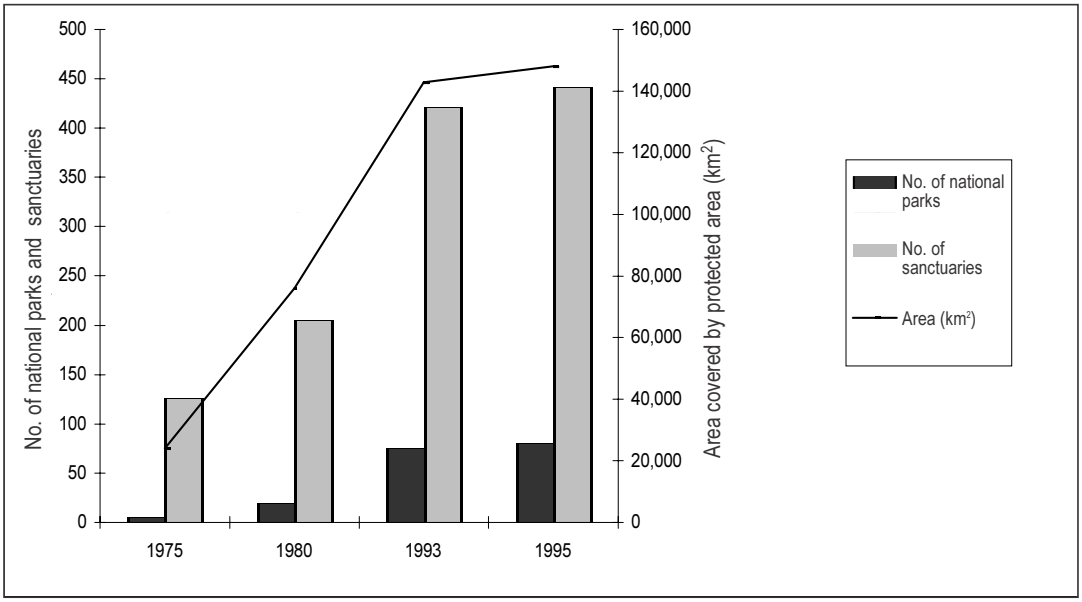
The rights regime implied by these administrative divisions is the culmination of a long historical process. Since the discretion of permitting a particular usage in Reserved Forests or prohibiting a particular concession in Protected Forests lies with the forest department and state bureaucrats, over a period of time, a plethora of notifications have created much ambiguity about the rights and concessions available to the forest-dependent communities. This situation prevails right across India barring the north east.[11] The prevalent ambiguity has its origins in the colonial history of India and a continuous attempt by the state to increase its control over forest resources. This is described further in Section 4.1.

2.3.1 Protected areas

India today has one of the world's most extensive networks of officially designated protected areas (PAs), totalling 521 national parks and sanctuaries, which cover 14.8 million hectares or over 4.5 per cent of the country's territorial area (MoEF, 1995). About 20 per cent of the forest land area is now contained within these protected areas.

[11] A Supreme Court judgement of December 1996 banned all logging in the north east.

Figure 2.5 Establishment of protected areas from 1975-1995



Since 1972 protected areas have been constituted under the Wildlife (Protection) Act (see Sections 4.1 and 4.2). Before the enactment of this Act, some states had their own legislation which enabled the establishment of protected areas. It can be seen from Figure 2.5 that in the five years between 1975 and 1980 the area under national parks and sanctuaries trebled, and this trebled area increased by another 100 per cent in the next thirteen years. The expansion rate averaged 620,000 hectares per annum. Part of the reason for this dramatic expansion is the emergence and increasing influence of conservationists (as protectionists); this is explored further in Sections 2.6.7 and 6.1.

Current estimates show that more than 90 per cent of protected areas consist of nationalised forests. However, no confirmed estimates are available either of the actual forest area under protected areas or the quality of forests under them. This is due to the fact that settlement procedures, as per the provisions of the Wildlife (Protection) Act 1972, have not been completed in a significant proportion of PAs in India. However, a Supreme Court judgement of 1997 requiring that the settlement of rights in PAs be completed within a year has hastened the process leading to considerable confusion and conflicts on the ground.

Once a reserved or protected forest is declared a PA, it is the Wildlife Protection Act which determines settlement of rights, taking precedence over the stipulations of the Forest Act.

An estimated 3 million people live within PAs (Kothari, 1996). Instead of their land and forest rights being protected as mandated by the forest policy (see Section 4.3), these have been extinguished or severely curtailed in most PAs resulting in acute conflicts between local communities and PA managers (formally, the Wildlife Wings of forest departments).

Box 2.2 Protected areas: what and who are protected?

The management of protected areas is governed by the Wildlife (Protection) Act of 1972 (see sections 4.1 and 4.2). The Act currently provides for three categories of protected areas: national parks, sanctuaries and closed areas. However levels of protection afforded in each category differ, as do the degrees of restriction on human activities:

- *National parks* are given a higher level of protection, with no grazing and no private land holding or rights permitted within them;
- *Sanctuaries* are given a lesser level of protection, and certain activities may be permitted within them for the better protection of wildlife or for any other good and sufficient reason (World Bank, 1996);
- *Closed areas*: the state government may declare an area closed to hunting of wild animals for a specified period; other activities are permitted to continue. This category has hardly been used.

However no criteria have been clearly laid down for determining which category is to be applied to a given area, leading to considerable arbitrariness (Kothari *et al*, 1997). In any case, the difference is notional as far as the communities are concerned. According to the law the communities living inside national parks have to be evicted and utilisation of forest resources of the park in any form is prohibited. In the case of sanctuaries some of these activities may be permitted, the permitting authority being the Chief Wildlife Warden. However there are few known cases where such permission has been granted either for the betterment of wildlife or for any other reasons.

The net result is that the law becomes a harsh instrument in the hands of wildlife officers and foresters, whose duty it is to enforce it. Potential misuse of this instrument could include harassment of the people living in and around these protected areas, whilst, inevitably, many human activities continue both in the parks and sanctuaries. The entire basis of the law is to either exclude or seriously restrict any human activity in the protected areas.

There are two further PA categories which fall outside the mandate of the Wildlife (Protection) Act:

- *tiger reserves*: originally created in 1973, there were 23 such reserves by 1996. They consist of a core area free of almost all human activities and a 'buffer zone' where restricted human land use is allowed. Tiger reserves are not a legal entity but all contain national parks or sanctuaries as their core and in some cases their buffer zones;
- *biosphere reserves*: in line with the concept created by UNESCO, biosphere reserves were planned to have a relatively undisturbed core zone, a well-defined buffer zone and a flexible transition area which may contain a variety of activities including agriculture. There are seven biosphere reserves in India, but these have no legal protection, and none have been registered with UNESCO.

2.4 Forests and livelihoods

2.4.1 The forests, poverty and tribal nexus

India's existing forests are primarily concentrated in three regions: the Himalayan band stretching from the north to the north-east; the central forest belt with its nexus in the Chhotanagpur Plateau of Orissa, Bihar and Madhya Pradesh, and the north-south belt of the Western Ghats. Significantly, the location of India's predominant tribal populations is closely superimposed on the nation's forest tracts. Having the greatest economic dependence on forest resources, it is perhaps not surprising that tribals possess the most extensive knowledge of India's forests due to their very culture and identity being interlinked with them, as well as the strongest motivation to ensure their survival. Barring a few isolated cases, the tribal communities co-exist with other local communities, whose production systems exhibit a close linkage with forest resources. These combined local communities (estimated population approximately 200 million) therefore constitute the critical segment of the Indian population whose survival can be said to depend on the sustainability of forests.

Box 2.3 Definitions of forest-dependent peoples

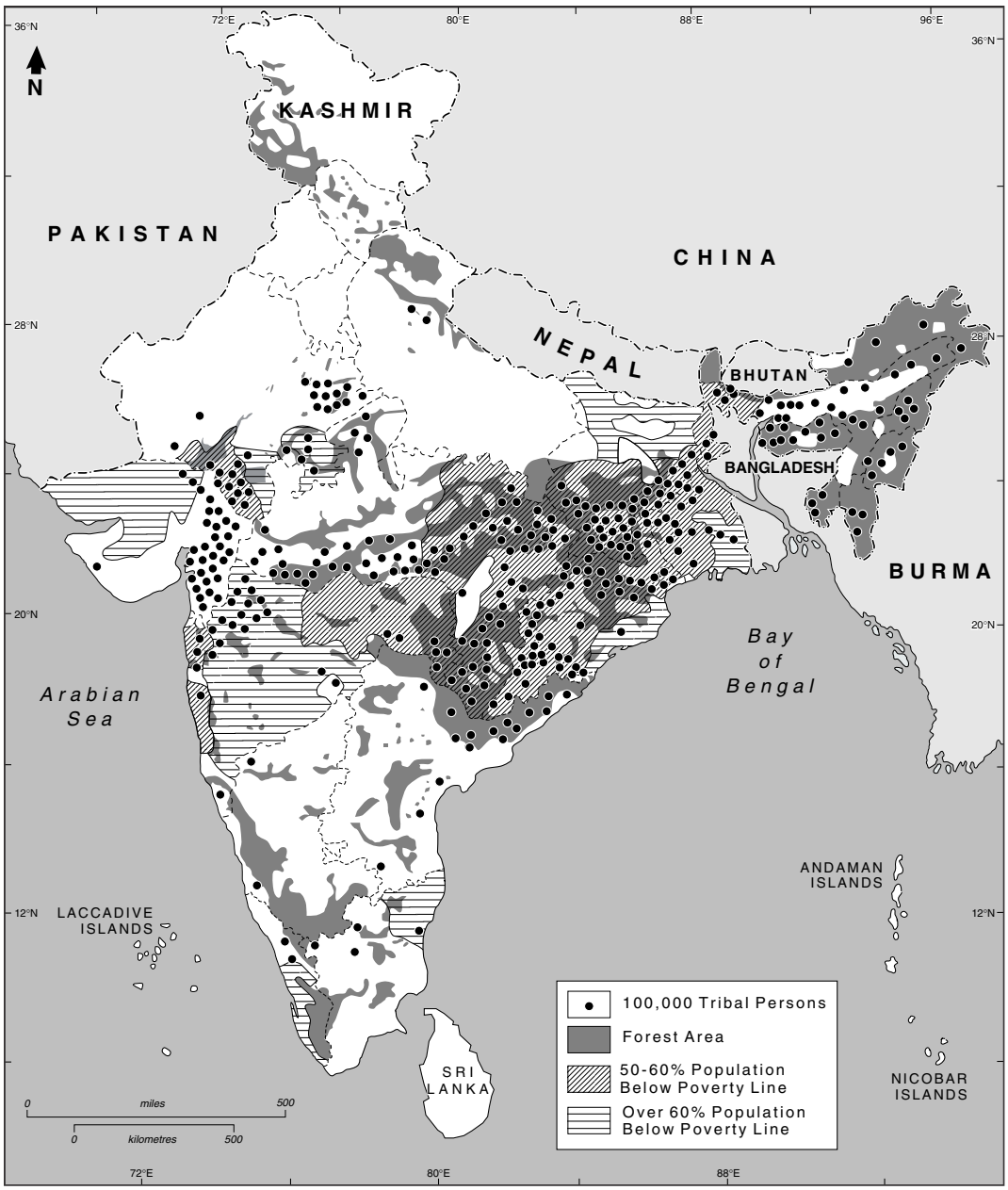
These are variously described in the literature as 'forest dwellers', 'forest-dependent people/ communities', even the 'rural poor' in general, and include tribal populations. In this report we use the following definitions:

- *Tribals*: indigenous inhabitants, known in India as *adivasis*, constitute about eight per cent of India's population (FSI, 1998), or more than 73 million people. The term *adivasi* is used particularly to refer to those inhabiting the forested regions of central and eastern India. Natural forests are thought to contribute directly to the survival of more than 50 million of the world's poorest tribal people, and many millions more depend heavily on informal sector forest-based livelihoods (Poffenberger, McGean and Khare, 1996).

- *Forest-dependent people/ communities*: These include tribals. Out of about 300 million people (or 60 million households) estimated to live below the 'poverty line' in rural India, around 200 million of these people are partially or wholly dependent on forest resources for their livelihoods. India's forests are critically important in meeting a wide diversity of needs for forest-dependent people. For example, seventy per cent of rural people use fuelwood for cooking; an estimated thirty per cent of fodder requirements are met from forest areas, and about twenty five per cent of India's livestock (ie, more than 100 million animals) graze on forest lands. This category includes those people dependent on NTFPs for their livelihoods. Further details of forest dependency are described later in Section 2.4.

There are also strong correlations between the locations of tribal people, forests and areas with a concentration of poverty in India, as shown in Figure 2.6. Given the close relationship between forests and India's impoverished people it is not surprising that they depend on the forest as a major resource for survival.

Figure 2.6 Forests, tribals and poverty areas in India



Source: Poffenberger, McGean and Khare, 1996

Historically, tribal communities were characterised by a lifestyle distinct from agrarian communities. They subsisted on some combination of shifting cultivation, hunting, and gathering of forest products – all activities closely linked with forests. Their cultures celebrated and fostered this close bond with nature, while also emphasising communal ownership and consumption, closely knit kinship structures, and minimal hierarchies (Vidyarthi and Rai, 1977, in Sarin, 1999). However, British colonial rule brought appropriation of forests and suppression of shifting cultivation; tribal economies and cultures were devastated, forcing large numbers into wage and even bonded labour. Some regions witnessed violent rebellions by tribals and other forest-dependent communities against the denial of access to forests. This led to several early initiatives for decentralised forest management as a means to contain the unrest – such as the *van panchayats* (forest councils) of Uttar Pradesh (see Box 3.1).

Following independence, nationalisation of forests, transfer of tribal lands to non-tribals and state-led modernisation (in the form of dam construction, agricultural expansion, mining and industrially-oriented forest policy) caused further dislocation and large-scale displacement. Although only 8 per cent of India's population, tribals are estimated to have comprised at least 40 per cent of those displaced by development projects (Fernandes, 1993, in Sarin, 1999). Even during the 1970s when increasing attention was given to preservation of 'wild' (and often tribal) areas (see Section 3), tribals were considered 'external' to the ecosystem and were therefore to be removed from protected areas.

As tribals and other forest-dependent people were pushed into a monetised economy, their dependence on non-timber forest products for income increased, even as access to diminishing forest areas decreased. Declining availability of NTFPs and lack of alternative employment have triggered widespread male dominated migration, both seasonal and long-term, from such areas.

Today, on a *de jure* basis, there is relatively lower landlessness among the Scheduled Tribes due to stringent laws prohibiting alienation of tribal land by non-tribals. *De facto*, however, many tribals have lost control over their lands to usurious moneylenders and through displacement caused by mega-development projects. In many states, Scheduled Tribes continue to enjoy extensive rights and concessions in forest areas. However, forest destruction has made these into rights on paper and where the forests have survived, lack of legal awareness has curtailed their ability to exercise such rights due to additional restrictions imposed by forest departments. The Constitution of India mandates targeting of special development assistance for the

Scheduled Tribes, and Special Tribal Development Agencies have been set up in tribal majority areas for the purpose. However, the top-down schemes designed for them have been inappropriate besides massive leakages of funds during bureaucratic implementation. The Scheduled Tribes remain one of the poorest segments of the Indian population as a consequence.

The tribal majority areas which coincide with forest areas are also areas with the highest concentrations of poverty – particularly the 'Jharkhand' tracts extending across West Bengal, Orissa, Bihar and Madhya Pradesh (see Figure 2.6). Ironically these areas are also rich in mineral resources, and whilst this generates substantial revenue, almost all of it flows out of the area, leaving behind poorly paid wage labour and environments devastated by logging and mining (Gadgil and Guha, 1995). Such inequities have given rise to numerous local separatist movements – for example, the demand for a separate political identity for Jharkhand, whereby tribals in that area would have effective control over their land and forest resources.

Over time, the tribal areas have undergone two other significant changes:

- Firstly, there has been a continuous *influx of outsiders* – traders, middlemen, agriculturists and industrialists – such that in many cases, the tribal population no longer constitutes the majority. Poorer non-tribals in this influx are sometimes worse off than well established tribal communities with legally recognised land and forest rights.

- Secondly, *socio-economic differences* between and within tribal communities have also increased. The forest dependence of those tribals who have benefited from irrigation and other development schemes has declined, whereas that of landless or displaced tribals as well as non-tribals, has increased.

Increasing socio-economic differentiation within and between communities in these areas has reinforced class, ethnicity and gender differences, and it is usually the poorest women (see Box 2.4) and entire marginalised sub-communities – such as the Nayaks in Panchmahals district of Gujarat or the Lodhas in south west Bengal and Orissa – who have become acutely dependent on fuelwood headloading (see Section 2.4.3) or charcoal making. Often because of this they are branded as 'forest destroyers' or semi-criminals within their own villages. Sub-communities specialising in particular occupations, such as potters and blacksmiths, who need regular supplies of fuelwood for practising their vocation, are in a similar predicament.

Such economic dependence on forests poses a particular challenge for community forest management, especially during lean agricultural work seasons when dependence on both NTFPs and (particularly) fuelwood, for income is acute. Lack of alternative employment during such periods results "in conditions of semi-starvation amongst the poor" (Mukherjee, 1995; Shramjeevi Unnayan, 1994).

Box 2.4 Gender differences in forest use and dependence

Within the overall dynamics of social change, gender roles and gender relations within both tribal and non-tribal forest-dependent communities are also changing. Rural women are major actors in India's forestry sector. Besides gathering a diverse range of NTFPs,[12] they participate as wage labour in forestry works. Women's employment in forest-based enterprises is estimated to be approximately 571.533 million days annually, of which 90 per cent is in the small scale enterprises using NTFPs as raw material (Khare, 1987). Two of the main cash earners among NTFPs, *sal (Shorea robusta)* seeds and *tendu (Diospyros melanoxylon)* leaves, are collected primarily by women. It is estimated that more than 350,000 tonnes of *tendu* leaves are harvested annually by 600,000 women and children (Kaur, 1991). (The use of NTFPs is described further in Section 2.4.2).

It is widely recognised that tribal women have better status within their own communities than women in mainstream Indian society. However, this is increasingly threatened. Degradation of the natural environment, deforestation and displacement have all worsened women's material condition and social status. Male migration and abandonment of women due to the increasing practice of bigamy, even trigamy, by the men leaves large numbers of pauperised and indebted women to fend for themselves. Men's absence for long periods is compelling many poor women to become primary breadwinners for their households. Headloading (see Section 2.4.3) fuelwood from forests and collecting other NTFPs for sale are often the only income earning opportunities available to such women (Adithi, 1993). However, they receive abysmally low returns for their labour (GoI, 1988).

Women-headed households are estimated to now represent one third of the total households in the country. Such households are disproportionately concentrated below the poverty line due to an increasing 'feminisation of poverty' (GoI, 1995). Such women's economic productivity is particularly critical for the 60 million Indian households below the poverty line. The poorer the family, the more it depends for its survival on the earnings of its female members (World Bank, 1991).

The subsistence and economic dependence of many of India's impoverished people upon forests is explored further below.

[12] These include fuelwood for sale and own consumption, fodder for livestock and other NTFPs including food, medicines, seeds, leaves, and building materials.

Photo: Ford Foundation

Foods and medicines from non-timber forest products, such as these being sold in a local market, are often a crucial element in forest dwellers' livelihoods

2.4.2 Non-timber forest products

NTFPs are potentially obtainable from around 3,000 species found in India's forests, and they form an important source of food especially for the tribals and the rural poor. Seventy per cent of NTFPs are collected from the five states of Maharashtra, Madhya Pradesh, Bihar, Orissa and Andhra Pradesh; these states also contain 65 per cent of the tribal population (Guha, 1983, in Planning Commission, 1998). It has been reported that 60 per cent of NTFPs collected are consumed as food or as a dietary supplement by forest dwellers. A study conducted in seven villages spread over four districts of Orissa State illustrates the situation prevalent in many poor tribal areas of the country: it found that 91 per cent of men and 98 per cent of women were engaged in NTFP collection from forest areas, and NTFP collection was the primary occupation for many, particularly women. Poorer households derived 50 per cent of their income from NTFPs (Malik 1994, in Saigal, 1998). In Andhra Pradesh, around 58 per cent of *mahua* (*Madhuka indica*) flowers and seeds and 17 per cent of tamarind fruits collected by tribals are consumed by them. In Bastar district of Madhya Pradesh, about 75 per cent of forest-dependent people supplement their food with tubers, flowers and fruits all year round. In the Andaman and Nicobar islands, several tribes wholly subsist on food derived from forests and the sea. In a survey of 216 households (tribal and caste) undertaken in the Jamboni Range of

Midnapore District, West Bengal, it was found that, of the 122 uses of plants or their parts listed by the people, most were used for food (44), followed by fuel (39) and medicinal purposes (18) (Malhotra *et al*, 1992). In Maharashtra it has been reported that about 30 per cent of the diet of tribal groups living near the forests is derived from forest products such as leaves, vegetables, tubers, fruits, nuts, bamboo shoots, small animals and honey (World Bank, 1993).

NTFPs are also an important source of income, which is another crucial element in the livelihood systems of forest dwellers. The percentage of income realised through the sale of NTFPs varies from state to state and is estimated to range from 5.4 per cent to 55 per cent.

NTFPs are also an important source of revenue for many states: see Sections 2.5 and 3.4.2.

2.4.3 Fuelwood and timber

Fuelwood is a major source of energy in rural as well as urban India. Fifty nine per cent of total fuel needs in rural areas, and nearly 36 per cent in urban areas, were being met from wood in 1991-92 (TERI, 1996). Together with dung[13] and agricultural residues, these non-commercial sources of energy meet 95 per cent of fuel needs of rural areas. Wood tends to be the main domestic fuel in poorer regions with low productivity (around 90 per cent of people depend on fuelwood for meeting their energy needs in Bihar), whilst the use of dung and agricultural waste is widespread in agriculturally prosperous regions with fertile soils and irrigation. However, information on the contribution of forest resources such as fodder to dung fuel is not available.

Between the late 1970s and the early 1990s, the share of fuelwood in total energy consumption increased from 55 per cent to nearly 62 per cent (TERI, 1996), although the share of non-commercial fuels in rural areas decreased from 94 to 92 per cent. This increase in the share of fuelwood could be of concern if it implies, increased pressure on tree resources, although there are indications that significant proportions of it could be coming from the proliferation of *Prosopis juliflora* on degraded lands or from the increased output of farm forestry.

[13] According to estimates made at the time of the start of the social forestry programmes (see section 3.3.2), over 458 million tonnes of wet dung were being used annually as fuel. If this was used in agriculture fields, it could potentially fertilise 91 million hectares and increase food output by 45 million tonnes (Srivastava and Pant, 1979; in Saigal, 1999).

Apart from fuelwood obtained for direct subsistence needs, harvesting fuelwood for sale, or headloading, is also an important source of income for many poor families, specially during the lean agricultural season. It is particularly important in the tribal majority areas in forests, which are also areas with the highest concentrations of poverty (see Section 2.4.1) – and where there is a the lack of alternative income or employment opportunities. Headloading has gained enormous importance as an occupation partly because fuelwood is available almost throughout the year. It has been estimated that 2 to 3 million people are engaged in headloading, making it the biggest source of employment in the energy sector in India (CSE, 1985). However, many researchers believe that this is an underestimate: for example a survey of 170 households in nine villages in Bihar showed that headloading served as a major source of income for 20 per cent of households (World Bank, 1993). The majority of headloaders are tribal and other poor women. Men also sell fuelwood, but they often use shoulder bars, bicycles or carts for carriage.

Rural communities require timber for house construction, bullock carts, agricultural implements, fencing, etc. Most of the timber requirements for these needs are fulfilled from forests. Most houses in rural areas are still constructed from timber, bamboo and grass. The consumption of bamboo

Photo: Elaine Morrison

Removal of fuelwood from some forests is far in excess of what can be sustained. Here in the Uttar Pradesh hills the demand for fuelwood has led to almost all branches being cut from some of these chir pines

alone for this purpose was estimated in 1984 to be around 1.6 million tonnes per annum (GoI, 1984) – and bamboo is in shorter supply today than it was then. An idea of the dependence of tribal people on forests for housing can be gauged from the example of Chandrapur village in Bastar district (Madhya Pradesh), in which no new house was constructed in two decades due to increasing distance from receding forests (GoI, 1981). In many areas, only those who own land and thus pay tax are entitled to fuelwood and bamboo, and then only after much verification from several officials. There is no system by which the landless and artisans can gain access to bamboo, even at a price, and thus are often forced to resort to illegal harvesting (Planning Commission, 1998).

The Forest Survey of India (FSI) estimates that every year, removals of fuelwood from forests and plantations are in excess of what they are capable of producing on a sustained basis by 86 million tonnes. The aggregate fuelwood demand for 1996 was 201 million tonnes or 213.8 kg *per capita*, for a population of 940 million (FSI, 1996).[14] FSI further estimates that the total current requirement for timber is 64 million m^3, and that there is excess removal of 11.8 million m^3 of small timber from forests every year (FSI, 1996).

2.4.4 Fodder

Livestock form an important component of rural livelihood systems: as providers of milk, organic manure, cash income and meat; and as the most important source of draught power for agriculture. A study shows that 66 per cent of small and marginal farmers in Andhra Pradesh would not be able to cultivate at all in the absence of forest resources, as they would not be able to maintain a pair of bullocks (Singh, Kumar and Khare, 1993). It is therefore not surprising that the Forest Survey of India recorded widespread grazing in forest areas across the country. FSI inventories indicated that all forest lands in Rajasthan are subject to grazing, whilst in Uttar Pradesh, grazing takes place over 83 per cent of the forest lands, in West Bengal over 87 per cent, in Meghalaya over 85 per cent, in Orissa over 70 per cent, in Sikkim over 75 per cent, and in Nagaland over 53 per cent of the forest lands (FSI, 1987). In a survey conducted by the Indian Institute of Public Administration (IIPA) in the 1980s, of the 174 protected areas about which the survey obtained data, 67 per cent of national parks and 83 per cent of wildlife sanctuaries reported grazing incidence (World Bank, 1993).

