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Branching Out

Joint Forest Management in India

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with
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The origins of this research lie as much in a particular twist of British academic funding, as in events that were happening within India. In 1991 the Economic and Social Research Council (ESRC) inaugurated a major programme on the social and economic significance of global environmental change, co-funded with the Science and Engineering Research Council. They collectively established a budget of £10 million—this was the largest budget of any ESRC programme, though it was still insignificant by science standards. Howard Newby, then Chief Executive of the ESRC, explained that he wanted social scientists to face the challenge of dealing with environmental issues, and to encourage academic social scientists who had not been involved in environmental issues to move into this new field. The ESRC Global Environmental Change Programme operated by inviting research bids on a number of themes. This research was funded under the third round in 1993, which highlighted aspects of forestry. The other grants included a project to study the loss of the Caledonian Forest in Scotland, and to look at Forest Transition theory.

The Edinburgh staff who put together the research proposal were Roger Jeffery, Crispin Bates, George Gibson, Patricia Jeffery, and Neil Thin. George Gibson was a gifted forester who tragically died before the research began. Nandini Sundar joined as the Research Co-ordinator in 1994 and was primarily responsible for selecting sites, designing and managing the research. She also conducted some fieldwork and took the leading role in writing up. Institutional affiliation was established with the Indian Council for Forest Research and Education (ICFRE) in Dehra Dun, specifically with Pradeep Khanna and S. S. Jattan of the Gujarat and Haryana cadres of the Indian Forest Service respectively. The ICFRE

provided a base for training the research staff periodically during the research project, as well as facilitation of our relationships with Forest Departments in the states selected for intensive research. The research was possible only because there had already been considerable work in India on forest issues. This meant that a research field had already been broadly mapped, and that trained researchers were already available.

In 1995, eight research fellows joined the project. Of these eight, three (Pradeep Tharakan, Vandana Singh and Kamakshi Tella) left for personal reasons. The project team eventually consisted of Abha Mishra and Neeraj Peter in Orissa, Ajith Chandran and Monika Singh in Gujarat, Prafulla Gorada who, most of the time, single-handedly covered Andhra Pradesh (he was briefly assisted by Sagarika Chetty), and Nabarun Sengupta and Shilpa Vasavada in Madhya Pradesh, who joined a year after the others, but very rapidly more than made up for the lost time. The research fellows brought their own experiences to contribute to the research, with a mixture of forest management and social science backgrounds, and different gender perspectives. Several had worked for NGOs in forestry, in Gujarat and in Orissa (Ajith Chandran, Neeraj Peter, Nabarun Sengupta, and Shilpa Vasavada, all of whom had also coincidentally worked in the Aga Khan Rural Support Programme, AKRSP, Netrang). Others had carried out social research in Andhra Pradesh, Orissa, and Gujarat (Prafulla Gorada, Abha Mishra and Monika Singh).

We also contracted out some research to individuals. C. V. Sharada carried out some historical research on Paderu. An ecological study was undertaken by Dr Ravindranath's team at the Indian Institute of Science (IISc), Bangalore, in conjunction with the project team. The transformation of raw ecological data into tables was done by the project members under the guidance of P. Sudha and Indu Murthy at Bangalore. Although not published in this book, we hope it will be of interest to future researchers.

Naturally, given such a large research team in dispersed locations—Edinburgh, Dehra Dun, Delhi, Dewas, Mandvi, Sambhalpur and Paderu—coordination was often a nightmare and levels of involvement varied, both in Edinburgh and in the field sites. In many ways, therefore, this research is testimony to the problems and (we hope) potential benefits that accompany the management of a common property resource. If we conclude this book with a plea for attention to the larger framework within which JFM is placed, and the complexity of institutional arrangements involved at multiple sites, it is at least in part because we have experienced such complexity first hand.

Research began in April 1995 and finished in April 1997, culminating

in a workshop held in Delhi attended by academics, representatives of forest departments, NGOs and activist organizations, as well as donor agencies. The papers presented there appeared in 1999 as a volume published by Sage, New Delhi, entitled, *A New Moral Economy for India's Forests? Discourses of Community and Participation*.

Writing this book took considerably longer, because of the other commitments of some of the principal authors and the problems of cross-country coordination. Chapter 1 (Introduction) and Chapter 6 (Conclusion) were written jointly by Neil Thin, Roger Jeffery, and Nandini Sundar, Chapters 2, 3 and 4, by Nandini Sundar, and Chapter 5 by Roger Jeffery. The process of re-editing, however, means that all the senior authors share at least some responsibility for the whole book.

As with every such project, we have individually and collectively accumulated several debts.

We thank Patricia Jeffery and Crispin Bates for their initial involvement in and support for the project, as well as for their visits to India to assist in field research and the concluding workshop. We thank S. S. Jattan for organizing training at ICFRE and for helping to set up the project along with Pradeep Khanna.

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Abbreviations

ACF	Assistant Conservator of Forests
AKRSP	Aga Khan Rural Support Programme
AP	(state of) Andhra Pradesh
APFP	Andhra Pradesh Forest Project
BAIF	Bharat Agro Industries Foundation
BOJBP	Bruksha o Jeevan Bandhu Parishad
CAPART	Council for Advancement of People's Action and Rural Technology
CCF	Chief Conservator of Forests
CF	Conservator of Forests
CEC	Centre for Environmental Concerns
CIDA	Canadian International Development Agency
CM	Chief Minister
CPR	Common Property Regimes
CSE	Centre for Science and Environment (New Delhi)
DANIDA	Danish International Development Agency
DCF	District Conservator of Forests (same level as DFO)
DFID	Department for International Development (see ODA)
DFO	Divisional Forest Officer
DISHA	Developing Initiatives for Social and Human Action
FAO	Food and Agriculture Organisation
FD	(State) Forest Department

FLC	Forest Labour Co-operative
FPC	Forest Protection Committee
GCC	Girijan Co-operative Corporation (Andhra Pradesh)
GO	Government Order
GoI	Government of India
IAS	Indian Administrative Service
IDEA	Integrated Development through Environment Awakening
IFS	Indian Forest Service (to which most senior forest officials belong)
IGSS	Indo-German Social Service
ISI	Indian Social Institute (New Delhi)
ITDA	Integrated Tribal Development Agency (Andhra Pradesh)
JFM	Joint Forest Management
JRY	Jawahar Rozgar Yojana
KMCS	Khedut Mazdoor Chetna Sangh
MASS	Manav Adhikar Seva Samiti (NGO in Orissa)
MoEF	Ministry of Environment and Forests, Government of India
MP	(state of) Madhya Pradesh
NABARD	National Bank for Agricultural and Rural Development
NFPR	National Forest Policy Resolution (1988)
NGO	Non-Governmental Organization
NSG	National Support Group (for NGOs involved in JFM)
NTFP	Non-Timber Forest Products (previously known as MFP or Minor Forest Products); also known as Non-Wood Forest Products
NVDA	Narmada Valley Development Corporation
ODA	Overseas Development Administration (UK) Ministry until 1997, when it changed its name to Department for International Development (DFID)
PCCF	Principal Chief Conservator of Forests (the highest-ranked forester in a state)
PESA	Panchayats (Extension to Scheduled Areas) Act, 1996
PRA	Participatory Rural Appraisal
PWG	People's War Group (Andhra Pradesh)

RCDC	Regional Co-operation Development Council
RFO	Range Forest Officer
SAARTHI	Social Action of Rural and Tribal Inhabitants of India
SIDA	Swedish International Development Agency
SPS	Samaj Pragati Sahyog (NGO in Dewas District, Madhya Pradesh)
SPWD	Society for the Promotion of Wastelands Development
SWDF	Sadguru Water and Development Foundation
TDP	Tribal Development Plan (Andhra Pradesh)
TERDS	Tribal Education and Rural Development Society
UP	(state of) Uttar Pradesh
USAID	United States Agency for International Development
VFC	Village Forest Committee
VIKSAT	Vikram Sarabhai Trust
VRDP	Village Resource Development Programme (Madhya Pradesh)
VSS	Van Suraksha Samiti (Forest Protection Committee)
WB	World Bank

1

Towards Socially Responsible Forestry in India

The Relevance and Experience of Joint Forest Management

INTRODUCTION

Forestry in India

India has the world's largest, and one of the oldest, forest administrations. It is one of the few countries whose Constitution enshrines the concept of environmental protection and specifies this as the duty of the state as well as all the citizens (Ahmed 1997). Although India's forest area per capita is among the smallest in the world, a large portion of its poor rural population depends to a significant extent on forests for its livelihood. In 1997, the World Forestry Congress in Antalya received scores of papers on Indian forest management, the majority on social, micro-institutional, and livelihood dimensions of forest management. An astonishing number of papers by South Asian (mainly Indian) authors—around 30 out of 50 submitted on the various social themes—addressed participatory forest management. Perhaps more vociferously than any other country, India has been rethinking what forest management is.

This book assesses achievements in India towards institutionalizing new partnerships in forest management, particularly those efforts associated with the general policy rubric of Joint Forest Management (JFM). Within the past decade, approximately 10.24 million hectares of forest lands have been brought under co-management arrangements between

Forest Departments and over 36,000 committees (Ministry of Environment and Forests 2000). To understand the genesis and evolution of this policy and the strategies and programmes associated with it, we need to look beyond India and beyond forestry, at global patterns of development policy and practice. JFM is best understood, not as a single policy or even as a set of policies in the forestry sector, but as an arena for debates about desirable changes. These debates concern not only forest management, but also how poor and marginalized people relate to state, civil society, and business organizations.

Aranya Bhavan, the Bangalore headquarters of the Karnataka Forest Department, provides an illuminating visual statement of the kinds of issues we will be considering. In the boardroom there is a huge picture illustrating forestry extension work. It shows villagers standing in strict grid formation beside newly planted saplings, with a neat line of uniformed forest officers standing by. On the one hand, this illustrates the growing emphasis on people and livelihoods in India's forest administration. On the other hand, it also shows the persistence of a military and technocratic culture in the forest administration, portraying people and trees alike as objects to be controlled for productive purposes.

A global consensus has emerged in recent years on the need for radical rethinking of forest management: what it is, how it should be done, by whom, and for what purposes. Many authors have drawn attention to the crucial challenge of ensuring that locally, nationally, and globally, enough forests are maintained for essential environmental services. Increasingly, the need for more imaginative and complex institutional arrangements has been recognized, to ensure not only that forests are maintained, but that the form in which this maintenance is planned and implemented ensures a suitable range of services and functions. Particularly in poorer areas, forestry must prioritize the maintenance of diverse, secure, and sustainable livelihoods of rural people. Environmental sustainability has also gained prominence, with forest policymakers focusing more on objectives distant in time and space, towards downstream and global impacts of forestry decisions, and towards future generations and uncertain future outcomes of changes in biodiversity.

There are many parallels with other developmental activities. In the health sphere, for example, ministries, agencies, and projects have tended to focus far too much on medicine and not enough on health. In the forest sphere, they have focused on silviculture and on forest products, and much less on broader approaches to ensuring that forests are enabled to play the beneficial roles that they should. Forest management, like medicine, tends to focus on symptoms and outputs, rather than on causes and

processes. Revealingly, terms such as 'participatory forest management' and 'sustainable forest management' have been invented comparatively recently as marked categories. Future generations may well look back with surprise at the idea that people saw the invention of these terms as necessary: how could forestry have been called 'management' at all if it was not participatory and sustainable?

World Development Priorities and Paradigms

Among the priorities that have become prominent in development policy planning world-wide since the 1980s, the following are particularly influential in the JFM policy arena:

- The reconceptualization of governance: responsibility for development planning and implementation is increasingly seen as a negotiated set of partnerships among state, civil society, and private sector partners (as enshrined, for example, in the World Bank's 1999 announcement of the Comprehensive Development Framework).
- The foregrounding of poverty reduction (based increasingly on multidimensional conceptions of poverty) as the overarching objective of international development co-operation, reducing economic, technical, and political development to their proper status as means rather than ends in themselves.
- The promotion of sustainable and holistic natural resource management which responds to diverse objectives of diverse stakeholders.
- Participatory approaches to development based on empowerment through organizational development among poor and marginalized people.
- Faith in the value of micro-enterprise based on local initiative in small production units, coupled with a desire to bring these under some degree of formal state support and control.

Just how these broader development priorities emerge in JFM will become clearer in the following pages. For the moment, suffice it to say that paradigms and preferences in other domains are increasingly informing forest policy and administration despite a long history of its comparative isolation from other domains of governance and planning. Indeed, as we will emphasize in our final chapter, current changes in approaches to forestry are posing some fundamental questions. In particular, what is the forestry sector? Does its previous sectoral discreteness remain valid in a country such as India, where all forest areas are peopled and exploited in various ways?

A BRIEF HISTORY OF JOINT FOREST MANAGEMENT

Formal Policy Announcements

The national announcement that gave birth to JFM was introduced into Indian forestry on 1 June 1990. The Secretary in the Ministry of Environment and Forests (MoEF) in the Government of India circulated a memorandum to the secretaries of the equivalent ministries in each of the Indian states (MoEF 1990).[1] The letter drew out some implications from India's recent National Forest Policy Resolution (MoEF 1988), the first explicit indication that Indian forest policy was changing. The 1988 Policy was a radical change from earlier policies such as the 1952 policy, which had stressed the commercial management of forests for industrial raw materials and for government revenue. The 'commercial' orientation had been reinforced through other official statements, such as those made in the National Commission on Agriculture in 1976.

In his 1988 speech to the Lok Sabha, the Minister for Environment and Forests noted that the 1952 policy seemed to have failed. He used a completely new vocabulary, mentioning the importance of 'meeting the basic needs of the people' (who were said to have an 'intrinsic' and 'symbiotic' relationship with forests), generating forest-based employment, developing a 'massive people's movement' supporting 'programmes of protection, conservation, and management of the forests', upholding forest people's traditional rights and concessions, and maintaining the ecological balance and gene pool of forests (MoEF Sns 2, 4). In short, poor people's livelihoods were to be the top priority of forestry, and environmental issues were to take priority over commercial and revenue concerns.

The letter of 1 June 1990 invoked the new Forest Policy and suggested that one part of the solution to India's problem of deforestation would be for the Forest Department (FD) in each state to work out joint management agreements with local communities with respect to patches of degraded forest land. FDs were encouraged to involve non-governmental organizations (NGOs), if necessary, in drawing up these agreements. The benefits from re-growth on these lands could be shared between the village communities and the FD, but not with 'commercial or other interests which may try to derive benefit in their names' (MoEF 1990). The letter's conclusion, however, showed that the Indian Government had not entirely given up its authoritarian approach towards people living in and around forests. If the beneficiaries failed to co-operate in protecting the area, 'the usufructory benefits should be withdrawn without paying

any compensation to anyone for any work that might have been done' (MoEF 1990).

Policy Interpretations

There have been many and contested interpretations of the letter of June 1990. A simple interpretation would read such an administrative text as a direct announcement of what forest policy is at a particular point in time. For example, at a workshop held in September 1990, the June letter was hailed as a 'watershed in the history of India's forest management' (Poffenberger 1990c: 6) because it recognized, for the first time, the needs of forest communities as the centre of forest policy. In contrast, since the foundation of the Imperial Forest Department in 1864, Indian forest policy statements all emphasized timber production as the dominant concern. In the history of forest policies, therefore, the 1988 Forest Policy statement, and the letter of 1990, do indeed appear to mark a watershed. Instead of being asked to manage private or village common land to meet their own needs for forest produce, as previous policies assumed, people were now being given the opportunity to be involved in the management of some state lands. The people living around forests were no longer cast solely in terms of 'the problem', but were included in 'the solution' to issues of deforestation, and were to be rewarded with access to the resulting biomass.

The events of the succeeding years, however, might suggest that 1988 and 1990 were not such a watershed after all. Formal policy statements are neither the sole indicators nor necessarily the main engines of change. Close attention to the detail of the policy documents shows that the state had made only minor concessions. In most states, JFM was only introduced on degraded forest land, that is to say, the 45 per cent of forest land classified as having 40 per cent crown cover or less (Forest Survey of India 1994). JFM was not seen as an option for most state forest lands (including lands defined as national parks, etc.) until the very recent guidelines (MoEF 2000) recommended that JFM should include good forests (except the protected area network) as well as degraded areas. It remains to be seen how feasible and politically acceptable this new concession will be.

An initiative to reform the Indian Forest Act began in 1989, and a draft bill was approved by the MoEF in February 2000. This would amend the Indian Forest Acts to facilitate JFM, because so far, many of the new rights are hard to sustain in legal disputes (*Times of India* 15 May 2000). Courts *may* take account of policy statements of this kind, but they are not obliged to do so. Furthermore, in most states, the committees established

under the new policy (as we shall discuss in Chapter 4) have an uncertain legal status: the 2000 resolution attempts to solve this by registering them as societies. Possible contradictions with the provisions of other Acts (for example, the Forest Conservation Act or the laws dealing with the nationalization of forest produce) have yet to be resolved. Focusing merely on forest laws and policies can also be misleading: if other policies and legislation do not shift as well, the changes in forests can be severely limited. Forest policy implementation has varied—often quite dramatically—from one place to another, and from one period to another, even without formal statements of policy change.[2] Furthermore, other actors have intervened, most notably the Supreme Court's 1997 ban on harvesting in government forests (except under Working Plans). The Central Government's ban on the use of forest land for non-forest purposes has also had major influences on policy and implementation, such as rekindling foresters' interest in Working Plans (Kumar, *et al.* 1999: 8).

Policy analysis must also include the roles of those to whom the policy offers new opportunities for organizing and claiming rights. Changes in the law and in official policy statements may be necessary, but they are by no means sufficient for real changes to take place. Popular action may be in advance of official policy (several thousand groups were protecting forests on their own in eastern India, well before the existence of JFM), or it may lag behind policy change. For all these reasons, the changes of 1988 and 1990 have limits to their significance.

Research Relating to JFM

The environment, achieved importance in academic research in India only from the mid-1980s. New Delhi's Centre for Science and Environment marshalled evidence of state failure and community action in conservation (CSE 1983; CSE 1986). Sociologists at the Centre for the Study of Developing Societies and Lokayan showed the intimate relationship between modern science and the totalitarian State (Nandy 1987a; Nandy 1987b; Nandy 1988; Vishwanathan 1988) which reflected and reinforced the agenda of 'community conservation'. This was supported by Guha's detailed historical work on peasant protests against colonialism and scientific forestry in Kumaon (Guha 1989) followed by his joint work with Gadgil, which argued that pre-colonial communities had developed ecologically sustainable practices (see for example, Gadgil and Guha 1990; Gadgil and Guha 1992; Gadgil and Guha 1994; Gadgil and Guha 1995; Guha and Gadgil 1989).

The *Chipko Movement*, and its popularization by Vandana Shiva (Shiva 1989; Shiva and Bandhyopadhyaya 1986) as well as Bina Agarwal's

work critiquing social forestry, coupled with her discussions of the gender implications of degradation (Agarwal 1997b; Agarwal 1986) encouraged further social science research in India on gender and environment. The economist N. S. Jodha's work achieved global influence by demonstrating the key roles of common property regimes (CPRs) in livelihood security (Jodha 1994). Students of CPRs, particularly those using the new institutional economics developed by Ostrom and others, showed how common pool resources were not inevitably subject to the 'prisoner's dilemma' (Hardin 1968), and that in many cases, communities had managed to avoid this by organizing themselves to manage common resources. This literature also showed that management by user groups or 'communities' was in many cases more *efficient* than centralized management (Berkes 1989; Bromley 1992; Chopra, Kadekodi, and Murty 1990; McCay and Acheson 1987; Ostrom 1990: 30; Singh 1994).