Overall, it is estimated that thirty per cent of fodder requirements are met from forest areas, and that this amounts to 145 million tonnes of dry fodder

[14] FAO (1997, in Saigal, 1998) note that India's total consumption of fuelwood and charcoal, estimated to be 274.24 million m^3 in 1995, is the highest in the world.

and 178 million tonnes of green fodder annually (FSI, 1996). Further, about 25 per cent of India's livestock population (ie, more than 100 million animals) graze on forest lands that have an estimated capacity to support only 31 million animals (The World Conservation Union, 1991; Dwivedi, 1993; both in Saigal, 1998).

2.4.5 Cottage industries/small enterprises

It is estimated that the forest-based enterprises provide 1,622.677 million person days of employment per year, of which 1,062.697 million days are created by small enterprises consisting of collection, gathering and processing of NTFPs in cottage industries. Of this, 517.533 million days of employment is that of women (Khare, 1987).

In some areas NTFP collection and processing forms the primary occupation eg, in parts of Orissa, 91 per cent of men and 98 per cent of women were engaged in NTFP collection from forest areas (Malik, 1994 in Saigal, 1998). Households with an income of less than Rs. 3,000 derived 50 per cent of their earnings from NTFPs.

Many commercial forest product activities offer low skill and capital thresholds of entry, and cater for extensive, if widely-dispersed, rural markets. They can therefore be important to very large numbers of the poor, including poor women, in situations in which they are unable to obtain sufficient income from agriculture or wage employment, and few other options exist. By contrast with these informal sector activities, the numbers benefiting from wage employment in formal sector forest industries are small (Arnold, 1998).

2.5 Economic role of forests

Large scale industry accounts for only about 10 per cent of timber used in India; the other 90 per cent is used for fuelwood and other domestic needs such as construction and agricultural implements. Currently, significant amounts of timber – estimated at around 20 million m^3 in 1997 (MoEF, 1998) – are imported to India for industrial use.

Pulp and paper is one of India's key industrial sectors, contributing Rs. 1,600 crore to the exchequer in 1996-97, and consumes much of the large-scale commercially traded timber. It comprises a few large companies and numerous smaller companies: ninety per cent of forest raw material is

processed by 23,000 sawmills and a large number of cottage units (Planning Commission, 1998). Almost half of all pulp produced in India is from non-wood fibres. Production is very labour intensive, and in 1996-7 employed 100,000 people directly. But as noted in Section 2.4.5, the numbers of rural poor benefiting from wage employment in formal forest sector industries are small if compared to those in informal activities (Arnold, 1998).

However, the pulp and paper industry has low capacity utilisation of 65 per cent: production is estimated to be 86 per cent of demand, and demand is 75 per cent of capacity (1996-7 figures). The low capacity utilisation thought by some to be due to raw material shortage and the almost negligible production by small, often technically infeasible, mills (whereas large mills' capacity utilisation is exceptionally good). The perceived raw material shortage – which has led to decline in the wood processing sector in general – followed the 1988 forest policy's prohibition of natural forests being used as a source of supply (see Section 4.3). Industry's proposed solution has been to raise plantations on degraded forest lands (see Section 4.5.2). In the meantime, cheaper imports[15] continue whilst much of the industry's capacity lies idle. In 1996-97 the pulp and paper industry showed a net outflow of foreign exchange of Rs. 2,600 crore. However, as a result of the successful phase of farm forestry (see Section 3.3) there was a glut of poles and pulp material from the private market, but which industry refused to buy, expecting continuing subsidies from the government. It appears that low capacity utilisation may be a result of lack of demand, rather than lack of supply.

NTFPs also represent an important source of revenue for many states. On average, over 40 per cent of state forest revenues and 75 per cent of net forest export income comes from NTFPs (World Bank 1993; in Saigal 1998). Consequently, though all states allow access to several NTFPs, there are often restrictions on collection and sale of those that are commercially important. Many NTFPs have been nationalised, or monopoly collection rights have been granted to government or private organisations or contractors; the local community, particularly the actual NTFP gatherers, are not entitled to a share in the income from these particular NTFPs (see also Sections 3.4.2 and 5.4).

The forestry and logging activity that is reflected in the National Accounts Statistics captures only those goods which are tangible, marketable, documented and whose prices already exist in the market. According to

[15] For example, timber costs in Indonesia were one third those of India in 1996-97.

these statistics the gross value addition in forestry and logging to gross domestic product at constant prices has declined from 2.7 per cent in 1980-81 to 1 per cent in 1996-97. The value of forest output at current prices in 1996-97 was Rs. 112,930 million and at constant prices Rs. 29,300 million, respectively. These statistics, however, do not take into account the subsistence collection by local communities and local market transactions. Also, there is incomplete coverage of reporting of total, as well as species-wise, production. In this process a substantial number of forest products that constitute vital components in the survival strategies of the poor become grossly underestimated and invisible, and are therefore ignored in policy processes. Some examples of efforts to address such under-valuation of NTFPs are given in Box 2.5.

Box 2.5 Estimates of economic value of NTFPs per hectare of forest

The total present value of non-timber goods and services from a tropical deciduous forest in India based on use, option and existence values is estimated to vary from Rs.1,21,059 to Rs.1,99,870 per hectare (Chopra, 1993). Of this, the use value of non-timber products is about 45 per cent; the use value of NTFPs has a significant impact upon income and consumption flows in local economies, and in particular this value may have strong implications for the welfare of communities which use these products for subsistence. Using the opportunity cost of labour time in collection of fuelwood, Sharma and Bhatia (1986) valued the annual flow of fuelwood from tropical deciduous forest in the range of Rs. 536 to Rs. 725 per hectare. For the same forests, the annual use value of soil conservation is estimated to be minimum Rs. 2,379 per hectare and maximum Rs. 5,652 per hectare. The method of approximation followed is the value of nutrients to restore on-site productivity and dredging of downstream silt for off-site costs (see Chopra *et al*, 1993). Similarly, for Kadavakurichi reserve forest of Tamil Nadu, Appasamy (1993) has valued the fuelwood, fodder and honey to be Rs. 2,090 per hectare per year.

2.6 Who are the stakeholders?

2.6.1 Local communities

This group includes forest-dependent communities usually living in the proximity of the forest, using forests for sustenance, consumption or income generation purposes (including processing of forest products). It also includes certain nomadic communities whose substantive livelihood, seasonally or on a continuous basis, depends on access to forest resources.

The forest-dependent communities have been fighting a losing battle against the state for assertion of their rights to livelihood resources. Their plight

worsened when the state was joined by the industrial lobby in exploitation of forest resources, and worsened further when the influence of conservationists (see Section 2.6.7) accelerated their exclusion from the remaining forest resources. Faced with the erosion of their livelihood base these communities reacted in one of two different ways:

- Some communities started *exploiting the forest resources* in the same unthinking manner as others (eg, uncontrolled grazing; selling fuelwood in nearby towns; encroachment which benefited townspeople more than them; poaching of timber and animals, whose major benefits never accrued to them); intensifying their own suffering in the long run for very short term benefits.

- Yet in a number of places communities began to *organise themselves for preservation* of their resources in the face of the well-organised industries and more powerful state machinery. Theirs has been an almost continuous struggle over a century as manifested in numerous movements launched by them. Some communities are organised into what have been termed 'self-initiated forest protection groups' (SIFPGs), described further in Section 5.

2.6.2 Medium and large farmers and locally powerful political elites

This group has typically been well-represented in rural politics and in farmers' movements, whose demands have included the provision of subsidised agricultural inputs and guaranteed market prices. Whilst they have limited dependence on forests and hence little concern for the state of the forests, Vira (1995) shows that they do have a stake in the reform of the forestry sector. "Medium and large farmers have been major beneficiaries of policy interventions which were targeted at subsistence populations, especially if these have involved the flow of substantial material resources to rural areas. Their political control of local decision-making structures such as village *panchayats* has allowed them to gain disproportionately from rural development interventions, including those in the forestry sector".

2.6.3 Industry

As well as industrial users of forest products (eg, the paper industry) this group includes claimants to forest land (eg, the mining industry as well as forest-based industry). The history of the development of the forest industry sector in India shows that:

- its major incentive was subsidised supply of raw material (Section 3.4);

- there has been a complete lack of monitoring of its forest harvesting operations; and
- profitability based on state protection has prevented modernisation.

Its traditional working methods created tremendous conflict with the local communities and it generally aspires to continuation of the old regime. Relying on its political clout developed over years of industry-central government collaboration, the forest industry is presently engaged in attempting to reverse the major provision of 1988 forest policy – the prohibition of the use of state forests for industrial supply (see Section 4.3). It has continuously lobbied for leasing of forest lands to industry, which has been bitterly opposed by people's organisations and a number of social activist organisations (see Section 4.5.2).

2.6.4 State governments

This group includes state forest departments as well as other departments who have a direct or indirect influence on forests. The state forest department, essentially, is only an instrument in the hands of the state. Forests potentially represent a large source of non-tax revenue to state governments, and one over which they have had relative freedom of control until recently (see Section 2.6.5). Politically, the state governments are subject to regional and local pressures. Such pressures may not always be taken into account in decision making at the centre (Vira, 1995) – although some states, such as Himachal Pradesh, have a strong conservation ethic

State forest departments are in charge of government forests, tree growth in other categories of Government lands, and regulate felling (in some states) and movement of timber and important NTFPs from private lands. In the case of the last function, the fees charged are nominal and would not even cover the cost of staff attending to the job, but rent seeking is high causing tremendous harassment. Another function – supply of seedlings to the public – until recently was either not charged or was heavily subsidised.

At the senior level, state forest departments are staffed by personnel from both the relevant state and the (central) Indian Forest Service. Another category, the 'forest bureaucracy', can also be identified. This comprises the field-level officials of the state forest departments, as distinguished from policy-level decision-makers. "This group has... maximum interaction with use groups. They have enjoyed considerable freedom of action at the level of implementation, particularly because existing forest legislation gives them a great deal of discretionary control over the flow of products and benefits from state forests. However, they function within a political context which considerably constrains their ability to act independently" (Vira, 1995).

Most FDs have delegated responsibility for sustainable timber production to state-owned Forest Development Corporations, which were originally created in 1976 with the objective that as more autonomous commercial entities, they would attract investment (see Section 3.3.1). For the most part, these Corporations harvest timber from both plantations and natural forests. The timber is then auctioned to forest-based industries and the public. Recently however, most commercial timber felling activities have been suspended, following a 1996 Supreme Court Order banning any forest working except in accordance with an approved working plan (many of which need to be prepared afresh due to the period of the previous ones having ended) and all 'non-forest use' of forests.[16]

2.6.5 Central government

This includes the Ministry of Environment and Forests (MoEF) but also other ministries and departments with an influence on forests. MoEF is entrusted with the responsibility of ensuring that the Central forest laws (such as the Forest Conservation Act and the Wildlife Protection Act) are obeyed.

Concerning the legal status of forestry authorities in India – the Indian Forest Service is one of the three All India Services (the other two being the Indian Administrative Service and the Indian Police Service). Forestry is a concurrent subject, as opposed to a State or Central subject. (The state subjects are administered by the states under enactments of the concerned state legislatures and central subjects are administered by the Government of India through enactments of the parliament). In the case of concurrent subjects both the states and the central government have regulatory powers but the powers of the latter override those of the former.

Thus for example, through the Forest Conservation Act (1980), though reserved forests are the property of the state governments, the state governments cannot release or divert them for alternative use without the approval of the Central Government. The administration of the reserved forests is through officials belonging to the Indian Forest Service whose service conditions are regulated by the Central Government and at lower levels by members of State Forest Services. These combinations of authority to some extent provide the checks and balances needed for forest management, but they also generate large amounts of red tape.

Although Central Government's direct role in the forest sector is relatively

[16] The Court Order refers to the Forest Conservation Act of 1980 in defining non-forest activities as including running of sawmills of any kind and mining (see section 4.1).

recent (forestry's concurrent status was introduced in 1976), it enjoys considerable and increasing powers, especially at the level of formulating policy and promoting and coordinating programmes. "Politically, the Centre responds to groups which are well-represented in the national capital, although their numerical strength may be relatively small. In particular, conservationists, international agencies and voluntary groups have a considerable influence on the direction of policy at this level" (Vira, 1995).

2.6.6 International community

This notional group includes all formal or informal entities, laws and structures ranging from the institutions created after UNCED to international NGOs and donors.

The international community has become an important player in the forest sector. Multilateral donors and overseas development agencies have been (and continue to be) important contributors to state forestry programmes, especially for regenerating degraded forest areas and wildlife conservation, and have progressively attempted to influence the direction of policy as well as to monitor its implementation (see, for example, Section 5.1).

2.6.7 Conservationists

This group emerged as forest stakeholders in the seventies. Including wildlife lobbyists, animal rights proponents and nature lovers, conservationists' philosophical predilections and methods of implementing their programmes have created direct confrontation with forest-dependent communities. Concerned with the protection of large mammals – notably the tiger – and, more recently, the loss of biodiversity, they have successfully propagated the programme of expansion of the Protected Area network and its strict policing (see Section 2.3.1). The resultant displacement of people from these areas and severe curtailment of their rights directly affects the livelihoods of several million people. Most such areas suffer from continuing, often violent conflicts between park authorities and people. This lobby has always been close to political power and its influence is clearly visible even in the 1988 forest policy, which is otherwise extremely pro-people but unambiguously supports the expansion of the Protected Area network (see Section 4.3).

Guha (in Vira, 1995) asserts that the conservationists have an influence on forest policy which is completely out of proportion with their numbers, and suggests that this is because they share a similar social and educational background to important decision-makers at the centre.

2.6.8 Social activists

These are the major supporters of forest-dependent communities and those people's movements asserting their rights on forest resources. Since the 1970s they have emerged as a major voice and articulate people's issues in various regional, national and international fora. They have made a common cause with a number of grassroots movements, sometimes even with more militant ones. Essentially representing a portion of the middle class of Indian society, they are not a very cohesive group – having, for example, a range of different perspectives on environmental questions. In general, they are yet to consolidate the gains made in dispersed locations. Their importance, however, lies in the fact that they support the cause of forest-dependent communities and aim to challenge the combined might of state and industry.

It will be seen from the above that **NGOs** are not listed as a separate stakeholder. NGOs in India are a large and extremely heterogenous group. Depending on its ideological orientation, an NGO could fall in any of the last three categories (and indeed, some may fall into the first two categories). Some NGOs have assumed important roles in the provision of extension services in place of the state.

Forest policy in independent India

The development of forest policy in the post-independence period in India can be seen in three distinct phases. These phases relate to the continuity of revenue- and industry-oriented policy carried over from the colonial period (expressed in the 1952 forest policy), its intensification in the mid-seventies (by the National Commission on Agriculture in 1976) and its reversal from 1988 onwards (expressed in the 1988 forest policy).

Table 3.1 Three phases of forest policy in independent India

Period	Main focus
1947-1976	Forests for timber and industry, neglect of village commons
1976-1988	Commercial forestry continues with greater vigour on forest lands, but more funds for social and farm forestry on non-forest and private lands to meet people's demands
from 1988 onwards	Joint Forest Management, and a radical shift from the earlier revenue orientation, conservation as a priority

Three sets of factors shaped the first two phases.

- Development until the mid-seventies was, in the minds of planners, associated with creating surplus from rural areas and the utilisation of such surplus for value addition through industry. Hence output from forest lands was heavily subsidised to be used as raw material for industries. The impact of such policies on forests or forest dwellers was given little attention, as the resource was perceived to be inexhaustible and 'national interest' was considered paramount over 'local needs'.

- Forest-dependent people, with little voice or means to communicate, were remote from decision making, and politically their interests were not articulated.

- Foresters were trained primarily to raise trees for timber. Other intermediate and non-wood products were not valued, as indicated by their usual description as 'minor products', leading to adoption of technologies which discouraged their production. The combination of these forces led to the perpetuation of a timber- and revenue-oriented policy which harmed both the environment and the people, but which was argued to be meeting the goals of the nation-state.

The development of the first two phases in forest policy is elaborated further below; the dramatic change in policy orientation introduced in 1988, and the factors which shaped it, are considered in Sections 3.5 and 4.

3.1 The legacy of colonial forestry

Forest policy developed after independence reflected much of the imperative of colonial forestry. Hence, a summary of colonial approaches to forestry is given here as background to the development of policy in independent India.

The European tenurial concept, which held that forest lands belonged to the crown, made its appearance in India in the late 18th century after the establishment of British rule. With the creation of the Indian Forest Service under the Government Forest Act, 1865, the colonial government proceeded to establish its control over forest lands in a more systematic fashion. Initially, nationalised lands were primarily controlled by the revenue department, which was interested in converting forests to income-generating farmlands. Settlement Officers from the revenue department fanned out across the country, conducting surveys and compiling lists of taxable agricultural lands and clarifying the rights of graziers and forest users.

The 1878 Forest Act vested the Indian Forest Service with greater powers to oversee forest use. The Act emphasised commercial forest management and restricted private property rights to continuously cultivated land only, while rejecting all other forest-use practices as a basis for ownership even if taxes had been paid. The forest department began a concerted effort to demarcate forest land, reserving the tracts with the greatest commercial potential. Environmental protection was also marshalled in justification and doctrines of 'scientific forestry' were used to legitimise the state's pursuit of its jurisdiction over the forest.[17]

[17] Baviskar (1999) notes some tensions within colonial forestry and the multiple imperial agenda which existed at different points in time during colonial rule. The relative dominance of revenue generation, timber extraction and environmental concerns varied at different times, depending on the changing imperatives of colonial rule.

Communities were given three months to contest forest reservation. If the villagers failed to file a claim within this period, their rights were generally permanently revoked. "While their 'rights' had some protection and channels of legal recourse were available, it is hard to imagine remote tribal Indian communities of the late 19th century being able to avail themselves of these channels" (Poffenberger and Singh, 1996). Further, the 'rights' to forest access and products, entitled to the communities under the Forest Act of 1878, eroded as time passed. For example, a departmental resolution issued in 1890 stated "the privileges conceded are intended to be exercised as a matter of favour and not of right and are liable at any time, at the pleasure of the Government, to modification, curtailment or discontinuance" (as quoted by Poffenberger and Singh, 1996). The concept of the 'national interest' is discussed further in Section 6.1.

Thus, throughout the second half of the 19th century the forests of rural communities were continuously being reserved and nationalised, while the rights of villagers were eroded through a series of legal actions. Village forest rights were often changed to privileges at the discretion of local bureaucrats. Attainment of independence in 1947 did not change the situation. Ancestral rights and usufructs granted under the earlier colonial regime were viewed, in some quarters, as overly generous. As Lindsay notes, "This disapproval of the supposed laxity shown to local uses of forests reverberates through numerous government reports in the 1970s and 1980s, each of which insists that a tightening of the 'concessions and privileges' granted to rural populations is essential to protecting the 'national interests'" (as quoted in Poffenberger, McGean and Khare, 1996).

However, there was already mention of participation in some circulars from the Government of India and state governments during the 1970s and 1980s. But this was understood to mean getting people to agree to, and go along with, a project which had already been designed for them. With some exceptions, people's participation was never expressed in a manner which would establish their rights over land or its produce.

3.2 Forests for timber and industry: the first post-independence declaration

Reflecting the developmentalist imperatives of the independent state, the Forest Policy Resolution of 1951 (subsequently approved to become the Forest Policy of 1952) replaced the key focus on "public goods" with the new

Box 3.1 Devolution of forest management in the 1930s: Uttar Pradesh's *van panchayats*

In the second half of the 19th century there was no consensus in favour of totally centralised state forest management even within the colonial government. The first Inspector General of Forests of India, Dietrich Brandis, persistently argued in favour of confining the area to be brought under reserved forests to the minimum, and away from habitations. He proposed supplementing that with a complementary network of village forests managed by communities to satisfy their own needs with technical support from the forest department. He argued that such a system of forest management would not only keep discontentment and alienation among villagers to the minimum but would also benefit from indigenous knowledge and resource management systems. But despite Brandis' lobbying for such an approach, even long after his retirement, his advice was not heeded (Guha, 1999).

One of the rare exceptions to the centralisation thrust, and which at least initially involved genuine *devolution* of management authority to village forest management institutions, was the creation of *Van Panchayats* (VPs) in the Uttar Pradesh hills from the 1920s onwards. These were constituted on the recommendations of the 'Kumaon Grievances Committee' set up by the colonial government in 1922 to understand the causes of widespread anger and rebellion against forest reservation among the hill peasantry. In recognition of the critical role of forests in the hill-farming systems, substantial forest areas were de-reserved and handed back to the revenue department to manage them to meet local needs. The Kumaon Village Forest Rules, notified in 1931 under the then Autonomous Districts Act (which included British Kumaon), enabled the villagers to apply to the revenue department to notify a specific civil-*soyam* area within their village boundaries as a 'village forest' to be managed by their elected representatives for meeting their subsistence and livelihood needs. The 1931 *Van Panchayat* Rules entitled the VP residents to 100 per cent of the produce from their forests and devolved substantial management authority to them, with only minimal administrative and technical regulation by the revenue and forest departments respectively.

Unfortunately, the *Van Panchayat* Rules were revised in 1976 under Section 28 of the Indian Forest Act. These significantly reduced the *Van Panchayat's* management autonomy, entitled the forest department to 40 per cent of their income for reinvestment in VP forests (which has rarely been done to date) and made it mandatory for the VPs to seek the revenue department's approval for using their own, now only 40 per cent share of total income. The 1980 Forest Conservation Act further curtailed the VP's ability to raise income from their forests by imposing stringent restrictions on commercial forest activities in higher altitude areas.

Despite all the above restrictions on their functioning, almost 5,000 *Van Panchayats* are still functioning in the Uttar Pradesh hills; several studies indicate that VP forests are in as good condition, if not better, than the reserve forests under the jurisdiction of the forest department.

Ironically, under an ongoing World Bank funded forestry project in Uttar Pradesh, the forest department has initiated JFM with the VPs at the Bank's insistence. Instead of focussing on how to strengthen the functioning of these statutory Village Forest Institutions (VFIs), many of which have been operational for almost seven decades, the Uttar Pradesh JFM order of 1997 requires the VPs to accept in writing that the VP Rules will no longer apply to them and that their participation in JFM will be "subject to the supervision, direction, control and concurrence of the Divisional Forest Officer – " (Section 3(I), The UP Village Forests Joint Management Rules, 1997).

ideological dimension of the 'national interest', which included defence, communication, industry and a maximum annual income in perpetuity for states. The Policy declared that village communities should in no event be permitted to use forests at the cost of this 'national interest'. In subsequent years, it was not defence or communication, but industry which emerged as the major user of forest resources (Pathak, 1994). The policy stated:

> *The accident of a village being situated close to a forest does not prejudice the right of the country as a whole to receive benefits of a national asset. The scientific conservation of a forest inevitably involves the regulation of rights and the restriction of the privilege of users depending upon the value and importance of the forest, however irksome such restraints may be to the neighbouring areas… While, therefore, the needs of the local population must be met to a reasonable extent, national interests should not be sacrificed because they are not directly discernible, nor should the rights and interests of future generations be subordinated to the improvidence of the present generation (Forest Policy Resolution 1951).*

Hence the major feature of the 1952 policy was to reinforce the right of the state to exclusive control over forest protection, production and management (Hobley, 1996). Objectives of the 1952 Forest Policy included evolving a system of balanced and complementary land use, increasing forest cover, sustained production of timber and other forest produce for national needs, and generation of revenue. No mention was made of involving people or meeting local needs. The policy also aimed at having a minimum of one-third of the geographical area under forest.

In budgetary allocations too, emphasis was laid on the conversion of 'low' value mixed forests into 'high' value plantations of commercial species such as teak and eucalyptus. Forestry, at that time, meant raising trees in order to get sustained yield of timber in perpetuity. Exotic species were introduced to create man-made forests. Between 1952 and 1980 over three million hectares of plantations were established, the major proportion of which were to fulfil industrial needs (CSE, 1982). Out of the Rs. 670 million spent on afforestation during 1966-74, roughly Rs. 560 million was on production forestry alone[18] (GoI, 1981). The use of bamboo for paper manufacture accelerated from a low of 58,000 tonnes per annum at the end of the second world war to over 5 million tonnes per annum by 1987 (Hobley, 1996).

In Madhya Pradesh, which alone contains more than 20 per cent of India's forests, the Chief Minister, in a message for the *Forestry Souvenir* in 1976, said

[18] These figures are not adjusted for inflation.

"Madhya Pradesh has taken great strides in the development of scientific forestry. There is much greater emphasis on man-made forests, designed to meet industrial requirements". Thus scientific forestry was equated with raising of industrial plantations and legitimacy was given to the process of converting diverse forest ecosystems into single species 'timber mines'. The foresters, charged with conserving the forest ecosystem, became the main agents of reducing the diversity of forest species.

3.3 The National Commission on Agriculture and the Social Forestry Phase: 1976-1988

In 1976, the National Commission on Agriculture (NCA) provided an unambiguous statement of the state's intentions, which were, until then, couched in language sympathetic to forest-dependent people, while principally serving industrial-commercial interests. It reversed the accepted norm of production of public goods on public lands and private goods on private lands, and prescribed commercial production on forest lands and production of fuelwood and fodder on farm lands through:

- conversion of natural forests into a uniform industrial cropping system, and
- a programme of Social Forestry on village and private lands.

Also in 1976, the 42nd Amendment to the Indian Constitution made forestry a subject of concurrent jurisdiction, whereby both the Centre and the States have the power to legislate; prior to this Amendment forests were solely a State subject (see Sections 2.1 and 2.6.5).

3.3.1 Industrial plantations

The NCA stated that "Production of industrial wood would have to be the *raison d'être* for the existence of forests. It should be project-oriented and commercially feasible from the point of view of cost and return" (GoI, 1976). It recommended that Forest Development Corporations should be created to attract institutional finance. The NCA also suggested that it would not be in the interests of the programme to tackle forestry on poor quality sites where, even with the best efforts, the growth potential would be limited. It said:

> *There should be a change over from the conservation-oriented forestry to a more dynamic programme of production forestry. The future production programme should concentrate on clear felling of valuable mixed forests, mixed quality*

forest and inaccessible hardwood forests and planting these areas with suitable fast growing species yielding higher returns per unit area… Resources for industrial raw material, both for internal consumption and export, should be stepped up through large-scale industrial plantations (GoI, 1976).