Despite these broader studies which informed the shift towards community involvement in conservation, when we began our research in 1994 the literature on JFM specifically was very limited. Initially, it was predominantly by activists (for and against) and practitioners, who provided a rather fragmented set of partisan 'success stories' at local levels (Kant, *et al.* 1991; Poffenberger 1990d; Raju, Vaghela, and Raju 1993). The major actors involved in this shift had basic differences of opinion regarding the problems that JFM seeks to address, the causes of those problems and what the objectives of JFM programmes should be. Yet early JFM literature tended to avoid analysis of objectives—a striking example being the *Guidelines* produced by the national umbrella NGO Society for Promotion of Wastelands Development (SPWD 1995). This 50 page analysis of JFM implementation and assessment approaches (organizational units, norms and procedures, mapping of forest areas and institutional relations, community profiling, and indicators of their effectiveness) lacked any discussion of what the purposes of JFM implementation are.

FD and donor accounts of the rise of participatory approaches in forest management in India all cite the Arabari initiative as a key precursor to JFM (Chandra and Poffenberger 1989; Clark 1995; Poffenberger 1990d). Arabari is a forest range in East Midnapore Division, West Bengal, with a long history of conflicts between foresters and local people. In 1972 a forest official, A.K. Banerji, discovered that villagers who allowed their cattle and goats to graze the new shoots and bark were continually destroying his reforestation plots. Several months of dialogue between the FD and villagers then led to joint exploration of future arrangements that would take care of the needs of the people while they, in turn, took care

of the forests. A village-based committee was formed to negotiate with the FD, and verbal understandings were reached over contributions and benefits. Villagers were allowed to collect Non-Timber Forest Products (NTFPs)—fruits, leaves, silk cocoons, seeds, flowers, medicinal herbs, etc.—and when the sal trees were harvested they received 25 per cent of the sale value and the cullings. News of the experiment spread, and more committees were slowly formed, so that by 1988 more than 500 committees had been established, covering 70,000 hectares, with dramatic improvements in forest cover (Clark 1995).

Several points need to be made about these accounts. First, they start in 1972: very little consideration is given to what happened before then, why the forest was in a degraded condition, or why there was conflict between villagers and the FD. Second, the accounts, are almost entirely internal to the FD. Little reference is made to the wider political, social and economic situation—for example, the establishment of the Left Front Government, led by the Communist Party of India (Marxist) in 1977, which remained in power throughout the period.[3] Third, the change is presented as a 'win-win' situation, in which all parties (FD, villagers, etc.) benefit, and all objectives (forest regeneration, biodiversity, income and employment creation, etc.) are met. Fourth, replication is implicitly or explicitly advocated without rigorous assessment of whether or not those features of the Arabari innovation that were crucial for success are present in other situations. Arabari itself remained dependent for its long-term success on clarification of the legal status of the committees and their rights (Poffenberger 1990d).

Nearly as frequently cited is the 'Sukhomajri' experiment in the Shivalik Hills above the Sukna Lake in Chandigarh, the state capital of Punjab and Haryana (see for example, Poffenberger 1990d). Here, establishing earthen dams to plug micro–watersheds and create reservoirs reduced the soil erosion that was leading to sedimentation in the lake. In order to prevent these new reservoirs silting up in their turn, Hill Resource Management Societies were formed, to develop irrigation distribution systems and to manage grass-cutting leases. Two of the early societies (those in Sukhomajri and Nada) were closely monitored and demonstrated considerable increases in biomass (trees and grasses for fodder and rope-making) and in the incomes of the villagers. Sukhomajri is usually cited as a success story, despite clear discussions of the problems that were becoming obvious (Poffenberger 1990d; Sarin, *et al.* 1998; Saxena 1997b: 96-100). In 1994 there was little evidence that the attempts to scale up and replicate the early successes were addressing the problems of over-rapid expansion, of domination by the elite, and of legal difficulties.

These descriptions of specific initiatives were backed up with general celebratory discussions of participatory techniques (Chambers, Saxena, and Shah 1989; Chambers 1983) and with some 'how-to-do-it' manuals (Poffenberger, McGean, Ravindranath, and Gadgil 1992a, 1992b; SPWD 1995). They all, however, seemed to us to have too narrow a focus, often to be internal to a world of official supporters in government, NGOs and international donors. Despite the differences on matters of detail, they constituted a discourse that privileged images and implicit definitions of JFM that were unduly restrictive in the following ways:

- They were focused on micro-enterprises in management of forest patches at the village level, rather than looking at higher-level forest management and economic processes.
- They naïvely emphasized the bare bones of participatory development—new rules, one-off participatory planning events, village committees—rather than broader and longer-term processes such as the management of trade-offs among diverse objectives, and the need for scaled-up participation.
- They focused attention on production of trees, tree products, and fodder rather than broader ecological processes and debates about alternative uses and competing rights and responsibilities.
- They paid inadequate attention to the more fundamental rethinking of forest administration, forest science, and inter-agency partnerships and communication that would be needed for substantial reform of the forestry sector.

Other dimensions of actual or desirable change in forest management, such as those that might be identified through alternative ways of conceptualizing forest-related problems and stakeholders, were not being explored in the literature. The potential importance and all-India relevance of a standard JFM package was being taken too much for granted. After all, joint management of forests by government and local people is one way of achieving social responsibility and responsiveness in forestry, but it is not the only way.

Since we designed our research, a more sophisticated, wide-ranging and critical literature on JFM has emerged. The compendium *Village Voices, Forest Choices* (Poffenberger and McGean 1996) illustrates the transition, including some rather simple and uncritical analyses of localised efforts while also embarking on more challenging historical and political analyses. Others have illustrated the relevance of the complex colonial forest history to JFM, revealing that JFM may not seem so radically new when we consider the diversity of objectives and experiences in forestry in the colonial era (Guha 1996; Hobley 1996;

Sivaramakrishnan 1996c; Sundar 2000b). These ranged from state support for community forestry and local people's rights to custodialism, exclusive conservationism, and industrial extractivism. An efflorescence of site-specific monographs on colonial forest policy and practice has also dealt with the relationships between the FD and the peasantry (see the contributors to Arnold and Guha 1995; Grove, *et al.* 1998).

We now also have unusually clear and detailed critiques on the basis of lengthy personal involvement, of the unique aspects and shortcomings of the Haryana JFM experiences which have been so widely touted as a replicable success story (Saxena 1995; Sarin *et al.* 1998). Hobley and Wollenberg have noted the inadequate assessment of the impact of JFM on villagers' lives, and the need for more carefully disaggregated information and analysis of who benefits and who is harmed or excluded (Hobley and Wollenberg 1996: 244, 247). An increasingly large and ambitious literature discusses the major bureaucratic challenges to the process of making forest administration more livelihood-friendly (for example, Food and Agriculture Organization 1997; Hobley and Shields 2000; Kumar *et al.* 1999; Sarin 1996) as well as gender sensitive (Sarin *et al.* 1998). Several ecologists, sociologists, anthropologists and political scientists (see for example, contributors to Jeffery and Sundar 1999; Poffenberger and McGean 1996) have also begun to appraise various aspects of JFM critically. Increasingly too, with NGOs being funded to do research, some version of the common property literature has become common currency. Although much of this tends to be less critical of the state and to focus more closely on the mechanics of village–level institutions in managing resources, there is some excellent work which seeks to go further and introduce questions of politics, power and institutional complexity (see Agrawal and Gibson 1999; Agrawal 1999; Agrawal and Sivaramakrishnan 1998; Lele 1998a; Lele 1998b; Lele 1999).

It is to these new, less triumphal but potentially much more helpful debates and analyses that we want to contribute by broadening the analysis still further beyond current JFM policies and interventions to link it with wider development processes. We thought it necessary to ground our conclusions on detailed empirical research in four states—Gujarat, Madhya Pradesh (MP), Orissa and Andhra Pradesh (AP)—before broadening the analysis to ask some fundamental questions of JFM:

- Who is involved in JFM and on what basis?
- What do the various stakeholders see as the desirable and actual objectives of JFM?
- Could JFM ever be applied widely, or would it remain within small pockets, leaving the mass of India's forest management unchanged?

- How does it fit in with existing practices within FDs, and what changes in structures, capabilities, and attitudes would be needed to make JFM succeed?
- How important is JFM in the broader context of all the policies, institutions, and practices that influence the management and use of forests and trees?

FOREST MANAGEMENT IN INDIA: DEFINING PROBLEMS AND CAUSES

Insofar as a change in forest policy (such as JFM) is about improvement rather than mere maintenance of a given system, the definition of the problems that are being addressed is logically prior to the definition of forest management objectives. Not surprisingly, foresters have historically blamed the problems addressed by forestry on the behaviour of other agents (ignorant rural poor, other government agencies, large-scale timber poachers) or simply on population growth. Only recently are some foresters beginning to grapple with the unsettling idea that ill-conceived forest policy, bureaucracy, and science could be part of 'the problem' of deforestation. Even now, though (as we shall show in Chapter 5) many foresters admit to past deficiencies in forest administration, few would accept the idea that the whole approach to forest administration could be a fundamental cause of deforestation.

For many years, consistent with the perspectives of conservationists world-wide, Indian foresters and forest policy-makers perceived rural people as the major problem. An often-quoted example of this perspective is in the Government of India's 1976 Report of the National Commission on Agriculture (Part IX, Forestry):

> 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.
>
> (Government of India 1976: 25)

This attitude persisted into the 1980s, with the Forest Survey of India placing the blame for deforestation squarely on the shoulders of the rising population: 'excessive grazing and over dependence on firewood for domestic energy are the two factors most responsible for rapid depletion of forest in the country' (Forest Survey of India 1988: 48). Shifting cultivation and encroachment were also blamed, and the Report bemoaned the fact that many state governments regularized the unauthorized occupation of forest lands for cultivation.

The causes of deforestation were thus presented in a narrow perspective that blamed the growing local population for increasing biotic pressure on forest lands. This blame allocation ignores the wider processes that create increases in population, and the demands of more distant populations. Thus, in many parts of India, populations in and around forested areas have been increased by resettlement schemes which moved large numbers of people away from areas flooded by dams or scheduled for other kinds of economic development initiatives and resettled them in sparsely populated areas. More broadly, however, we might question whether those forest-dwellers who act in apparently unsustainable ways are 'responsible' for their actions. Frequently, they may have faced the loss of alternative resources. They may have owned or used non-forest land that has been lost under dams, roads or other forms of modern development; they may be in dispute with neighbouring villagers; or they may be responding to new ideas of desirable lifestyles being promoted by modern mass media. Nonetheless, many foresters persist in conceiving of forest people and forest neighbours as obstacles to rational forest management, and as objects to be controlled and excluded from forests in the interests of regeneration.

Critics of the forest service, by contrast, suggest that the demands of forest–dependent people on forest resources pale into insignificance when contrasted with the urban and industrial demands on forest produce. Many NGOs and academic critics, broadly definable as 'populist', have focused on the contributions of state policy and official practice to deforestation (Guha 1983; Guha and Gadgil 1989). They see rural people as victims and as the best chance of a solution, leading to statements like the following:

> That the forest dwellers alone can preserve forests can be seen from the fact that their denudation began only with the introduction of the British policy in the nineteenth century.
>
> (Fernandes and Kulkarni 1986: 11)

The critics argue that the forest administration has colluded with forest-based industries to extract more timber than the forests could bear, and to clear-fell natural forests for plantations (Gadgil and Guha 1995: 134–145, 185–207; Pathak 1994: 21; Saxena 1994a). They point out that industrial users are organized and powerful compared to large but disaggregated numbers of peasant users, and blame deforestation primarily on the revenue orientation of the colonial and post-colonial state, the bias towards industry, and the conversion of mixed forests into monocultures in the name of increasing production. Deforestation caused by the

demands of rural users is seen as minimal on this scale. In practice, the two causes of deforestation may be inter-linked. As discussants in a workshop on policy and implementation issues in forestry concluded,

> Often the two processes of industrial extraction and use by the people follow each other. 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.
>
> (Saxena 1994b: 19)

The fact remains that, whatever the position on causes, most people agree that the lack of forest cover is a severe problem, and the worst affected by this are those living in rural areas who are dependent on forests for a variety of needs. Most would agree, too, that a new policy was necessary.

INFLUENCES ON FOREST POLICY: CRISES AND POLICY RESPONSES

The recent World Bank review of its experience in the forestry sector in India (Kumar *et al.* 1999: Annex G) identifies five main factors behind the radical change in forest policy announced in 1988:

(a) A recognition of the limits of effective government control over forest use, and hence of the need for participatory management.
(b) Successful farm forestry meant that it was no longer considered crucial for wood-based industry to depend on forests.
(c) A growing realization of the importance of environmental protection.
(d) Forest-dependent communities had been articulating grievances against FDs based on the realization that state policies had contributed to forest degradation by favouring commercial forestry.
(e) International pressures had suggested stronger policy emphases on biodiversity and on meeting the livelihood needs of the poor.

This analysis offers a suitably rich mixture of positive and negative factors behind the policy change, and of civil society, governmental, and business factors at various levels, from local to international.

The policy statements that accompanied the introduction of JFM (MoEF 1988, 1989, 1990) provide a set of explicit reasons why there were problems with India's forests, and why JFM was a potential solution to those problems. The stated reasons for the introduction of JFM were that rapid deforestation had taken place, as a result of the 'dual pressures from commercial exploitation and expanding

populations' (Poffenberger 1990c: 2). Disillusionment with Social Forestry is clearly indicated by the rapid withdrawal of almost all foreign aid for this in the late 1980s and early 1990s. Yet, the above World Bank analysis of reasons for adoption of JFM indicates that although part of the explanation lies in adverse judgements of Social Forestry compared with a few community-based forest management experiments in forest areas, there were positive factors too. While Social Forestry had not achieved its stated objective—basic needs provisioning through participatory communal silviculture on non-forest wastelands—the huge success of farm forestry made possible a new policy of taking industrial wood production out of forest areas.

There is, likewise, a mix of positive and negative reasons why the early JFM experiments were 'scaled up'. Most of the literature on JFM focuses on the idea that early experiments like Arabari or Sukhomajri were success stories eagerly taken up for replication. But the complementary negative factor is that the forest administration was getting an increasingly bad name for failing to manage or protect the huge areas of severely degraded forests under its jurisdiction. It is thus not unreasonably sceptical to suggest that part of what lies behind JFM is a desire among forest officers to pass on an unenviable job to villagers. Where JFM fails, FDs can deflect blame towards villagers for mismanagement of already degraded commons. Where it succeeds, they can claim joint credit for reversing deforestation while simultaneously providing for the livelihood needs of the poor.

We need, then, to look beyond explicit policy statements in order to understand what policy changes mean to the people most affected by them. The most common example where implicit policy is distinguishable from explicit policy is where an explicit policy prerogative of 'public interest' (or national interest) is used to justify government control of a resource. The implicit policy objective, however, may simply be to increase government revenue or power. For example, the British Government stated in a memorandum in 1894 that 'the sole object with which State forests are administered is the public benefit' and that 'in almost all cases the constitution and preservation of a forest involve ... the regulation of rights and restriction of privileges of users in the forest areas which may have previously been enjoyed by the inhabitants of its immediate neighbourhood' (cited in Joshi 1983: 26). But it would be a considerable distortion of common sense to assume from this that the British rulers really had the needs of the whole Indian public in mind when they used this policy to exclude people from hunting areas or from the use of teak forests, which the British were harvesting to supply the armed forces or

the railways. The claims of the post-colonial State also need to be assessed critically before they can be accepted or rejected. In the rest of this chapter, we look in more detail at why senior foresters were willing to endorse a radical departure from existing practice in the late 1980s.

Patterns of influence on forest policy can broadly be classified into five principal domains, of which four have traditionally been recognized, while the fifth, the ethical domain, has risen only recently to prominence, although it has, in the past, occasionally been foregrounded in forestry debates (Jeffery and Sundar 1999; Kumar *et al.* 1999; Sarin *et al.* 1998).

- Biophysical: Actual or perceived changes in the quantity and qualities of forests, in relation to diverse stakeholders' views on desirable future quantities and qualities.
- Economic: The history of competitions as well as synergies between the forces of globalising capitalism and local livelihood strategies, and the various actual and potential valuations of forest goods and services.
- Governance: First the extension of modern bureaucratic state power, and now the rethinking of governance to include new partnerships among government, civil society, and the private sector, together with processes of decentralization and delegation, in major part achieved through resistance by various forest dwellers and their organizations.
- Knowledge: The unsuccessful and inconsistent attempts to develop 'scientific forestry', and the current radical rethinking of what kind of science forestry is.
- Ethical: The justice or otherwise of the outcomes from various forest management regimes.

A useful way to appreciate the influence of each of these domains is to try to link these, as we do below, with the objectives and associated performance assessment criteria by which forest managers are judged, or by which they perceive themselves to be judged. Performance assessment criteria define not only indicators and means of assessment for identifying success or failure, but also what the job of an individual or an institution is. In the forthcoming sections, therefore, we discuss each of the above categories with reference to implicit and explicit definitions of what the participants in JFM appear to think their job is, and how they will know whether or not they are doing it well.

Biophysical Changes and Classifications

The biophysical domain has, of course, always been prominent in definitions of problems addressed and in assessments of the forest

administration's performance. In the early years of the colonial State's involvement in forest management, major biophysical concerns were with too much forest, or with inadequate management and control over forests and their wild (human and animal) inhabitants in some places, as well as in other places, with dessication, resulting from deforestation or forest degradation. All-India generalizations are hazardous: Sivaramakrishnan's history of forest management in colonial Bengal (Sivaramakrishnan 1998), for example, illustrates dominant early concerns with pest control and with changing the forest composition in favour of high-value timber species—issues that were expressed differently in Malabar or elsewhere in south India (Pathak 1999).

Although in India (unlike for example Brazil or Indonesia) there is now a strong consensus that the nation needs more trees, there are important debates about whether it is the quantity or quality of forest that matters most. Judgements have always been based on both the quantity of forest managed and conserved, and on its quality ('good' or degraded, productive or underproductive, species composition). India's forest policy statements since independence imply almost an obsession with forest quantity. The sense of crisis preceding both Social Forestry and JFM policies was undoubtedly generated by new knowledge about just how little of the 23 per cent of India's territory under FD jurisdiction was actually covered by substantial forest (see Tables 1.1 and 1.2). This sense of panic underlies the 1988 reiteration of the grossly unrealistic target of

TABLE 1.1
ESTIMATES OF INDIA'S FOREST COVER, 1972–93

(Area in sq. km.)

Forest cover	*1972–5*	*1981–3*	*1985–7*	*1989–91*	*1993–5*
Dense Forests	464,226	361,412	378,470	385,576	367,260
	(14.1)	(11.0)	(11.5)	(11.7)	(11.2)
Open Forests	87,673	276,583	257,409	250,275	261,310
	(2.7)	(8.4)	(7.8)	(7.6)	(8.0)
Mangroves	3,281	4,046	4,255	4,256	4,827
	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)
Total (including other)	555,180	642,041	640,134	640,107	633,397
	(16.9)	(19.5)	(19.5)	(19.5)	(19.3)

Note: Figures in brackets are percentages of the total geographical land area of India.
Sources: Agarwal 1997a; various issues of the Forest Survey of India between 1988 and 1998.