Following the NCA recommendations, 26 State Forest Development Corporations were set up to raise monoculture plantations on forest lands. These Corporations received grants from the government to the tune of Rs. 34.20 crores and obtained loans worth Rs. 194.97 crores (Review Committee 1989, Chairman J.K.Chaturvedi).

Thus the thrust of forestry during the first four decades after independence was towards the production of a uniform industrial cropping system, created after clear-felling and cutting back of all growth, except of the preferred species. Far more emphasis was placed on plantation rather than on management of existing trees. For instance, the 6th Five Year Plan (1980-85) of Madhya Pradesh stated:

To produce 25 m^3 of industrial wood it would be necessary to subject 5.5 million hectares of production forest lands to the intensive management, that is to clear-felling and planting... with the massive plantation programme being launched in the state, there would be extensive monocrops of teak in the forests... we should clear-fell and plant roughly one lakh hectare annually if we want production of industrial wood to keep pace with demand in future.

3.3.2 Social forestry

As regards the subsistence requirements of fuel, fodder, fruit, medicinal herbs etc, of the forest-dependent communities, the NCA recommended a programme of Social Forestry. To quote from its report:

Free supply of forest produce to the rural population and their rights and privileges have brought destruction to the forest and so it is necessary to reverse the process. The rural people have not contributed much towards the maintenance or regeneration of the forests. Having over-exploited the resources, they cannot in all fairness expect that somebody else will take the trouble of providing them with forest produce free of charge… One of the principal objectives of social forestry is to make it possible to meet these needs in full from readily accessible areas and thereby lighten the burden on production forestry. *Such needs should be met by farm forestry, extension forestry and by rehabilitating scrub forests and degraded forests. (GoI, 1976). (Our emphasis).*

Thus social forestry was seen by the NCA as a programme that would release industrial forestry from social pressures. Forest lands were still to be

Box 3.2 Social forestry and farm forestry: definitions

Social forestry is an umbrella term for individual farm forestry, communal village planting and, in some places, forest management by villagers. It includes FD-sponsored plantations on a variety of 'wastelands' and essentially refers to forestry activities outside forest lands, on unproductive government and community lands. Under the social forestry programme which emerged in the mid 1970s, rural people were encouraged to grow fuelwood, fodder and small timber for their consumption on village commons and private farmlands; the FD provided subsidies and technical expertise. The main objective of the programme was to ease people's pressure on government forests so that they could continue to be used for commercial purposes.

Farm forestry involves the promotion of tree planting by farmers on private lands through free or low-priced seedlings and decentralised nurseries – after which it was the farmers' responsibility to decide what to do with the produce. The emphasis of social forestry shifted from government-managed plantations to farm forestry by the early 1980s.

Community plantations: refers to government, especially FD, sponsored plantations on a variety of 'wastelands' such as village grazing commons, government-owned wastelands in or near villages, degraded forest lands, roadsides, canal-sides, along railway tracks and irrigation-tank foreshores, with varying degree of local participation.

According to the National Commission on Agriculture, the objectives of social forestry were: supply of fodder; supply of small timber; supply of fuelwood to replace cowdung; protection of agricultural fields against wind and soil erosion; and creation of recreational amenities (Pant, 1980 in Hobley, 1996).

Sources: Hobley, 1996; Saigal, 1998; Saxena, 1998a.

used for production of commercial timber, but in order to keep people out of the way it was necessary to make them produce what they consumed free of charge, using village lands to draw off some of the pressure on forest lands.

A careful reading of the whole set of objectives, strategies and components of the social forestry projects reveals the following underlying assumptions:

- that people's dependence for fulfilling their subsistence needs (especially fuelwood and fodder) can be shifted from the forest lands to the village commons and private lands by growing trees on these lands;

- that fuelwood was considered a serious problem in the country as a whole and also in every part of the country – hence fuelwood tree plantations became dominant in every state project and within projects in every district or village. People were expected to grow their own fuelwood;

- that common property resources like *panchayat* land, and village pastures having multiple usage for the people can be converted into single-use resources.

Evidence suggests that some of the above-mentioned assumptions were not borne out by ground reality; for example:

- Shifting of subsistence needs from forest lands to the other village commons and private lands assumed a similarity of land use and was therefore based on substitutability of needs-fulfilment from one type of land with the other. Alternatively, it assumed availability of non-forest lands for new uses. In practice both the assumptions were slightly misplaced because all the three types of lands had different usage: forest land for fuel, small timber, medicine and other subsistence requirements; village commons for pastures, threshing grounds etc; and private lands for food production.

- Planting of trees for fuel was an idea quite alien to most rural communities of India. In the past people had rarely planted trees for the purposes of fuelwood since fuel and fodder were available free of cost from the common property resources. The fact that planting involves an investment which, to be justified for the villager, must produce a greater return than that of household fuel, does not seem to have been recognised. Burning represents the lowest value use to which the product of a tree can be put and is the one that is chosen last. This is further corroborated by a survey of domestic fuels by the National Council for Applied Economic Research, carried out in the mid-1980s, which found that of all the fuelwood consumption in the rural areas, only 18 per cent is met from logs, while the rest is met from twigs, branches, agriculture residues, dung, etc.

Nevertheless, farm forestry in particular took off. The initial take-up of farm forestry far exceeded expectations, as farmers' response was quite different in both scale and purpose of planting, from what was planned.

It is estimated that in a five year period between 1979 and 1984 over 2.5 million hectares of land had been reforested (Guhathakurta, 1984, in Hobley, 1994), and that about 10,550 million trees were raised on private lands between 1980 and 1988 (Chambers *et al*, 1988, in Saxena, 1998a). In one state alone – Gujarat – farmers planted as many as four times the existing number of trees in the state in 1983-84 (GoG 1986, in Saxena, 1998a). Estimates of survival rate are relatively high: 60 per cent or 77 per cent (IIPO, 1991 and GTZ, 1992, both in Saxena 1998a).

Box 3.3 The rise and fall of farm forestry in the 1980s

Key features of the farm forestry programme included the following:

- *Farm forestry was primarily taken up by large farmers*, who focused on commercially-valuable species. Tree farming was attractive because of low labour costs, high profitability, low supervision costs and because absentee landowners could prevent encroachment on their lands. The main driving force was the commercial returns which were available (at least initially), as farmers responded to the economic incentives offered to them.

- *More trees were planted in commercialised and surplus producing agrarian regions* than in subsistence-oriented eastern states, despite the fact that rainfall and soil conditions were more favourable to trees in the east rather than in the low rainfall (but irrigated) north-west India.

- *Eucalyptus was the most favoured tree* with the farmers as it grew straight, had a small crown, which allowed more trees to be planted per unit of area, and caused little shading when planted on field boundaries. It did not attract birds, was non-browsable, hence easy to protect, and yielded straight poles which were perceived to have a good market.

- *Eucalyptus was planted more for sale as small timber, poles or pulpwood*, than for use as fuelwood, although subsequently because of glut conditions it was often sold as fuel to brick kilns and fuelwood depots.

- *Farmers' enthusiasm to plant eucalyptus declined after 1988*, as the tree failed to generate the kind of returns farmers were made to expect from its sale. In contrast to other agricultural innovations (eg, high yielding varieties of seeds) which, after a fast initial growth, stabilised at a high level of adoption, the popularity of eucalyptus farming shot up quickly during 1981-86 but declined equally fast afterwards. This decline can also be attributed to the provision of subsidised pulpwood supplies to the paper mills by the government, as well as cumbersome tree felling, transport and sale rules and procedures.

Sources: Saxena, 1998; Saigal, 1998; Vira, 1995.

The concept and principles of social forestry also proved attractive to donors: over a 15 year period from the mid-1970s, international donors contributed US$ 400 million towards establishing social forestry programmes (Poffenberger, 1990, in Hobley, 1996).

Figures for domestic expenditure on social forestry are not available; however forestry and wildlife outlay increased significantly from 1980 onwards. It rose from 0.51 per cent of total public sector expenditure during the Fifth Plan (1974-79) to 1.03 per cent during the Seventh Plan (1985-90) (GoI, 1993).

3.4 Assessment of policy impacts up to the late 1980s

Even following independence, legislation and policy together continued to reinforce the primacy of timber for commercial purposes, with local people considered a liability. Such policies were neither sustainable in terms of checking the process of deforestation, nor did they improve people's access to forests for meeting their basic subsistence needs. We now consider these two types of impacts in turn, followed by a brief assessment of the social forestry programme.

3.4.1 Impact on the forest resource

In the name of the 'national interest' following independence, forests were required to be host to accelerated extraction. Large-scale destruction of forests resulted from development projects (notably dams and mining) and the extension of agriculture. Forest policy decisions in this period, which supported industrial plantations on forest lands and social forestry on village lands, also failed to stop the degradation of India's natural forests. Forests were over-exploited under government concessions to forest industries in the drive for industrialisation, which made forest raw material available to industries at far below the cost of regeneration. In effect, it was almost given for free. As such there was little incentive for industries to invest in regeneration. The unsustainable exploitation of forest-based raw material consumed the sources of supply much sooner than the forest industries themselves expected, and pushed the frontiers of exploitation into ever more remote areas (Gadgil, 1989).

Exploitation of the forests occurred at the cost of local needs and broader conservation functions of the forests. To raise new plantations, natural forests were clear-felled even in ecologically sensitive regions, such as on steep slopes. Such clear felling and lack of proper regeneration led to landslides, soil erosion, and siltation of rivers, reservoirs and tanks downstream (Nadkarni, 1995). Local people were deprived of their biomass supply, and were also hit by reduction in employment in the informal sector that depended on NTFPs.

The alienation of forest lands and reduced availability of forest products (through priority being given to subsidised supplies to industry) from the people dependent on them for satisfying their needs resulted in forests turning into an open access resource. This has been one of the main causes of degradation as well as of increasing poverty of the people. In the face of this deforestation, the response of the government was to bring more land

under the reserved category (which increased from 26 million hectares in 1951 to 42 million hectares in 1998), and plant non-browsable and market-oriented single product timber trees, in order to reduce pressure from the local population and increase state revenues (see Section 2.3 for definition of reserved forest). This strategy proved counter-productive and hastened the degradation process it was designed to prevent.

A study done by a voluntary agency (PRIA, 1984) showed that one third of deforestation in Himachal Pradesh was due to excessive exploitation by the forest-dwellers, and two thirds due to commercial interests.[19] Often the two processes of industrial extraction and unregulated use by the people follow each other, as the indiscriminate tree felling by the contractor-official-politician nexus has a corrupting influence on the forest dwellers, who also wish to 'make hay while the sun shines'. Moreover, the selective logging of a few large trees creates openings in the crown cover leading to better grass production, which invites cattle and goats. Their browsing makes regeneration difficult, and then the area is invaded by exotic, non-palatable weed species.

The rate of deforestation can be associated with sudden policy change or periods of uncertainty, such as abolition of landlordism and the takeover of private forests, the setting up of Forest Corporations, and political unrest. Rather than being a continuous phenomenon, deforestation has occurred in phases or uneven spasms. It is fuelled not just by local pressures on resources, but also by "any momentary disruption of the institutional framework responsible for resource protection and management" (Dove *et al*, 1992). Deforestation has also been precipitated by the climate of suspicion and distrust induced by policy itself (see below).

3.4.2 Impact on forest-dependent people

Degradation and loss of forest cover, fuelled by policies pursued up to the late 1980s, eroded the livelihood base of several million people, increasing rural poverty and unemployment. Even efforts to re-establish forest cover worked to their disadvantage. The impact on forest-dependent people is described below.

Priority given to forest industry

Whereas the adverse effects of deforestation on the local economy are well understood, the impacts of industrial plantations are not so well documented. Plantations have usually been of single species, entailing loss of diversity and access, and often on a large scale. In practice this is of little

[19] A green felling ban has been in place in Himachal Pradesh for the last 17 years.

benefit to local people, beyond the provision of wages for a few.[20] This was recognised even by the then-Inspector General of Forests, Mr. Dalvi, who, while addressing the 1981 International Conference on Tropical Forest Management at Dehradun, illustrated the inherent conflict arising out of forest plantations in the following terms:

> *Let us consider an example of a natural forest predominantly of sal (*Shorea robusta*). This forest represents to poor forest-fringe-dwellers a source of livelihood yielding seeds for sale, branches and leaves for fuel and manure. The decision to convert this sal forest to industrially more valuable species like teak may satisfy the needs for higher revenues which may or may not be used for the welfare of these same people, but would certainly deprive them of an output from the forest which they were enjoying.*

Other writers have been less charitable about the intentions of government. An ex-Forest Secretary of Madhya Pradesh writes:

> *This (the policy of giving priority to industries and subsidising industrial raw material) is clearly discriminatory. The rights of a huge section of society cannot be wiped out in order to benefit a few industrialists. For instance, the Orient Paper Mills was promised a lakh ton of bamboo per year from four districts of the state. This eliminated all bamboo from Rewa, Panna, Satna and Shahdol. When such a situation arises the forest department tells the villagers to fend for themselves because there is nothing in the forests for them (NCHSE, 1987).*

The total number of cane, bamboo and basket weavers in 1981 was 8.2 lakh, out of which 6.9 lakh were in the rural areas. A common problem faced by all bamboo artisans is that of raw material shortages. The major cause for this is their diversion to the paper and other industries, which often procure their raw material from state government at throw-away prices, much to the disadvantage of the artisans. Until very recently highly privileged prices have been the standard practice for industries. Although the element of subsidy has been greatly reduced lately, it still continues in many forms.

Government monopoly over NTFPs

NTFPs require simple and easily-handled processing and packaging technologies; they have a relatively long shelf-life, and so can withstand small variations in market demand. Rather than improve the bargaining power of the poor, government policies have often acted in favour of traders and created monopolies. In effect these continue to the present day.

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[20] Even wage employment becomes insignificant after the first year or so of plantation.

Almost all important NTFPs (*tendu [Diospyros melanoxylon]* leaves, *sal [Shorea robusta]* seeds, etc) are nationalised, that is, they can be sold only to government agencies – although the number of nationalised products does vary from state to state. In Madhya Pradesh, for example, only four NTFPs (*sal* seeds, gums, harra seeds and *tendu*) are nationalised, whilst in Andhra Pradesh trade in NTFPs is a state monopoly and all items other than timber are included. The nationalisation of these NTFP commodities was carried out in different states in various years from the 1960s to the end of 1970s. Although it was presumably with the intention of helping the rural poor, through protecting their interests against exploitation by private traders and middlemen, it affected their interests adversely. Nationalisation reduces the number of legal buyers, chokes the free flow of goods, and delays payment to the gatherers, as government agencies find it difficult to make prompt payment. This results in contractors entering from the back door, and operating with higher margins to cover uncertain and delayed payments by government agencies, as well as ensuring that the police and other authorities ignore their illegal activities. This all restricts NTFP collection by tribals and other forest-dependent people, and similarly restricts the revenue generated by the sale of NTFPs. Due to the uncertainty of the market, much produce is sold with little, if any, processing or value addition.

A large number of families have the expertise and skills necessary for processing bamboo, and making hats, baskets, etc, but they are prevented from getting the full price for their labour, because stocking bamboo and selling bamboo products requires permission from the forestry department. Freeing the artisans from such constraints can itself lead to widening the base of entrepreneurial activities in the village, as these value-added activities can be undertaken within villagers' homes.

In Orissa, only one company has been given monopoly collection rights for twenty-nine NTFPs for ten years. Thus a private trader has been given exclusive rights of collection and marketing. Although on paper the price is fixed by the Collector (of revenue), there is no check on the price paid by the private trader to the tribals who collect these products. Such orders creating private monopolies are *ad hoc*, arbitrary, and act against the principles of natural justice, as no tenders or offers were invited before bestowing monopolistic powers to a single private agency. These orders smack of favouritism, and a lack of probity and openness. State monopoly has provided space for private monopoly, and is aiding and abetting market imperfections, besides pouring money into the coffers of bribe-takers at all levels.

Photo: Ford Foundation

Traditional basket making for sale in local markets. Many rural people are skilled artisans, but production is constrained by government restrictions on collection, stocking and marketing

Box 3.4 Ban on processing by the poor: the case of hill brooms in Orissa

According to Orissa's laws, processing of hill brooms can only be done by the leaseholder, the Tribal Development Cooperative Corporation (TDCC) and its traders. Tribals can collect the materials, but cannot bind these into a broom, nor can they sell the collected item in the open market. Thus the poor are prevented from both adding value through processing and the right to get the best price for their produce.

Recently, a very tragic case was brought to light (for details, see Saxena, 1997), in which assurance was given by the Collector Raygada to women's groups that they would be allowed to collect and market hill brooms, so that the primary gatherers, who are mostly poor tribal women, may get the benefit of higher prices in the market.

The women's Society started functioning, but without a valid licence. Rather than helping them with processing and finding the best price, the state government machinery decided to launch a prosecution against the women and their organisation. Their stocks were seized, and despite assurances from senior government officers, the full stock was subsequently not released. Thus even when cases of exploitation are brought to public notice by the newspapers, the hold of traders and corrupt elements is so strong on administration that no remedial action is taken for several months, by which time the stock deteriorated and lost all value. The intention of the monopolistic trader appears to be to cause financial loss to the women's group, thus sending out a strong signal to prevent other groups from daring to break their monopoly.

Monopolisation and poor regulatory monitoring add to overuse of resources. This is demonstrated by another example in Orissa, where traders obtained monopoly rights for the tree *Oroxylon indicum*, the bark of which is used for making incense sticks. The trader who enjoys the monopoly not only removes the bark, but often cuts the entire tree, thus causing great harm to the forest. Several cases of damage to forests caused by the trader's men have been reported by the forest department itself, but the lease still continues.

'Cultures of attrition' and parallel economies

Local resentment at the cosy relationship between the state and industry has been manifest in local 'cultures of attrition' with villagers using 'weapons of the weak' (Scott, 1985) such as arson, theft, squatting, etc. Ground-level hostility between villagers and the forest department may be accommodated within a parallel economy, with forest officials turning a blind eye to illegal acts, often for private gain. It should also be noted that whether such local solutions are official or unofficial they may reinforce existing power disparities. For example, the poorest among those cultivating 'encroached' forest land may be unable to bribe their way to a land title (Baviskar, 1999). We return to issues of local inequity in Section 5.

3.4.3 The social forestry era: a mixed blessing

On the whole, social forestry did succeed in increasing the availability of wood, albeit for a short period. This temporary success was due to the popularity of farm forestry in commercial regions during the early period of the programme.

However, the sustainability of tree planting on village lands after the first harvest, with some exceptions, remained doubtful. Briefly the shortcomings of the programme were:

- Village *panchayats* (local elected councils) perceived the woodlots to be sources of communal income, rather than as sources of fuelwood to meet village needs. The composition of species was also such that the *panchayats* were tempted to sell the produce in the markets, rather than distribute it in the village. (In any case farmers could not hope to compete with those who collect fuelwood and fodder to sell in local markets or for their own use, and who make no investment apart from their own labour).

- *Panchayats* could not enforce the discipline required for managing plantations as FD extension staff primarily interacted only with the *Panchayat Pradhans* (heads), making little effort to involve members of the community as a whole.

- Projects were designed around the felling of mature trees, and degradation often set in after the trees were harvested.

- The targeted area under village lands could not be made available for afforestation because of encroachment, competition from other departments (see Section 4.2), competition from grazing and other existing local uses, and poor productivity.

- There was no continuity in the management and control of thousands of scattered pieces of planted village lands, creating enormous problems of protection due to little attention being given to developing local institutions for the purpose.

- Projects failed to define, establish and publicise the rights to the trees and the procedures for marketing and allocating benefits. The shares which would go to the individuals, village, *panchayat* and the forest department were not clearly laid down. Insecurity about benefits led to indifference on behalf of the people.

Some assert that 'social' forestry was used only as an 'adjective' to turn on the channels of donor funding. The officials and contractors essentially ran the show. Once the channels dried up, the plantations disintegrated (Unnikrishnan, 1994, in Hobley, 1996).

Even in farm forestry, where the main species was eucalyptus, the initial enthusiasm of farmers could not be sustained, as farmers did not get the anticipated price for their output (see Section 3.3.2). In fact the FD was unprepared for such enthusiasm and was totally unprepared to assist farmers with marketing; consequently the timber markets crashed in many states, forcing most farmers out of farm forestry. The policy to subsidise industry and petroleum-based fuels harmed the farmers in many ways. Industry preferred getting subsidised supplies in bulk from government forests rather than buy from farmers.[21] Ultimately, much of the eucalyptus wood was being sold as fuelwood at less than the expected price. Farmers' produce as fuelwood competes with wood supplies from government, and with coal and petroleum products, which have administered prices.

In relation to fuelwood, the price of kerosene declined by 17 per cent, and that of LPG by 100 per cent, during the period 1970-84 in India (Leach, 1987). Fuelwood raised through farm forestry was also in competition with supplies of fuelwood brought to the market by gatherers from public lands. Further, the forest departments of many states sell fuelwood from forest depots at a subsidised rate. Because of these subsidies fuelwood prices have remained low since 1985.

Another policy which reduced farmers' profits was the legal framework which did not permit a farmer to freely cut and transport wood products. A study by the Indian Institute of Management (IIM) of charcoal makers in Gujarat showed that a simple operation of converting *prosopis* (*Prosopis juliflora*) into charcoal, which can give employment to thousands of people, requires several permissions (IIM, 1994). Harvesting, conversion, and transportation were all subject to departmental controls involving cumbersome and time-consuming procedures. This introduced uncertainty into the marketing operations leading to low prices for farm output, and further planting declined after 1988. (However, most states have now removed restrictions on the transport and sale of species such as eucalyptus).

In summary, the decline of farm forestry in the mid-1980s was mainly due to the collapse of pole markets due to: oversupply; unsuitability of the output

[21] For example, paper mills in Karnataka were paying Rs. 15 per tonne of bamboo when the open market price was Rs. 1,200 per tonne (CSE, 1985, in Saigal, 1998). The government had initially started subsidised supplies to attract industries to industrially backward regions of the country.

as timber; subsidised pulpwood supply to the paper mills by the government; and cumbersome tree felling, transport and sale rules and procedures. Farm forestry neither significantly met local needs nor improved private wastelands. It failed to take off in the subsistence agriculture areas, and even in commercial agriculture areas its success was short-lived. The blanket approach of promoting fast growing species everywhere irrespective of local conditions could not accommodate differences in agrarian structures and the rural economy in different parts of the country (Saigal, 1998).

However, the farm forestry programme did demonstrate that given the right incentives and a remunerative price, Indian farmers can meet most of the raw material needs of wood-based industries. Yet despite the demonstrated potential to produce sufficient raw material itself, the political power of other stakeholders (principally industry) to support inconsistent policies has meant that currently, India is still facing raw material shortages and is importing wood pulp and many other wood-based products.

The post-independence period is marked not only by the vigorous implementation of the revenue and timber orientation of colonial forest policy but also by an increasing stranglehold by the state on NTFPs, which were beginning to acquire a greater revenue potential by the late sixties. Added to that, the social forestry programme failed to meet its supposed objectives and farm forestry declined after its initial boom. The major benefits had been to the central and state governments in the form of increasing revenue, and to industries in the form of cheap raw material and unbridled access to forests. Both types of benefits were at the expense of forest-dependent people. By the mid-1970s another set of stakeholders, small in numbers but disproportionately influential, began to assert themselves, heralding the arrival of the lobby of conservationists and wildlife enthusiasts.

3.5 Evolution of people-centred forestry

Government programmes stemming from the early 1980s showed that central government agencies were beginning to recognise the link between rural poverty and land degradation. A number of rural poverty alleviation programmes with a substantial forestry component were begun at this time. In 1985 the National Wastelands Development Board was established and given a target of afforesting 5 million hectares of wastelands per annum. Although the target was not reached, this did give further impetus to the

social forestry programme, and also got NGOs involved in the state afforestation effort (Saigal, 1998). Changes in central government thinking were also apparent in the Seventh Five Year plan (1985-90), which for the first time recognised the importance of non-market and ecological benefits from forests. Unlike its predecessors it did not explicitly mention production of timber for commercial purposes as one of the objectives of forest policy. It also stated that raw material for forest-based industries would be provided only after meeting the needs of local people. Thus even before the 1988 Forest Policy (discussed in Section 4) there were indications that government was willing to respond and give concessions to newly emerging lobbies.

Meanwhile at the local level, and somewhat before these changes at central government level, experiments with community involvement in the protection and management of government forests were started by some far-sighted individual forest officials – notably at Arabari in West Bengal and Sukhomajri in Haryana – which paved the way for future Joint Forest Management initiatives (see Sections 4.4 and 5). As early as 1970, West Bengal foresters resolved in a conference that "unless people's participation is ensured, the future of *sal* (*Shorea robusta*) coppice forests in south West Bengal is bleak. First the needs of the local communities are to be met and only surplus is to be auctioned" (Saxena, 1997).

At the same time, strong grassroots movements, often with the association of NGOs, emerged in many areas.[22] The most well-known example of these was the rise of the Chipko movement in the hill regions of Uttar Pradesh. However, growing unrest in tribal areas often triggered by replacement of natural forests by commercial plantations and deforestation in the mid-1970s also led to increasingly violent confrontations between forest-dependent people (or their assumed representatives) and the state. The Jharkhand movement, for example – often involving violent activities by militant groups, directed against the state – has been demanding the creation of a separate Jharkhand (tribal) state in eastern India (to include parts of West Bengal, Madhya Pradesh, Orissa and south Bihar). Similar armed movements have been gaining ground in some tribal areas of Maharashtra and Andhra Pradesh. One of the main demands of such movements in tribal areas is greater community control over forest resources. The existing structure was clearly both ecologically and politically unsustainable.

[22] Environmental activism is not a new phenomenon in India, but is rooted in the past. Poffenberger and McGean (1996) identified sixty-four incidents of major tribal revolts between 1778 and 1971, which were triggered by encroachment by the State on their commons. But although popular protest movements in defence of forest rights go right back to the inception of state forestry, public debate on the direction of forest policy is of quite recent origin.