TABLE 1.2
FOREST COVER AND FD LAND IN SAMPLE STATES, 1981–3 AND 1993–5

(sq. km.)

	Dense Forest (40% or more crown cover)	*Open Forest (10–40% crown cover)*	*Total (includes mangroves)*	*FD Land*
Gujarat 1981–3	7850	5293	13,570	18,777
Gujarat 1993–5	6337	5250	12,578	·19,388
Change	*–1483*	*–43*	*–992*	*+611*
Madhya Pradesh 1981–3	72,174	55,575	127,749	155,414
Madhya Pradesh 1993–5	82,745	48,450	131,195	155,414
Change	*+10,571*	*–7125*	*+3446*	–
Orissa 1981–3	28,573	24,391	53,163	59,555
Orissa 1993–5	26,101	20,629	46,941	59,555
Change	*–2472*	*–3762*	*–6222*	–
Andhra Pradesh 1981–3	28,580	21,119	50,194	63,771
Andhra Pradesh 1993–5	23,048	19,859	43,290	63,726
Change	*–5532*	*–1260*	*–6904*	*–45*
All-India 1981–3	361,412	276,583	642,041	751,896
All-India 1993–5	367,260	261,310	633,397	770,078
Change	*+5848*	*–15,273*	*–8644*	*+18,182*

Sources: Various issues of the Forest Survey of India between 1988 and 1998.

33 per cent national forest cover. The World Bank, by contrast, has recently argued that 'degradation, not deforestation, currently is the major problem in the forest sector in India' (Kumar *et al.* 1999: xi), emphasizing quality as an antidote to the MoEF's obsession with quantity. Although forest quality is clearly a much more informative focus than forest quantity and the stronger emphasis on quality is therefore to be applauded, the 'degradation vs. deforestation' distinction is a poor way of expressing it, since both terms are subjective and dependent on unstable and variable definitions.

By the 1980s, Indian forests were not merely a concern for Indians. From the mid-1970s, international discussions of tropical forests took on new urgency and significance. What were previously seen as the concerns

of tropical countries themselves were internationalized through arguments of species loss and global climate change. Some environmental issues have been defined as global concerns. Global interdependence was taken seriously in the headquarters of environmental and development agencies across the world, especially after the 'Earth Summit' of 1993 (the United Nations Conference on Environment and Development). According to the FAO's *State of the World's Forests 1999*, South Asia has 22 per cent of the world's people, but only two per cent of the world's forest area. India not only has much less forest to worry about than many other parts of the world, it has also more or less stabilized forest cover (see Table 1.3). While many forest-rich countries have been losing forests, it is not surprising that India does not figure prominently in global debates about deforestation,[4] except with reference to the unique biodiversity of the Western Ghats. More relevant to global environmental concerns is the potential for enhanced carbon sequestration through tree-planting (though this is still subject to heated debate).

A more recent biophysical concern surfaced in the growing concern with a global wood energy crisis during the 1970s, which in India, was a key factor behind the Social Forestry Policy (discussed in more detail under 'Economics' below). The experience of Social Forestry is a classic case in misdiagnosis of a biophysical and developmental problem. Rural people's prime concern was assumed to be the shortage of fuelwood for subsistence needs, and from this it was assumed that they would be willing and able to manage communal woodlots on public land outside of the areas owned by Forest Departments. Both assumptions proved invalid: people living near forests had little problem getting fuelwood from forests for free, and people in most areas were neither willing nor able to co-operate in communal woodlot management (Arnold 1989, Arnold 1992: 437, 450). Rich and poor alike, however, were interested in commercial production of timber and pulpwood. The over-emphasis on fuelwood as the central livelihood problem was common in many other countries:

> the objective of many of the early community forestry activities focused on fuelwood, reflecting the prevailing belief about the role of fuelwood (wood energy) in deforestation and land degradation. Since the problem was externally defined as a lack of fuelwood, these early community forestry initiatives were primarily afforestation projects focusing on planting trees specifically for fuel often on village/common property areas to increase fuelwood supplies, rather than on meeting the local needs for trees and tree products, which were not necessarily fuelwood.
>
> (Warner 1997: 2)

TABLE 1.3
COMPARATIVE FOREST AND FOREST PRODUCT STATISTICS FOR BRAZIL, INDIA, AND INDONESIA (1970–94)

	1970	*1980*	*1990*	*1994*
		Forest land (1000 ha)		
Brazil	541,550 (12.5)	553,030 (12.9)	563,911 (13.6)	555,000 (13.3)
India	66,040 (1.5)	67,480 (1.6)	67,762 (1.6)	68,500 (1.6)
Indonesia	122,800 (2.8)	117,600 (2.7)	111,775 (2.7)	111,774 (2.7)
World	4,332,649	4,298,005	4,138,589	4,172,384
		Total timber production (1000 cubic metres)		
Brazil	265,100 (5.5)	388,567 (6.7)	424,212 (6.2)	412,408 (6.3)
India	344,101 (7.1)	439,943 (7.6)	547,917 (8.1)	584,126 (8.9)
Indonesia	208,726 (4.3)	296,298 (5.1)	375,755 (5.5)	398,553 (6.1)
World	4,849,715	5,766,666	6,804,718	6,533,954
		Forest products exports (mln $)		
Brazil	113 (0.9)	865 (1.5)	1,471 (1.5)	2,652 (2.3)
India	16 (0.13)	26 (0.05)	39 (0.04)	35 (0.03)
Indonesia	88 (0.7)	1,879 (3.3)	3,140 (3.2)	4,829 (4.2)
World	12,691	56,748	100,459	114,974
		Forest products imports (mln $)		
Brazil	63 (0.4)	275 (0.4)	240 (0.2)	415 (0.3)
India	48 (0.3)	205 (0.3)	506 (0.5)	280 (0.2)
Indonesia	29 (0.2)	155 (0.2)	365 (0.3)	689 (0.6)
World	14,171	62,397	109,781	119,395

Note: Timber products include roundwood, fuelwood, sawnwood, wood-based panels, veneer sheets, plywood sheets, sawlogs and veneer logs. Charcoal, and paper and paper products, are reported in metric tonnes and are excluded from the production totals, though they may appear in the figures for imports and exports. Figures in brackets are percentages of total world levels.

Source: Food and Agriculture Organization (1998).

Key recent changes in the relevance of biophysical information to policy formulation include the following, of which the first relates to quantity and the rest refer to forest quality:

- Regarding forest quantity, with responsibility for timber and wood-pulp production shifting mainly outside forest areas, the relevance

(let alone the achievability) of the total national forest area has become questionable.

- Biodiversity is on the agenda as an issue of national and international concern.
- The dramatic upgrading of the legitimacy of rural poor people's claims on forest use as the 'first charge' of forest management implies radical rethinking of the composition criteria for 'good' forests.
- Woodfuel, while remaining an important concern, is no longer as dominant in the analysis of rural people's forest-dependence as it was during the 1970s' panic about the 'woodfuel crisis'; the lessons of both Social Forestry and JFM are illustrating a much broader range of livelihood concerns including timber, pulpwood, grass, and non-wood forest products.

Economics: Revenue, Capitalism, Livelihoods, and Incentives

The domain of 'economics' is controversial and notoriously hard to define. Definitions tend to be associated with one of at least three quite separate concepts: livelihoods (as in the original meaning of household management); market exchange (as in its common restrictive reference to business); and valuation (the broadest sense including not only exchange values but more complex and elusive valuation of cultural and environmental goods and services). Definition of the 'economic' dimensions of India's contemporary forestry sector problems could, therefore, include any of the following:

- Declining value of forest areas as capital asset.
- Declining revenue to state, causing difficulties in financing forest administration.
- Inadequate or under-realized potential for financial profit from forestry and forest-related enterprise (hence the difficulty of justifying opportunity costs of forest areas and forestry labour).
- Problems with quantity of forestry employment and labour force: difficulties in balancing demands for labour, supply of labour, and needs for wage employment (given seasonal and regional variations).
- Problems with quality of forestry employment and labour force: poor wages and working conditions in forestry, inadequate quality of labour supply (given the changing nature of forestry work).

Economic assessment of foresters' performance could use financial profit as a criterion, and indeed, this was one of the main performance assessment criteria that motivated forest administrators in the past. But in today's India, with such limited extraction of timber from forest areas,

and with increasing recognition of the value of non-marketed forest products and services, the profit criterion has clearly outlived its relevance to most aspects of FDs' work—while remaining, of course, crucial to private sector roles of all kinds from individual and micro-enterprise to large-scale forest-based industry.

By contrast, other economic criteria have assumed increasing importance. These include both those traditionally regarded as 'economic' (for example, generation of employment, production of tangible goods) and those that have only recently gained recognition as 'economic' criteria (for example, environmental services and the option value and existence value of wilderness and wild resources).

Right from the beginning of British involvement in forest management in India, issues of conservation were usually set in a context of meeting other strategic needs for the state. Imperial needs, as the primary cause of deforestation, followed from the commercial orientation of the FD from the mid-nineteenth century, with the rapid use of timber for railway building and ships (Gadgil and Guha 1992; Guha 1983; see also for example, Pathak 1999; Sivaramakrishnan 1998; Skaria 1998; Sundar 1997). Grove, while acknowledging colonial timber demands, also emphasizes the environmentalism in colonial concerns about the ecological, social, and economic consequences of deforestation (Grove 1995). Insofar as they were guided by extractivist objectives for railways and ship-building, colonial foresters preferred single-species forests of sal and plantations of teak.

One of the few revenue-earning branches of the state, the FD was able to achieve a measure of freedom from direct supervision by the civil authorities. Forest officers hold 'courts' and levy fines for forest offences. Villages located on land controlled by the FD (known as 'forest villages' instead of the usual 'revenue villages') are not included in general development programmes, and the FD is able to choose whether and how to invest in their development. Notably, it does this without deconcentrating its authority down to village level, as is the case with revenue villages.[5]

Since 1950, forest incomes have constituted between 1.25 per cent and 1.78 per cent of total revenue in the public sector (Table 1.4). In the late 1980s, departmental commercial undertakings in forestry and in mining were the only sectors that consistently turned in profits (Government of India 1990: 92). Forest revenues have varied considerably in size and significance from state to state. Madhya Pradesh (MP) the largest Indian state in terms of area, had 21 per cent of India's actual forest cover in 1993. MP is far and away the largest source of forest revenues, contributing about one-third of the national total in 1990–91. Maharashtra

TABLE 1.4
FINANCIAL INDICATORS OF FOREST ACTIVITIES IN INDIA, 1950–1 TO 1993–4

	1950–51	*1960–61*	*1970–71*	*1980–81*	*1993–94*
A. Combined Revenue Receipts of the Centre, States and Union Territories (Rs millions)					
Forest Revenues	121	315	742	3138	n.a.
Total Revenues	7865	17,727	58,628	238,349	n.a.
Forest Revenues as % of Total Revenues	1.54	1.78	1.27	1.32	n.a.
B. Revenue and Expenditure on forests (Rs millions)					
Gross Revenue	255*	577	1320	n.a.	11,327
Expenditure	103*	243	712	n.a.	14,230
Surplus	152*	334	608	n.a.	–2930

* 1951–2

Sources: Combined Revenue Receipts: H. L. Chandok & The Policy Group, 1990, *India Database: The Economy Vol. 1*, Living Media, New Delhi. Forest Revenue and Forest Expenditure: Indian Statistical Abstract 1992, and Indian Statistical Abstract 1997, both published by the Government of India, New Delhi: no data are available for Assam, Madhya Pradesh, Orissa, the Northeast States and West Bengal.

(with nearly 14 per cent of national forest revenues) was the next largest source, followed by Orissa, the second of our sample states (with just under 10 per cent). Andhra Pradesh was the seventh largest (with just under 5 per cent of the total) and Gujarat, with just over 2 per cent, was tenth (Indian Council of Forestry Research and Education 1995).[6] But expenditure on forests has also been substantial, and on the general forest account, deficits were as common as surpluses. In our sample states, MP and Orissa consistently turned in surpluses between 1985 and 1993, whereas Gujarat saw a loss over the period 1985–90 and in 1990–1 and 1991–2, and AP was in deficit during at least one of these years (Table 1.5).

Within these overall figures, there have been considerable shifts in the contributions of timber (so-called 'major' forest produce) and other sources of revenue ('minor', or Non-Timber Forest Products—NTFPs). In 1951–2 NTFPs provided over 26 per cent of total recorded state forest revenues, but by 1960–1 their share had dropped to under 19 per cent. The share of NTFPs then steadily rose until the late 1970s, when it was once again recorded at over 25 per cent (Government of India 1993). Ahmed (1997) notes that the recorded national non-wood forest produce

TABLE 1.5
FOREST REVENUE AND EXPENDITURES IN SAMPLE STATES, 1990–1 TO 1992–3

(Rs million)

	Gujarat	*Madhya Pradesh*	*Orissa*	*Andhra Pradesh*	*Total for all reporting states*
			1990–1		
Revenue	25,033.5	373,080.0	109,050.0	52,585.9	1,117,999.8
Expenditure	79,239.5	257,530.0	48,549.6	58,013.0	1,089,454.9
Surplus	–54,206.0	115,550.0	60,500.4	–5427.1	28,544.9
			1991–2		
Revenue	34,994.5	498,500.0	84,666.0	77,098.6	1,320,810.6
Expenditure	105,282.4	296,320.0	52,790.7	55,582.4	1,246,809.7
Surplus	–70,287.9	202,180.0	31,875.3	21,516.2	–74,000.9
			1992–3		
Revenue	N/A.	399,270.0	103,911.0	84,491.2	1,235,184.1
Expenditure	N/A	309,670.0	69,291.4	69,813.7	1,407,283.3
Surplus	N/A	89,600.0	34,619.6	14,677.5	–172,099.2

Notes: These figures are taken from *Forestry Statistics India, 1995* Dehra Dun, Indian Council of Forestry Research and Education. They do not correspond closely with the state–wise figures for revenue sources in the same volume (compare Table 1.6). Data are available for different selections of states in different years.

revenue (that is, NTFPs minus fuelwood) rose from just Rs 100 million during 1958–9 to Rs 20,000 million in the early 1990s, by which stage they accounted for 40 per cent of state forest revenues. These overall figures hide considerable variations from state to state: in our four study states, the share of forest revenue provided by timber and poles in 1990–1 varied from 15.2 per cent in Orissa to 76.3 per cent in Gujarat (Table 1.6).

There is no good analysis of the relationship (if any) between changes in the economic contributions of the forest sector as a whole and changes in forest policy in different states at different times, and it is hard to provide one because the published sources are so incomplete. Writers from within the FDs themselves generally tend to focus on the details of individual Acts or the extent of tree cover in particular regions in accounting for policy shifts. Taking such a narrow focus leads them to ignore wider social and economic forces that have been driving the

TABLE 1.6
SOURCES OF FOREST REVENUE FOR SAMPLE STATES, 1990–91
(Rs Million)

	Gujarat	*Madhya Pradesh*	*Orissa*	*Andhra Pradesh*
Timber and Poles	98.7	2374.5	174.0	197.5
	(76.3%)	(41.8%)	(15.2%)	(34.7%)
Fuelwood	28.6		44.6	8.2
	(22.1%)		(3.9%)	(1.4%)
Bamboo	2.0	323.3	64.5	119.8
	(1.5%)	(5.7%)	(5.6%)	(21.0%)
Sal seed	–	2.0	87.1	–
		(–)	(7.6%)	
Tendu leaves	–	2981.7	768.5	135.5
		(52.5%)	(67.2%)	(23.8%)
Resin and Gum	–	2.5	3.5	–
		(–)	(0.3%)	
Cane and Other NTFPs	–	–	.6	108.3
			(–)	(19.0%)
Total	129.3	5684.0	1142.8	569.3
	(100%)	(100%)	(100%)	(100%)

Note: These figures do not correspond closely with the state-wise data of revenue and expenditure in the same source (compare Table 1.5).

Source: *Forestry Statistics India, 1995*, Dehra Dun, Indian Council of Forestry Research and Education.

changes with which they are concerned. There are at least the bare bones of an argument, that by the end of the 1980s, Indian forests were no longer meeting the needs of Indian capitalist development.

The internal logic of capitalist development forces ever wider searches for cheaper raw materials, cheap labour power and larger markets. The forests of India were not immune to the effects of this system in the eighteenth century, when teak and other products were entering a world market from the Malabar Coast. But the extent to which forest resources were restructured and exploited for commercial purposes accelerated under the British rule in the nineteenth century. The forest legislation of the high noon of British rule, the second half of the nineteenth century, provided a legal basis for managing the extraction and replacement of

forest resources in the dual interests of maintaining British rule and contributing secure sources of cheap raw materials for the growing European and North American markets. Forest legislation legitimized the changes that saw large areas cut down for railway sleepers, or cleared to be replaced by tea, coffee and rubber plantations.

These processes were uneven, moving at different speeds in different areas or in different periods. They also had the potential to affect the whole of Indian society. There was no dual economy separating capitalism from areas of pre-capitalist relations. Even where the effects were hardly visible, British rule and capitalist relations redefined the meanings of villages, their land rights and their economic opportunities. For instance, the reservation of forests and the settlement of long range fallows in village communities reduced the access of nomadic groups to grazing lands (Chakravarty–Kaul 1996; Saberwal 1999). Under British rule, changes in world prices could have dramatic effects on the *adivasis* who collected and sold *lac* or *hurra* at some distance from the nearest railhead, and in forests apparently unchanged for centuries (Prasad 1994). Since independence, the processes of surplus extraction have continued, especially in so-called 'remote' areas: forested hills (also most likely to be flooded by dams) and mining regions are often the same, and the revenues they generate allow state governments to continue to subsidize loss-making sectors (notably irrigation, power, and road and water transport), which rarely benefit those who live in the hills and forests.

After independence, the sources of demand for forest products changed, as wood-based industries developed. By the 1980s these included, in order of descending demand: packaging, pulp and paper mills, agricultural implements and temporary construction, housing, plywood and veneer, railway sleepers and coaches, match industries, furniture and panelling, fibre board and particle factories (Forest Survey of India 1988). Different sources have different estimates, such that the Inter-Ministerial Group on Wood Substitution placed the demand for timber in the mining industry third after pulp and paper and packaging (Agarwal 1992a: 65). By the 1970s and 1980s, industry perceived a shortage of raw materials to be a limiting factor in its further development. FDs were unable to meet their commitments, either to industries (CSE 1986: 73–4) or to *nistar* users.[7] Although the inadequate supplies and price distortions make demand figures extremely unreliable as a guide to requirements, there is, nonetheless, clear evidence that forest product supplies have been far below the effective demand. In the early 1990s, supply of bamboo was estimated to be approximately 1.5 per cent of demand and supply of fuelwood merely 10 per cent that of demand in Madhya

Pradesh (Khare 1993: 14). By 1987, the Forest Survey of India estimated that industry had an annual requirement of more than 19 million cubic metres of wood, but that the forests could supply only about 4 million cubic metres (Forest Survey of India 1988: 54–5). Also in the 1980s, two influential reports pointed out that, nonetheless, several industries were benefiting from significant subsidies and low prices (CSE 1983; CSE 1986: 74). Bamboo prices for the paper industry have consistently been well below the open market price, at Re 1.00 per tonne when the going rate was Rs 2000 per tonne in the 1950s and 1960s, and Rs 600 per tonne in the 1980s, when the market rate was ten times that (Gadgil and Guha 1992: 199). In an excellent summary for the World Bank's 1999 India forestry study, Saxena highlights the adverse influences of FD subsidies given to large-scale industries while giving low priority to the needs of local people, saying that 'despite the prescription in the 1988 forest policy that forest dwellers will have first charge on the forest produce, the poor in Orissa have to meet their need for bamboo by stealing, while industry gets subsidized bamboo and has the first charge' (Saxena 1999: 100).