International influences had also been playing their part since the early 1970s in the emergence of environmental and social concerns. The UN Conference on the Human Environment in Stockholm in 1972 encapsulated conservation concerns of the day – with the Indian representative being particularly active. The energy crisis of the mid-1970s catalysed further interest from international donor agencies in the social forestry programme under the assumption that it was meeting the fuel needs of rural communities (World Bank, 1983, in Saigal, 1998). Later, in the late 1970s and early 1980s, the concept of social or rural development forestry began to gain wider acceptance at international levels.

It is only from the 1970s that intellectuals and activists have picked up, in any serious fashion, the long-standing grievances of forest-dependent communities. Consequently, in the last two decades the working of the forest department has come under close and critical public scrutiny.

The potential power of the social activist and grassroot organisations to influence policy was demonstrated by the fate of a draft forest Bill circulated in 1982. Concern over the loss of forests led the state to attempt stricter exclusion through this draft Forest Act. It drew on the report of the National Commission on Agriculture, which argued that forests needed protection for ecological reasons and that customary rights of subsistence populations should therefore be restricted. The resulting controversy centred around the granting or denial of customary rights of forest-dependent people to access forest lands, and the impacts on forest resources. The first wave of critical literature on forest management appeared around this time, and the popular media began to take interest, reflecting the rise of environmental and social concerns among an urban, middle-class constituency (Baviskar, 1999). The Bill was never tabled, and it appears that the sustained opposition from a broad-based coalition of social activists, including human rights groups and grassroot organisations, warned the government about the political implications of forcing through the proposed legislation (Vira, 1995). In 1994-95 another Forest Bill was proposed, and was again successfully opposed by social activists (see Section 4.5.1).

Continuing forest degradation and increasing conflicts between the forest departments and forest-dependent people exposed the ineffectiveness of the policies being followed at the time. There was a growing realisation – mirrored in the above-mentioned experiments in community involvement – that active and willing participation of the forest-dependent people was necessary for any forest regeneration programme to succeed, and that incentives to participate were dependent on the provision of direct benefits

and appropriate authority to village communities (Saigal, 1998). Pressure to re-orient policy was also motivated by many state actors' desires to offset costs of policing by improving relations with forest-dependent people, rather than an expressed commitment to the empowerment of vulnerable groups. Forest departments' primary concerns remained the maintenance of territorial control over India's large forest estate and improving forest condition to regain legitimacy in the public eye – and for this reason they started showing openness to soliciting local villagers' co-operation instead of continuing with trying to exclude them through policing.

Together with this new, albeit utilitarian, thinking the increasing power of social activist groups and the forest-dependent peoples they claimed to represent was to be reflected in the new forest policy (see Section 4.3).

Current policies affecting forests

In this section we describe the range of conventions, laws, policy statements and key policy instruments currently having major influence on forests and people. We also summarise the state of play on several recent policy initiatives aimed at making progress in key areas of conflicting opinion.

4.1 Laws and binding international conventions

The forest sector is currently subject to a range of Central and State laws and several binding international conventions. In practice, given that many of these pre-date the most recent change in orientation (see Section 3.5), they support the continuance of the colonial policy of state control of forests and restriction of people's rights.

Table 4.1 Key central laws affecting forest and people

Law	Main provisions
Indian Constitution (1950) Articles 31-A and 298	Provides the 'eminent domain' to acquire private lands for forestry and other public purposes
Indian Constitution Entry 17A in the third (Concurrent) list of the seventh schedule (which relates to the 42nd Amendment) (1976)	This means that both the central parliament and the state legislatures are competent to make laws relating to forests. A number of central laws were enacted after this amendment to the Constitution.
Indian Constitution 73rd Amendment (passed in 1993)	Provides for devolving administrative power to two local level bodies. One is the *gram sabha*, or general assembly of all resident adults with voting rights; the other is the *panchayat*, comprising representatives elected by the *gram sabha*. In 1996 the government passed the *Panchayats* (Extension to Scheduled Areas) Act, which provides greater scope for involvement of the panchayat, especially

	in natural resource management, in tribal areas. A new Schedule – the 11th Schedule – has been added to the Constitution which specifies 29 sectors such as agriculture, animal husbandry, minor irrigation etc, the management of which *may* be transferred to the *panchayats* by the state governments.
Private Forests (Acquisition) Acts introduced by various states from the 1950s to the 1970s	These provided for the nationalisation of private forests and led to much felling by their erstwhile owners prior to the state governments' taking possession.
Agricultural Land Ceiling Act – of various states	These specify the upper limits of agricultural land holdings which individuals can own. The surplus land was meant to be acquired by the state for re-distribution among the landless. Land ceilings vary by state, but are normally set so low that they effectively bar commercial investment in plantation forestry.
The Forest Conservation Act (1980)	Applies to all lands which are notified as forests in the government records, and is not restricted to reserved and protected forests. It gives the central government powers overriding those of the states in so far as the use of forest lands is concerned. It restricts the powers of state governments by making it mandatory for them to seek permission from the central government for any 'non-forest use' of forest lands, including de-reservation of forests and diversion of forest land. (It also bars states from leasing out forests to private entrepreneurs: see Section 4.5.2). However the Act failed to clarify the meaning of 'non-forest use' – although it was subsequently amended to explicitly prohibit plantation crops such as tea, coffee and rubber being raised on forest lands. Thus the Act represents a significant transfer of decision making authority from the states to the centre. The states claimed that the Act restricted legitimate development activity – although it also served to prevent the use of forest land for the distribution of patronage to locally powerful groups. However, by shifting the pressures for the use of forest land to the Centre, the Act has also allowed for the representation of interests which are well-articulated at the level of national politics (Vira, 1995).
The Wildlife (Protection) Act (1972). The Act was subsequently amended in 1991	Provides protection to a number of animals and birds which are listed in the schedules to the Act. The Act also provides for creation of national parks and sanctuaries, which puts severe restrictions on people's rights (discussed in more detail in Section 2.3.1).
Environment Protection Act (1986)	Concerns the habitat of wild animals and plants, and is more comprehensive in its terms of definition of 'environment'. It includes forests, rivers, streams, wildlife, and flora. But in operational terms the Act is only concerned with the handling of hazardous chemical substances.

Table 4.2 International conventions affecting forests and people in India

Convention	Main commitments
Convention on Biological Diversity (ratified by India on 18 February 1993)	India is under obligation to enact a legal framework for conservation of biodiversity *in situ* and *ex situ*. A draft National Biodiversity Conservation Act is under consideration by the central government. Although the Convention is binding on the central government and not directly on state governments, being a signatory to the Convention has direct implications for the country's national forest policy, which is applicable to the states also. For example, the Convention includes the need for benefit sharing with indigenous knowledge holders.
International Labour Organisation Conventions (107 and 169 [1989])	Guarantee rights of special groups, such as tribals, whose livelihood is directly dependent on forest resources. In addition there is a plethora of labour laws in India which protect labour in the organised sector and some in the unorganised sector as well.
Framework Convention on Climate Change (1995)	The FCCC has a comprehensive framework of protocols that co-ordinate climate research and diplomacy in economic, environmental, social, financial and political terms. Within this framework the Kyoto Protocol of 1997 is the most important to date. The Kyoto Protocol introduces targets for greenhouse gas emission reductions, but is not yet sufficiently widely ratified to be binding. It also leaves the door open for future international arrangements for the use of forests as carbon sinks and carbon sequestration.
World Trade Organisation	The WTO takes forward the earlier General Agreement on Tariffs and Trade, and prioritises removal of protectionist and discriminatory trade policies. This puts Indian forest industry more firmly in competition with others in the world market place – with potentially major consequences for trade and investment. Debates continue over the premise that WTO agreements should override many national laws and the above international conventions whenever they infringe on the 'rights' to 'free trade'.

State laws

In addition to the central laws and international conventions, forest resources are governed by a number of state laws. Until 1976, when forestry became a concurrent subject, states enjoyed considerable flexibility in developing their forest legislation within the overall framework of the Indian Forest Act, 1927.

- The eminent power to acquire and utilise private land is available at the state level through the *Land Acquisition Act*, 1894 (Section 4).
- The power to declare any land (including public and common lands) as government forest land is provided through the *Indian Forest Act*, 1927 (as adopted by various states).

- Besides adopting the Indian Forest Act, various state governments had prescribed their own rules to regulate settlements inside forests, eg, Van Gram Niyam, 1977 in the state of Madhya Pradesh. However, subsequent central government legislation has made it mandatory that all such forest villages must be converted into revenue villages and their existence entered in government records.

In addition to the laws governing the forest lands, a number of other state laws have been passed to regulate forest resources such as timber and non-timber forest products; these vary from state to state. Considering these various state and central laws it is evident that:

- Most laws have been adopted from the colonial period with minimal modifications.
- The enactment of post-independence laws has only served the purpose of centralising powers in the hands of the central government, on the one hand, and establishment of state monopolies on NTFPs on the other.

However, despite the continuance of laws dating from the first two 'phases' in post-independence policy (see Section 3), the introduction of a new forest policy in 1988 was to signal a new orientation, which reflected the changing balance of stakeholder influence (see Section 3.5).

4.2 Policies in other sectors which influence forests

Apart from policies related directly to the forestry sector, many other policies influence forests. For example, macro economic policies mean that lack of employment opportunities in rural areas encourage people (mostly young men) to migrate seasonally or permanently to urban centres in search of work. Increasing commercialisation and the influence of the market economy is also leading to lack of enthusiasm among the youth for traditional vocations such as agriculture (Saigal, 1998).

As noted in Section 2.4.1, some tribal majority areas such as the Jharkhand tracts are not only forest areas but are also rich in mineral resources. Such areas illustrate the effect of non-forest sector activities particularly starkly: much of the revenue from the minerals flows out of the area, and the local tribals are left with poorly paid wage labour and a devastated environment besides losing their lands. In these and other tribal areas, 'development' projects have generally served to lessen tribals' access to forest resources,

although some non-forest sector activities (such as the provision of irrigation) have benefited some while impoverishing others.

But whilst the 1988 forest policy lists all the competing claims on the country's forests, Vira (1995) notes that there is no acknowledgement of the existence of any potential for conflict between these objectives. Although the policy does not attempt to mediate directly in the conflict over forest use, it does reject some of the assumptions implicit in the former structure of forest use and management. Such potential conflicts are not helped by weak inter-departmental coordination at both state and central level, and little effective donor coordination.

We consider some specific examples of extra-sectoral influences on forests below.

Agricultural intensification

Agricultural intensification in India – through irrigation and use of fertilisers – appears to have had the net effect of reducing the amount of forest land diverted for food production. In addition to releasing pressure on forests, it may also facilitate tree planting on farms in the same region. Saxena (1999) estimates that, had cropping intensity remained the same over the last 25 years, around 20 million hectares of additional land would have been required to maintain levels of agricultural production. He concludes that overall, the impact of agricultural growth has been positive for the forestry sector, and has, in general, enabled the production of large quantities of food crops from a stable land area.

Fuel pricing, subsidy of industry and mining policy

We have already noted (see Section 3.4) policy influences from outside the 'forest sector' which have had a profound effect on the recent history of forest and tree management. These include the administered prices of coal and petroleum-based fuels, which influence fuelwood prices and hence farmers' incentives to produce fuelwood through farm forestry. Direct subsidy of the pulp and paper industry, which preferred getting cheap supplies in bulk from government forests rather than buying from farmers, is another such 'extra-sectoral' policy influence.

The extent to which any of these influences can be countered by action from within the forest sector is generally limited. For example, while the 1988 Forest Policy bans the giving of mining leases without a proper mine management plan – with enforceable environmental safeguards (Paragraph 4.4.2) – this Policy only holds sway within the forest sector, and may be over-ridden by the combined clout of many policies influencing mining.

Trade and industry policies

In recent years the Government of India has encouraged import of logs and pulpwood by providing relief on custom tariffs. Timber and pulp have been included under Open General Licence, and as such, private entrepreneurs have made their own arrangements for imports from a wide range of both tropical and temperate countries. As imported timber is comparatively cheaper than locally grown timber, liberalised imports may be seen as having helped to conserve forest resources and check prices in the timber market.

There has been a quantum jump in recent years in the import of timber, such that it may well amount to the equivalent of fifty per cent of recorded timber production from forest lands (Planning Commission, 1998). But whilst timber imports may continue, and prices are currently encouraging paper industries to look increasingly towards imports for raw material, the impact and desirability of continuing such imports in the face of a depressed indigenous market should be re-examined (see Section 6.5).

Infrastructure development

Increased investment in infrastructure such as roads and irrigation tends to have a positive impact on crop output. It may also generate more non forest-based employment – which can reduce pressure on forests. However, establishing roads and irrigation systems may require forest clearance without adequate mitigation measures. Roads may also pave the way to higher levels of unrestricted forest exploitation. Major infrastructural development schemes, such as the Narmada dam system, have also tended towards ill-considered and inadequate provision for large numbers of, often forest-dependent, people who are faced with displacement, and have provoked much hostility as a result.

Long-term government-tribal conflict

Many forested districts in Central and South India are facing the problem of violence from groups known as 'naxalites'. For example, in Bastar district, out of a total number of 458 coupes in the district, 124 coupes are totally closed due to the naxalite threat, with few contractors willing to carry out transport operations. State governments are typically divided as to whether to treat the naxalites as a purely law and order issue, or as a complex socio-economic problem arising from long-term neglect of the genuine grievances of the tribals.

Wildlife laws and community tenure on forest lands

Wildlife laws have a major impact on the predicament of forests and the way people use forest lands and products. The most comprehensive Act on wildlife conservation since independence is the Wildlife (Protection) Act. Passed in 1972, and amended in 1991, the Act affords varying degrees of

protection to a whole range of species under different schedules, and prescribes preventive measures on the trade in wildlife and its products. The most significant strategy inherent in these laws, however, is the establishment of protected areas in the form of national parks and sanctuaries. Today, the area of forest now contained in parks and sanctuaries is considerable (see Section 2.3.1).

The Wildlife (Protection) Act bans all human activities within national parks, implying displacement of the forest-dependent people living within them. Thus it fails to make any provision for where communities can play an active role. In the case of sanctuaries, the Act empowers the authorities to forbid those activities considered inimical to wildlife conservation (see Box 2.2). For instance, many state governments have banned collection of NTFPs from sanctuaries. This adversely affects not only the people living inside sanctuaries, but also those living outside, who depended on NTFP collection from such areas.

The inherently conflictual and inflexible nature of this law is evident from the deteriorating and often violent relationship between park authorities and people living around parks. In view of this relationship, the speed with which the protected area network has been expanded – some of it in relatively recent years (as shown in Figure 2.5) – seems to reflect a heavy hand of government, backed up by a strongly supportive protectionist lobby at national level, and largely untroubled by local objections (see Section 6 for further discussion of these stakeholder powers). The extreme conservation orientation reflected in the Wildlife (Protection) Act breeds resentment against protected areas, as it directly and adversely affects the livelihood of the local communities (Saigal, 1998).

4.3 Changing course: the 1988 National Forest Policy

The forest policy announced in 1988 was radically different from the two previous policies. It proclaimed that forests are not to be commercially exploited for industrial purposes, but they are to conserve soil and the environment, and meet the subsistence requirements of local people. The policy gives higher priority to environmental stability than to earning revenue. Derivation of direct economic benefit from forests has been subordinated to the objective of ensuring environmental stability and maintenance of ecological balance. It discourages monocultures and prefers mixed forests. The focus has shifted from 'commerce' and 'investment' to

ecology and satisfying people's basic needs – providing fuelwood and fodder, and supporting the connection between tribals and their forests. A substantial quote from the policy illustrates this:

> *The life of tribals and other poor living within and near forest revolves around forests. The rights and concessions enjoyed by them should be fully protected. Their domestic requirements of fuelwood, fodder, minor forest produce, and construction timber should be the first charge on forest produce. (Paragraph 4.3.4.3)*

> *Having regard to the symbiotic relationship between the tribal people and forests, a primary task of all agencies responsible for forest management, including the forest development corporations should be to associate the tribal people closely in the protection, regeneration and development of forests as well as to provide gainful employment to people living in and around the forest. While safeguarding the customary rights and interests of such people, forestry programmes should pay special attention to undertaking integrated area development programmes to meet the needs of the tribal economy in and around the forest areas, including the provision of alternative sources of domestic energy on a subsidised basis, to reduce the pressure on the existing forest areas. (Paragraph 4.6)*

The policy stresses the importance of NTFPs, and states (in paragraph 3.5) that "minor forest produce should be protected, improved and their production enhanced with due regard to generation of employment and income".

As regards supplies to industry, the policy appears to be looking to farm forestry:

> *As far as possible, forest based industry should raise the raw material needed for meeting its own requirements, preferably by establishment of a direct relationship between the factory and the individuals who can grow the raw material by supporting the individuals with inputs including credit, constant technical advice and finally harvesting and transport services. (Paragraph 4.9)*

It is also stated (in the same paragraph) that "the practice of supply of forest produce to industry at concessional prices should cease. Industry should be encouraged to use alternative raw materials. Import of wood and wood products should be liberalised."

Production forests, which were in the past used exclusively for timber, "while meeting national needs should also be oriented to narrowing the increasing gap between demand and supply of fuelwood" (Paragraph 4.3.3).

Issuance of the 1988 forest policy was followed up by the issuance of a Government of India Circular enabling Joint Forest Management, in June 1990 (see Section 4.4). But while the 1988 forest policy itself is a radical departure from the past, its implementation has been uneven in relation to various provisions. This will be discussed in Section 5.

4.4 JFM in theory

The implementation of the 1988 forest policy was facilitated by the Government of India issuing a resolution on 1 June 1990, which made it possible for the state forest departments to involve people in the management of certain types of forests.

The June 1990 resolution forged a new path as, for the first time, it specified assured benefits to the protecting communities over forest lands. It also recognised the likely contribution which NGOs could make as intermediaries between the people and government. The circular exhorts the state forest departments to take full advantage of the expertise of committed voluntary agencies for building up meaningful people's participation in protection and development of degraded forest lands. The Joint Forest Management programme has already become a central focus of forest development projects funded by the international donor agencies and increasingly, by the Government of India and some state governments.

In previous policies people and the environment were seen, all too often, as antagonistic. The forest-people interaction was conceptualised as a zero-sum game, in which neither party could win. However, according to the JFM philosophy, the conflict model is neither necessary nor useful. On the contrary, ways can be sought in which the interests of both people and long-term sustainability are harmonised in a mutually supportive manner. However it should be remembered that JFM still operates within wider restrictions, which are discussed in more detail in Section 5. For example:

- no private timber harvesting is permitted in state-owned forests, and commercial harvesting that is permitted must either be undertaken by state Forest Development Corporations, or allocated to local communities;

- each time timber is transported it must be accompanied by a transit pass issued by a competent authority. These rules, together with laws relating to felling and sale of timber, are meant to safeguard the natural environment and prevent pilferage from forests; in practice they become sources of harassment and rent seeking by the concerned officials (Saigal, 1998).

Box 4.1 Key features of Joint Forest Management

- The FD agrees to provide ***conditional*** access to specified forest products to members of an existing or specially constituted Village Forest Institution (VFI) ***subject*** to the VFI honouring the responsibilities assigned to it by the FD.

- The terms of the (JFM) agreement unilaterally specified by the FD may, or may not, be accompanied by a written agreement or memorandum of understanding signed by both parties.

- Members of the partner VFI are expected to collectively protect their JFM forests from grazing, encroachment, poaching, fire and timber smugglers.

- The VFIs, however, are not delegated any ***authority*** for enforcing protection (only the new draft JFM rules of Himachal Pradesh (HP). propose delegating the powers of a forest officer to the VFI's President).

- If, in the view of the 'competent forest officer' - usually the District Forest Officer (DFO) - , the VFI members honour their protection responsibilities satisfactorily, they are entitled to free access to non-nationalised NTFPs from the forest area under JFM. Due to the commercially valuable NTFPs remaining nationalised in most states, this effectively implies free access only to fodder grasses, lops and tops of branches and a few other NTFPs with low commercial value.

- On successful forest protection for a minimum of 5 to 10 years, the VFI (or its individual members), gain entitlement to 25 to 100 per cent (in the case of Andhra Pradesh [AP]) of the major produce (timber) either in kind (only in some states) or as the net sale proceeds from it on 'final felling' by the FD.

- The organisational structure and membership norms of the VFI are prescribed by each state JFM order. Only 2 or 3 states (eg, Haryana and Gujarat), permit the VFI to be an autonomous entity either registered as a co-operative or a society. In all other states, the VFI is only registered by the FD with a field FD officer as its member secretary responsible for convening and recording the minutes of all VFI meetings. As a consequence, the accountability of the VFI's secretary remains to the FD and not to the general body members of the VFI.

- Most state JFM orders also list some responsibilities of the FD under JFM. These normally include information, training and capacity building support to the partner VFIs.

- However, in practically every case, the FD retains the powers of judge and juror to unilaterally cancel a JFM agreement in case a VFI is considered to have violated any of its terms. The villagers are not entitled to any compensation for years of forest protection efforts in such a situation. If the FD violates any of the terms of the agreement, the villagers have no such powers to demand accountability. Thus, JFM does not confer any ***rights*** to the VFI either on the forest produce or the forest land.

4.5 Other recent policy initiatives

Following the issuance of the 1988 forest policy, further policy initiatives appeared. The first major initiative was the Forest Bill, summarised below. This was not successful but served to demonstrate the influence of its proponents.

Attempts to sort out some of the contradictions and unresolved policy issues are ongoing. Foremost amongst these issues is the proposal to lease forest land to industry for the establishment of plantations. This proposal and related issues were considered by two high-level committees in particular during 1998: the Expert Committee on the Review of Afforestation Policies and Rehabilitation of Wastelands, and the Planning Commissions' Working Group on the prospects of making degraded forests available to private entrepreneurs. Debates relating to the leasing of forest land to industry are also summarised below.

4.5.1 The proposed Forest Bill, 1994-5

It was clear that the 1988 forest policy, whilst in favour of forest-dependent peoples and their supporters such as the social activists, was not welcomed by all stakeholders. Some of the opposition to the direction of the new forest policy was manifested in the Forest Bill proposed in 1994-5. The proponents of the Bill were broadly the 'conservationists' (see Section 2.6.7) who promoted protection of the forest but at the cost of those dependent upon it. The Forest Bill was designed to reduce the control of people over forests, effectively diluting the effects of the 1988 forest policy. The most draconian provision of the new Bill was that village forests were not to be constituted from reserve forests (and JFM cannot be applied on the reserved category). Thus more than half the forest area (as 42 out of 76 million hectares of forest land is declared as reserve forests) would not be available for joint management with the people. At the same time, people's rights of entry and usage in reserve forests would, under the Bill, be subject to carrying capacity,[23] and could be 'rationalised' by the Government of India. Further, sacred groves could be acquired by the government. The proposed Bill also discriminated against nomadic groups, as it debarred them from exercising any rights on forest lands.

[23] Vira (1995) discusses the dynamic and ambiguous nature of carrying capacity and the difficulties inherent in determining it. Whilst the use of carrying capacity is in keeping with the 1988 forest policy, Vira argues that it is difficult to make it operational, as this relies on the subjective judgement of the concerned forest official. Stress on the use of carrying capacity, without clear guidelines about how it is to be calculated, is an important source of ambiguity.

Overall the Bill would have reduced rather than increased forest dwellers' rights, and reasserted the control of the forest bureaucracy. It also attempted to alter the balance of decision-making authority between the centre and the states, in continuation of the process started by the 1980 Forest Conservation Act (Vira, 1995).

Circulation of the draft Bill generated considerable controversy, since it appeared to reverse the state's efforts at encouraging participation and co-management in the forest sector, and marked a return to the state-centred approach of the 1982 Bill (see Section 3.5). It emphasised the primacy of bureaucratic control and the conservation philosophy (Vira, 1995). The Bill was almost submitted to Parliament – a reflection of the considerable support that the conservationists enjoy among the Indian Forest Service and their traditional access to some degree of political power. Only the intense lobbying and popular mobilisation of activist groups prevented the contradictory Bill from being enacted.

4.5.2 Leasing of degraded lands to industry

Apart from the widespread implementation of Joint Forest Management (see Section 5), one major aspect of the 1988 forest policy which has been implemented is the progressive reduction in industry's subsidised access to products from state forests. Few (if any) new leases have since been given to industry and at least some of the states, such as Madhya Pradesh, no longer have any such leases, old leases not having been renewed when they expired. Even where existing long term leases are continuing, the prices payable by industry have been generally increased and brought closer to market prices.

As powerful industrial and commercial lobbies have considerable access to politicians, they have been trying to subvert the 1988 forest policy by pressurising the Minister to approve leases to two million hectares of degraded forest land for raising captive plantations. But for the alertness of pro-poor social activist groups, who launched a massive campaign against the move in 1995, the industrial lobby may have succeeded not only in getting the MoEF to approve leasing of forest land to industry, but also in getting the Forest Conservation Act, 1980, amended to make such leasing legal.

However, the issue was not entirely resolved in 1995, and has recurred regularly since. Industry continues to lobby for leasing of degraded land. It is primarily the pulp and paper industry[24] which has been demanding forest

[24] This is despite the fact that paper and other large industries consume just a fraction of forest products: 90 per cent of forest raw material is processed by 23,000 saw mills and a large number of cottage units.

lands on lease, either directly or through Forest Development Corporations. The rationale behind their case is that the government has 'wastelands' but lacks funds, industry has both capital and technology, and hence is best suited to afforest degraded lands. In the process the poor get jobs. But despite concerted efforts, the industry lobby has not succeeded. The watchdog NGO/ social activists' lobby has been using a provision in the policy, that nationalised forests cannot be leased to any private agency, as a strong basis for getting the government to reject industry's demand.

Early in 1998, the Expert Committee on Review of Afforestation Policies and Rehabilitation of Wastelands was convened by the Minister for Environment and Forests. However the Expert Committee could not resolve the 'vexed issue' of industry's participation in afforestation of highly degraded forest lands: it was faced with "diametrically opposed views… between the NGOs and the industry representatives"; there were similar differences of opinion between Committee members (MoEF, 1998).

However, the Committee did note an industry-community initiative in the development of forestry resources through block plantations on private degraded lands for the mutual benefit of stakeholders in Raipur District, Madhya Pradesh, and Haldwani and Rudrapur area, Uttar Pradesh. This appears to have opened up another possibility for accelerated afforestation of degraded lands, but needs further examination.