In the 1970s, FDs responded to the growing concerns over the gap between industrial demand and supply for timber, and the worsening balance of payments position. An increased emphasis on converting natural forests with 'low productivity' into highly productive mono-cultural plantations led to projects like the World Bank funded pine forestry project in Bastar, which attempted to replace 40,000 hectares of natural sal forest with tropical pine to provide pulpwood for paper. This was ultimately abandoned (Anderson and Huber 1988), but not before trial plantations were started on 3,100 hectares. In any case, the trend continued. Forest development corporations were set up to serve as a channel for investment, production and marketing of timber. Communications also expanded in order to exploit hitherto less threatened forests, for example, in the North-East, and the Andaman and Nicobar Islands (Pathak 1994: 22–3).

Social Forestry was the human face of this process, and was meant to satisfy subsistence needs through village commons or through private lands. The National Commission of Agriculture, 1976, which formally enshrined the term Social Forestry, divided the forests into three categories: protection forests, production forests and social forests. Social Forestry was targeted especially at wastelands, village commons, panchayat lands, the sides of national and state highways, canals, railway lines, etc. It had three major components: farm forestry through the distribution of free or subsidized seedlings, FD strip plantations along railroads, canals,

etc., and village woodlots, which were to be communally managed, mainly through panchayats (CSE 1986: 52; Jha 1994: 5). Social Forestry attracted greater government and foreign donor funding than the forestry sector had received before. The World Bank, SIDA, CIDA, USAID, DANIDA, and ODA all supported Social Forestry schemes in different states. Between 1980 and 1989 there were fourteen aided Social Forestry projects in as many states, with a total financial input of Rs 994 million (Saxena 1994a: 26, Table 8).

Farm forestry, only one part of Social Forestry activities, was very successful in terms of targets met and the number of trees planted. Rather than satisfying local needs for fuelwood and fodder, however, farm forestry encouraged the plantation of quick growing commercial timber, especially eucalyptus, which was aimed at urban and industrial markets. Tree plantations also required less labour to maintain them, enabling large farmers to dispense with the services of agricultural labourers (Arnold 1989; CSE 1986:51). As with Green Revolution technology (Breman 1974; Scott 1985), farm forestry may have exacerbated class inequalities in the countryside; but it is likely that farm forestry itself responded to broader economic patterns such as the declining profitability of cultivation of coarse grains and the rising real cost of labour (Arnold 1989: iv).

Retrospectively then, we can see that Social Forestry further extended the capitalist orientation of the FDs by allowing the major portions of the forests to stay under departmental control, to be managed for industrial production. Other aspects of Social Forestry also reinforced this, with larger commercially oriented farmers benefitting at the expense of subsistence users. While farm forestry did help to meet industrial demand, at least partially, it neither stemmed the crises in overall management of the forests, nor was it able to provide subsistence needs to the poor. Even for those richer farmers who did invest in eucalyptus plantations, the overall context eventually defeated them, with the government continuing to import pulpwood, and thus, driving down their own prices. Restrictions on timber transport created imperfect markets and a glut in eucalyptus poles in some areas (CSE 1995: 3–4; Saxena 1994b). Eventually, another policy had to be sought. Although JFM policy statements do not give a high profile to timber production, they clearly flow from a context in which Social Forestry's future contributions were seen to be limited. Nevertheless, JFM does offer incentives to encourage more timber to be produced.

Attempts to provide appropriate policy initiatives at the state or national level do not always show up in clear and consistent initiatives when transformed into programmes like JFM. Particularly given the difficulties

in discerning clear official objectives and priorities in JFM, it is not surprising that the various incentives that JFM appears to offer to various stakeholders lack clarity and are often confusing. For village-level participants, incentives for them to participate in JFM are rather vague expectations of rewards dependent on uncertain biophysical, economic, and political outcomes. In one of the most rigorous studies yet of incentives at the local level, the key incentives to participate in JFM are assessed in two pilot case study areas—one a mixed teak forest system in Rajpipla Division, Gujarat, and the other a sal (*Shorea robusta*) coppice forest system in West Bengal (Hill and Shields 1998). A conclusion is that the 'economic returns to JFM [sic: they mean returns to villagers] are considerable in both forest systems' and that although 'the benefits of JFM are not always [sic!] distributed equally, which may result in collectors of firewood and some NTFPs losing' nonetheless 'overall gains are sufficient to compensate losers.'

Despite offering some useful empirical research and analytical thinking, however, this paper is more instructive for what it omits than for the information it offers: like so much that has been written about JFM, it suffers from several misleading limitations. Most crucially, the very limited stakeholder analysis ignores the diversity of interests (and therefore diversity of incentives) in relation to gender, land holding, wealth, ethnicity, and caste: the 'main stakeholders are the nation or state, the FD, and the community' (Hill and Shields 1998: viii).

Hill and Shields mention the need to compensate some forest users who lose access to firewood and NTFPs, but omit to mention stakeholders external to the villages (for example, nomadic herders and firewood traders) who may be excluded altogether. They do not discuss the need (at least initially) to help offset risks and temporary losses of income or products. Their model uses 'village' and 'community' (interchangeably) as their main level of analysis, ignoring options of lower-level and higher-level analysis and offering no explanation as to why they ignore other crucial incentive issues such as those concerning FD staff incentives, and those of other users such as large-scale industries. Both case studies were in areas where the main local ethnic group was a single tribe (a single clan in the Gujarat case), thereby limiting their lessons to a rather unusual social setting. The very limited 'economic' analysis they offer is confined mainly to marketable products and excludes more diffuse values. Even their 'biological model' excludes from analysis such crucial issues as forest functions and services. Furthermore, their analysis assumes that JFM means 'handing over degraded forest,' so that they ignore 'jointness' altogether (that is, the more radical opportunities for new partnership),

and assume that 'degradation' is a scientific fact rather than an interpretative gloss. In short, their 'incentives model' is localized and fragmentary, measuring apparently short-term local costs and benefits, ignoring wider processes and absent or occasional-use stakeholders.

The above critique is not intended to deny all value to such village-level analyses of incentives. Rather, we wish to highlight issues that, even at local levels, are too complex for simple cost–benefit models. Understanding the effects and viability of JFM requires recognition of the diversity of relevant stakeholders and of processes much broader than those at the level of villages and forest patches. In Chapters 3 and 4, we examine whether JFM does, in fact, provide sufficient incentives for villagers to protect their forests. Foresters may also need incentives in order to change their behaviour: the Resolution and the Circular on JFM are both silent on this kind of incentive. We take up this issue in Chapter 5 and in the Conclusion.

Governance: Custodialism and Centralized State Control

In the latter half of the nineteenth century, centralized bureaucratic systems of management and control were established in many different sectors of Indian society, for example, in the arts (Sundar 1995) and medicine (Jeffery 1988). Forestry (Gadgil and Guha 1992; Rangarajan 1996) is just one more of the sectors where administration took this form. From the beginning of the creation of separate FDs in the early 1800s, foresters argued the need to be independent of local government. They said that local government officials would be too willing to allow forest land to be used for agriculture, since agricultural production earned land revenue as well as being a political solution to civil disputes or disturbances (see also Bryant 1996). This would particularly be the case in areas where shifting cultivation was common. Many foresters regarded the cutting and burning operations of tribal groups as the environmental equivalent of social practices such as female infanticide and human sacrifice, and tribal shifting cultivators were often prosecuted obsessively. Also, in the mid-nineteenth century, foresters' actions against shifting cultivation were often taken because shifting cultivators were an easier target than were commercial loggers (Grove 1998b: 192).

In the accepted interpretation of the debates leading up to the 1878 Forest Act, Guha argues that three positions vied for dominance. One, advocated by Baden-Powell, urged that the colonial government had the right to claim ownership of all forest land, and that resident populations had no legal entitlement to benefits from forest resources. A second, promoted by the Madras government, suggested that the state had no

property rights in forest land. Brandis, the inspector-general of forests, urged a middle ground (Guha 1983; Guha 1996). As Pathak has shown, however, this is a simplistic account of the debates: the Madras position was not a principled one, but was almost entirely based on hostility to any initiative from the Government of India. Baden-Powell and Brandis worked closely together to overcome the objections of local government officers to the idea of separate powers for foresters, and to any loss of control over the uncultivated margin of land that could provide sources of land revenue (Pathak 1999). The outcome was that the state claimed full ownership of forests.

In colonial Bengal, forest management was at least as much informed and shaped by political and administrative factors as it was by biophysical and economic concerns (Sivaramakrishnan 1998). The key governance concern in colonial Bengal was always how to administer forest areas. The colonial administrators did this indirectly, through a variety of agencies that Sivaramakrishnan classifies as 'political society' in the 'public sphere'—the crucial set of intermediaries between 'society' and 'the state,' including landlords, headmen, police, local judiciaries, and forestry experts. State control over forest areas, and state policies, were not simply imposed by a central colonial power informed by a pre-defined metropolitan forest science, but rather emerged from a 'jostling between these publics' (Sivaramakrishnan 1999: 9, 12–13).

Sustained resistance by forest dependent communities to restrictions on their access also meant that some existing rights had to be recognized (see Chapter 4). Nevertheless, these rights were not substantial enough to allow the holders of these rights incomes that might lift them out of poverty: indeed, as soon as local people attempted to use these resources for commercial gain, on however small a scale, they were likely to be the target of additional cesses and limitations (Jeffery *et al.* 1995).

As a result, the FD could not establish for itself all the rights previously enjoyed by local populations. In practice, large areas of forest remained beyond its direct control. Some have argued that it was these areas which witnessed a resurgence of community forest management. Sivaramakrishnan, for instance, refers to the forested regions of south-west Bengal as 'zones of anomaly ... geographic spaces in the terrain targeted by the Permanent Settlement where its application was thwarted' (Sivaramakrishnan 1999: 30). He notes that such zones of anomaly also pointed to the 'limits of colonial knowledge' (Sivaramakrishnan 1999: 65) and were an acknowledgement of the Raj's 'constraints in certain tribal places and forest spaces.' He also suggests that this 'created a pattern of exceptionalism that remained with colonial and post-colonial efforts to determine

the locus of legitimate governance' (Sivaramakrishnan 1996b: 281–2). Arun Agrawal argues similarly that the Uttar Pradesh Van Panchayats, which were set up in 1922, illustrate the colonial regime's tendency to grant power to those local communities that protested against state encroachments on their rights (Agrawal 1994: 9).

We would disagree with these two authors' apparent assumption that community-managed forest areas were those beyond the reach of the colonial state: in fact, the existence of village-level institutions was itself predicated on the prior existence and permission of the colonial state. As with the notion of 'custom' or 'customary law' and its place within the overall framework of the legal system, community management of natural resources was not a sphere of non-intervention, but a different type of intervention. Just as village panchayats, despite having some legal powers, have been unable to function as significant alternatives to the formal legal system because they operated in the 'shadow of the law' (Galanter 1981: 2), so, community forest management committees have often been unable to escape the imperatives of the FD. We discuss this pattern further in Chapters 3 and 4.

Throughout most of the nineteenth and twentieth centuries the main effort of the Forest Department has been to chase the chimera of total control (planning, policing, administration, and revenue collection) over forest areas and over certain tree species in non-forest areas under the overall jurisdiction of the MoEF and the technical guidance of the IFS. The governance problem in Indian forestry has always been a complex one, however, and has recently shown considerable changes, though less, perhaps, than some foresters and NGOs might lead us to believe.

On land that they officially controlled, forest officers have been heavily involved in everyday measures of social regulation, deciding which laws to enforce. On the one hand are those whose transgressions are too trivial to be worth pursuing. On the other hand are those transgressors who are too powerful to be pursued. Because of this scope for individual officers to exercise discretion, foresters have often been tempted into corrupt ways. By the 1960s and 1970s commercial loggers, often with official permission, were exceeding their legitimate cutting targets by taking smaller trees than permitted, or by cutting areas excluded from their licences (Forest Survey of India 1988: 46). At the same time, many minor infringements by forest dwellers, adjudicated by officials of the FD, not the civil authorities, were punished in exemplary fashion. The FDs' quasi-police structures, uniforms and other symbols of authority borrowed from the police made it easy for them to threaten villagers: in the 1980s senior foresters were given the right to carry pistols as part of

their everyday duties, and junior staff have access to staves and rifles when on patrol.

This quasi-police structure and image of the forest department came increasingly under threat at the end of the 1980s, with forest people becoming increasingly unwilling to accept the financial and physical penalties dealt out by the FD. A staff survey in Andhra Pradesh FD in 1994, for example, showed that staff perceived themselves to be overwhelmed by a range of adversaries who would destroy the forest within 10 years: political extremists, politicians, headloaders and shifting cultivators, as well as other public officials in the police or judiciary who failed to provide adequate support (Maheshwari and Moosvi: 11).

There is little doubt that FDs still expect to be judged on whether or not they are maintaining 'law and order' in the huge territories that they are supposed to control. But there are various sources of change, which will become increasingly influential in this domain. Most importantly, at all levels from global to local, responsibility for governance is increasingly seen as something to be shared between formal bureaucracies and more informal structures emerging from civil society and private enterprise. At the highest level, governance over forests is increasingly seen as relevant to supra-national institutions, yet it remains to be seen whether such institutions emerge as effective forces influencing actual governance over forest areas. World wide, there are likely to be increasing debates over governance dimensions of the problems and opportunities in the forestry sector. The recent World Bank review of its own worldwide forestry strategy, for example, has highlighted the need for much stronger attention to governance issues (Lele *et al.* 2000).

At the national level in India, the MoEF has always had less central authority over forest governance than most GoI institutions have. The MoEF confines itself largely to policy-making and rather theoretical macro-level planning, leaving policy implementation and financial allocation (including use of foreign donor funds) almost entirely under the control of individual state FDs. But the 1988 policy is itself a striking example of the emerging influence of social movements and NGOs on national policy (Thin, Peter, and Gorada 1998).

At state and local levels, there are crucial negotiations over the extent to which FDs can and should claim an exclusive right and responsibility for planning and management of forest areas and over silviculture outside forest areas. On the one hand, the limits of FD control over forest areas are made all too clear by incursions into forest areas by planners and implementers of large-scale infrastructural projects such as dams and roads, by ubiquitously widespread illegitimate use and conversion of

forests, and by the influences of policies such as agricultural, transport, and livestock policies on forest use. On the other hand, 'Social Forestry' since the 1970s has allowed FDs to extend their influence, if not governance, over substantial areas outside their formal control.

The widespread acceptance by foresters of the overwhelming influence on forests of factors beyond their control, together with the JFM policy's implicit acceptance that forestry problems arise in part from the inadequate and inappropriate attempts at governance by the Forest Departments, suggest that further and more radical rethinking of forest governance is needed. Debates relating to JFM will certainly move beyond the very limited discussions hitherto, which have focused overwhelmingly on organizations and partnerships for management of small local forest patches. More generally, we can expect to see more complex analyses of sets of relationships among state, civil society, local government (and 'political society') and private sector agencies.

Civil society actors have become more prominent in forest policy debates since the 1970s. The following key categories of agency can be distinguished in terms of their organizational goals:

(a) non-party 'people's movements' engaged in mobilization and organization, political formations;
(b) NGOs engaged in implementation and facilitation who work within the established development paradigm to uplift 'target groups';
(c) support groups which carry out documentation and research (see Sethi 1993: 231-2).[8]

The most cited forest-related phenomenon, for which the Indian environmentalist movement is best known internationally, was the *Chipko Movement*, based in Garhwal and Kumaon, in the UP hills (Guha 1989). From 1970 onwards, activist groups increasingly challenged the UP FD's attempts to auction felling rights to commercial interests. High profile public protests, particularly tree-hugging by women, captured the imagination of the Indian and international public, and led to various changes in Government policy such as a fifteen-year moratorium on commercial felling announced in 1981. Many small-scale groups in various parts of India followed this example and organized to protect patches of local forest, and gradually such proliferating examples coalesced into a nation wide movement for more decentralization of FD control and for some form of community involvement in forest management.

National and state-level NGOs and NGO networks were also influential in bringing about JFM. Most notable among these were the Society for the Promotion of Wastelands Development (SPWD) and the Ford Foundation, which promoted JFM models at national level. The

experiences of the Aga Khan Rural Support Programme (AKRSP) in facilitating community watershed management in Gujarat were an influential success story, and its leader Anil Shah, along with Mr Eswaran, the then Executive Director of SPWD,[9] was in the small panel that drafted the 1988 policy. With support from the Ford Foundation, SPWD established a National Support Group (NSG) for JFM in 1992, which includes both NGO and FD representatives and academics, which has run regular workshops at district, state and national levels and serves as a pressure group on national policy and state resolutions.

Not all NGOs, however, agree with JFM. At the state level, once JFM became fashionable, many NGOs saw it as a bread and butter activity, with competition for the prestige of membership on the state steering committees. But some of the more radical NGOs have retained a critical distance. An obvious example is provided by the groups campaigning around the Rajaji National Park, where the interests of migrating cattle-herders such as the Van Gujjars are poorly served by the JFM framework (Gooch 1999). Another example would be the groups fighting for land rights in MP and AP, including members of the National Alliance for People's Movements and the People's War Group (Committee of Concerned Citizens 1998; Jan Sangathan 1996). At the national level, groups that are not funded by the GoI provide a variety of critical perspectives. On occasion SPWD itself has raised objections to aspects of policy, but more important critical voices have come from the Centre for Science and Environment (CSE) and from the Indian Social Institute (ISI), which co-ordinated NGO views on the National Forest Bill. Both CSE and the ISI criticise JFM for not offering more rights to the rural poor.

Questions of governance relate closely, therefore, to more diffuse issues of agency and influence. The FD emphasises the role of its own staff in extending a hand to villagers and bringing about a change in relations. By contrast, NGOs, activists (and several academics) all stress more the role of popular action outside the FD, in allowing villagers to gain some degree of control over forest management. But large differences persist in their views on the extent to which community management can be an alternative to state management. Some tend to see community involvement as one stage in the long struggle by local communities to regain control over their proximate natural resources—control that was robbed from them by the colonial and post-colonial state. Others make a distinction between community forest management and JFM, with the latter being seen as a compromise with the state, or even a sell-out. More enthusiastic supporters, however, see JFM as a harbinger of new social forms and modes of collective action (see also Poffenberger and McGean 1996). As we shall

see in the next section, opinions on the objectives of JFM vary along similar lines.

Knowledge: Rethinking 'Scientific Forestry'

The knowledge domain has the potential for perhaps the most dramatic changes. Problem definition in the knowledge domain tends to focus rather simplistically on the intrinsic and ongoing problem of inadequate knowledge about the real world, which is infinitely complex and constantly changing. World wide, traditional forest research has emphasized local issues relating to timber productivity, rather than the much broader and sectorally diverse factors influencing forests and forest use (Sayer 1997: 1). In the annual status reports on forests and environmental processes at national and global levels (for example, CSE 1999; Food and Agriculture Organization 1999; Forest Survey of India 1998) the overwhelming emphasis is on providing more information about biophysical conditions and processes, rather than on discussing actual or potential use and non-use of available information.

Not surprisingly, official forestry agencies tend to address knowledge gaps that are relatively easily compartmentalized so that they can show progress; hence the preference for comparatively reliable and static biophysical knowledge over more controversial and subjective social and political knowledge. Worldwide, however, knowledge theorists are increasingly noting that the key constraints to application of knowledge lie not in the availability of information, but rather in the effective management and application of knowledge (Davenport and Prusak 1998: passim; World Bank 1998: Chapters 10 and 11). Indeed, 'knowledge, unlike information, is about beliefs and commitment' (Nonaka and Takeuchi 1995: 58). Crucial knowledge problems and challenges, that is, reside in knowledge paradigms and in the organization of access to knowledge. In Indian forestry, the key paradigmatic problem has been the overwhelming influence of the assumption that 'scientific forestry' is primarily about trees rather than about people.

There are probably few people left who would deny that the former emphasis on biophysical knowledge is a grossly inadequate basis for knowledge management and knowledge application in the forestry sector, particularly in a country such as India where the spatial segregation of people and forests is, in most areas, a manifest impossibility. Yet, to judge from the curricula of India's various forest training institutions, new recruits into the Indian forest administration could still, in the year 2000, be forgiven for assuming that their performance would be judged

primarily on the application of biophysical and not economic, political or social knowledge.

For a variety of reasons, 'scientific forestry' has been a singularly inappropriate description of the approaches actually taken to forest management by forestry professionals in India. Even under its practitioners' restrictive understanding of 'science' as pertaining to biophysical matters, it has never been convincing, since attention to ecological processes has been inadequate. The application of biophysical scientific principles to forestry has been inconsistent. In the colonial era in Bengal, 'scientific forestry' was inadequate as a system of knowledge, was inadequately applied, and was ill-respected 'because many other colonial elites remained unconvinced of its scientific pedigree' (Sivaramakrishnan 1999: 3).

No doubt one of the main reasons for such inadequacies has been the cold-shouldering of socio-economic and political dimensions that would be required of truly scientific forestry research. The restriction to biophysical dimensions means that forestry research, training and practice in India (as indeed in the rest of the world) traditionally did not even aspire to be scientific in the broader sense of the quest for knowledge. World-wide, forestry is one of the least scientific of all technologies. Research investment in the forestry sector tends to be less than 1 per cent, compared with 2–3 per cent in agriculture and 10–30 per cent in advanced-technology corporations (Sayer 1997); in India, the recent World Bank forestry country study found research to be seriously under-funded and poorly co-ordinated and targeted (Kumar *et al.* 1999: 34).

Nonetheless, the term 'scientific forestry' has a long and important tradition as a label used by foresters to describe what they do and what they profess. Its meaning and significance remain shrouded in some ambiguity. Although the claim to 'science' is to a set of institutionalized ideas that transcend the nation-state or other parochial identities, the bearers of that science may bring specific versions with them. Grove notes, for example, that in the Bombay Presidency, Maratha, Scottish, and French methods of forest conservancy were replaced after 1865 by German forestry 'science' (Grove 1998b: 192), which viewed the importance of forests solely in terms of their contribution to raw materials for consumption (Rajan 1998: 334–5). The founder of the Indian Forest Service, Dietrich Brandis, based his work on three implicit principles of German forestry: 'minimum diversity, the balance sheet and sustained yield' (Rajan 1998: 345). These particular aspects of German forestry were not applied rigorously and in an unchanging fashion. It became clear, for example, in teak forests, that a variety of species might contribute to

teak growing straight and with a minimum of branches; and sal could not easily be planted, and required different management regimes. Brandis himself was an advocate of village participation in forest management in small pockets (Guha 1996). But in the main, Brandis, and his successor, William Schlich, the author of the *Manual of Forestry*, a textbook which dominated training and practice from the 1880s to the 1920s, institutionalized the close connections between the trio of science, revenue and control: the use of scientific methods to maximize revenue in conditions of state control.

In common parlance, scientific forestry refers to the attempts by foresters to select plots and to plan their use, in terms of species selection, planting patterns, cutting programmes (including coppicing), etc. Foresters believe they know better than untrained locals which trees will grow well on particular sites, in what combinations with other trees or plants, how they should be planted, when they are to be cut back, how weeding should be carried out, and so on. Scientific forestry thus enjoyed mutual reinforcement with both revenue-orientation and state custodialism: the science is derived from close study of a few major tree species, the principles should deliver regular quantities of timber for felling; and the success of the programme depends on (preferably) excluding or (if necessary) regulating other human interventions, whether in the form of grazing animals or lopping trees for firewood.

Scientific forestry in India was constructed as part of the colonial project of modernity, which, in Foucault's phrase, was 'an exhaustive ordering of the world' (Foucault 1973: 75). As forest dwellers were classified into tribes and groups of tribes, using techniques of anthropometry (Bates 1996; Crooke 1896), so 'forests themselves were arranged in categories by dominant genera and species. Such descriptions and the laying down of taxonomic structures to represent biotic communities presaged colonial development projects in which human and natural resources were harnessed for imperial purposes' (Sivaramakrishnan 1995: 6). As part of this process, villagers' practices were construed as ignorant and the causes of ecological misfortunes (ibid.: 7). In the Dangs, for example, after more than 50 years of hostility to the Bhil practice of setting fire to large forest tracts, in 1907 the then Divisional Forest Officer (DFO) implemented a scheme that reduced the area traversed by fires to less than 5 per cent. Villagers were relocated and prevented from migrating every few years, shifting cultivation in the teak forests was strictly forbidden, and the use of timber ash as fertilizer was minimized. Thus the introduction of 'scientific forestry' remade the modes through which peasants interacted with their environments (Skaria 1998: 618–21).

Skaria (1998) and Rangarajan (1998) argue that 'scientific forestry' was neither totally subservient to the revenue and strategic needs of empire (as Guha 1983 seems to suggest) nor that FDs were guided solely by scientific theories of the influence of trees on the environment and climate (as Grove 1995 seems to suggest) (Rangarajan 1998; Skaria 1998). Modern forestry science in India dates from the 1870s, and found its first major expression in the 1878 Forest Act. Science was to be used to demarcate promising tracts of land and close them against interference. The consolidation of 'science' as applied to forests in India was the creation of Working Plans, designed to impose intensive systems of control over forest areas, in place of the more extensive approaches of the mid-nineteenth century. Working Plans required surveys, establishing what existed, assessments of what might be possible with the existing limitations of water supply, soil types, climate, etc., and plans for how this might be achieved. They also required finance and staff to implement them. These plans were often detailed and made predictions or projections that planned in detail a rotation of felling and replanting, often for twenty years ahead, and some might look forward as much as fifty years. While the main objective was to maximise the production of timber of marketable size and shape, a secondary one was to ensure the reproduction of valuable trees as the dominant species. In all of these plans, a scientific terminology was employed to explain and justify proposals to fell unmarketable species, to fill gaps with planting, or (less often, since it offered less certainty) by allowing regeneration through protection. By the 1980s, almost all the land in the main states was covered by working plans, the major exceptions being in the north-east states (including Assam) where only 17 per cent of forest area was covered in 1987; in only 15 per cent of the area could the Forest Survey of India see adequate natural regeneration (Forest Survey of India 1988). However, during the 1980s and 1990s working plans received far less attention than previously, notably because FD silvicultural effort was mainly focused on Social Forestry schemes outside forest areas (Kumar *et al.* 1999: 8); as a result, most working plans have been neither updated nor operational for many years.

The failures of scientific forestry are manifest in the failure to maintain the strict sequencing of cutting and planting, but it would also be true to say that by the 1980s the 'science' had long been replaced by administrative rule-following behaviour. In either case, most forest divisions included forest lands that bore little relationship to the working plan descriptions. Using aerial photography and ground-level verification, in

the 1980s the National Remote Sensing Agency began to provide more detailed estimates of kinds of vegetation (Forest Survey of India 1988). These showed a dramatically lower extent of ground cover by good forest than had been claimed by the FD until then.

In assessing the extent of the shortfall, the attempts to gather reliable data on the extent of tree cover and its loss has often been bedevilled by classificatory problems, quite apart from the question of the accuracy of biophysical information. Discrepancies between FAO and Forest Survey of India estimates are particularly striking, for example, with the former assuming major recent increases in overall forest cover due to increased plantation area, and the latter implying that good forest cover could have declined to as little as 4.5 per cent of India's total area (Forest Survey of India 1988: 5–6). For many years, 'forests' in India were defined as 'that land owned or managed by the FD'. As a result, it was possible to be shown patches of land defined as forests but which were desert, or under settled agriculture, or were scrub-land of one kind or another. (Equally possible, of course, would be to see groups of standing trees, either in single-species plantations or mixed woodlands, which were not regarded as forests because they were on private or panchayat land.) In October 1985, the National Remote Sensing Agency reported its estimates of actual forest cover from 1972–5 to 1980–2, suggesting a 16.5 per cent reduction from 555,180 square kilometres to 463,470 square kilometres, or 91,710 square kilometres in a seven-year period (Forest Survey of India 1988). At 2.5 per cent per year, this seemed to provide ample evidence for the failure of scientific forestry in the 1970s.[10] The report that actual forest cover was possibly nearly 200,000 square kilometres less than the amount of land owned by the FD suggested that its policies were in serious trouble.

Ethics

Despite ranking low in the priority of global environmental concerns, Indian forestry has attracted substantial funding from foreign donors who liked the change in India's forest policy and were willing to invest heavily in its implementation. India's huge forest bureaucracy is able to absorb foreign donor funds, and the country is comparatively stable, democratic, and has been favouring the kinds of macro-economic reform programmes promoted by major international lenders and donors (World Bank 1991a: xii). Although the rationale and negotiations underlying most global environmental negotiations may be far from ethical (getting Southern nations to bear the costs of degradation, and laying claim to their

biodiversity while patenting applications flowing out of them), at least ostensibly, these agreements are conducted in the humanist language of a 'shared world' (Gupta 1999: 291–313).

Nationally, JFM is appealing in the way that any form of democratization is appealing: most people believe that its outcomes will somehow be more just than what went before. A former Inspector-General of Forests refers to JFM as a 'silent social revolution' which is 'liberalizing and feminizing forestry', and has helped FD staff to feel 'oneness with society' based on 'a concept of social justice and distribution of rights' (Ahmed 1997).

The ethical domain has had an unsteady career in the history of forest management, but for the most part has until recently, barely registered as worthy of discussion compared with the other four domains. Ethical questions did figure in nineteenth century debates about whether or not the colonial state would contribute to a greater overall good by wresting control over forest areas from local people as noted in the above discussion of the Baden-Powell–Brandis debates. The first Indian Forest Act in 1865 allocated top priority to 'national welfare' and second priority to people living in and near forests, but in practice the concept of 'national welfare' promoted Crown interests. In the 1894 forest policy (paragraph 9) it was urged that 'people must be protected against their own improvidence' (Jha 1994: 33), thereby justifying expropriation in moral terms, though many would argue that the civilizing mission which underlay this was far from ethical. Ethical concerns have also figured in various ecological resistance movements since then (Guha 1989: Chapter 5). But it has only really been since the 1970s that the ultimate justice of forest management regimes has been questioned, as opposed to their biophysical impacts, their profitability, their bureaucratic feasibility or their scientific rationality.

This change is closely linked with the changes in the governance domain, since the increasing prominence of civil society actors in the making and implementation of forest policy is, to a large extent, based on assumptions that they are more reliable and legitimate arbiters of justice than state or private sector agents. It is also, more fundamentally, linked with increasing global awareness that the ultimate test of whether national and international policies are doing their job is whether or not they reduce poverty and inequality.

Key ethical concerns that have emerged in the forestry sector in India include the following:

- How to design forest management so that it can contribute to poverty reduction.

- How to optimize the trade-offs between the needs of poor forest neighbours, other poor people in rural and urban areas, and the industrial forest-based economy.
- How to balance the rights of contemporary populations against those of future generations.
- How to prioritize between 'subsistence' and 'commercial' use of forest products.
- How to manage trade-offs between the 'rights' of humans and wild-life.
- Whether JFM will reduce or exacerbate gender and other forms of inequality at local levels.
- How to ensure that pragmatic and ethical desires for equal access to forest benefits under JFM arrangements do not compromise the need for incentives in the form of linkages between effort and reward.
- Whether the reforms of forest services associated with JFM can reduce the structural inequalities within FDs, particularly by reducing the very glaring gender inequality, but also more generally, making FDs more democratic institutions and fairer places to work.

Among these ethical concerns, official policy statements, project documents, and academic analyses have predominantly addressed poverty and gender inequality at village levels rather than addressing the much more complicated broader ethical questions. For example, the 1988 National Forest Policy Resolution repeatedly mentions the need for all forest management to prioritize the 'basic needs' (itself a restrictive concept with ethical implications) of 'tribal and other poor people living in and around forests.' The Resolution omits all discussion of whether or how policy implementers should balance these priorities with others, and fails to note that basic livelihood strategies of very poor people may well involve commercial extraction and sale of forest produce. More important, however, ethical dimensions are almost always discussed only indirectly and implicitly, if at all. Ethics, for example, does not formally enter into any of the training modules of Indian foresters despite their apparent role as paramount arbiters of justice and allocators of benefits throughout 23 per cent of India. Ethical implications of policies and actions promoted for apparently technical or pragmatic reasons therefore need to be teased out.

CONFLICTING OBJECTIVES

The label 'Joint Forest Management' thus begs numerous questions about what different people understand by each of the three components in the

term. Clearly, JFM implies new partnerships, procedures, and organizational forms, but it does not point precisely to any particular kind of *strategy*, nor does it imply any particular set of *objectives*. In Chapters 3 and 4 we consider the problems associated with the terms 'joint' and 'forest'. Here we are concerned with a small percentage of the problems raised by the notion of 'management'. Specifically, what objectives should that management (if it were achieved) be oriented towards?

FDs have generally acted as if it were possible to narrow down their objectives to two: conservation and timber production; the rights of local forest-dependent people have generally been seen as in conflict with these two simple goals. However, the general public, NGOs, foreign donor agencies, state governments, and the MoEF no longer allow FDs the luxury of such a simple view of their business. Since 1976, with the rapid rise of first Social Forestry and then JFM, foresters have been given a bewildering multitude of additional responsibilities: radically revising partnerships between government and villagers; promoting gender equity and social equality more generally; peace-making in areas of resource conflict; and most fundamentally of all, eradiçating rural poverty.

The National Forest Policy Resolution of 1988 offers a list of 'basic objectives', that can be divided into four overlapping kinds: environmental, livelihood, social and national (MoEF 1988: section 2.1):

- The *environmental* goals include the maintenance of environmental stability (also called ecological balance); conserving biodiversity (also referred to as maintaining a 'gene pool resource'); checking erosion, the spread of sand dunes, and the denudation of river catchment areas; and generally increasing tree cover.
- The *livelihood* objectives include the provision of fuelwood, fodder, minor forest produce, and construction timber, in relation to forest carrying capacity, to tribals and other rural groups, and encouraging the use of alternatives—particularly alternatives to woodfuel. Village and other community land should be turned over for the development of tree crops and fodder resources; shifting cultivation is to be discouraged, but people are to be encouraged to practice tree farming and grow fodder crops on private lands. Forest departments and forest contractors should employ tribal people in forest management.
- The *social* objectives include the creation of a people's movement, fully involving women; the replacement of forest contractors where possible by the use of co-operatives in forest management; and changing the attitudes of users of forests so that they identify with the protection and development of the forests on which they depend.

- All of these fit into some general, overarching *national* objectives: maintaining one-third of the country under forests or tree cover, and two-thirds of hilly and mountainous areas; increasing the productivity of forests; increasing the efficient use of forests; maximizing the substitution of wood as a product; and discouraging the conversion of productive agricultural land to forestry.

The circular of 1 June 1990 subscribed to the 1988 policy and paved the way for a rapid development of JFM by relating to just one instrumental objective: 'Involving of village communities and voluntary agencies for regeneration of degraded forest lands' (MoEF 1990). Among the means of achieving this instrumental objective are new partnerships between villagers, NGOs, and state FDs, culminating in agreements on local Working Schemes and Memoranda of Understanding (though without any transfer of 'ownership or lease rights'), and implementation of these; new rights for villagers to share produce; payment of villagers for nursery and plantation work on degraded forests; total prohibition of grazing and agriculture from forest areas protected by villagers under these agreements; prohibition on benefits going beyond villagers to 'commercial or other interests'; careful supervision by FD, who retain the right to withdraw the contract if villagers or NGOs fail to ensure adequate protection.

These objectives, while laudable, raise several difficulties for those who might wish to implement them. One is the lack of a distinction between ends and means, so that targets tend to be mistaken as ends in themselves, whether it be the area of forest conserved, the amount of timber produced, or the number of Village Forest Committees formed. Difficulties also arise from inadequate distinction and analysis of intrinsic focal problems, causes (root and intermediate), and symptoms. For example, it is intrinsically problematic for women if they have difficulty preparing meals. Fuel-gathering is one intermediate component in this challenge, not an intrinsic problem. The objective of reducing women's workload might be met by other means, such as improving the efficiency of stoves, or by replacing woodfuel with kerosene or electricity, or by persuading men to share the work more evenly. Another example is the so-called 'degradation' of forest areas, which foresters so often assume to be intrinsically problematic, but in reality, only makes sense as a problem in relation to specific objectives for maintaining specific kinds of forest for specific purposes. A third difficulty is that instrumental objectives differ not only among stakeholders but also over time. Meeting livelihood objectives through increasing the productivity of a forest area might lead those groups that initially engaged in forest management and

protection to meet their subsistence needs wanting to shift towards market orientation as this becomes more feasible. Even at the comparatively simple level of micro-planning by a user group, both personnel and objectives are likely to change.

Thus, while the 1988 NFPR and the Circular of 1990 list many objectives, it is not clear how these are understood in relation to each other. Furthermore, even on the crude distinctions we have made above, it would be easy to see how different stakeholders would prioritize one set of objectives over others (with environmentalists likely to prioritize the environmental objectives, forest-dependent people the livelihood objectives, NGOs the social objectives, while the FD is likely to be judged on all of the objectives). Those who see conservation of forests as an end in itself tend to see the reduction of poverty among forest-dependent people not as a worthy end in itself, but as a means to achieve conservation by reducing human biotic pressure on forests. For foresters, people's participation in JFM may have primarily instrumental value, as the new strategy for ensuring that forests are well managed. For the activist, on the other hand, people's participation in processes that affect their lives is an important ultimate objective, since meaningful participation is a vital part of what constitutes quality of life. Of course, the prioritizing of these objectives—and the objectives themselves—may also change over time.

CONCLUSION

The above analysis of problem definitions, objectives, and criteria suggests that for the foreseeable future the Indian forest administration will suffer a plague of uncertainties about what it ought to be trying to achieve, and with whom and for whom it should be trying to achieve it. At the risk of some simplification, we could compare the expectations held of foresters by their superior officers and the general public, until the late 1980s and in the late 1990s. In the first period, most members of a FD could go about their business reasonably confident in the belief that their job was to maintain particular quantities of conservation and production forests, to make a profit except where conservation was the objective, to ensure observation of the rule of law in forest areas, and to apply expert biophysical knowledge to forest management. Now these old certainties have been undermined and displaced, but it is not clear to what extent, nor what priorities such officials should follow.