Also in 1998, the Planning Commission set up a Working Group to examine the prospects of leasing out of degraded forests to private entrepreneurs and Forest Development Corporations. The Working Group was charged with looking at the economic, social and environmental feasibility of leasing or otherwise making degraded land available to private entrepreneurs and Forest Development Corporations, and with considering implications for the Ninth Plan (1995-2000), forest policy and forest law. The Working Group comprised representatives of: MoEF; the Indian Institute of Public Administration; the

Photo: Elaine Morrison

One-year-old poplar plantation with turmeric intercrop, Uttar Pradesh. Poplar *Populis deltoides* can produce timber-size trees suitable for sawing within 8 years, and is liked by farmers because it loses leaves during winter - the main vegetable and wheat growing season.

Planning Commission; Principal Chief Conservators and Chief Conservators of a number of states; and NGO representatives (from the World Wide Fund for Nature-India and the Centre for Science and Environment). However, no private sector representatives were included in the Working Group. The Working Group did, nevertheless, consult a limited number of industry representatives.

The Working Group estimated the area of degraded non-forest lands available for tree-growing to be very roughly 33 million hectares; to which 27 million hectares of available degraded forests is added, giving a total of 60 million hectares.[25] At the same time the Working Group questioned what was perceived by 'degraded' and 'unproductive' land:

> *"Industry has argued that it would make 'unproductive' lands productive through captive plantations. However, if productivity is defined in terms of subsistence value, such forests are a vital source of living for the poor. Such lands may have a low tree density, but satisfy the fuelwood, fodder and livelihood needs of about 100 million people. In fact, these lands are degraded because they suffer from extreme biotic pressure, and require neither capital investment, nor higher technology, but protection and recuperation. ... The West Bengal experience [see Section 5.1] shows that about 2,000 peoples' forest protection committees have regenerated more than 300,000 hectares of sal [*Shorea robusta*] forests at little extra investment, simply by protection on the promise of sharing wood and non-wood products with them" (Planning Commission, 1998).*

Arguments for and against leasing of degraded forest land by industry, as described by the Planning Commission, are summarised in Box 4.2.

Even if leasing should subsequently be agreed to, there are currently various issues on which agreement is still sought:

- Industry, and some state governments who are supporting their case, have assumed that lands with reasonable forest cover will be offered: the MoEF has emphasised that only lands denuded of forest cover (ie, with cover of less than 10 per cent) will be offered.

- Industry and state governments believe that management (though not ownership) of forest land will be transferred to them, through an MOU between the FDC and the industry; MoEF claims that there is no proposal to alienate forest land, and that forest land will continue to be with government.

[25] The Working Group noted that there are no firm data about the nature and extent of degradation, nor are there agreed figures for the extent of 'degraded' land, partly due to the difficulties in defining degraded land or 'wasteland'.

Box 4.2 The debate about leasing of degraded lands: arguments for and against

Arguments in favour of leasing degraded forest lands were summarised in a recent report by the Planning Commission (1998) as follows:

- There is much degraded forest land lying waste, and this should be made available to anyone who wishes to use it
- Large-scale, technology-based plantations can offer the resources needed to restore the productivity of such lands
- The venture would be economically profitable for industry
- High-yielding, fast-growing plantations will accelerate rehabilitation of degraded lands and help to 'regreen' India
- There is a shortage of raw material required by the pulp and paper industry; inputs from industry will be additional to other afforestation efforts - and without using public resources, it will create employment
- There are no serious social or environmental issues involved in putting degraded forests under industrial plantations
- If industry becomes self-reliant in raw material supply, public resources could then be diverted for better protection and conservation of natural forests
- Farmers cannot be trusted to supply raw material to industry, as they are essentially concerned with short-term subsistence needs.

Amongst the arguments presented for opposing leasing of degraded forest land to private entrepreneurs are the following:

- Degraded forests satisfy the fuelwood and other needs of a large populace; they require protection and recuperation (through local management) rather than capital investment or high technology

- Given the vast expansion of the farm forestry programme over the last 20 years, there is no longer a shortage of raw material – but there are distribution and transport problems as pulp and paper mills are located far from source areas

- Farmers who wish to supply wood to industry would risk losing the market for their produce if industry were to produce its own raw material; hence any afforestation by industry would be at the cost of tree planting efforts by farmers on privately owned degraded lands, etc, and there would not be a significant net increase in production

- Farm forestry is "one of the cheapest and most sustainable methods of producing wood". Leasing of land to industry would substitute such cheap farm-based production by socially more costly production on forest lands, and would not create any additionality of production

- The current proposal of industry means getting land almost free of capital cost, thus involving subsidy worth several thousand crores. In the light of new liberalisation policies of the government, such

subsidies are seen as being highly undesirable. Furthermore, subsidies continue to distort the market for pulpwood; prices would be further distorted if industry were to gain free access to forest land, creating further market imperfections

- Involving industry in afforestation of government forests would be against the Forest Conservation Act and the forest policy, both on grounds of management and species choice, and against the Provisions of *Panchayats* (Extension to the Scheduled Areas) Act, 1996

- Paper and other large industries consume just a fraction of forest products; numerous small processing units might lay claim to forest land once large industry receives concessions. In addition other plantation industries such as coffee, cashew and palm would likely also claim leases of forest land, with ecological implications different to those of forests

- Economies of scale cannot be made since there are not large contiguous patches of forest: these are found only in good quality reserve forests

- Industry has shown no interest in leasing non-forest wastelands, therefore their plans to operate on equally degraded barren forest lands are deemed highly suspect. Indeed the soil quality demanded by industry is available only on the best forest land or farmland. Even if degraded forests with good soil quality do exist, they would easily regenerate under JFM.

Source: Planning Commission, 1998.

- Further to this, it emerged that for the paper industry to be internationally competitive it requires good quality forest lands with soil depth of at least one metre; and it needs about 2 million hectares of this 'good quality' degraded forest land over about 10 years. However the Working Group concluded that such fertile lands, even when not having much tree cover, would regenerate on their own without much cost; yet industry would not be interested in leasing barren lands with poor soil cover.

The Working Group clearly supported the case for opposing leasing of degraded lands. It concluded that:

> *"The proposal of the industry to allow them to use government forests for industrial plantations is... against two groups of people: lakhs of farmers who would be deprived of a market for agroforestry, and millions of voiceless forest dwellers who would be denied access to NTFPs and other biomass they gather".*

The Working Group recommended that industry should be asked to establish links with farmers who will produce raw material if given a remunerative price – much as industry has dealt with farmers directly, and successfully, in the raising of crops such as sugarcane, rice, cotton, etc.

However no industry imposes a condition that farmers are bound to sell to that industry, as is being demanded by the paper industry in India: "such a restriction would mean exploitation of the farmers and must be opposed".

The Working Group further stated that the continuing controversy is serving to prevent the progress of farm forestry:

> *"If government does not settle this controversy quickly and keeps the hopes of industry of getting free access to forests alive, investment by the industry in setting up of a new marketing infrastructure for buying from farmers would never be forthcoming. In the interest of viable farm forestry, this appears to be the only option. The claim of the industry over forest lands is not based on sound economic rationale, it is a seductive myth and a ploy to grab the better quality forest lands capable of regeneration free of cost. Handing over possession of valuable forests for captive plantations is against all principles of liberalisation and open markets... thus the proposal is not only against the ecological policies of government – the 1988 forest policy in particular – but also its economic policies".*

4.5.3 The *van mukhiya* order: government's village-level forestry agents

In late 1995, the MoEF actually issued an order (MoEF,1995a) that was contradictory to the JFM circular, at the behest of the then Minister; if implemented, the order would have negated even the limited legitimacy acquired by the several thousand JFM groups already protecting forests in several states. This order empowers forest officers to select an individual from each village as the *van mukhiya* (forest president/ head) to assist the forest department in winning the villagers' co-operation. In return for his services, the *van mukhiya* would be entitled to a share of the forest produce in his *individual* capacity. This order remains in place, although due to a change in government, its implementation has not been pursued.

Thus two major proposals regarding forest land since the issuance of the 1988 forest policy have, so far, been decided in favour of the social activist/ pro-forest-dependent people's lobby and against the wishes of the forest industry. But the debate regarding the leasing of forest land, and the recommendations made by the Planning Commission's Working Group, whilst firmly against industry proposals, has not yet been translated into constructive action or policy to support farm forestry. Meanwhile, implementation of the *van mukhiya* proposal, whilst serving to withdraw power from village committees, is subject to the vagaries of political support.

4.6 Summary of forest policy implementation so far

The change in policy from 1988 onwards is still mostly at the level of official rhetoric, and – other than the spread of JFM – this is not matched by practical implementation. It is likely that more time and effort will be needed before the policy is reflected adequately in the field (Saigal, 1998). Table 4.3 selects the major policy shifts compared to the previous policy and indicates the current status of implementation.

Table 4.3 Main emphasis, and status of implementation, of the National Forest Policy 1988

Major shift from past policy	Implied Action	Current status of implementation
Conservation rather than revenue	Stop forest land conversion, stop logging	Forest land conversion reduced many states have green felling bans
Close participation of people in forest management instead of policing	Ensure legal/ tenurial rights of tribal and local communities. Change forest management objectives from timber production to strengthening local livelihoods	Joint Forest Management Spread over more than 7 million hectares in 21 states (see section 5.1) – but no change in tenurial rights. Little change in forest management systems
Industry-farmer linkage instead of forest supply to industry	Stop FD supply to industry in a defined timeframe. Provide incentive to source supply from farmers	Some industries initiated experimentation with industry farmer linkages; some states stopped renewal of long leases to industry
Production forests to broaden functions to supply of fuelwood	Changes in management practices	Progressive reduction in industry's subsidised access to products from state forests (4.5.2). Little change in established management practices
Enhance production of NTFPs and fuelwood rather than timber practices	Removal of state monopoly over NTFPs. Change in silvicultural practices	Extremely limited change

It will be seen from the table that initiatives taken to operationalise the 1988 forest policy are limited: they relate mainly to creating a space for implementation of Joint Forest Management, and to reducing industry's subsidised access to produce from nationalised forests – although green felling bans have temporarily enforced conservation over revenue accrual from forests. The extent to which JFM is progressing, and issues arising from its implementation, are considered in detail in the next section.

JFM in practice: dilemmas and prospects

This section considers the implementation of the main expression of the 1988 forest policy, Joint Forest Management. Following an assessment of the current 'spread' of JFM, we consider restrictions on JFM's jurisdiction and the impact of its implementation on forest-dependent peoples. Many questions arise concerning implementation of JFM:

- Are the most forest-dependent and marginalised women and men, assumed to benefit from improved satisfaction of their forest-based needs, actually better off than before JFM was introduced?

- Is JFM enhancing or curtailing tribal and other poor, especially women's, customary access to common pool forest resources?

- Are impoverished women and men, who are compelled to resort to unsustainable forest use for survival, being enabled to switch to sustainable resource use by JFM?

- How much voice do such actual forest users have in defining forest management priorities of the 'community' institutions being established for participating in JFM? (Sarin *et al*, 1998).

Similar questions arise even with respect to self-initiated forest protection groups, partly because traditional forms of organisation are neither necessarily democratic nor equitable, particularly with regard to gender equity.

When considering these questions, it is necessary to bear in mind the historical relationship between forest-dependent communities and forests, and the context of increasing differentiation and social change within communities in which both JFM and self-initiated forest protection are taking place (see Sections 2.4 and 5.2.2).

5.1 Figures on the progress of JFM

Since the issuance of the 1 June 1990 Circular (see Section 4.4), considerable progress has been made in implementing JFM in India. By early 1999, twenty one state governments had issued enabling or government resolutions (GRs) permitting JFM partnerships between forest departments and organised groups of local people. These states contain 80 per cent of the country's forest land and 92 per cent of the country's tribal population. This creates the impression that four fifths of the country's forest land can be jointly managed by the people and local forest departments. However, there are significant restrictions (see Section 5.2).

The progress achieved in less than ten years, in terms of the official uptake of the JFM initiative, appears spectacular from Figure 5.1 below.

Accurate data for most states is not readily available, and the data given in this figure (also see table in Annex 2) should be treated with considerable caution:

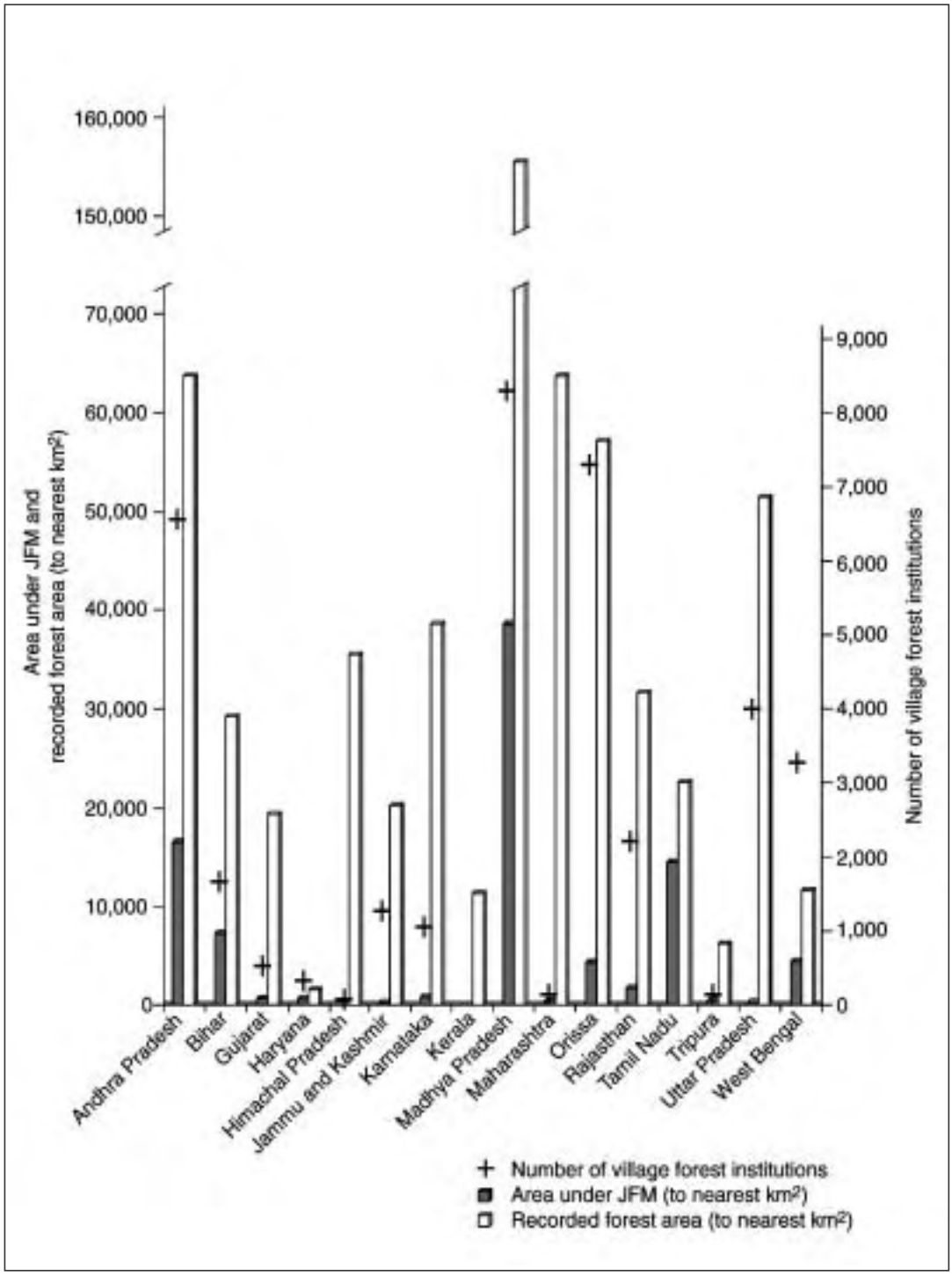
- The figures represent the number of village forest institutions (VFIs) that have been officially established, but say nothing about whether these institutions are functioning effectively, if at all (considered later in this section). In some cases the figures for VFIs include institutions that were not specifically established under JFM, such as the *van panchayats* of Uttar Pradesh, community land groups of Haryana and self-initiated forest protection groups in Orissa, Bihar and many other states.

- The 'area under JFM' represents the official figures, but does not indicate the extent and quality of management on the ground or the extent of forest cover on it; it is thought that in some states (such as Bihar and Orissa) the figures are on paper only, or that credit is being claimed for grass-roots initiatives. It also needs to be pointed out that many states are forming 'JFM' groups for afforesting revenue wastelands and other common lands, because of which not all the area under JFM consists of nationalised forest land.

- Particular circumstances in some states make a clear assessment of the state of JFM difficult; for example in Jammu and Kashmir, there are serious conflicts with the region's nomadic graziers.

- The interpretation of JFM is far from uniform across states; in Jammu and Kashmir and in Rajasthan, for example, JFM is organised more along the lines of 'social forestry'.

Figure 5.1. Number of village forest institutions and area under JFM



Source: Information circulated by the MoEF in the meeting of the 'Standing Committee on Joint Forest Management', 8 December 1998. Forest cover figures are taken from FSI (1998). Note that forest cover, rather than recorded forest area, has been used as the latter category does not necessarily imply forest cover (see Section 2.2.1). (Also see Annex 2 on page 142 for further notes on this figure).

Photo: Elaine Morrison

The benefits of protection. Here, forest is regenerating on the lower slope whilst unprotected forest on the upper slope remains as scrub

Clearly as JFM spreads – rapidly in some states – the picture presented by this figure is constantly changing.

The largest state JFM programmes are being supported by *international donors*. For example the World Bank (WB) provided funding for a forestry project in West Bengal and is currently doing so in Madhya Pradesh, Andhra Pradesh, Maharashtra, Uttar Pradesh and Kerala. DFID is supporting JFM programmes in Himachal Pradesh and Karnataka, whilst Japanese aid (OECF) supports forestry in Rajasthan, Karnataka, Gujarat and Punjab. Figures provided by some of these donors indicate some differences from the MoEF figures given in Figure 5.1 (and table in Annex 2), and in some cases show more detailed breakdowns within states. For example:

- Whilst World Bank figures for the spread of JFM in *West Bengal* are very similar to those given above, it is concentrated in the south west where it covers ninety per cent of the total forest area. Although JFM has been extended to include the high forests of the northern part of West Bengal with a different sharing arrangement, which excludes any share of revenue from timber to JFM groups, its spread in the north has been more limited.

- World Bank figures for *Andhra Pradesh* (from December 1998) indicate that there are 6,200, or even as many as 6,575 village forest institutions, 1,665 of which are WB project supported, and that the area covered is 1.4 – 1.65 million hectares.[26] This covers eighty per cent of all 'degraded' forests in

[26] Source of figures (of 6,575 village forest institutions and 1.65 million hectares): personal communication dated Nov. 28, 1999 from Mr. P. Raghuveer, CF(MIS), AP Forestry Project.

the state. These figures are substantially higher than the MoEF figures with little clarity about the reasons for the difference.

- In *Madhya Pradesh*, WB figures indicate that there are 10,381 village forest institutions (2,164 of which are WB project supported), covering an area of 5.95 million hectares, or 38 per cent of the forest estate. The apparent substantial increase in the spread of JFM in the state is partly due to the strong state government support extended to the programme.

In fact World Bank figures for the spread of JFM in just these three states (ie, West Bengal, Andhra Pradesh and Madhya Pradesh) taken together amount to almost 8 million hectares, greater than the MoEF total for all 21 states. (All World Bank figures are from Julia Falconer, personal communication, 1999).

Words of caution are necessary even on other counts. The quality of the VFIs may be highly variable. There are stark differences in the funding support available to VFIs under the projects and those outside them in both Madhya Pradesh and Andhra Pradesh. The programme in West Bengal – which was pioneered by the state government with the World Bank providing support subsequently – has been in stagnation since the World Bank project ended.

Photo: Elaine Morrison

Fodder grass, Uttar Pradesh hills. Availability of fodder grass tends to increase shortly after forest protection, and can be a major incentive for local people with livestock to participate in forest regeneration efforts

The only other non-World Bank supported state with a large programme is *Rajasthan* where by mid-1998, about 2000 VFIs were supposedly protecting 200,000 hectares of forests under an OECF (Japanese) funded project. However, this project is organised more on 'social forestry' principles whereby the forest department protects the areas for the first three years. There are serious questions about the sustainability of the VFIs being promoted under it.

Overall, depending on which data is used, at least 7 million hectares, and potentially between 8 and 9 million hectares of forest lands are officially being jointly managed by communities and forest departments. (Figures currently not available for some of the states are likely to increase the total area under JFM further). Equally important is the fact that these communities are now organised in approximately 35,000 village forest institutions (VFIs). Several such groups have been able to create village funds, sometimes enabling them to undertake other development activities in the village. Many have also been instrumental in bringing cohesiveness to village action and resolution of conflicts. It is not the case that the progress is even across the villages or that there are no problems[27] (discussed in the rest of this section). It is, however, clear that progress has been substantial in numerical and geographical terms in a short span of time.

In terms of how the establishment of JFM has benefited the *forest resource*, there appear to have been positive impacts in specific areas. Satellite images of southern West Bengal, where 90 per cent of the forest is under JFM, showed that within 2 years, 4,100 hectares of forest moved from degraded scrub (ie, with less than 10 per cent crown cover) to the open forest category (10 to 40 per cent crown cover) (FSI, 1993 in Saigal, 1998). Numerous other studies have demonstrated ecological as well as economic benefits of JFM, particularly at the local level:

- In areas where JFM facilitates rapid regeneration of coppicing species like teak or *sal* (*Shorea robusta*) through community protection, increased availability of *fuelwood* may be an early benefit of JFM, prior to final harvesting, and may lead to diversion of cowdung from fuel to agricultural use, to support increased agricultural output. For example in Gamtalao Khurd village in Surat district, Gujarat, nearly 12 tonnes of fuelwood was harvested during the forest cleaning operations after just one year of protection (Arul and Poffenberger, 1990, in Saigal 1998).

- In addition, availability of *fodder grass* tends to increase within a short time of protection, providing the local community with quick and substantial returns due to the ease and rapidity of its production, even in degraded areas. This is often the main incentive for participation in forest regeneration efforts in arid areas where livestock plays a crucial role in the economy. For example, in Kaliakua village in Panchmahals District of Gujarat, where a JFM programme is being implemented, villagers

[27] In Madhya Pradesh, common funds have been generated by the VFIs funded by the World Bank project through transferring money to them meant for protection on the understanding that they can use the funds for other needs so long as they ensure forest protection through voluntary labour. However, who within the village controls these funds, and the priorities for which they are used, remains a major concern.

Photo: Still Pictures/Mark Edwards

Rural people are well used to responding to incentives to sell fuelwood in markets such as this. A major challenge for JFM and farm forestry is to enable sustainable production and marketing of other products – like poles, timber and NTFPs

harvested Rs. 4,94,000 worth of grass in 1997-98 (Prasad 1998, in Saigal, 1998). In some *van panchayats* in Naini Tal District of Uttar Pradesh, the grass yield doubled after a year of protection (Mansingh, 1991, in Saigal, 1998).

- Substantial sharing of *pole harvests* has so far taken place only in West Bengal. By 1998, poles worth Rs. 40 million had been harvested and 25 per cent of the net proceeds shared with members of the concerned Forest Protection Committees (FPCs). Sainagar Tanda village in Adilabad District, Andhra Pradesh, earned Rs. 3,24,500 through the sale of teak poles from their JFM forest in 1998 (ETS, n.d., in Saigal, 1998). Bamboo has been shared with two VFIs in Gujarat (after concerted arm-twisting of the FD by an NGO).

- In Haryana, the village forest institutions have been benefiting from annual shares of income from *fibre grasses* for many years (starting with Sukhomajri in 1986) but timber sharing seems distant on the horizon. The total number of VFIs participating in JFM on forest land in Haryana, however, is only about sixty.

5.2 Restrictions on JFM jurisdiction

Notwithstanding the above benefits, it is important to place the apparent achievements of JFM within the larger context. JFM is commonly perceived to represent a radical departure from the past tradition of centralised, top-down forest management by the state. Its actual applicability as an alternative approach to forest management at the macro level, however, is severely restricted by two major institutional constraints: the exclusion of protected areas from JFM and restriction of JFM to 'degraded' forests. These are discussed below.

5.2.1 Exclusion of Protected Areas from JFM's ambit

The protected area (PA) network – which includes national parks and wildlife sanctuaries – currently covers 14.8 million hectares, or around 20 per cent of the forest land area (see Section 2.3.1) and is likely to be expanded further. Unfortunately, the 1988 forest policy does not specifically mention people's participation in the management of protected areas, for "maintaining the intrinsic relationship between forests and the tribal and other poor people", which is the stated objective of the policy. Existing protected areas remain outside JFM's ambit due to ambiguities in the policy and the stringent provisions of the Wildlife (Protection) Act under which the PAs are constituted, and which predates JFM. While the policy is a statement of intent, the Wildlife (Protection) Act is law, which has to be enforced.

Further, there is no mechanism to prevent even those areas already brought under JFM from being declared PAs – or being acquired for other 'development' projects – in the future, due to JFM still being based on an administrative order and not legislation. Powerful industrial interests have been successful in getting even some PAs denotified for mining or industrial purposes. Increasingly fierce competition for the country's natural resources, particularly for forest land accompanying economic liberalisation, is only adding to such threats. Not only does JFM not assure secure new rights to forests, but it leaves even existing rights of participating villagers threatened by legislation, still in force, which has contrary provisions.

Given that PAs comprise 20 per cent of forest land area, *one fifth of the country's total forest area remains totally out of bounds for JFM, with even villagers' existing forest rights likely to be, or already, extinguished*. (Box 2.2 summarises rights within PAs).