State agents are not interest-free rational promoters of maximum utility for whole nations. Insofar as policy changes are related to

knowledge, it is not simple and objective knowledge about what works and what does not, but complex and subjective knowledge about a range of biophysical, economic, political, and social factors. The new Indian forest policies initiated in 1988 must be seen in part as a recognition of the political dangers which state agents risked by being seen to prioritize timber-based revenue and to give favours to large forest-based industries. From the 1970s on, those excluded from forests or the benefits of forest exploitation fought back, both in small-scale encounters with FD officials and through more sustained opposition to the Indian state in general, as in Jharkhand and by the People's War Group in AP. Evidence mounted of the failure of FDs to maintain the land under their control at acceptable levels of tree cover. The new policy orientation was a reflection of the failures of previous strategies and a recognition that political capital could be earned with intellectuals and environmental NGOs as well as with international donors, by adopting the new approaches. (In many cases, the FD was pre-empted, for example, in Gujarat, Orissa, and AP, by groups that had already taken to managing their own forests.)

Forest policy has clearly been shaped by a wide range of macro-economic and political factors, such as India's attempts in the 1950s and 1960s under Nehru to establish a modern social democratic industrial nation-state in the face of the steady growth of globalised capitalism. In attempting to deal with the paradoxes of creating a state in a post-colonial world, the Indian elite poured considerable money and effort into prestigious projects (dams, steel mills, nuclear power plants and new cities): we should not assume that this elite project has been completely abandoned with liberalization and the collapse of the Congress Party, as the current stress on making India a nuclear state makes clear (Abraham 1998). Bureaucrats have seen forests primarily as sources of raw materials for the transformation of India into a modern industrial economy. Can the new stress on participatory management overcome this perception of their role?

Structural adjustment in India, particularly market liberalization (which has accelerated since 1991) has clearly influenced forest policy. But the spread of a capitalist market in forest products has been limited by the rising influence of ethical, environmental, and political considerations relating to contemporary and inter-generational justice (Jeffery *et al.* 1995). In the chapters that follow, therefore, we address the question of the extent to which JFM is part of the turn to civil society that has ostensibly characterized the new politics of the 1970s, 1980s and 1990s. Furthermore, since 'civil society' encompasses a range of objectives

for different actors—from the strong class and community institutions favoured by the new left to the privatization of state resources favoured by neo-liberals—we also use our case studies to consider the politics of the different groups engaged in JFM.

We now turn to the case studies that will illuminate these questions. In Chapter 2, we introduce the sites of our research at various levels—state, division and village. We felt that differences between states would be apparent through grounded knowledge of specific divisions and villages. In Chapters 3 to 5, we present the detailed findings.

Chapter 3 considers the experience of Joint Forest Management from the perspective of three aspects: community, power and choice. In terms of both the implicit assumptions of the JFM orders and popular expectations regarding it, JFM has introduced new parameters in these three arenas. We consider how 'communities' have been identified as important and essential actors in any movement towards regeneration of forest land; what kinds of changing relations, if not a shift in power, have taken place between FDs and village communities; and how villagers are ostensibly being given some choice or freedom in the manner in which regeneration will occur.

In Chapter 4 we consider the different ecological environments and dominant forest types of the four divisions, and past systems of management and access. These historical patterns are still of central importance today. The chapter then goes on to look at the effects of JFM on use practices today, and the differential impact on villagers of different castes, classes, genders and distance from the forest. We classify these uses into three categories based on foresters' views of them: FD–tolerated interference (collecting fuel, grazing and fodder, and small timber for house repairs), FD–approved involvement (collecting NTFPs and working for the FD), and FD–disapproved practices (smuggling, encroachment and shifting cultivation). We show that JFM does not represent a significant departure from conventional forestry.

In Chapter 5 we move beyond the level of the individual villages and their JFM agreements, and focus on the following three sets of questions: what evidence is there that the FD staff are willing to make the necessary changes in their relationships with people living in and around forests, and their attitudes towards NGOs, and have internal administrative procedures changed sufficiently to allow this to happen? What kinds of relationships have developed between NGOs and FD staff, and to what extent are NGOs capable of contributing to the JFM strategy? What are the intentions of international donor agencies and how far have they been able to influence the process of change?

In the conclusion, we come back to many of the questions raised in this introduction, of the difference between explicit policy regarding JFM and implicit policy—what has actually been happening, and how might we expect JFM to develop, wither or die. Looking at JFM in the light of general processes of capitalism, and past experiences of scientific forestry and revenue custodialism, gives us an idea of what JFM means in practice, and how its outcomes differ from explicit policy goals.

NOTES

1. This letter was drafted by two unusual civil servants then in MoEF—S.S. Rizvi and Samar Singh—who later joined the NGO sector and actively promoted people's involvement in forestry and conservation.

2. Mahesh Rangarajan (1996) makes a strong plea for the need to take a provincial view of the effects of legislation under the British: much the same case for disaggregation can be made in the contemporary situation.

3. Sivaramakrishnan (1996d) provides the historical context in which this 'new community' of foresters and villagers occurred.

4. In the late eighteenth and early nineteenth centuries, by contrast, India's forests were central to scientific debates over the impact of deforestation: see Grove (1998a).

5. 'Forest villages' were common in all the states: originally founded by the Forest Department as labour reserves, the inhabitants had limited rights to land for cultivation, and were usually obliged to work a minimum number of days for the FD, often in lieu of paying rent. In response to longstanding demands by activists that these villages be converted into revenue villages, some forest departments (for example, MP) have applied to the central government for permission to do so, since the Forest Conservation Act of 1980 prohibits conversion of forest land to non forest use without central government permission. However, the Government of India has refused, possibly again because of their obsession with the official quantity of forest cover.

6. These figures exclude the contributions of Manipur and Nagaland, for which no data were given. Shares vary quite substantially from year to year, but data are incomplete, and these figures cannot be regarded as typical.

7. *Nistar* refers to rights of local people to collect forest produce, or (in the case of MP) to buy specified amounts of firewood, house-repair poles or other non-timber forest produce for personal use below market prices.

8. Guha (1988) provides an ideological classification of environmentalists in India.

9. Like Samar Singh and S.S. Rizvi, they are part of a small group of former civil servants who actively believe in popular participation in governance.

10. The 1980–2 figures were subsequently revised by the Forest Survey of India, so that figures for open forests were increased from 100,592 sq. km to

276,583 sq. km. The Forest Survey thus claimed an overall *increase* in forest cover in this period. Current FAO estimates suggest a rising trend of forest cover from 1967 (the earliest figures cited) to 1980, a nearly 1 per cent decline in forest cover from 1980 to 1988, followed by a return to a rising trend of about 0.28 per cent per year (Food and Agriculture Organization 1998). But confidence in the Forest Department was undoubtedly weakened by the earlier report. The issues of 'how much forest is there' and 'what kinds of forest are there?' remain highly contested (see, for example, Agarwal 1997a).

2

Contexualizing Joint Forest Management in Specific Sites

While the previous chapter charted the evolution of JFM policy in relation to trends in economic and political development at national and international levels, this chapter describes how JFM policy initially took shape at the state level. Each state had its own logic in terms of adopting the resolution, and the forms that JFM has taken are, correspondingly, quite different. To ground this understanding in practice, we felt it necessary to look at JFM not just at the state, but also at the division and the village level. This chapter introduces the sites of our research: the four states (Gujarat, Madhya Pradesh, Orissa and Andhra Pradesh); a forest division in each one (Rajpipla West, Dewas, Sambalpur and Paderu), and of four villages in each forest division.

SITE SELECTION

We selected four research settings across central India, in the light of criteria that included ecological, institutional and socio-cultural variables. We felt we should cover a range of ecological settings; states where forest management plays particularly important roles in reduction of poverty and promotion of rights; and states with and without substantial foreign donor and NGO involvement in forest management. We avoided settings where other research was already being carried out, owing to resistance from NGOs or donors like the Department for International Development (DFID) who warned us off Himachal Pradesh and Karnataka. The choice of the central Indian belt was in part suggested by Jeff Campbell of the Ford Foundation, who pointed to the overlap between

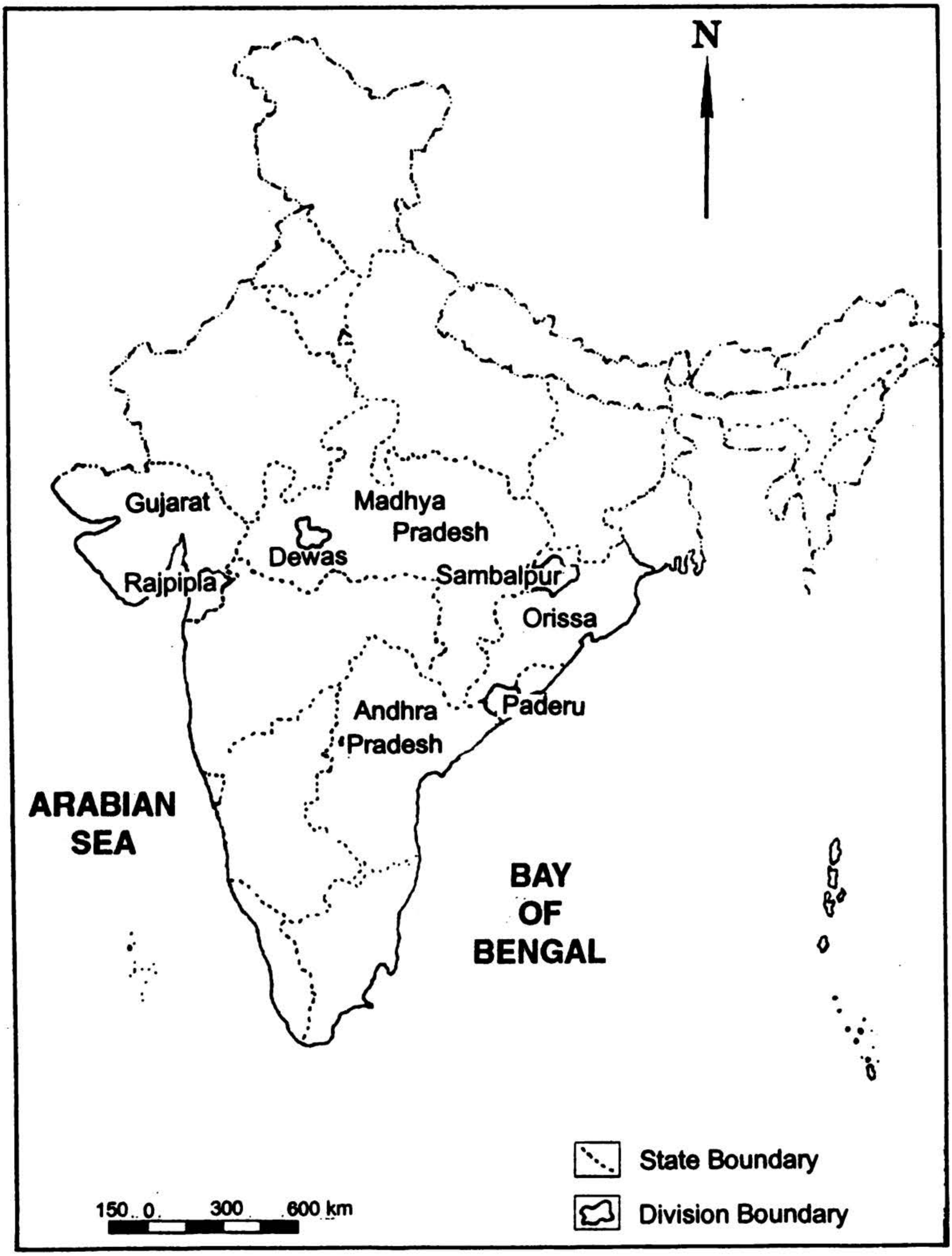
forest areas, *adivasi* populations and poverty figures in this area (for a map of this, see Poffenberger and McGean 1996: 52). This also meant that we would be able to bring out more clearly the difference caused by institutional arrangements in what is a relatively homogeneous central ecological belt.

Within this, we felt that Madhya Pradesh must be included, having the largest FD in the country. Both Madhya Pradesh and Andhra Pradesh had large World Bank forest projects, with substantial JFM elements, including money for organizational restructuring and training of forest staff. We then looked for two states with no significant donor funding of JFM. Gujarat appeared interesting for its strong history of NGO involvement in participatory approaches in forestry; and Orissa, because it has a long history of community forest protection and an apparently very rapid creation of forest protection committees after the JFM orders were passed. In Orissa the FD was weak and ill-equipped to take on the massive work of forming forest protection committees entailed by the state government resolutions, and this left a space for local communities to develop their own methods of forest protection.

The choice of states thus provided a considerable range in the institutional strengths of the respective FDs, their orientation towards JFM, and the amount of money available to them for implementing JFM. There are also major differences in the strengths of the village communities, their ability to overcome internal differences, their ability to liase with the FD, etc.. These variations in the power of the department and its relation to other groups were reflected in the models of JFM followed.

The choice of particular divisions—Rajpipla division in Gujarat, Dewas division in MP; Sambalpur division in Orissa; and Paderu division in AP—was motivated by more local factors, and a similar attempt to provide a mix of variables. These included the length of time that JFM or other forms of local involvement in forest management had been practised; ethnically homogeneous and ethnically heterogeneous areas; the presence or absence of an NGO, the attitude of the Forest Department and the nature of forest cover.

Rajpipla West division in Gujarat was selected because it was part of Surat Circle, one of the earliest areas in Gujarat where the forest department had initiated JFM. Both the Vikram Sarabhai Trust (VIKSAT) and AKRSP were somewhat reluctant to have us work in their areas, on the grounds that they were doing their own 'process documentation.' By being located in Mandvi, we were close enough to include as a comparison, Bharada in Rajpipla East division, with a village committee initiated by AKRSP, but yet far enough away not to tread on anyone's toes.



Map 2.1: Selected Forest Divisions in India

Selecting a division in MP was much more difficult. In early 1995, the JFM programme was just beginning, and very little was known about its spread. There were no figures in Bhopal of protection committees in each division. Stray items of information filtered through. Jeff Campbell at the Ford Foundation showed us a letter from an activist in Shahdol, telling of his attempts to promote JFM. We heard rumours that there were thousands of committees in Sarguja; and glowing accounts appeared in the 'grey' literature that described Jhabua and Hoshangabad as having 'models' to be followed. We finally chose Dewas because it was one of the divisions taken up under the first phase of the World Bank project; because the same DFO who had initiated JFM in Jhabua had now been posted to Dewas;[1] and because very little research had been published on this part of Central India.

Sambalpur division in Orissa served our purpose because it was reputed to have some of the oldest examples of community forest management, and it had a local NGO, Manav Adhikar Sewa Samiti (MASS), working on forestry issues. On a personal note, we also received support from scholars at the university.

Paderu division in Vizagapatnam district, Andhra Pradesh (AP), was selected because the Vizagapatnam circle was thought to have a large number of committees and an active NGO, Samatha, engaged in JFM. Since it was an Agency or tribal area, where the normal state laws are not supposed to apply fully, it would give us an opportunity to study JFM within a different institutional setting. We were also interested in exploring how state rules made a difference to the practice of JFM, given a similar population and similar agricultural practices. Paderu thus afforded a good opportunity for cross-border comparison with Koraput in Orissa. Unfortunately, this aspect of the study could not be completed.

The choice of these four divisions gave us different ecological settings to observe JFM: in teak forests (Rajpipla and Dewas), in mixed forests without any commercially valuable species (Paderu) and in dominant sal forests (Sambalpur). (Table 2.1 summarizes some other salient features of the four States.)

Culturally, the four areas are diverse enough to make for interesting variation, yet not so diverse as to inhibit comparison. Rajpipla in Gujarat and Paderu in AP are both almost completely *adivasi* areas, yet there is a wealth of difference in the levels of political involvement and economic development in the two areas. A significant number of the farmers of Rajpipla have turned to cash crops like sugarcane, a few have profitable orchards, there are several government officials (Collectors and Deputy Commissioners) from the area and several lower-ranking FD staff are

local people. Not so for Paderu where despite three decades of Integrated Tribal Development Agency (ITDA) development assistance, shifting cultivation on already degraded slopes remains a crucial livelihood option and entry into the bureaucracy is rare.

TABLE 2.1
POPULATION AND FOREST INDICATORS OF SAMPLE STATES

Indicator	*Gujarat*	*MP*	*Orissa*	*AP*
Population in million (1991)	41.3	66.2	31.7	66.5
Urban proportion (1991)	34.5%	23.2%	13.4%	26.9%
Scheduled Tribes in million and per cent of state (1991)	6.2 (14.9%)	15.4 (23.3%)	7.0 (22.2%)	4.2 (6.3%)
Area (sq km)	196,024	443,446	155,707	275,045
FD area (sq km) and share of state (1993)	19,392 (9.9%)	154,497 (34.9%)	57,184 (36.7%)	63,814 (23.2%)
Actual forest cover (1993)	12,578	131,195	46,941	43,290
Actual forest cover as % of state FD area (1993)	62.11%	87.64%	30.3%	74.05%
Per capita actual forest cover in ha (1993)	0.03	0.20	0.15	0.07
Dense forest (1993) (sq km)	6369	95,537	27,151	25,008
Per cent of FD land with dense cover (1993)	33%	62%	47%	39%
% of forest which is:				
Reserved forest	71.3%	53.5%	47.4%	79.1%
Protected forest	5.1%	43.2%	52.6%	19.4%
Unclassed forest	23.6%	3.3%	0.03%	1.5%
Estimated timber production (1992–3) in cu. m.	194	569,000	48,373	41,633
Estimated no. of FPCs/VSSs*	488	12,096	2619	6575
Estimated area covered by FPC/VSS (000 ha)*	25.8	3666	332	1652

* AP figures for estimated numbers of VSS and area covered by VSS obtained from the JFM Unit as on 22.11.99; MP figures from the Ministry web-page, and include Eco-development Committees, Village Forest Committees and Forest Protection Committees; Orissa figures as cited in interview with PCCF Orissa, May 1997; Gujarat figures from SPWD (1998).

Source: Indian Council of Forestry Research and Education (1995) and Forest Survey of India (1998).

Sambalpur and Dewas both have heterogeneous populations—a mixture of *adivasi* and upper castes—but once again there is wide variation, both within the districts and in comparison to each other. Part of Dewas is industrialized with stratified villages, while the hilly regions to the south (towards Nimar) are more forested with comparatively egalitarian tribal villages. Sambalpur still has an old feudal atmosphere, born partly of the various *zamindari* areas that add to the make up of the current district. Brahmans are dominant in several villages, though a variety of tribal groups, and some scheduled castes, also hold their own. Despite its proximity to the industrial belt of Rourkela, Sambalpur retains a largely agricultural economy.

Within each site, four villages were selected to provide a perspective on different institutional arrangements, and different criteria for evaluating success in JFM. In each area, the FD was asked to name its most successful example of JFM, and to nominate another for comparison. We wanted one village where an NGO had been active in initiating JFM in order to compare its functioning to one initiated by the villagers or the FD; and finally, one village where JFM had not been started at all (see Table 2.2). This would facilitate comparison, helping us to hypothesize counterfactual scenarios concerning what forest use would have looked like if JFM had not been implemented.

TABLE 2.2
VILLAGES SELECTED FOR INTENSIVE STUDY
BY CRITERION OF SELECTION AND FOREST DIVISION

Divisions	*FD-initiated*	*FD-nominated*	*NGO-initiated*	*No JFM*
Rajpipla, Gujarat	Makanjhar	Kalibel	Bharada	Kevdi
Dewas, MP	Mohada	Pardikheda	Neemkheda	Lalakhedi
Sambalpur, Orissa	Patrapali	Lapanga	Khudamunda	Larasara
Paderu, AP	Kilagada	Seekari	Gonduru	Bokkellu

The sites selected proved, of course, too complex to package neatly into categories. For instance, in Sambalpur none of the villages fell into the category of successful JFM villages initiated by the FD. The longest-standing example of protection in the district was village Lapanga, where protection is said by local villagers to have been initiated almost 100 years ago by the then village leader, Sudam Sahoo. In the only case among our sites where an existing Forest Protection Committee (FPC) had also been registered as a Van Suraksha Samiti (VSS) under the 1995 Orissa Government resolution, the FD had merely adopted an existing committee

rather than starting any new programme on its own. In Dewas, in the only village where there was any NGO involvement in forest management, JFM collapsed because of the threat an NGO-initiated committee posed to the lower forest staff and disgruntled elements in the village.

Nor did the classification by initiation prove particularly useful in explaining either the particular trajectory of JFM in a village or its effective functioning. Contrary to the hypothesis that NGO initiated JFM is better than that initiated by the forest department, because an NGO is able to invest more time and resources into a smaller number of villages or because NGOs are more alive to local inequities, we found no appreciable differences. Except for the Aga Khan Rural Support Programme (India) AKRSP(I)—which has made a conscious effort to create a cadre of women extension workers, women were severely underrepresented in most of the other NGOs. Forest department staff are often as aware of local inequalities as NGOs, though their desire and capacity to redress this may vary. In the end, moreover, the problems were such as could only be ironed out by the forest department—relating, for example, to the apportionment of land to be protected, availability and management of funds—and NGOs could only play a mediating role in this. NGO-initiated JFM is an alternative to FD-initiated JFM only in the case of larger NGOs like AKRSP which can fund afforestation programmes on their own—and then they, in turn, run the risk of becoming bureaucratic.

As can be readily seen, the individual villages were not a representative sample, and they do *not* provide data that can be generalized to the forest division, let alone to the state. The detailed village studies were, rather, carried out in order to ground our observations of processes at work within the forest administration in general. Although we collected some basic ecological monitoring data, we do not report it here because no baseline information was available, and in many cases JFM is too recent for ecological changes to be clearly established.

METHODS OF RESEARCH

The 'field' research lasted from approximately March 1995 till February 1997, with short trips back in 1999 and 2000. In the first few months, the researchers became familiar with FD staff and NGOs in the division, identifying village sites, collecting basic division and district statistics and conducting preliminary archival work. Participatory Rural Appraisal methods were used to elicit villagers' cognitive maps of their environment, both in socio-economic and resource terms, and to gather some idea of the past history of forest extraction and management in the village.

The preliminary information on wealth indicators and ranking in the village was then used to prepare a stratified sample for a structured house-to-house census, which was carried out in fifteen of the sixteen villages between January and June 1996. The census included information on household structure, occupation, education, income, expenditure, livestock, and use of forest products.

Each team (2 researchers per division) also maintained informal contacts and conversations with villagers, the FD and NGOs, observed village committee meetings, intermediary thinnings in protected patches, and a variety of other events that impinged on forest use and management. Collection of documents, working plans, and some archival research proceeded simultaneously. Following the census, in the months September–December 1996 the teams held sustained focus group discussions with staff of NGOs, FDs, and villagers. After the monsoons in October, we were helped by Dr Ravindranath and his team at the Indian Institute of Science, Bangalore, to conduct a botanical survey to build up species checklists and assess the age/class distribution of important tree species as an aid to quantify the status of regeneration.

During the course of the research, each team visited other districts in their respective states to compare the situation with that in their own sites, and to gain a broader understanding of state-wide issues. This was also done through attending various state and national workshops and through discussion with other members of the JFM network. This allowed for differences between the four divisions to be clarified, and to act as the basis for further inquiry. Finally, we collected data on the wider policy-making framework, through interviews with Forest Ministry officials and donor agencies, and by attending a variety of workshops and conferences in which NGOs, government officers and representatives of donor agencies discussed the progress of the scheme and proposed revisions and extensions.

In the rest of this chapter, we provide brief sketches of forestry-related features of the four states, followed by that of the forest divisions, and then the villages. Summary data on the population of each village, major social groups in each division, land use data, and the protection methods chosen by each village, are provided in Tables 2.3 to 2.6.

GUJARAT

Most of Gujarat's forested area is to the east of the state, on the borders with MP, consisting of tropical dry deciduous forests of teak or of mixed species. Timber production is low. Out of 19,392 square kilometres

TABLE 2.3

POPULATION BY MAIN CATEGORIES FOR SAMPLE VILLAGES, 1991

State	*Village*	*Population*	*Male*	*Female*	*Members of Scheduled Castes (SC)*	*Per cent SC*	*Members of Scheduled Tribes (ST)*	*Per cent ST*
Gujarat	Makanjhar	474	239	235	0	0	474	100
	Kalibel	232	114	118	0	0	232	100
	Bharada	447	227	220	0	0	447	100
	Kevdi	253	130	123	0	0	253	100
Madhya Pradesh	Mohada	1261	659	602	0	0	1261	100
	Pardhikheda	551	280	271	227	41	0	0
	Neemkheda	746	380	366	10	1	659	88
	Lalakhedi	642	330	312	117	18	0	0
Orissa	Patrapali	254	121	133	60	24	143	56
	Lapanga	2050	1027	1023	319	16	630	31
	Baradungri	1709	872	837	94	6	1259	74
	Larasara	2723	1361	1362	720	26	740	27
Andhra Pradesh	Kilagada	1202	602	600	0	0	1132	94
	Seekari	626	291	335	0	0	622	99
	Gonduru	150	74	76	0	0	150	100
	Bokkellu	192	93	99	0	0	191	100

Note: Khudamunda is a hamlet of Baradungri revenue village.

Source: 1991 Census, except for Mohada (census conducted by research team)

TABLE 2.4
MAJOR SOCIAL GROUPS IN THE FOUR RESEARCH SITES

Division	*Social Groups*
Rajpipla West	Chodharis, Vasavasa, Gamits
Dewas	Sendho Rajputs, Balais, Chamars, Bhilala, Malvis, Bhopas, Muslims
Sambalpur	Brahmans, Sundi, Gond, Kulta, Harijan, Oram/Oraon, Munda, Gaur, Kewat
Paderu	Bhagatas, Valmikis, Porajas, Konda Dora, Gouds

recorded as forests in 1992, only 6,369 square kilometres had dense forest cover (Forest Survey of India 1998). At 15 per cent, the percentage of *adivasis* in Gujarat is higher than the national average (8 per cent). Most *adivasis* in Gujarat also live along the eastern belt.

The Gujarat JFM resolution was passed in March 1991, and subsequently amended in 1994. It provides for a state-level working group comprising representatives of four voluntary organizations in addition to seven members of the FD, to issue guidelines for the scheme from time to time. Its most distinctive feature is the requirement that the village organization, if it is not the *panchayat* (village council), be registered as a co-operative society (see Chapter 3 for more details). To set up an FPC, 60 per cent of the village households must be interested. The executive committee must have at least two women members, in addition to a panchayat representative and an NGO representative, where one is available. FPC members are entitled to free firewood, a benefit they get immediately. At the first cutback when beginning plantation or protection, they can buy any timber produced at half the scheduled rate. At the cleaning stage, they receive small timber free in lieu of wages, while at the thinning stage they get 50 per cent of the poles in lieu of wages (as of March 2000, in lieu of the 25 per cent they could expect earlier). The final timber is to be shared equally between the FD and the FPC, after deducting the costs of harvesting.[2]

In some respects, the Gujarat resolution simply followed the National Policy of 1990. However, it has various roots within the state itself. Unlike Madhya Pradesh and Andhra Pradesh, where World Bank pressure was significant in initiating the programme, Gujarat's JFM programme has received only small amounts of foreign aid (some through NGOs, and some through a Japanese forestry loan, of which less than 4 per cent was specifically earmarked for JFM activities).[3]

Among all the states, Gujarat had one of the strongest Social Forestry

TABLE 2.5

DISTRIBUTION OF LAND WITHIN SAMPLE REVENUE VILLAGES (in ha), 1991

State	*Village*	*Forested land*	*Total irrigated land*	*Unirrigated land*	*Cultivable waste*	*Area uncultivable*	*Total land*
Gujarat	Makanjhar	219	5	141	40	216	621
	Kalibel	230	2	290	45	4	570
	Bharada	331	0	46	13	4	394
	Kevdi	0	0	44	65	30	140
Madhya Pradesh	Mohada	78	0	189	38	0	305
	Pardhikheda	271	0	219	37	0	527
	Neemkheda	0	0	375	27	68	470
	Lalakhedi	93	115	106	20	19	353
Orissa	Patrapali	3	35	169	69	251	527
	Lapanga	518	205	8	222	448	1402
	Baradunguri	222	5	294	305	138	964
	Larasara	65	43	181	154	489	932
Andhra Pradesh	Kilagada	29	0	137	92	14	272
	Seekari	0	0	134	0	39	173
	Gonduru	0	0	27	6	25	57
	Bokkellu	0	0	28	0	6	34

Note: Khudamunda is a hamlet of Baradungri revenue village:'Forested land' includes only land within the revenue village boundary.

Source: 1991 Census for Gujarat and AP, Patwari records for MP and Orissa.

TABLE 2.6
PROTECTION METHODS BY VILLAGE COMMITTEES

Name of village	*Year protection started*	*Area protected*	*Method/Remarks*
Makanjhar	1989	300 ha	Rotational patrols of four or five persons; some all women patrols; watchman
Kalibel	1992	137 ha	Rotational patrols of four or five persons
Bharada	1994	80 ha	Watchman (JFM patch is distant from village)
Kevdi	1999	–	(When last visited, protection method and area to be protected had not been decided)
Mohada	1993	300 ha	First male patrols, then informal lookout, then FD-paid watchmen FD plantations on 320 ha, in practice informal protection of entire RF area of 2430 ha
Pardikheda	1992–3	300 ha	Officially, village appointed (in practice FD appointed) watchmen
Neemkheda	1996	60 ha	Initially male rotational patrol of 12 villagers, then no protection (60 ha allotted under Rajiv Gandhi Watershed Mission)
Lalakhedi	1999	–	Watchmen (When last visited, area to be protected had not been decided)
Patrapali	1981	290 ha	Male rotational patrols and watchman paid by village contributions
Lapanga	1900 approx	334 ha	Watchman paid through sales by FPC and fines; informal lookout by villagers
Khudamunda (Baradungri)	1978–9	40 ha	Formerly male rotational patrolling, now watchman paid through village contributions
Larasara	–	None	None (close to good RF)
Kilagada	1994	250 ha	Informal lookout and JFM funded watchman
Seekari	1994	100 ha	Informal lookout and JFM funded watchman
Gonduru	1994	250 ha	Informal lookout and JFM funded watchman
Bokkellu	–	None	None (close to good RF)

programmes, which ran from about 1980–5 with a budget of $67 million. Of this, a little over half was provided by a World Bank loan. The aim was to provide access to fuelwood and fodder for rural households. In practice, the farm forestry component was really successful, achieving double the target for land planted with commercially valuable trees between 1980 and 1983. Of the farmers who took to it, 87 per cent were small and marginal farmers, although the extent to which agricultural land was diverted for the purpose is debated. However, the plan to use community plantations or village woodlots to meet fuel and fodder needs was much less successful, meeting only 43 per cent of the target (CSE 1986: 52–4).

In 1993, only 62 per cent of forest land had 10 per cent cover or more, and the per capita forest area was only 0.03 hectares compared to a national average of 0.11 hectares (see Table 2.1). Excessive promotion of felling for encroachment as part of an election campaign had led to a ban on further felling on state forest lands. By 1986, most working plans had been suspended or had expired. In the meantime, there was considerable conflict between the FD and villagers over access to forests. According to a report by the then PCCF, Mr R.L. Java, before JFM started there were annually on average 18,000 forest offences, including 10,000 for timber theft, 2,000 for grazing, 700 for fire, etc. (Java 1995: 4). Between 1985 and 1990, there were 376 incidents of assault on staff of the FD, during which four foresters died, and eighty-six were seriously injured (Pathan, Arul, and Poffenberger 1991). In response to this the Conservator of Surat Circle initiated a series of meetings with villagers in which they were persuaded to start forest protection committees. The following story provides a localized account of how conflict changed to co-operation, narrated by the Range Forest Officer (RFO) involved:

A beat guard in Sadalvel division discovered some illegal timber at a villager's house. When his demand for a bribe was refused, he reported the illegal timber to the RFO and added an accusation of rudeness. The RFO proceeded to the village with several beat guards and in the ensuing fight a beat guard was killed, two others lost their eyes, and the RFO was badly injured. Seeing the FD's withdrawal, this and other villages grew bolder and increased their illegal woodcutting.

A month later, a new RFO threatened the village with a huge and unpayable fine in response to a new discovery of some ten truckloads of good timber hidden near the village. He listed names of 'bad characters' from old records, including the secretary of the FPC who had had a major role in the fight. A month later, after threatening court action, the RFO suggested a compromise: they would be fined first only for the offence (a minor amount, compared to the value of the

timber) and could pay slowly for the timber. He also suggested that if wood was required, it could be declared to the FD, who would only levy a fine for it. So the villagers could take wood for much less than its market value. In return, they would co-operate with the FD and help to protect the forest from other villages. The youth of the village were also interested in volleyball, so the FD issued a kit for the game. An informal FPC was set up.

This more friendly approach soon showed results. The villagers carried the poached timber free of cost to the main road and loaded it on the FD trucks, and later, in 1986, the villagers began informing the FD when they caught timber-poachers. Pleased with this co-operative example, the RFO arranged for the establishment of FPCs in 45 more villages

(Rajpipla, Gujarat: Monika Singh and Ajith Chandran fieldnotes, 10/04/1995).

Even before the official resolution on JFM, then, the Gujarat FD was moving towards some *modus vivendi* with the villagers, at least in some areas.[4] The JFM process in Gujarat was also significantly influenced by the presence of many NGOs, some of whom have been influential in shaping the discourse on natural resource management in India as a whole. In the forest sector, these include the AKRSP, VIKSAT, the Sadguru Water and Development Foundation (SWDF), the Bharat Agro Industries Foundation (BAIF) and Social Action Rural and Tribal Inhabitants of India (SARTHI) all of whom are engaged in professional service.

AKRSP has been an innovator in the use of participatory methods like PRA, as well as in community forest initiatives in Gujarat. Attempting to check the problem of both degraded forest land and a seasonal exodus of labour from local villages around Netrang (Bharuch district), AKRSP started plantation work on forest land, using funds from the National Wastelands Development Board. The first two villages where this experiment was tried out were Soliya and Pingot, working through Gram Vikas Mandals. This was later formalized when the JFM order was passed (Raju, Vaghela, and Raju 1993). AKRSP's former Director, Anil Shah, played an active role in framing both national and state level policy on JFM generally. VIKSAT set up Tree Growers Co-operative Societies in Sabarkantha, first registered in 1986, while SARTHI has helped villagers in Panchmahals who set up informal protection committees in the 1980s to get them recognized officially. In comparison to the other NGOs, Developing Initiatives for Social and Human Action (DISHA) another Gujarat organization, has a more activist approach to forest issues, campaigning for higher rates for NTFPs, protesting against atrocities on tribals by FD officials etc. (Iyengar 1998).

Apart from NGOs, Gujarat is famous for its strong co-operative movement, and is sometimes even referred to as the 'co-operative state'.

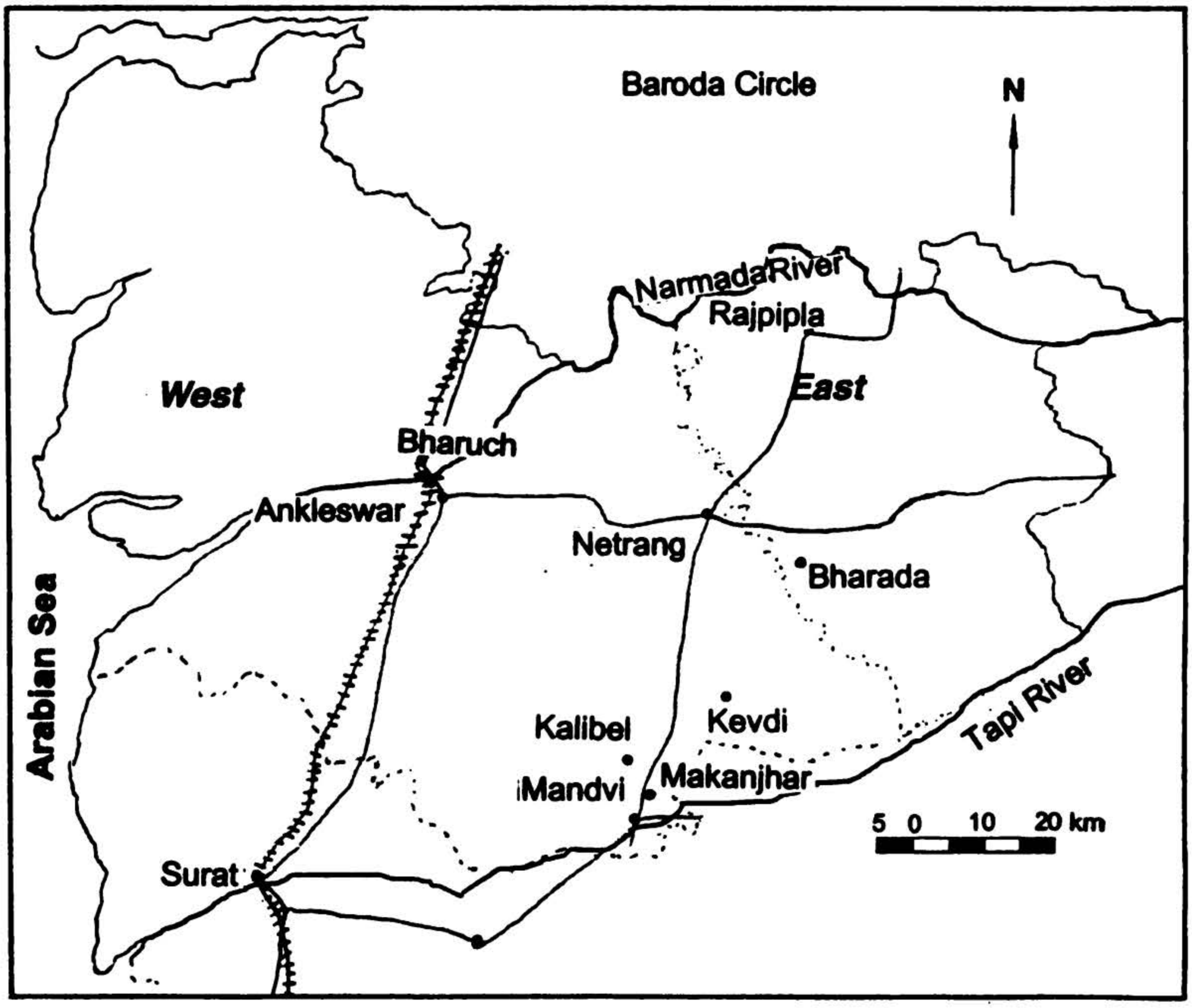
Forest Labour Co-operatives (FLCs), first set up by Gandhians in the 1940s, have become significant actors in the forestry sector. Before FLCs were set up, the forests were worked by private contractors, who would hire *adivasi* labour at miserable wages, and under terrible living conditions. By contrast, in addition to their wages, those working for FLCs also receive 20 per cent of the net proceeds from logging. FLCs initially invested the surplus in local schools and welfare activities for their members, but gradually became major instruments for processes of 'de-tribalization', and integration into the party political system. Leadership positions within FLCs served as important sources of money, patronage and political power, and contributed to new strata of tribal elites (Joshi 1998). In 1995 there were 134 FLCs with 93,000 registered members (Java 1995: 8).