5.2.2 Restriction of JFM to 'degraded' forests

The 1 June 1990 Circular restricts people's participation in JFM to *degraded* forest areas, although the 1988 policy itself stipulates no such restriction. With about 40 per cent of the country's total forests considered to be degraded (ie, having a crown cover of less than 40 per cent, and assessed by satellite imagery (Figures 2.2), *this single provision excludes 60 per cent of the remaining forest area (including the Protected Areas) from JFM.*

As no precise parameters for defining 'degraded forests' have been specified, the term is interpreted differently by different states. While some state JFM orders have left it to the discretion of local forest officers to differentiate degraded from non-degraded forests, others have defined it so precisely that only a fraction of the total forest area can be brought under JFM. Thus, due to Karnataka's circular restricting JFM only to areas with less than 25 per cent crown density, barely 2 to 3 per cent of Uttara Kannada district's forest area is actually eligible for JFM. The situation in Rajasthan and Maharashtra is fairly similar.

The condition of JFM being applicable only to 'degraded' forests is particularly problematic for thousands of self-initiated forest protection groups (SIFPGs) in different states whose existence is neither acknowledged by the 1 June 1990 Circular nor by any of the state orders,[28] except that of Orissa. Rigid restriction of JFM to only 'degraded' forests by forest department officers often demoralises such highly motivated groups, who have already regenerated degraded forests through years of collective effort. In the Panchmahals district of Gujarat, when an officer declined to bring some SIFPGs' regenerated forests under JFM on the grounds that these were no longer 'degraded', the villagers' immediate reaction was to threaten to 're-degrade' them to gain eligibility! (Sarin, field notes, 1997).

The lack of any transparent procedures and criteria for assessing forest degradation vests exclusive power of arbitrary, often whimsical interpretation, in the hands of the local forest officers. A transparent procedure for verifying their claims and granting retrospective recognition to the years of effort already put in by such groups requires immediate attention.

[28] It is estimated that the number of SIFPGs is in the order of 10,000 (reported in Arnold, 1998). SIFPGs commonly emerged as a response to the growing forest degradation and consequent hardships people were facing. The main motivation for protection is generally to regenerate the forest to meet their subsistence needs. These groups usually have well-developed institutional mechanisms for sharing costs and benefits, including rules for protection and punishment for offences (Saigal, 1998). However, SIFPGs can be equally inequitable as other institutional arrangements (see for example Section 5.3.2).

The arbitrary manner in which the critical decision determining the villagers' eligibility for JFM may be taken is illustrated by the subsequent experience of the above SIFPGs. A new officer transferred to the same post reversed many of the decisions taken by his predecessor. He not only agreed to permit areas considered 'non-degraded' by his predecessor to be brought under JFM, but also felt the need to issue new JFM 'authority letters' to the same groups as he felt that the ones issued earlier had too many flaws. Although the second officer's approach has been favourable for the SIFPGs, the fragility of the institutional arrangement lies in the possibility of the next officer occupying the post reversing *his* predecessor's decisions all over again!

Box 5.1 The actual reach of JFM

India's territorial area defined as forest land: 23 per cent of total area

Percentage of total forest land area out of bounds for JFM:
- due to declaration as 'protected areas': 20 per cent
- other 'non-degraded' forests: 40 per cent
- total forest area out of bounds for JFM: 60 per cent
- potential (balance) forest area eligible for JFM: 40 per cent

Actual forest area eligible for JFM varies according to different state's interpretations of the Circular:
- in Karnataka: 2-3 per cent
- in other states: 5-20 per cent depending on how 'degraded' forests are defined[29]

Thus, the operative institutional arrangements leave JFM far short of the sweeping mandate of the 1988 forest policy. A major consequence of contrary institutional arrangements at the macro level is that at best, less than 30 per cent of the country's total forest area is presently eligible for JFM, with it being as low as 2 to 3 per cent in some states. These restrictions point to a very different picture, compared to the 80 per cent of the country's forest land that is commonly perceived to be 'potential JFM land' (see Section 5.1).

Due to non-degraded forests being kept out of its ambit, despite the policy itself not specifying such a restriction, JFM as it is currently implemented is an inadequate instrument even for achieving the policy's mandate of forest conservation. Surviving natural forests remain under the greatest pressure of illicit felling and poaching by organised interests and unregulated use by local forest-dependent people. Once destroyed, it is next to impossible to

[29] Haryana is an outstanding exception due to JFM not being restricted to degraded areas. This is because Haryana had formulated its JFM policy based on the concept of `social fencing' developed in Sukhomajri village in the state before the GoI June 1990 circular was issued. Madhya Pradesh and West Bengal have also extended JFM to non-degraded forests but with different benefit-sharing provisions.

regenerate their biodiversity. Natural forests provide a continuing flow of multiple NTFPs, assured access to which can act as a strong incentive for villagers to participate in JFM. Yet, despite the policy mandate, they remain outside JFM's purview in all but three states (Haryana, Madhya Pradesh and West Bengal), despite considerable lobbying by the national JFM network to extend it to good forests. Of late, there are some indications that MoEF may encourage extension of JFM to good forests at least on an experimental basis.

The macro picture of JFM's present reach, resulting from the combined effect of these two constraints, is summarised in Box 5.1.

5.3 Restrictions on JFM benefits

Decisions taken at the macro level set the parameters for what people – women as well as men – can and cannot do at the micro level. This section analyses the major assumptions on which the basic JFM 'package deal' is based and how it is actually reshaping the interface between forests and forest-dependent women and men in relation to the policy objective of treating forest dwellers' needs as the 'first charge on forest produce'.

5.3.1 Focus on timber as a JFM benefit

The 1 June 1990 Circular suggests that if the villagers "successfully protect the forests, they may be given a portion of the proceeds from the sale of trees when they mature". Accordingly, most state JFM orders assure the participating villagers between 25 to 50 per cent share[30] of the net income from timber on 'final felling' of mature trees.

The basic package on offer, thus, is '*you help us protect and we will give you a share of the (revenue from) timber*'. This sets the ground rules for the nature and process of interaction with village women and men, diverting attention away from the diversity of existing forest usage and dependence and therefore, location and community specific livelihood needs.

The formula for timber sharing implicitly pre-defines JFM's *primary management objective* as the production of timber, with the villagers having no say in the matter. Allocation of shares of income from timber on 'maturity' or 'final felling' also presumes continued adoption of the

[30] Recent amendments to the orders of two states, Andhra Pradesh and Tamil Nadu now entitle the partner village institution to 100 per cent of the final produce. However, in AP's case, at least 50 per cent of the income, or as much as required, has to be reinvested in the JFM forest.

silvicultural management model of rotational or one-time timber/ pole harvesting. In the process, the village women and men's 'participation' becomes limited to *protecting* degraded forests to regenerate timber for subsequent felling by the forest department. Even the villagers' share of timber is often offered to them in the form of monetary *revenue after selling* it, instead of making it available in kind for meeting their own requirements (ironically they then have to buy timber back to meet their own needs). This is the case in West Bengal, where benefit sharing on a significant scale has commenced (see Section 5.1). The Forest Development Corporation is harvesting regenerated *sal* (*Shorea robusta*) poles, selling them off, and then giving 25 per cent of the net income to the FPCs after deducting its costs incurred on felling, transportation and sale of the poles.

Hence the JFM 'package deal' implicitly not only assumes production of timber to be the primary management objective, but also *equates monetary incentives* from regenerated timber *with satisfaction of the forest-based needs of the villagers*. In a socio-economic context of increasing differentiation and social change and acute dependence of the most marginalised women and men on forests for *current* survival needs, forest closure for regenerating timber transfers disproportionate opportunity costs of forsaking current consumption on such villagers. Better off villagers with minimal or no forest dependence, on the other hand, become new stakeholders in enforcing forest closure. As a consequence, instead of improving the access to and control over forest resources of the primary forest users – namely the poorest women and men dependent on forests for survival – in its present form, JFM often reduces these further.

5.3.2 Differential impacts of forest closure

Planning for 'block felling' of poles or timber from regenerated degraded forests implies waiting for a minimum of 10 to 20 years (depending on the local species) before the villagers get a share of the 'major' benefit.[31] However, to get this 'benefit', all those *currently* dependent on the forest for multiple products and uses,[32] *not only have to forsake current consumption in the short term but, in many cases, are expected to do so permanently*. Fuelwood headloading and livestock grazing, two of the most important forest-based livelihoods in the country, fall into this category.

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[31] New plantations on barren lands are also being established under JFM but on a relatively small scale except in Karnataka and Rajasthan. In some states, a few plantation models have been designed for generating NTFP-based income in a shorter timespan eg, through planting species on which *tasar* cocoons can be raised (*tasar* is a type of silk usually produced from cocoons raised on leaves of the *arjun* [*Terminalia arjuna*] tree). The discussion here is primarily focused on issues related to the more common regeneration of degraded forests from existing rootstock through community protection.

[32] Such as: for fuelwood through cutting bushes, branches or stems (either for domestic consumption, income through sale, or for vocations such as pottery or blacksmithy); lopping tree leaves for fodder; supporting livestock through grazing; etc.

'Offenders' as stakeholders

The rules for forest protection vary between total entry bans to permitting extraction of only dead, dry and fallen twigs, leaves and branches.

One of the *immediate* consequences of such forest closure is that instead of receiving priority consideration, existing forest users are the first to be perceived as villains. Conversely, particularly in heterogeneous villages, the incentive of a share of revenue from timber tends to make the more powerful and "larger farmers, with little dependence on the forest, and who previously were largely uninterested in forest products, become new stakeholders to gain rights within the forest" (Femconsult, 1995). They do not have to incur significant opportunity costs of forsaking current consumption while waiting for timber to mature.

On the other hand, substantial opportunity costs are imposed on poorer women since gathering of fuelwood is one of the most widespread, and regular, gender-based responsibilities. The most common rule imposed by both forest departments, as well as by the male leaders of most local institutions, that only 'dead, dry and fallen twigs and branches' may be collected for fuelwood *overlooks the fact that degraded forests do not have much of these*. The assumption that more fuelwood will become available once forests have regenerated, is also not necessarily correct unless the forests are specifically *managed* for increasing fuelwood availability. Even where fuelwood is not so scarce and the collection rules more liberal, sale of fuelwood for income is almost always forbidden. This rule semi-criminalises those dependent on headloading for survival.

Suddenly stopped or restrained from collecting fuelwood, those women (and men) with no alternative options are compelled to either break the local institutions' rules to 'steal' fuelwood from the closed areas or to go to more distant areas for collection. The former reinforces the stereotype of women and marginalised groups being forest destroyers, while the latter increases their vulnerability to harassment and humiliation by outsiders, besides increasing the labour and time they have to put into gathering cooking fuel (AKRSP, 1995; Sarin, 1994, 1994a, 1997; Sarin and SARTHI, 1994; CES, 1995). Women and marginalised communities from neighbouring or distant villages dependent on headloading from the closed forests are similarly affected.

Where implemented in this manner, JFM is little different from the forest departments' traditional policing, as it does not address the root cause of poor people resorting to unsustainable forest exploitation, ie, the lack of alternative income and employment for basic survival. Instead of FD staff

policing the poor, JFM simply transfers the same role to the better-off sections of participating communities.

Gender inequality: using women to exclude other women

As men are vulnerable to accusations of attempted molestation while stopping women, they commonly mobilise their own women to stop outside women from collecting products from their forests. In heterogeneous villages, higher caste and better-off women, who are less dependent on forests, are often mobilised to rebuke or pressurise poorer women of the same village to stop extraction (Sarin, 1994, 1994a, 1995 and 1997). The majority of even forest department staff consider women's 'participation' desirable only as a less risky and more effective mechanism for getting them to stop extraction rather than for understanding and responding to their needs.

Such use of the protecting communities' women to exclude forest-dependent women of their own or other villages from the forests, *without either group of women having a say in JFM or SIFPG priorities and decision making*, is emerging as one of the major gender differentiated impacts of 'community' forest protection in most states (Sarin et al, 1998). The pertinent question this poses is: *Why do such large numbers of women continue to be forest 'offenders' even under 'participatory' forest management?*

5.3.3 Who are the offenders, and why?

Unfortunately, few studies have probed the 'offenders' point of view: who they are, why they continue fuelwood extraction despite such humiliation and social stigmatisation, and what impact denial of forest access is having on their lives and livelihoods. Some cases in which women continued to 'offend' are summarised in Box 5.2.

Desperate and impoverished women headloaders and other marginalised groups are not meekly accepting denial of forest access so critical to them for survival. The extent and intensity of gender- and class-based conflicts caused by sudden curtailment of access from community protected forests can be gauged from the fact that even for local institutions, including the self-initiated ones, one of the most difficult and common 'problems' is dealing with 'women forest offenders'. While women commonly resort to vicious abuses, accusations of attempted molestation, sometimes filing police cases against male watchers or even physically attacking them on being prevented from collecting fuelwood, communities like the Lodhas have taken up armed fights with traditional weapons to retain access to their

Box 5.2 Women as 'offenders'

- A study of twenty Village Forest Protection and Management *Samitis* (associations) in tribal dominated Santhal Parganas in Bihar found that forest protection in most of them had collapsed within a year of their being set up. In all cases, women headloaders of the villages had the same question: "*what shall we eat?*" They wanted alternative employment to be able to stop cutting fuelwood and marketing support to increase their income from sale of other NTFPs (Satya Narain *et al*, 1994).

- In a rare assessment of the impact of community forest closure by 45 villages, an NGO estimated that about 19,000, mostly poor, tribal women of Churchu, Mandu and Sadar blocks of Hazaribagh district in Bihar, had been acutely affected. While being compelled to switch to using leaves, lantana and dung as cooking fuel, in lieu of headloading, the majority had had to start brewing alcohol for sale, working in brick kilns on exploitative terms or as unskilled manual labourers, subject to availability of such work, for survival income. Many women continue to resort to 'thieving' from the closed forests, getting fined and humiliated when caught (JSPH, 1994).

- With recent initiatives to increase women's participation in JFM in West Bengal, a major question poor women in villages near markets are asking is how they will be compensated for the Rs. 40 to 50 per day they earn from selling fuelwood (Ray, 1996).

source of livelihood (Singh, R.P., 1996; Poffenberger, M., Bhattacharya, P. *et al*, 1996; Sarin and SARTHI, 1994; Sarin 1994, 1994a and 1997; Singhal, 1995 and 1995a).

Social sanctions and efforts to 'educate', 'motivate' or 'sensitise' marginalised women and sub-communities to stop cutting fuelwood have had limited effect, unless accompanied by measures providing those dependent on income from headloading or other forms of unsustainable extraction with viable alternatives.

For the 600 households of the Arabari pilot project, on which West Bengal's JFM programme is modelled, for many years approximately Rs. 100,000 *per annum* were spent on generating alternative wage employment for the poorer villagers to compensate them for forsaking income earned through headloading (Banerjee, A.K., 1996). The amount was based on the estimated income the villagers were earning from the forest prior to closure. In addition, 194 hectares of scrub forest was left open for the villagers to meet their day-to-day fuelwood requirements (Chatterji, 1996).

In contrast, none of the present JFM projects, including the large, internationally funded ones, have planned any *systematic* compensation for such opportunity costs expected to be incurred by the poorest villagers.

In some areas, JFM is encountering more contentious problems. These include the practice of shifting cultivation, the fairly widespread encroachment on forest lands and use of forests for seasonal grazing by pastoralists. Allegations of JFM being used to evict poor landless encroachers on forest land have been made against the Karnataka forest department (Hegde, 1995). Under the same project, a poor community of a remote village was stopped from practising shifting cultivation by putting the land under a 'JFM' plantation without addressing the villagers' survival needs (Saxena *et al*, 1997). Provision for *ad hoc* 'support activities', such as 'fuel-efficient' cooking stoves or creating future new income earning opportunities (which rarely succeed), are poor substitutes for unsatisfied essential needs, destroyed livelihoods or reduced incomes for the already disadvantaged.

Due to fuelwood being known to be one of the most extensively and regularly collected forest products for domestic energy and survival income, focussed planning and silvicultural research for maximising its availability *on a regular basis* need to be made an explicit objective of JFM.

A few efforts are being made in this direction. In Madhya Pradesh, recognising the limitations of a totally timber-focused model, some committed senior forest officers have initiated experiments with managing teak coppice shoots for regular supply of fuelwood under JFM (Dubey, 1997). Similar initiatives for increasing grass production in response to local priorities have been taken in Madhya Pradesh, Rajasthan and Haryana.

5.4 Access to NTFPs under JFM

5.4.1 Existing institutions enabling access to NTFPs

The common perception is that villagers gain free access to NTFPs from their JFM areas which will provide them a regular flow of benefits in lieu of the opportunity costs they have to incur for protection. What access do the villagers gain to NTFPs in reality?

The 1988 forest policy provides that the income and employment of forest dwellers should be enhanced by improving and increasing the production of NTFPs. The 1 June 1990 circular, however, prescribes that "the beneficiaries should be given usufructs like grasses, lops and tops of branches and minor forest produce". Accordingly, most state JFM orders provide members of partner village institutions free access to specified NTFPs. These primarily

Photo: Ford Foundation

Whilst most JFM arrangements provide for free access to fodder grasses, use of fibrous grasses, such as these being used to make rope, is often restricted. More perceptive arrangements are needed, which allow off-take of such products within managed levels

include fodder grasses (although in Haryana even these have to be paid for); dry and fallen twigs and branches; leaf litter and leaves; and where available, mushrooms, edible tubers, flowers, and non-reserved fruits and medicinal herbs. The more valuable NTFPs like cashew nuts, bamboo and fibrous grasses, however, are either excluded from free access altogether or are included under the income sharing arrangement. Thus, VFIs in West Bengal are entitled to only 25 per cent of the income from the sale of cashew. Similar contradictions are evident in Karnataka, where the JFM circular prescribes that the VFIs shall be entitled to only 50 per cent of the income from the sale of all the NTFPs from their JFM areas except fuelwood, grasses and lops and tops from plantation harvests. As not all VFI members are NTFP collectors, the VFI's expected role in NTFP collection and management is proving problematic. It should also be asked whether it is fair to entitle all VFI members to equal shares of the VFI's income from NTFPs when only some members, often the poorest, are involved in collection of those NTFPs. (Institutional controls on NTFPs are considered further in Section 5.4).

What none of the state JFM orders mention are the existing institutional arrangements for the collection and disposal of many of the NTFPs from all forest areas, which remain in force even after an area is brought under JFM. These include LAMPS – examined in Box 5.3.

Box 5.3 Large-scale *Adivasi* Multi-Purpose (Cooperative) Societies

In most tribal majority areas, concessional rights for collection and marketing of many NTFPs have been granted to Large-scale *Adivasi* Multi-Purpose (Cooperative) Societies (LAMPS).[33] As their name suggests, LAMPS cover large areas. In Karnataka, one LAMPS covers an entire *taluka* (sub-district) with between 1,400 and 13,000 potential members. This is because the rules permit *all* adult tribals in the area to become the co-operative's members. A high percentage of the members (34 per cent in one case) were found to be better-off tribals who have no connection with the gathering of NTFPs. However *all* of them get shares of the LAMPS' profit from marketing NTFPs, thereby reducing the shares of the actual gatherers. Further, due to the LAMPS' membership being so large and spread over a wide geographical area, it is next to impossible for the scattered gatherers to have any control over their functioning and management. Lastly, the secretaries of LAMPS are government functionaries accountable to their bosses rather than to the co-operative members (Lele and Rao, 1996). Ironically, even the institutional structure of LAMPS, intended to benefit tribal NTFP collectors through co-operative marketing, does not necessarily benefit the gatherers.

No initiative has been taken to withdraw the areas brought under JFM from the purview of LAMPS. As a consequence, while JFM transfers the *responsibility* for protection to the JFM groups, it is the LAMPS who reap the benefit of any resulting increases in NTFP production. The VFIs in West Bengal have been demanding that the right to collect and market *tendu* (*Diospyros melanoxylon*) leaves and *sal* (*Shorea robusta*) seeds from their JFM areas should be granted to them instead of the LAMPS. However, the state government has yet to respond to their demand due to resistance from the co-operative department dealing with LAMPS.

Thus, tribal NTFP gatherers in tribal majority areas neither gain improved access to, or income from such NTFPs through JFM, due to the LAMPS set up in their names, nor do they benefit from the latter, due to having no effective control over them.

In a few cases where handing over NTFP management to the VFIs has been attempted by taking their JFM areas out from the areas auctioned to private contractors (in Karnataka for example), the forest department field staff found themselves with substantial additional work. The VFIs have no experience or managerial capability for organising collection and marketing of NTFPs. As all the office bearers work on an honorary basis, they have no incentive for accepting the additional burden of marketing NTFPs, particularly if they are not collectors themselves. The NTFP collectors have no incentive to hand over their gathered produce to the VFI if private traders pay them a higher price. Despite significant NTFP produce from JFM forests in some areas, little has been done to improve the marketing framework.

[33] The idea of LAMPS for integrated tribal development was mooted by a government committee in 1971, and by 1989, 2,912 LAMPS had been established across the country, more than 80 per cent in the five states that have large tribal populations – Madhya Pradesh, Bihar, Maharashtra, Rajasthan and Orissa (Lele and Rao, 1996).

Another issue which has emerged is whether only the VFI members should be permitted to collect NTFPs from the VFI's JFM area when traditionally non-resident collectors have also gathered from there before. This issue of inter-village equity due to an area being allocated to a particular village or hamlet, also applies to other forest produce, and has been surfacing repeatedly in the implementation of JFM.

5.4.2 Other institutional controls over NTFPs

Even where there are no LAMPS, many states have vested monopoly rights over the collection and marketing of a wide range of NTFPs either in the forest departments, forest development corporations or other agencies created for the purpose (see Section 3.4.2). These agencies, in turn, either auction or lease NTFP collection to private contractors (eg, *tendu [Diospyros melanoxylon]* leaves in Gujarat and most NTFPs in Orissa and Karnataka).

The nationalised and other, particularly high value NTFPs, thus neither come under the purview of 100 per cent usufructs nor under revenue sharing as a JFM benefit (Agarwal and Saigal, 1996). Collectors of such NTFPs, invariably among the poorest members of their communities and predominantly women, continue to receive only wages for their labour, often at abysmally low rates for the time and effort required for collection. The market *price* for the NTFPs, or the profits from value addition through processing them, go to contractors, traders, industry, LAMPS or state agencies.

In addition, a complex and bureaucratic system for monitoring and controlling the movement and sale of NTFPs has been left intact. This places additional impediments in the gatherers' ability to realise the market value of even the non-controlled NTFPs.

A survey of some villages in the Sabarkantha district of Gujarat conducted by SEWA (Self Employed Women's Association) found that impoverished tribals and others dependent on processing NTFPs have to get licences at every step – to buy the raw material, to transport it and to sell it. For example when trading in produce also required by paper mills, they have to pay 200 to 300 per cent more than what paper mills pay for the same forest produce. The government monopoly actually robs the poor to subsidise the rich. The tribal women also tap gum which too requires a licence. They are obliged to sell it to the Forest Corporation where they get one quarter of the market price (Chowdhry, 1996).

Box 5.4 shows how women producers, organised into an association, have

Box 5.4 Women's association challenges institutional contracts

Nari Bikas Sangh (NBS), a grassroots peasant women's organisation in Bankura district of West Bengal, most of whose members are actively involved in JFM, has been developing strategies for increasing poor women's income from NTFPs. One of its major activities has been promotion of *tasar* cocoon rearing on *arjun (Terminalia arjuna), asan (Terminalia tomentosa)* and *sal (Shorea robusta)* trees.

In 1993, when NBS sold the cocoons to a government marketing federation of tribal producers, it was told that it had to pay an 'export fee' of 6 paisa per cocoon, amounting to a total of Rs. 33,000, before the FD would issue it a 'transit pass'. Only one third of the cocoons had been raised on forest land, two thirds being from the women's own plantations on private lands.

The NBS had to lobby hard with the State Ministers of Forests, Tribal Welfare and Small Scale Industries, the Chairman of the Zila Parishad, the local MLA[34] and the Silk Producers Association for abolition of the export fee. Due to being an organised body, it finally succeeded in getting the state government to abolish the export fee.

Source: Banerjee, N.K.,1996.

managed to overturn institutional controls upon them. The majority of unorganised and impoverished NTFP collectors, however, are unable to get such changes made. They cannot negotiate better returns for their NTFPs either because they do not know the market price or because selling the NTFPs to private traders is 'illegal' due to their nationalisation.

However, recent Government of India legislation makes a start in removing some of these controls on NTFPs. Issued in December 1996, and subsequently adopted by states in 1998, the legislation gives ownership rights of all NTFPs to tribals (through the *gram sabha* or *panchayat*) in certain tribal dominated areas coming under Schedule V of the Constitution of India. Due to resistance by the concerned state forest departments to implement this legislation, MoEF issued a circular exhorting them to do so. It says that state governments should transfer NTFP ownership rights so that a "sense of ownership and responsibility towards forests among tribal communities will be strengthened" (circular dated 29 July 1998 from Mr Anand, Secretary to Government of India in MoEF). So far, only Madhya Pradesh has taken the step of ploughing back the entire revenue from the nationalised *tendu (Diospyros melanoxylon)* leaf to primary cooperative societies of NTFP collectors and *Panchayati Raj* Institutions, whereas Andhra Pradesh has decided to share fifty per cent of such revenue with *Vana Samrakshana Samiti* (VSSs) formed for JFM.

[34] Member of Legislative Assembly.

5.5 Challenges for JFM

After the devolution and co-management initiatives during the early decades of this century (see Section 3.1) in response to rebellions against reservation of forests by the colonial government,[35] JFM represents the first time that the stake of forest-dependent people, including tribals, in forest resources has been formally recognised. However, this does not mean that the period of struggle for them is over, particularly in view of the progressive disempowerment or total demise of the earlier more radical co-management initiatives.

As described in Sections 5.3 and 5.4, the returns provided to villagers participating in JFM, whether as NTFPs, timber, fuelwood, or revenue, are subject to an array of constraints, such that the diversity of forest use and dependence becomes restricted. Continued adoption of silvicultural prescriptions designed for maximising revenue from timber, rather than meeting local needs, remains one of the least questioned, yet major, contradictions in the current practice of JFM. Due to silviculture being viewed as a purely technical matter with which only foresters trained in 'scientific forestry' are competent to deal, its gender and equity impacts have remained largely unquestioned.

Similarly, the conventional, top-down forest planning and management is being extended to an equally inflexible prescription of rules, norms and procedures which direct the creation, constitution and functioning of 'community' institutions as well as the nature of their 'participation' in JFM. These are governed by a simplistic notion of 'community' which fails to recognise the inequalities of caste, class, ethnicity and gender within communities and households and the dynamics of power relations between them. By not ensuring inclusion of the most marginalised, the construction of 'community' and 'participation' by the prescriptions in the JFM orders continues to leave the voiceless without voice or entitlements.

Even at the interface with strong, democratic and consensus-based self-initiated groups protecting forests for meeting their essential needs, it is the SIFPGs who are being compelled to modify their structures and functioning to conform to the prescriptions of the JFM orders. This tends to radically transform the internal functioning of such SIFPGs by shifting their accountability to the forest departments from their general body membership. Simultaneously, no efforts are being made to ensure that the

[35] These include the creation of village forests managed by *Van Panchayats* (forest councils) in the UP hills, the Kangra Forest Co-operative Societies in Himachal Pradesh, the *Mundari Khuntkatti* forests in south Bihar and many others.

SIFPGs gaining recognition under JFM ensure representation and participation of all forest users groups, particularly of the most disempowered women forest users excluded from them by tradition.

The imbalance in power and control structured into the forest department and local community institutional relationship is more geared to extending the department's control over the community through the institution created or reshaped in accordance with their own priorities than to nurture self-governing, sustainable resource management capacity among the villagers. Combined with the traditional forest management priorities built into the benefit-sharing deal, the present JFM arrangement essentially uses the village level institution as an instrument for achieving the forest department's interpretation of forest policy objectives instead of nurturing healthy co-management partnerships responsive to local needs.

It is for the poorest and most marginalised forest users that JFM has the greatest relevance. The challenge for JFM, if it is to fulfil the policy mandate, thus, is to develop reliable institutional mechanisms which firstly, enable a correct identification of such forest-dependent women and men, and secondly, increase their livelihood security through participatory resource planning and management.

Conclusions and prospects

In this section we make our conclusions on the state of play in policy for forests and people in India, and we offer our analysis of what needs to be done to improve policy, and put it into practice.

In the following sections we refer to categorised stakeholder groups, as used elsewhere in this report. However, we are reluctant to tailor our proposals for the commonly identified 'policy stakeholder groups' to 'implement'. We would argue that thus far in policy debates these groups have remained essentially artificial constructs, or stereotypes, which need to be questioned. The groups – government, communities, industry, etc – are too broad and need to be 'unpacked' into more specific units if progress is going to be made. Indeed, 'real people' need to be identified amongst the 'stakeholders'. We have argued that some people in practice 'play' at being different stakeholders at different times. This needs to be encouraged so that stakeholders, currently at loggerheads, can begin to see eye-to-eye and reach negotiated solutions. Thus, by avoiding saying 'government must do this', 'industry must do that', etc, we hope that our conclusions might cross the artificial boundaries created by entrenched positions so that people see both the legitimacy of alternative views and the practical necessity of dealing with them.

6.1 The 'national interest', the 'public good' and the need to reconcile competing claims

Most forest land in India is under government ownership, and the government is obliged to manage it in the 'national interest'. However the perception of what the 'national interest' is has been interpreted in different ways since independence in 1947. Initially forests were required to be host to

accelerated extraction for national development. Since the late eighties, forests are to be conserved, again in the name of the 'national interest'. But quite how the national interest is defined and assessed is not clear – are these mere changes in policymakers' fashions or valid representations of societal consensus?

In a mixed economy such as India's, it might be assumed that the role of the government in protecting the 'national interest' is to look after the infrastructural or welfare needs of the people, whereas the private sector addresses market needs. But the farm forestry programme of the late 1970s and 1980s represented an attempted reversal of these roles. Public forest lands were expected to meet the commercial needs of the economy and farm lands were supposed to produce 'fuelwood and fodder' under a notion of community welfare.[36] But in practice village lands produced commercial polewood or urban fuelwood, and did not meet the subsistence needs of the poor. Meanwhile, the poor were at times displaced from common 'wastelands' as well as the public forest lands which once provided them with biomass. Thus the main beneficiaries from the 'public good' were the mills of forest industry and the coffers of both central and state governments.

However, along with the radical shift encapsulated in the latest forest policy of 1988, from the earlier revenue orientation to conservation as a priority, came an emphasis on meeting the subsistence requirements of forest-dependent people. JFM has enabled a redefinition of government roles, such that forests are protected and managed through partnerships between forest departments and communities.

In seeking to understand how such an apparent about-turn in policy was possible, it is important to consider the different arms of government which have some bearing on the forest sector. With forestry being a concurrent subject, the central government enjoys considerable and increasing powers, especially at the level of formulating policy and promoting programmes. Whilst – through the Ministry of Environment and Forests but also other ministries with an influence on forests – central government is currently pushing a strongly conservationist agenda, state governments have regional and local pressures to deal with. And on top of all this, the Supreme Court is playing an increasingly important role, taking decisions (which then have to be enforced) where the Ministry is failing to do so.

[36] Hobley *et al* (1995) note that this conceptual reversal – forest lands for commercial production and farm lands for welfare provision – is one of the main reasons for the failure of both programmes in the 1980s.

Explanation for the slow progress in implementation of the new policy seems to lie in the complex power structure of those involved in the forest sector. Full implementation of a pro-people forest policy would seriously upset the existing power balance and adversely affect those who have benefited most from past policies. The fact that the new policy and subsequent documents make no mention of the institutional changes necessary to achieve implementation suggests that the policy was more of a 'power play' than a practical way forward.

In short, the new policy direction is well ahead of the capacity to implement it at this stage. The policy remains the aspiration of only a few which, whilst they may gradually gather converts, are yet to galvanise sufficient institutional motivation to win through. It is also clear that in these days of multiple demands for forest goods and services, simplistic calls to respect or represent the 'national interest' in forests will no longer suffice as the sole rationale for government's role.

The legitimacy of claims to forests is socially constituted and, in the current context, is a function of the power of the claimants. A just forest policy would be able to determine the relative importance of competing claims on the basis of socially desirable goals rather than merely the relative strengths of the claimants. In other words, the policy would attach different social values to the claims of each of the stakeholders. What would be needed are criteria that are 'autonomous' or neutral and are, in a sense, an expression of national objectives. Here we propose that the Constitution of India, to which institutions and individuals are supposedly bound, provides a good start for developing such a scale of socially desirable goals. This is not to suggest that the motivation and capacity – the power – behind claims should be discounted. On the contrary, it would be crucial that the differential powers of different claimants be recognised and ways found to deal with them in the same process.

First of all the Constitution subscribes to the universally accepted principles of justice (social, economic and political) and equality of status and opportunity. Secondly, it lays down the fundamental rights of the citizens of India, which are inviolable and the 'State' is bound to protect these rights. The State in this case includes "the Government and Parliament of India and the Government and Legislature of each of the states and all local or other authorities within the territory of India or under the control of India". All other laws if they are inconsistent with the fundamental rights are void.

It is clear that the provision of the Indian Constitution subscribes to universal values, and that the State and all its instruments are bound to

follow, respect and adhere to the fundamental rights granted by the Constitution. The fundamental rights, which are specifically relevant to forest policy, are:

- Right to equality
- Right to freedom, which includes protection of life and personal liberty (the interpretation of this right by courts includes right to livelihood)
- Right against exploitation
- Cultural and educational rights

The only exception to these fundamental rights is provided for the benefit of the Scheduled Tribes and Scheduled Castes.

More explicit than the fundamental rights are the 'Directive Principles for the State Policy' contained within the Constitution. While these principles are not enforceable by any court, they are the ones which specify the direction that ought to be followed by the policies of the government. Accordingly the state is directed to:

- Strive to minimise the inequalities in income, and endeavour to eliminate inequalities in status, facilities, and opportunities, not only amongst individuals but also amongst groups of people residing in different areas or engaged in different vocations

- Follow certain principles of policy – the state shall in particular direct its policy towards ensuring: that the citizens, men and women equally, have the right to an adequate means of livelihood; and that the operation of the economic system does not result in the concentration of wealth and means of production to the common detriment.

The purpose of quoting so extensively from the Constitution of India is to emphasise that it guarantees equality, provides a control over means of livelihood to its citizens, directs the state to minimise inequality, and prevents concentration of the means of production in few hands.

In terms of forest policy, this implies that means of livelihood (in the form of dependence, direct consumption, sole income, etc) are to be protected against either the concentration of forest wealth in the hands of few people (such as industry) or even the state (revenue). As it happens, the national forest policy of 1988 largely reflects these provisions of the Constitution. The provisions of the forest policy, and an assessment (in italics) of those provisions in terms of social value, are given below:

- *Government*: "The principal aim of forest policy must be to ensure environmental stability… The derivation of direct economic benefit must be subordinated to this principal aim" (2.2). *The revenue interests of the government are not given any importance (social value). The main task of the government is to maintain environmental stability (for the maximum good of the maximum number of people).*

- *Forest-based industry*: "Natural forests serve as a gene pool resource and help to maintain ecological balance. Such forests will not, therefore, be made available to industries for undertaking plantations and for any other activity". Further, it says "…forest-based industry should raise the raw material… preferably by establishment of direct relationship between the factory and individuals" and "forest-based industries must not only provide employment to local people on priority but also involve them fully in raising trees and raw material". (4.9). *That is, no social value to be attached to the demands of industry on forests and forest products. On the other hand the social duty of the industry is specified as that of providing employment to local people and growing of trees outside the forest areas.*

- *Forest-dependent communities*: "The rights and concessions from forests primarily be for the bonafide use of the communities living within and around forest areas, specially the tribals". (4.3.4.2). "The life of tribals and other poor living within and near forests revolves around forests. The rights and concessions enjoyed by them should be fully protected. Their domestic requirements... should be the first charge on forest produce". (4.3.4.3). "Similar consideration should be given to scheduled castes and other poor living near forests". (4.3.4.4). *That is, the highest social value is attached to the rights and livelihoods of the poor and the tribals who live in and around the forests.*

Thus if the National Forest Policy of 1988 is analysed in relation to the social concerns expressed in the Constitution of India, the highest social value must be assigned to the livelihood requirements of the forest-dependent communities, especially tribals. The claims of all the other stakeholders have been given virtually no value. On the other hand, they have been directed to fulfil certain responsibilities towards forests.

Recommendation

- **Develop an autonomous scale for assessing competing claims**
  Government should initiate a broad-based dialogue on ways for developing a scale and set of criteria, based on the Constitution, for measuring up claims on forests or forest products. Key principles for this scale include credibility in the eyes of all the main stakeholder groups,

and autonomy from them. To achieve this, a core focus should be put on developing mechanisms that can deal with the varying power of different stakeholders.

6.2 The policy community is growing

Forest policy's changing orientation over time can best be understood in terms of the competing claims, and relative influence, of various stakeholders. The claims of commercial and industrial exploitation more or less held sway from 1864 up to 1988, with little attention paid to sustainability or to social justice. However, as the forestry debate intensified in more recent years, the State has increasingly responded to the claims of forest-dependent communities, as voiced by social activists.

Pressures for a more decentralised and democratic system of forest management have brought results, at least in theory, through the programme of JFM. Over the last twelve years, interest groups have jostled for positions of influence, attempting variously to fulfil implementation of the pro-poor forest policy, or to subvert it. Each of these groups continues to play significant and changing roles in the ongoing policy dialogue:

- *Social activists* as the proponents of JFM, community forest management and pro-poor objectives, but sometimes a little unspecific about the mechanisms to achieve them;
- *Conservationists*, favouring expansion of protected areas for biodiversity conservation, but often at the expense of the rights and needs of forest-dependent people;
- *Large-scale industry*, calling for leasing of so-called 'degraded' forest land for raising 'captive' plantations for raw material supply, but again at the expense of the rights and needs of forest-dependent people;
- *Foresters*, charged with implementing policy, yet finding that their traditional roles and mandate ill-equip them to do so.

It is interesting to examine the emergence of the 1988 Forest Policy, given the tensions between these groups. By the time the new policy resolution was tabled in Parliament, the ruling political leadership was embroiled in major corruption scandals with considerable political fall-out. Ensuring implementation of a new forest policy became a low priority. As a consequence, even the subsequent 1990 Joint Forest Management Circular – which paved the way for JFM across India – may not have been issued at all

but for the concerted efforts of a few individuals. Unlike the prolonged debate and discussion within the government which preceded the 1988 Forest Policy, the Circular was hurriedly drafted and was approved by the then Minister of Environment and Forests, supported by a handful of officials and non-governmental individuals.

Many of the initial state JFM orders were similarly pushed through by *ad hoc* initiatives taken by interested individuals without any open debate or discussion, and some of the subsequent state orders were issued under pressure from donor agencies (the Karnataka order even states that its promulgation stems from an ODA [now DFID] condition for funding a major bilateral forestry project!). Although the JFM orders have played a role in opening elements of custodial forest management to the involvement of local villagers, they continue to be riddled with serious contradictions.

Hence the policy and subsequent Circular, whilst initially championed by certain lobbies, lacked the broad support necessary to ensure its full implementation. The intended beneficiaries of the new policy – including hundreds of millions of forest-dependent people – continue to lack sufficient political voice to influence national political processes.

Meanwhile, the proposed – but subsequently unsuccessful – Forest Bill of 1994-95 was promoted by the conservationist lobby, which called for forceful protection of the forest. Had it been successful, the Bill would have reduced forest dwellers' rights and re-asserted the control of the forest bureaucracy. It also attempted to alter the balance of decision-making authority between the centre and the states – towards the former. The Bill was on the brink of being submitted to Parliament – a reflection of the considerable support that the conservationists enjoy among the Indian Forest Service, and of their traditional access to some degree of political power. Only the intense lobbying of social activist groups, some of them acting on behalf of forest-dependent peoples, prevented the Bill from being enacted on the grounds that it contradicted the new policy objectives.

Tension between different policy interest groups is also manifest in the ongoing debate over the leasing of 'degraded' forest lands to industry for plantations. In this case, powerful industrial and commercial lobbies have used their considerable access to politicians to try to by-pass the 1988 forest policy by obtaining leases to thousands of hectares of 'degraded' forest land and getting the Forest Conservation Act of 1980 amended, to make such leasing legal. To some extent they have received an encouraging response from government. However, pro-poor social activist groups launched a

massive campaign against the move in 1995 and continue to campaign on this issue. The social activists have successfully used a provision in the forest policy, that nationalised forests cannot be leased to any private agency, as the main basis for ensuring that government rejects industry's demands. The influence of the social activists is reflected in the recent Planning Commission Working Group, which concluded strongly in favour of farm forestry and agroforestry for meeting industrial raw material needs instead of large-scale leasing.

In summary, India's forest sector is in a jam. Aspects of policy, such as the patchy implementation of JFM, are realised whilst many other policy pronouncements remain on paper only, or are overridden in practice. An example of such policy override is a recent move to hurriedly extinguish forest dwellers' rights in protected areas, while making it easier for the mining lobby to gain access to forest lands for mining purposes (see Section 4.2).

The ongoing tug of war between different policy interest groups has ensured that no radical changes are made. However, at the same time, the major formal policy shift of 1988 has not been overturned, and the potential for its more concerted implementation grows by the day. Thus, the apparent stalemate masks sporadic but vigorous debate between interest groups which constitute a vibrant policy community – albeit a poorly connected one – which may eventually produce a strong drive for implementation as ideas spread and reach those who are motivated by them to take practical action.

Recommendation

- **Focus on areas of policy which really motivate stakeholders**
  Recognise that, when multiple interests co-exist, there are many tensions but also ideas, opportunity and change. Government alone cannot fully implement the policy. Bringing stakeholders together to hammer out ways forward in areas of policy which motivate them, and allowing the ideas generated to be tried out, is likely to both harness greater capacity to implement policy, and promote the necessary institutional change in government. Further experimentation should be undertaken with multi-stakeholder working groups at state level such as those set up for the JFM programme involving NGOs together with government in some states. Meanwhile, the debate over leasing out areas of degraded reserves should be transformed into a dialogue, involving farmers and the private sector, on production forestry outside reserves.

6.3 Better policy requires better institutions

In principle, India's 1988 forest policy aims to work for both forests and people. In practice, inadequate attention to developing congruent institutional arrangements, which serve as the means for achieving desired ends, leaves a wide gap between policy goals and actual outcomes.

Given that forests are on the concurrent list of the Indian Constitution, the Indian Forest Service, manning all superior bureaucratic positions, is an all-India service which has traditionally looked up to the Government of India (which controls its recruitment, promotion and service conditions). Therefore, the ideas contained in these policy pronouncements carry a great deal of weight. However, many factors have limited their implementation:

- Key policy pronouncements on JFM have all been non-statutory and advisory statements issued by the Government of India, not backed by appropriate law.[37]

- Actual implementation of forest projects and policies is under the control of the state governments, who may have different political compulsions from the Government of India.

- What gets implemented in the field is generally what is provided for in the budget and funded, and therefore many policy prescriptions requiring budgetary support may remain unimplemented, if not supported by matching funds.

- Bureaucracy in India is fairly powerful and its own predilections may act as a filter to what is demanded of it by governments. Radical and swift changes in policies may therefore take more time in their implementation, if these are found unconvincing by the officers. It is generally believed that the Forest Service emotionally identified itself with the first two sets of forest policies, but has reservations about the 1988 Forest Policy, and this has hindered its translation into action.[38]

[37] This is distinct from the Forest Conservation Act, 1980, a Government of India legislation which is binding on all state governments.

[38] The IFS, in turn tends to perceive state politicians as being not very keen on conservation and favouring agriculture and development projects, whilst the Government of India is perceived to be guided by long-term interests in preserving forests – as exhibited by the Forest Conservation Act and Wildlife Act, both of which were promulgated by the GoI (Saxena, 1996).

6.3.1 At state level – the forest departments, donors and NGOs

The extent of forest department control within JFM is still significant, as revealed by some of the resolutions adopted by state governments. Most importantly, village organisations in most states have no autonomous status and can be dissolved by the forest department. The transfer of decision-making authority to local users implies a corresponding reduction in the power of the forest department, and this continues to be resisted by most members of the forest bureaucracy.

State forest departments did lose some power as a result of the introduction of concurrent status, however they still retain considerable powers to determine the management of their own forests. For example in Himachal Pradesh, the state government introduced *Sanjhi Van Yojna* in 1998: this scheme is modelled on the DFID-supported Joint Forest Planning and Management (JFPM) which is being implemented in two circles. *Sanjhi Van Yojna* follows the same principles as JFPM but with a number of amendments, such as the use of a broader definition of 'degraded' forest; it attempts to address some of the villagers' non-forestry priorities and provide for an independent, legal identity for village level groups.

For the forest bureaucracy, working with a large number of diverse and scattered local institutions demands radical changes in its centralised, top-down planning and authority to develop the capacity for decentralised decision making responsive to the diversity of local needs and priorities. This implies challenging reforms in the forest departments' orientation, training, organisational structure, decision-making processes and priorities, such that they can develop from being implementors to facilitators. However, the 1 June 1990 circular, as well as all the state government orders, are silent on the need for organisational change required by the forest departments to make their functioning compatible with participatory forest management.

To date, some initiatives have been taken to change the orientation and culture of forest departments primarily through the training of forest officers. Modules on tribals and forests have been added to the training syllabi and a few short, compulsory training courses for India Forest Service officers on participatory approaches have been introduced. Some NGOs have been charged with facilitating attitudinal change through these short training courses. In some of the externally-aided forestry projects, particularly those with a focus on process, vertically integrated workshops, exposure visits and overseas training have helped expose forest officers to

diverse world views and perspectives. A slow attitudinal change is clearly evident among many officers and the overall relationship between foresters and villagers has improved in many areas. However, even in the 'more progressive' states, there is as yet little evidence of a major change in the distribution of power and authority between forest departments and village organisations. Indeed, in some parts of the north-east, the forest department seems to be attempting to increase its authority via JFM rather than vice versa.

Compared to the early 1990s, when JFM was primarily being promoted by NGOs, today the majority of the new 'community' institutions are being formed by forest departments – (on the latter's terms), often with target-driven donor support. Many of the state JFM orders have been issued under pressure from donor agencies who started demanding inclusion of JFM as an important component of large, externally-aided forestry projects. These include the orders of Maharashtra, Madhya Pradesh, Andhra Pradesh, Uttar Pradesh, Kerala (all with World Bank aided projects) and Karnataka and Himachal Pradesh (DFID). It is, as yet, too early to assess the durability of change introduced through such arm-twisting. In states such as Madhya Pradesh and Andhra Pradesh, where JFM has obtained political support, the approach is likely to outlast donor support. In other states, forest field staff wonder which new donor-backed scheme will arrive next.

Few initiatives have been taken to begin addressing the problem of the hierarchical internal structure of the forest departments, a top-down command structure that actively discourages innovation. This is incompatible with participatory management. Neither have many initiatives been taken to introduce more participatory decision making and internal democracy *within* the forest departments, with greater decentralisation of power and authority at the lower levels. The forest departments' interface with the villagers takes place through their field staff who are in no position to honour any commitments they make to the villagers if they receive contrary commands from above. There is little decision-making authority at the field level, and policy makers rarely solicit the views of field staff. This leads to frustration and demotivation of those field staff.

Recommendations

- **Introduce further democratic process into forestry departments**
  No amount of training or reorientation of individual staff can deal with problems stemming from an internal culture and structure in forest departments which disfavours the initiatives of frontline staff and does not allow information and ideas to flow 'up the system', as well as down. Frontline staff should be given formal leeway to allow well-monitored

experimentation with new working arrangements involving other motivated groups. The rapid spread of JFM in West Bengal can be ascribed primarily to the slack given to field staff to take initiative and work with various forms of village forest committee. New forms of reporting from the field and senior-junior consultation mechanisms should also be developed. Processes of micro-planning and participatory monitoring are becoming gradually embedded in forestry departments and should be further developed as important vehicles for building staff confidence and democratising these institutions.

- **Train policy makers also in democratic frameworks**
  It also needs to be recognised that the forest departments are themselves often constrained by the perceptions and views of senior bureaucrats responsible for policy making. Training equally should be imparted to government policy makers on the nature of facilitative frameworks needed to permit the development of more equitable, democratic and self-governing local institutions. A coherent human resources development policy focused on solving problems and improving organisational performance should be developed in every state. Curriculum development should be a priority at the Forest Academy in Dehradun (as well as at rangers colleges in the states) – to give much greater emphasis to social skills, as well as new management and silvicultural approaches. Government should also organise training and attachments for forestry officers to work for periods with other government departments and with selected NGOs oriented towards dealing with local realities.

- **Install policy analysis capability at state level**
  Policy analysis – both to understand and to change policy – is commonly needed at state level for three main reasons. Firstly, to work out the actual or possible impacts of different policy instruments. Secondly, to identify what can be done under constraining institutional conditions and limited resources. Thirdly, to enable those who are crucial for good forest management, but currently marginalised, to argue their case. Capability at state level for this kind of analysis is often very weak, but progress can be made by building on the potential provided by the state JFM working groups. NGOs and field-oriented academic institutions may have skills to offer, and improving communication and consultation should enable such capability to be drawn on. Collaboration with national and international institutions on policy analysis of this kind should be pursued. Links and interaction between the MoEF and state governments should also be strengthened through regularised meetings of state and national forest ministers on policy.

- **NGOs and social activists – engage more at local level**
  NGOs and social activists should make a strategic shift in their approach to make productive alliances with progressive forest department initiatives along the above lines, and to develop a constructive 'watchdog' role to emphasise genuine decentralisation and empowerment of careful forest resource users.

6.3.2 At central level – government, supreme court, private sector, social activists

Government in India is influenced substantially by the interests of the elite who also, in a sense, dominate the electoral system. The entire legal and policy framework of government continues to favour those seeking revenue and industrial benefits from the forests. At the same time, government has to listen to the vast electorate. The progressive forest policy of 1988 can be seen as a populist response. The implementation of the policy however does reflect the contradictory pulls to which government is subjected. When an interest group becomes particularly forceful, government produces initiatives which sabotage its own policies in contradictory schemes like *van mukhiya* (which has the potential to negate aspects of JFM implementation; see Section 4.5.3) and the ongoing stand-off on leasing forest lands to industries (see Section 4.5.2). Similarly the emphasis placed on NTFPs, especially their utilisation by the poor and tribals, sits rather uneasily with the near total monopoly of the state over NTFPs. This is despite the fact that the Provisions of the Extension of *Panchayati Raj* to Scheduled Areas, a 1996 legislation based on a Constitutional amendment, provides for transferring ownership rights over NTFPs to *gram sabhas* and/or the village *panchayats*.

Thus, performance to date suggests that the elements of government that may desire to fully implement the 1988 forest policy are either lacking the co-ordination to do so, or are compromised by their relationship with forest industry.

Currently there is a 'policy hierarchy' influencing India's forest sector. For example, the 1988 forest policy does not have the legal weight of the 1980 Forest Conservation Act, or the 1972 Wildlife Protection Act, and as such the provisions of these laws can override the benefits available in JFM areas. The JFM Circular can, in theory, be withdrawn at any time unless it is given greater legal recognition. Linked to this, the *rights* regime applied to forest land is ambiguous. The discretion of permitting a particular usage in Reserved Forests or prohibiting a particular concession in Protected Forests still lies with the forest department and state bureaucrats and, over a period of time, a plethora of notifications have created total ambiguity about the

rights and concessions available to the forest-dependent communities. This reflects a continuous attempt by the state to establish sole control over the forest reserves.

Furthermore, the present structure and staffing of the MoEF has extremely limited capacity for policy analysis and promoting compatible institutional change. MoEF's policy wing has only a couple of forest department officers on deputation, burdened with multiple responsibilities. Rather than pursuing systematic implementation of the forest policy they tend to respond to *ad hoc*, often contradictory, orders from their political bosses. This leaves the Ministry particularly vulnerable to powerful lobbies attempting to subvert or amend existing policy.

Similarly, until now non-government social activists have been quick in *reacting* to moves intended to subvert the new policy and have successfully stalled them. However, playing only a watchdog role is inadequate by itself.

A relatively new, but important, player in the forestry sector is the Supreme Court, which has powers above and beyond those of the Ministry of Environment and Forests. For example, the Supreme Court has made judgements regarding green felling bans in certain states, and has stipulated the need for working plans to be drawn up. This lends further weight to the view that central government (the Ministry) is not yet adapting well to the new roles defined for it by the 1988 policy – or at least it is not taking the national-level decisions required of it.

Recommendations

- **Remove legal hurdles to community rights over forest resources, and settle protected area versus people conflicts**
  A "root and branch" review of laws which override community forest rights, or which leave loopholes resulting in such rights being usurped by others, should be instituted by central government. This review should then provide a format and guidance for comparable reviews at state level. This is not a call for ossifying policy in excessively rigid law, but rather for removal of unjust or ambiguous law and for existing rights to be sufficiently shored up to enable the full potential of local forest management to be explored. In the arenas of conflict over protected areas, one or more commissions of inquiry may be needed to review cases at a level high enough to have sufficient political clout. The logic of JFM should be incorporated in these processes, such that joint protected area management is further explored as a longer-term solution to such conflict.

- **Improve priority-setting processes**
  The MoEF has, and for the foreseeable future will have, limited capacity for implementing all of its own policies. Agreeing priorities amongst objectives becomes ever more crucial, and in this the MoEF would do well to open up target-setting processes to other key stakeholders. The national Forester's Network, a forum for progressive mid-career and senior professionals to discuss needed reforms, created by the National JFM Support Network in 1996, should develop a phased plan for a priority-setting process. This should involve key stakeholders in integration and improvement of existing but dispersed statements of priority and publicised targets that the ministry aims to achieve.

- **Provide clear policy signals to the forest-based private sector**
  If the existing forest industry can develop proposals on leasing of forest reserve land which are significantly more socially and environmentally astute than their precursors, government should facilitate the settling of the leasing debate. Meanwhile, the government should provide clear signals that industry should access its raw material from outside forest reserves. Government should encourage work on partnerships between companies and farmer groups to promote initiative, and facilitate investment by industry in setting up a new marketing infrastructure for buying from farmers (see Section 6.5). To steer this, the Planning Commission's working group on leasing degraded reserve lands to private enterprise, which consulted with forest industry, should evolve into a group that includes representation from progressive companies and federations of both large and small private sector enterprise.

- **Upgrade policy analysis capacity and redefine MoEF roles**
  This includes: a thorough review of existing legislation pinpointing necessary amendments; and a restructuring of the MoEF with a much stronger policy analysis and implementation wing; redefinition of the IGF's role in the light of the new community-oriented paradigm in forestry; and creation of new cells specifically responsible for:
  - Monitoring and implementation of JFM;[39]
  - NTFP production, processing and marketing; and
  - Research on silvicultural practices compatible with the new policy mandate.

[39] In a workshop held during the '*Policy that Works*' project in New Delhi on 6-7 May 1997, the Additional Inspector General of Forests accepted the recommendation of the workshop to establish a JFM cell in the MoEF. This cell has since been established – but seems to have achieved rather little as yet. This may be because the officer in charge of the cell also has several other responsibilities.

6.4 JFM is good for timber – now it needs to be made good for people

JFM is the most widespread expression of the 1988 Forest Policy and the dominant approach to management of degraded forests in India. It has achieved notable success in terms of the scale of its adoption. Overall, depending on which data is used, at least 7 million hectares, and potentially between 8 and 9 million hectares of forest lands are now officially being jointly managed by communities and forest departments. Recently the potential for regeneration and harvesting of JFM forest has begun to be realised, particularly in West Bengal. In some cases, JFM has brought about effective decentralisation and provided the village community with greater legitimate access to an important livelihood resource. Several local JFM groups have been able to create village funds, sometimes enabling them to undertake other development activities in the village. Many have also been instrumental in bringing cohesiveness to village action and resolution of conflicts. It has also increased the involvement of a range of new actors in the forest sector, such as academic bodies, research organisations and – particularly – social activist NGOs, who have been involved in facilitating implementation. However, there remain a number of challenges facing JFM, which include conceptual problems with the programme.

The apparent rapid spread of JFM – represented by official numbers of Village Forestry Institutions established for JFM and the forest area allocated to them – can be highly deceptive. For example, both Bihar and Orissa appear to have dynamic JFM programmes from official statistics. However, not a single micro plan (a required component of JFM establishment in an area) has yet been approved in Bihar or Orissa, and most of the functioning *Vana Samrakshana Samiti* formed for the JFM Programme have been superimposed on existing self-initiated forest protection groups. These groups had already achieved much of what JFM sets out to achieve – but are not acknowledged by the JFM Circular.

It is becoming clear that the forest department and the village community often view JFM quite differently, and have different expectations. Many forest department officials see JFM primarily as a means to ensure rehabilitation of degraded forests totalling over 35 million hectares.[40] On the other hand, village communities tend to view JFM as a solution to the growing shortage of biomass, a means to ensure daily requirements of forest

[40] JFM is often seen as an attractive financial option by Forest Department officials – the cost per hectare for JFM has been estimated as one twentieth of the cost for raising plantations (Poffenberger n.d. in Saigal, 1998).

products and/ or a way to increase income. Within individual communities different gender, caste, class and occupational perspectives also influence perceptions of JFM – and this difference in perception often leads to conflicts.

Furthermore, the JFM 'package deal' implicitly assumes production of timber to be the primary management objective, and also appears to assume that income from timber will serve to satisfy villagers' forest-based needs. Deals based on such assumptions benefit better-off villagers with minimal forest dependence, and impose disproportionate opportunity costs on the most marginalised villagers, who are heavily dependent on forests.

In order to meet its stated objectives, the forest department will have to move away from the traditional management system focusing exclusively on timber towards multi-product management as desired by many communities. The forest department will do well to learn from the mistakes of farm forestry. There is again too much emphasis on producing poles for the market from the JFM forests. As more and more forests under JFM mature, the pole market may crash like it did in the eighties.[41]

However, recent developments have significantly altered the balance of incentives for harvesting timber and NTFPs in natural forests. Policy directives following Supreme Court orders have severely restricted felling in natural forests – reducing considerably the current possibilities for returns from timber for both communities and forest departments.

One major initiative in addressing the role of the forest department in JFM has been the establishment of an Expert Group on people's participation in forest management. Recommendations from this group have been in existence for over six years but such recommendations are yet to be implemented. Since then, the MoEF has constituted a 'Standing Committee on JFM', which by late 1999 had met three times, but with little obvious response to its recommendations yet evident.

The 1988 policy and JFM Circular do not acknowledge the heterogeneity of communities, and this has led to major conflicts. In particular, issues of gender and equity are not addressed. The assumed homogeneity of communities, and lack of recognition of conflicts within communities means that the impressive figures for the spread of JFM conceal the fact that often the poorest members of those communities are, it seems, losing out. The

[41] There are reports that pole prices have fallen by 25 to 50 per cent in south West Bengal since 1989 due to the arrival of excess poles in the market (Chatterji, 1996, in Saigal, 1998).

women and men most dependent on forests, the poorest sections of communities, often have little say against powerful local elites. The challenge for JFM in this context is to develop reliable institutional mechanisms which enable correct identification of the poorest forest-dependent groups, and which increase their livelihood security.

Statutory local governance institutions which, since 1993, have been given significantly more power and a greater role in development activities (see Table 4.1) are the panchayats. The relationship between the *panchayats*, as institutions of local self governance, and village forest institutions for JFM coming within their area of jurisdiction, needs to be worked out with great sensitivity and care. Village forest institutions have no legal and statutory basis, and their relationships with the statutory village *panchayats* need to be sharply defined. Many state governments have provided for JFM groups functioning as sub-committees of village *panchayats* in their state legislation for *panchayats*. Similarly, some of the state JFM orders prescribe for the elected president or vice-president of the *panchayat* also being the president of the JFM group. This politicising of the process is often resented by the JFM groups as the *panchayat* president may not even be a resident of the concerned village. Defining the potentially complementary role of *panchayats* in JFM is a major challenge.

The initial dynamism of JFM in West Bengal and the present dynamism of the programme in Madhya Pradesh and Andhra Pradesh is due in large measure to the strong political support by the respective state governments. For the villagers, where there are budgets for plantations or other work, in the immediate term, wage employment is a major incentive. In the World Bank supported JFM villages in Andhra Pradesh and Madhya Pradesh, there are generous budgetary allocations per village. The enthusiasm in the state government supported villages, with limited or no budgetary allocations, is more muted.

Even in the latter case, the primary incentive for most villagers to accept JFM is to improve their relationship with the forest department staff. In Karnataka, many indirect benefits of this, even for poorer villages, were evident. Being compelled to befriend the villagers, unofficially, forest department field staff permit a lot more extraction for essential needs than before. Punitive action against the villagers also tends to decline. However, in heterogeneous villages, the forest department staff camaraderie in some cases remains restricted to the village elite, which does little to counter the injustices suffered by the village poor. Many self-initiated forest protection groups, which accepted JFM to gain legitimacy for their efforts, are today extremely frustrated as now they have to obtain permission from the

Divisional Forest Officer even for undertaking cleaning work which formerly they did on their own.[42]

In summary, it appears that for JFM to attain greater meaning and sustainability, livelihood, gender and equity concerns of the poor need to be made central. The issues of genuine devolution of power to the village institutions to undertake at least day-to-day management tasks also need to be addressed.

Experience over nearly ten years of implementation of JFM is beginning to point towards some pre-conditions necessary for JFM to be successful (to the extent that generalisations can be made; of course each case is specific to local conditions):

- According to the Planning Commission (1998), it appears that in almost all cases of successful JFM experiments, an *alternative source of fuel* was made available to the people prior to forest closure for regeneration. In southern West Bengal, for example, the task of peoples' protection of degraded forest lands became easier because the farm forestry programme in that area had been highly successful, increasing fuelwood supplies and incomes even for the poor. However, where alternative fuel supplies were not available, it became difficult to prevent unauthorised removals from the forest. Hence the creation of a fuelwood reserve becomes necessary before expecting people to start protection.

- Also in the pilot JFM experiment in Arabari in West Bengal, *alternative wage employment* was provided to compensate poorer villagers for income forsaken through loss of headloading as an economic activity.

- In Haryana, all households dependent on grazing were ensured equal shares of water from *water harvesting ponds*, irrespective of land ownership, to enable them to benefit from irrigated crop or fodder production. Even in other states, where implemented with sensitivity, adequate areas *are left open for rotational grazing* to enable the poorer households to continue raising small livestock.

- Similarly, *frequent cleaning operations* have often enabled regular flows of fuelwood.

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[42] In Bihar, there is considerable concern that due to the forest department's reluctance to permit any kind of extraction, even multiple shoot cutting to improve tree growth, many groups are losing confidence in the forest department's commitment to honour its promises and may start mass felling of the forests on their own.

Recommendations

- **Tackle intra-community inequity**
  If JFM is to genuinely redistribute access to, and control over, forest resources between the state and actual forest users, it needs to move beyond abstract notions of the undifferentiated 'community', and ensure the participation of those women and men within communities and households who are the most dependent on forests. This needs to be accompanied by developing strategies for empowering such groups of users to become the state's 'co-managers' by re-orienting forest management priorities and silvicultural practices to meeting their current needs and long term interests for enhancing livelihood security. The limitations of village forest institutions (VFIs) as structures for promoting dialogue and free speech, with their unequal power relations which prevent disadvantaged groups from dissenting, need to be overcome by beginning with the identification of existing users, laying clear ground rules ensuring everyone's participation with priority being given to meeting survival and subsistence needs, and initiating the dialogue with the poorest and voiceless, particularly poorer women.

- **Deal with the new set of exclusions created by JFM**
  At present, protected areas and non-'degraded' forests are excluded from JFM's ambit (except in Madhya Pradesh, West Bengal and Haryana). Progress is needed in extending JFM to non-degraded forests in other states. The MoEF in late 1998 constituted a committee for preparation of an 'Action Plan for the Forestry Sector for the next 20 years'. This committee has presented some recommendations for the Plan which include extension of JFM to non-degraded forests – this should be prioritised in follow-up. Official response is also needed to the proposals originating from the loose but well-networked group of individuals and organisations calling for the phased introduction of Joint Protected Area Management.

- **Build on existing village institutional structures**
  Instead of superimposing new organisational forms irrespective of what already exists, efforts should be made to understand and build upon the positive elements of existing village norms and institutions. These include reaching decisions in open village assemblies striving for consensus, instead of concentrating power in the hands of a few committee members. VFIs may thus take various forms, and should be empowered to both protect forests from outsiders and undertake needs-based extraction for their members, without having to seek the forest department's permission for each and every activity. Accountability of community leaders should

be to all sections of the community and not to the forest department. Hence, the *Panchayat* should play the watchdog and mediating roles over the forest department and the VFI – resolving conflicts between them and within communities. The forest department's role, with the support of CBOs (community-based organisations) and NGOs, should be that of facilitating increased involvement of women and marginalised groups and making priority attention to their needs and rights non-negotiable.

- **Revamp the LAMPS and restructure other ill-designed local institutions**
  Some institutional inventions such as LAMPS, which continue to have priority rights over collection and marketing of NTFPs even from forests brought under JFM, should be disbanded or drastically reformed. Community-initiated VFIs are much more likely to invest effort in increasing production than tribals organised for convenience by administrative *diktat*, and should thus be the ones to reap the benefits. Forest corporations, tribal marketing federations and other introduced constructs should also be re-examined and restructured on a case by case basis to ensure that the real resource managers and NTFP collectors are linked to the appropriate systems of management and marketing.

- **Remove monopolies on sale of JFM timber**
  Only the forest department can market the share of timber which belongs to JFM institutions. Some VFIs have estimated that their profits could be enhanced by a factor of three if they had the option to deal directly with the market. Whilst such profits may not be realised in practice, there is little justification for this forestry department monopoly – it should be phased out.

- **Develop JFM for true multi-purpose use**
  To encourage JFM for multi-purpose forest use, there is a need for detailed micro-planning exercises in all areas, as the requirements of local communities vary from site to site. Accommodating such a diversity of micro-plans within the statutory frameworks of larger working plans remains a challenge. Some states have started providing for overlapping JFM circles within new Working Plans for the purpose. However, developing more flexible silvicultural prescriptions, even for 'participatory' micro-plans to accommodate continuing multi-product flows, should be concertedly addressed.

6.5 Farm forestry is the key to JFM and other policy objectives

Despite the 'boom and bust' of farm forestry in the 1980s, the programme did demonstrate that given the right incentives and a remunerative price, Indian farmers can meet most of the raw material needs of wood-based industries. Yet the political power of other stakeholders (principally industry) to support inconsistent policies has meant that cheap imports of wood pulp and many other wood-based products flow into the country, whilst the government does little to promote the development of a market for home-grown farm forestry products.

Today, social forestry needs to be revitalised if the objectives of the new forest policy are to be fully realised. New opportunities have emerged for the farm forestry and community plantation programmes. These include the potential for direct relationships between industry and individual farmers (although such 'outgrower schemes' are by no means all successful, and there are a number of cases of farmers breaking their agreements with companies). There has also been a growing realisation among state governments that policy reform is needed to make tree planting attractive to farmers.[43]

Despite vigorous lobbying on both sides of the debate over the last ten years, the issue of leasing of degraded forest lands to industry for captive plantations remains unresolved and, whilst this indicates the power of those lobbying on behalf of forest-dependent people, it also indicates the influential power of industry (see Section 6.3.2). For as long as industry perceives it may gain access to forest land, there will be little incentive for it to pursue new arrangements with farm foresters. Furthermore, whilst imports of timber and pulp are no longer subsidised, they are still significantly cheaper than the cost of obtaining such commodities within India. This further reduces the economic imperative for industry to compromise on its demands for land.

Recommendations

- **Remove the legal and procedural bottlenecks to farm forestry**
  A great source of imperfections in wood markets is the legal and procedural framework which makes cutting and selling privately-owned trees difficult and complicated for the individual farmer. Such frameworks are designed to prevent illicit felling from government

[43] In Andhra Pradesh, major policy changes were announced: the subsidy on raw material supplied to the industries was removed and new rates were fixed as per the replacement cost; also all transport restrictions on eucalyptus and *casuarina* – the two most popular farm forest species – were withdrawn. These measures made farm forestry a viable proposition for the farmers and led to the development of a regular market between farmers and the industry in several districts (Rao *et al*, 1992, in Saigal, 1998).

forests, but can act against the interests of producers by providing a barrier between them and the market. The experience of states which have already removed felling and transport restrictions should be evaluated with a view to removing such restrictions at the national level. In addition the removal of restrictions on movement of timber between states should be considered. Some states (such as Madhya Pradesh and Andhra Pradesh) are starting to modify state policies in order to encourage farm forestry: again, lessons learnt from such initiatives should be adapted and applied in other parts of the country.

Photo: DIFID/Howard J. Davies

Farm forestry went through a boom and bust cycle in the 1980s. Lessons from that experience should now be brought to bear so that farm forestry can be a major vehicle for realising the pro-people objectives of the 1988 Forest Policy

- **Cut back on government's subsidised supply of raw material to industry**
  A principal reason for the collapse of farm forestry, after its initial boom in the 1980s, is considered to be the fact that farmers could not obtain a remunerative price for their timber. Yet the potential for large volumes of timber to be produced by individual farmers was clearly demonstrated. Subsidies on government supply of timber to industries should be reduced or abolished, thereby forcing industry to buy from the farmers at a remunerative price. However, another variable in the equation is the issue of cheap imports of timber and pulp, upon which some industries appear to rely to an increasing extent. Calls have been made to tax such imports for a few years to allow domestic farm-based production to catch up – these calls should be taken seriously.

- **Encourage companies to forge direct links with the farmers**
  Some large-scale commercial companies have already attempted to develop partnerships with individual farmers, with a view to securing an assured supply of raw material.[44] Whilst the original agreements have in

[44] For example, WIMCO (Western India Match Company) schemes for poplar in north-west India, ITC Bhadrachalam Paperboards Limited schemes for eucalyptus in Andhra Pradesh.

some cases broken down, to the companies' detriment, farmers have in many instances continued to grow trees successfully. Lessons from these experiences should be drawn out with a view to developing mutually beneficial forms of partnership, and particularly to find systems, and appropriate marketing infrastructure, for companies to buy from large numbers of widely-dispersed farmers. Tree growers associations, urban sale depots and mechanisms for primary processing at site should all be better explored.

- **Relocate paper and pulp mills nearer to the raw material producing regions**
  Currently there is the paradox of abundant availability of raw material in the north and west of the country, and low capacity utilisation of paper and pulp mills in the east and south. Yet to transport wood over hundreds of kilometres from source to mill is uneconomic; transport already represents a significant proportion of costs in the pulp and paper industry. Hence there is a need to consider ways of bringing sources of raw material and mills closer – either through promotion of farm forestry near existing mills, or in the longer term, through relocation of paper and pulp mills nearer to the raw material producing regions. However until long-term raw material supply is more secure, mills are unlikely to make the significant investments required in moving.

- **Incorporate farm forestry in new watershed development programmes**
  Farm forestry in the past was often dominated by the needs of forestry departments to meet planting targets by promoting quick-growing exotic species. Such species and their continuing development still have their place, yet farmers' strategies to increase overall farm productivity and income often leads to more subtle tree use and agro-forestry practice. Agro-forestry in itself should be a key focus for new collaborations between extension agencies and previously uncooperative government departments. However, watershed rehabilitation presents particular pressing needs and opportunities for a greater convergence of efforts between departments for forestry, agriculture and rural development. Watershed programmes should increase their focus on the preservation of soil and moisture through farm forestry as an important complement to measures such as contour trenching, vegetative bunding and small check-dams to accelerate rehabilitation of micro-environments.

6.6 NTFPs – where the real value lies

NTFPs represent a vital basis for livelihoods for many people and an important source of revenue for many states.[45] Consequently, though all states allow access to several NTFPs, there are often restrictions on collection and sale of those that are commercially important. Many NTFPs have been nationalised, or monopoly collection rights have been granted to government or private organisations or contractors; the local community is not allowed a share in these particular NTFPs.

Denationalisation of NTFPs may be a positive step but it is not sufficient in itself; for example, particularly in relatively under-developed areas, there will be a need for a marketing infrastructure to be developed. Where marketing is left entirely to private trade, it may be exploitative of the poor – markets can both help and harm the small producer. Hence there is a need to make moves towards de-nationalisation gradually, learning from experience as it proceeds.

Recommendations

- **Monitor success of transfer of NTFPs to tribal ownership**
  The policy framework whereby a state monopoly was considered necessary to counteract severe market imperfections has become counter-productive and is itself encouraging market monopolies and perpetuating market imperfections. The implementation of recent legislation to transfer ownership of NTFPs to tribals in Schedule V areas should be monitored and learnt from, for possible extension to other areas.

- **Remove the monopoly on sale of some NTFPs**
  Contingent on the results of such monitoring, we suggest that the Government should not have a monopoly for marketing NTFPs, nor create a monopoly for traders and mills. NTFPs should be gradually denationalised, starting with *mahua* (*Madhuka indica*) flowers and *sal* (*Shorea robusta*) seeds, so as to encourage healthy competition. Controls on the sale of other NTFPs should be gradually lifted.

- **Clarify institutional roles**
  Given denationalisation of NTFPs, institutional capabilities to support new rights and responsibilities for village-based groups should be beefed up. The forest department is well-placed to become a facilitator, helping to improve the capacity of VFIs in terms of bargaining power, through

[45] On average, NTFPs generate over 40 per cent of state forest revenues and 75 per cent of net forest export income (World Bank 1993, in Saigal 1999).

provision of good information on prices, marketing channels, etc. An extension agency to provide information on prices and improve marketing practices should also be considered, whilst the establishment of marketing boards, with the mandate of reducing market imperfections and addressing other constraints, may also be necessary.

- **Feed results into policy processes**
  Removing constraints on collection and marketing of NTFPs is more complex than the lifting of government controls. There is no guarantee that the poorest forest-dependent people will benefit; wealthier, better-informed and -connected village elites may dominate the trade. Neither is there any guarantee the NTFPs resources will be sustainably managed: marketisation can create threats of unsustainable and irresponsible NTFP harvesting. The results of the rigorous monitoring highlighted above should be the basis of regular review and adaptation of policies, with the aim of striking a balance between the livelihoods of collectors and the sustainability of NTFP harvesting.

6.7 Good quality information is the fuel for good policy and practice

The development of policies for forests and people is dependent upon the existence of good quality information regarding existing and projected forest resources and the goods and services being demanded of them. Yet several examples of existing forest information generation and use show how the type of information gathered, the way it is analysed, and the lack of clarity of definitions, can lead to unclear policy signals and constrain effective planning.

There is currently no firm data for the extent of loss of forest cover in India; the data that is available omits to distinguish between natural forests and plantations; or to define different types of natural forest; or to show where regeneration of degraded forests is taking place; or where rapid loss is occurring. All this constrains the ability to identify appropriate action to be taken by decision makers. Once good quality, comprehensive information on the state of India's forests becomes publicly available, forest managers will be under greater pressure to practice and demonstrate good forest management.

Furthermore, the definition of 'degraded' land, to which JFM is currently restricted in most areas, is unclear, and is interpreted by different state forest departments in different ways. Hence the actual forest area considered eligible for JFM is interpreted differently in different states. In addition a clear definition of what is meant by 'degraded' forest land might enable progress to be made in the debate on leasing of forest land.[46]

Good quality information on emerging trends in forest product markets is equally important. JFM forests in some areas, such as West Bengal, are starting to produce timber for sale, yet are reported to have faced problems with marketing. Whilst some markets are thriving – such as the mine props bought by colliery companies from JFM forests in south-west Bengal, and pulpwood bought by Orient Paper Mills Ltd from the same sources – others are proving difficult to secure.

Recommendations

- **Agree on definitions and common language in key debates**
  The debate about leasing of forest lands to industry shows how, when different parties base their arguments on apparently different information (such as, in this case, the 'availability' of suitable land), the debate can reach stalemate. However, even polarised debates may make some progress if participants – or a neutral third party – agree on basic definitions and baseline information. Emphasis should be put on developing consensus on key definitions which can then lubricate jammed debates and enable a few basic shared goals to be set and achieved.

- **Improve market, extension and research information at local level**
  Many projects have installed, but only partially effected, management information systems. These should aim to become demand-driven by incorporating market information and networking news on training and research findings. To enable the appropriate infrastructure and systems to be established, projections of future needs should be carefully developed.

- **Develop information systems appropriate for policy development**
  Systems are needed which can produce timely, accurate and relevant information on which policymakers and planners can base their decisions. Such information should be produced on an ongoing basis to facilitate monitoring of the implementation of policies. It is of little use developing

[46] Although in this case the issue is less whether or not the forest land is degraded; rather, it concerns such land being a livelihood resource for the poor, who often have legal rights to it. Efforts in rehabilitation and increasing productivity should therefore be focused on the needs of villagers, before the priorities of industry. 'Degradation' should not become an excuse for transferring common property to private industry.

highly accurate information on forest areas if we know nothing about the rights, claims and expectations applying to these assets, and the uses to which they are put. Thus different information systems will be relevant at different levels, but the basic philosophy should be to make use of "good-enough" information whilst aiming to continuously improve and combine information on forest assets, demands and uses.

In conclusion, policies and programmes relating to forests in India have been essentially a battle between rather powerless forest-dependent communities on the one hand and a combination of a more powerful industry lobby and a revenue-hungry government on the other. Despite JFM representing a positive step towards devolved forest management, with the potential to empower and increase livelihood security for forest-dependent communities, it remains an institutionally fragile and inadequate intervention in relation to the 1988 forest policy mandate. The stakeholders of the 'old order' reside in deeply entrenched institutions not well-known for their accountability and certainly not designed for operationalising the new policy mandate. This results in a general apathy towards change and weak interventions in support of the policy changes. However, whilst efforts to bring about institutional change are in their infancy, there are some promising signs. What is now needed is a concerted drive by all in the policy community to spread recognition of the need for, and benefits of, more flexible negotiated solutions. Promoting accountable ways of working and involving previously marginalised stakeholders should be the top priorities, and can enable such solutions to be in the best interests of both forests and people.

Photo: Elaine Morrison

A clear national vision of the future of forests in India is needed to ensure that people from all walks of life can secure the forest goods and services they need, and are prepared to pay for