Given the congruence of forests, tribes, and NGOs along the eastern boundary of the state, in a north to south axis, JFM efforts have inevitably been concentrated here (for this physical spread, see also Java 1995: 5). However, the most productive forests in the state—found in Valsad and Dangs, and the eastern part of Mandvi district—are marked by the absence of JFM. In the Dangs, FPCs were resisted by FLCs, which viewed them as serious competition to their control over the forest. This, coupled with a FD desire to check a nascent communist-led struggle, led to mass repression in 1991. Prospects for better relations between the FD and forest-dependent people were doomed for a while (Hardiman 1996: 122–7).

JFM in Gujarat is thus a result of several factors: the work of various NGOs; the successes and the failures of Social Forestry; chronic conflict between foresters and villagers which needed to be rectified; and a desperate need to check growing deforestation. In some places, the FD attempt to initiate FPCs was also born out of a need to regain competitive ground from NGOs. But the immediate impetus was the 1990 GoI resolution on JFM, which invited each state to follow suit with state level resolutions.

Rajpipla

Rajpipla West forest division is part of Surat circle, and is bound by the river Narmada in the north and the Tapti in the south. Most of our research was concentrated in two ranges, Mandvi North and South, in which three of the villages are located. These are also part of Mandvi taluka of Surat district. The fourth village, Bharada is part of Dediapada range in Rajpipla East division, and comes within the newly created Narmada district. Rajpipla Division was divided into Rajpipla West (covering



Map 2.2: Rajpipla (East & West) Forest Divisions, Gujarat

77,952 hectares) and Rajpipla East (covering 110,932 hectares) in 1972; the two divisions still share a common Working Plan (see Map 2.2).

The forests are predominantly teak, including both slightly moist teak forests (mixed deciduous forests with teak forming about 30 per cent of the crop) and dry teak forests (mixed dry deciduous forest with teak forming the major portion of the crop). The usual teak associates are also found: dhaura, saja, palas, and kurchi. Now eucalyptus is also a commonly planted exotic.

Before independence, the area under both the Rajpipla divisions was under the jurisdiction of four different regimes. Some forests belonged to the princely states of Rajpipla and Baroda, others to the chieftain of Sagbara (who came to a final settlement on his forests with the government only in 1970), while the forests of Mandvi had been under British rule since 1838 (Sharma 1994: 20–2).

Concerted efforts at forest management in Mandvi began only around

1860. In 1863 the management of the forests was handed over to the state FD and an Assistant Conservator of Forests (ACF) appointed in place of the timber agent, who had earlier held a lease. The first working plan was introduced in 1902 followed by two others in 1910 and 1948–9 (Reddi 1976: 15).

Despite the introduction of 'scientific' forest management, there was large-scale deforestation. A drought in 1899–1901 killed thousands of trees. World War II, as in other parts of India, led to major exploitation. Approximately 20,809 hectares was deforested and transferred to the Ukai Dam authorities; another 9,064 hectares was transferred for rehabilitation purposes (Reddi 1976: 5). Teak plantations in the 1950s appear to have been largely unsuccessful due to 'adverse biotic factors' and heavy illicit felling (Reddi 1976: 19). In the accounts of both the FD and the villagers, however, the maximum deforestation is attributed to FLCs. The first FLC, *Sri Mandvi Taluka Kamdar Paraspar Sahaykari Mandali* was formed in 1948, in Mandvi taluka. Surrounded by major urban centres like Surat, Baroda and Ahmedabad, wood, firewood and charcoal from Mandvi villages found their way out through local timber marts. A paper and pulp factory, set up at Ukai in 1965–6 with a government agreement for a 40-year supply of bamboo, provided a sink for local bamboo (Reddi 1976: 9).

Mandvi town was established on the banks of the river Tapti to enable the river trade with Surat. A centre of trade and artisan production, in the late nineteenth and early twentieth centuries it stood out in contrast to the surrounding countryside, which was populated entirely by *adivasi* groups, Vasavas, Chodhris, Gamits and a few small pockets of Kotwalias or bamboo basket makers. The merchants controlled agricultural production by advancing grain and money to the *adivasis* and buying NTFPs like honey, mahua seeds and flowers from them. They also employed tribals in the timber trade, to log and cart wood (Hardiman 1987). This differentiation continues between towns, which continue to be dominated by non-*adivasi* Gujaratis, and the countryside.

The official disapproval of shifting cultivation and land settlements in the late nineteenth and early twentieth centuries meant that the land ownership passed gradually from *adivasis* to urban people (Hardiman 1987: 93, 96). Among the *adivasis* themselves, although even in the nineteenth century there were some who lent money to Parsis, an egalitarian ethic kept overt differences to a minimum. Despite villages being divided into often far-flung and scattered settlements according to lineages or caste groups there was a cohesive sense of community. Under the impact of Gandhian social reform movements, and other movements

like the Devi wave that swept through western Gujarat in the 1920s there was a significant change towards practices such as vegetarianism and temperance.[5]

An important factor in economic differentiation was the 1957 law abolishing tenancy, of which some groups like the Chodhris were able to take relative advantage (Breman 1985: 185). Although eastern portions to the north of the Tapti, including Mandvi, are the poorer hinterland of the agriculturally and industrially richer plains of South Tapti (Breman 1985: 8), the move to irrigated agriculture as a result of the Kakrapar and Ukai dams during the 1950s to 1970s, has led to greater cultivation of sugarcane (Breman 1985). There are now many sugarcane mills in the area, and vast number of migrants come from neighbouring MP and Maharashtra to cut cane. Their tiny makeshift shelters can be seen throughout the district in fields by the road. In addition to canal irrigation there are also motor pumps, increased use of fertilizers, and milk co-operatives. One *adivasi* farmer we met in village Regamma had two daughters living in the USA and owned a large orchard. Poorer cultivators, however, still mainly produce food crops for local consumption. As agriculture becomes more intensive (as in the more prosperous neighbouring talukas), sharper social and economic differences are emerging.

Off-farm employment opportunities are limited despite the proximity of Ankleshwar (a major industrial centre), a nuclear power plant at Kakrapar (a few kilometres away from Mandvi town) and oil rigs at Surat and Ankleshwar (Breman 1985: 185). Only a few *adivasis* are employed in the lower rungs of the FD, although even this limited number is more, for example, than in Paderu (AP), and may have helped to improve relations between villagers and the FD under JFM.

Villages

Makanjhar, about 7 kilometres from Mandvi town, has five hamlets in all, almost entirely populated by a local *adivasi* group, the Chodhris. By villagers' reckoning, the bulk of the village is in the 'middle income' category (62 per cent), while the poor form approximately 23 per cent and the 'rich' constitute 15 per cent of the village households. In other words, it is not sharply stratified. Other divisions in the village are seen as more salient to local interaction, that between 'reform' families called Bhagats, (within whom there are further sub-divisions) and the unreformed families, who continue to drink etc.. Reserved Forests cover approximately one-third of the total area of the village. The main occupation is farming, mostly unirrigated. The main crops in the village are paddy, pulses, and groundnuts. Vegetables are grown on irrigated land.

This village began protection in 1989, and was one of the first to file for registration.

Kalibel is the second village practising JFM that we chose to study in Mandvi. We selected it because of its proximity to a forest patch on which four other villages are dependent, and the opportunity this gave us for understanding potential conflicts. The village is divided among two hamlets, the Nadi (river) and Nishal (school) settlements. Like Makanjhar, Kalibel is composed basically of Chodhris, with two Kotwalia or bamboo-worker families. Agricultural patterns are similar to those in Makanjhar though some villagers are trying to shift to sugarcane. Villagers claim that the settlement dates back more than two hundred years.

In both Makanjhar and Kalibel, protection is carried out through patrols (known as *tukadis*) of four or five persons, composed of one member from each household in turn. In Makanjhar, all-women's patrols have been in operation since 1992, though women occasionally participated in protection work even before that. A household that does not send a member to patrol, or make alternative arrangements, is fined a day's wages, formally payable to the forest protection committee, but sometimes in practice to the patrol members themselves. The villagers fix the fines every year, generally at a village meeting before the agricultural season.[6]

We selected Bharada, the third JFM village, because AKRSP was active in the village. Bharada is in the newly formed Narmada district. As one leaves Mandvi and enters into Netrang taluka, the sugarcane fields give way imperceptibly to brown fields and bare brown hills with an occasional plantation of bamboo, teak or eucalyptus fenced by cactus. The road cuts through the village, dividing it into two hamlets, the school hamlet and the jungle hamlet. The jungle settlement falls in the reserved forest area, while the school settlement is in revenue land, making the village unique to the study as a mix of a revenue village and forest settlement village. Both the hamlets are part of the AKRSP-sponsored Gram Vikas Mandal (village development committee), which engages in JFM and other common purposes like savings and credit. This is a homogenous village comprising Vasavas, another *adivasi* group. The crops grown are the same as in Makanjhar, though a large part of the population practices dryland farming, growing cash crops like cotton. There is an acute water shortage, for irrigation as well as for drinking. Since the JFM patch is somewhat distant from the village, women do not feel safe to patrol, and the village has appointed a watchman.

Kevdi village, 7 kilometres from Mandvi, was selected because it neighbours good forest (stretching for 25 kilometres in one direction) and

had no JFM scheme when we started our research. By 1999, however, they had also acquired an FPC, albeit one that did not function very well due to the competing demands on the villagers' time by the fish and the milk co-operatives. The two hamlets, divided by a small stream, contain both Vasavas and Chodhris. The predominant crops are usually rice, maize and jowar. Many farms grow vegetables, which they sell to traders who come to the village, and several cultivate fodder grass. The villagers also collect forest produce like tendu (*Diospyrros melanoxylon*), gum, leaves, and fruits.

MADHYA PRADESH

Madhya Pradesh (MP), the largest of India's States, has 13.5 per cent of India's landmass but only 7.8 per cent of its population, and the largest forested area: the MP FD owns 20 per cent of all FD land in the country. Forest issues are central politically in MP in a way they are not in any of the other states we are considering here, with about 35 per cent (15.50 million hectares) of the state's area under forests. Forest revenues make up on average about 10 per cent of state income, and forest-related employment is crucial to the economies of many of its districts, providing about 100 million person-days of employment every year. Yet very little has been reinvested in the forestry sector, with allocations of the state budget during the 5th Plan period less than 1 per cent (Government of Madhya Pradesh 1998: 27). MP has both teak and sal forests, with the 80 degree longitude acting as a rough dividing line. Most of the state's forests however, come in the miscellaneous category, with poorer forests in the north and west of the state than in the east and south-east.

As in other parts of the country, the FD until recently focused most of its effort on the production of timber and pulpwood for industrial purposes. State forest lands were subject to clear felling and industrial plantation. The MP Forest Development Corporation was set up in 1975 precisely to encourage industrial forestry, which would yield high returns in a short time, both in terms of timber output and revenue. Currently forests classified as production forests cover 40,000 square kilometres, just under 26 per cent of all FD land in the state (Madhya Pradesh Forest Department 2000). The FD's bias towards industry was also reflected in the big price differences between bamboo supplied to industry (54 paise per 4 meter bamboo) and to villagers (Rs 2 per bamboo) (CSE 1986).

Social Forestry was developed between 1981 and 1985, but was unsuccessful in meeting people's needs for fuelwood and fodder. The usual reasons advanced elsewhere applied here too. The FD was unwilling to

hand over community woodlots to the panchayat once the trees had grown; the panchayat showed no interest; commercial species were planted on common or private land while the forests continued to be the source for fuelwood; and finally, too much money went into Social Forestry at the expense of regular state forests (Government of Madhya Pradesh 1998: 32–3).

Perhaps the most distinctive feature of forest policy in MP since the colonial period has been the *nistar* system, giving all *bona fide* village residents the right to take forest produce for non-commercial household use. The *nistar* facility was continued after independence, albeit with some changes. In 1992, there were 2496 *nistar* depots and 725 commercial depots (Singh 1993: 9–10), with different users charged different rates.[7] The gap between demand and supply, however, had led to several abuses of the system, giving forest officials arbitrary powers, and leading to the sale of *nistari* materials in the open market (Khare 1993: 14–16).

Nistar rights have been strongly contested in MP (Jeffery *et al.* 1995; Kamath 1941; Ramadhiyani 1941), with villagers seeing changes in the policy and the increase in rates as encroachments on their customary rights and forest officers viewing villager's over-use of *nistar* as the main problem. To quote N.C. Saxena:

> In Madhya Pradesh, discussions with field officers indicate that throughout the last two decades two processes led to fast deforestation. One, arising out of political populism, to allow people to harvest in an unsustainable manner more and more in the name of Nistar, and the other pressure on officers to contribute more to revenues ... Ironically, before an election, according to these officers, it was common for a Minister to order that the forest be opened for nistari for both tribals and non tribals without penalty. But after the election, the same Minister was likely to demand more revenue from the same forest.
>
> (Saxena 1993: 2–3)

As in other states, therefore, MP also faced growing deforestation, which affected both industry and villagers adversely. Social Forestry was unable to check this, nor was the *nistar* facility adequate to meet people's needs or stem conflict. The move towards industrial plantations further exacerbated the problem for villagers.

Yet, unlike Gujarat, where in some places forest officers initiated changes on their own prior to the government order, or Orissa where villagers had started protection on their own on a large scale, JFM in Madhya Pradesh is a direct offshoot of the 1990 MoEF Circular. Instances of protection by villagers and even earlier schemes like the Ulnar forest conservancy in Bastar where the forest department formalized an existing system of community protection (Sundar 2000a), have been

totally ignored in this trajectory. MP passed its order titled: 'Community participation in preventing illicit felling and rehabilitation of the forests' in December 1991. The order was revised in 1995 to coincide with a large World Bank-funded project covering two phases, one of four and one of five years, with a total outlay of Rs 795 crore. The order was further revised in 2000 after the first phase of the project had ended.

The MP resolution was a lone pioneer among all the state orders for making some provision under JFM for well stocked forest as well, not just degraded land—a feature which is likely to become widespread following the February 2000 MoEF Guidance. In MP, forests have been divided into four zones: zone 1 includes national parks and sanctuaries where the first priority is biodiversity conservation; zone 2 includes dense forest areas which are 'used to obtain forest products under regular forestry works'; zone 3 refers to 'those forest areas which have become open due to biotic pressure and need regeneration/rehabilitation'; and zone 4 covers private and community land. Different types of committees are envisaged for each zone: ecodevelopment committees (EDCs) for villages inside or within 5 kilometres of protected areas, forest protection committees (FPCs) in villages adjoining good (but 'sensitive') forests, and village forest committees (VFCs) in villages within 5 kilometres of degraded forests. In 1999–2000, the MP Government introduced the *Lok Vaniki* scheme for farm forestry on private lands, which are meant to operate through a farmer's union (Lok Vaniki Kisan Udyami Sangh) at the district level.

The benefits members of each type of committee can expect have varied over the years with successive orders. Initially, in 1991, FPC members were promised 20 per cent of the net income from the areas protected. In 1995 this was changed to free *nistar* (without royalty but on payment of extraction costs) at a time when other residents of the state were having the *nistar* right taken away from them; from 2000, in addition to free *nistar* and the produce from intermediate thinning and cleaning, FPC members can expect 10 per cent of the final harvest from the area protected. The 2000 resolution also innovates by giving people in Protected Areas some benefits. Since felling is banned in National Parks and sanctuaries, EDC members are to be paid whatever the neighbouring FPC makes in terms of final harvests, in addition to *nistar* rights. The benefits for villagers protecting degraded areas have remained more stable, with VFC members getting free fuelwood/other forest produce in intermediate thinnings/cleanings/cutbacks, 30 per cent of income from produce (timber, poles, fuelwood) in the main felling, and (since 2000) royalty-free *nistar*. According to the latest resolution, 50 per cent of the

income from final felling is to be distributed to the members in cash, 30 per cent kept for village development work and 20 per cent reinvested in forest development work.

The MP Forestry Project, under whose aegis JFM is being implemented in the state, also has a sizeable component on providing alternative development inputs to villagers to divert their livelihoods away from forest-dependence. These are variously known as Ecodevelopment (in protected areas) and Village Resource Development (in JFM villages).[8] Although earlier resolutions specified one male and one female per household as members of the general body, the 2000 resolution opens it out to all eligible voters.

More than any other state, MP has also focused on changes in the FD, through human resource development initiatives, and the formation of 'spearhead teams' to train staff in participatory planning and management (see Chapter 5 for more detail). However, this appears to have lasted only as long as the first phase of the World Bank project—with the second phase in doubt, the spearhead teams were effectively disbanded.

Three other legal and policy changes accompanied the JFM order in MP and influence the responses of activist groups. These were introduced partly to solve the non-availability of *nistar*, partly to promote the principle of rights with responsibility that JFM is supposed to signify, and partly in keeping with the principle of market intervention in forestry encouraged by the World Bank Forestry Project.

(a) A new *nistar* policy, which provides for the supply of *nistar* to FPCs and to VFCs (at less than market rates) within a 5 kilometres radius of closed forest (forests with crown density greater than 40 per cent). Outside the radius of 5 kilometres, the villages would have to buy forest produce at the commercial rate.[9]

(b) Removal of the need for transit permit for 31 species in order to promote farm forestry and reduce the pressure on high valued timber trees from the forest. Under the Lok Vaniki scheme, the forest department would also assist private farmers in developing Working Plans for their private forests.[10]

(c) An end to industrial subsidies from June 30, 1997.[11]

Following the Provisions of the Panchayats (Extension to the Scheduled Areas) Act of 1996 (PESA), enacted by the Government of India, which has constitutional validity, and gives *adivasi* village communities control over resources in their area, including NTFPs, Madhya Pradesh passed its own Act on 5 December 1997. The Madhya Pradesh Act, however, notes that such control must be exercised 'with due regard to the spirit of other relevant laws for the time being in force' which has

led government officials to conclude that the Forest Act takes precedence, at least in reserve forests. While potentially important, therefore, in terms of granting rights to *adivasi* villagers, in practice thus far, the Panchayat Act has turned out to be a rather damp squib (see Chapter 4).

The new *nistar* policy too is no advance on the rights that villagers already had, and may therefore offer little incentive to participate in forest management. As for villages that are now denied the *nistar* facility, this rule is unlikely to be strictly enforced, beyond petty harassment for bribes. In practice, despite all the legal arrangements regarding depots, villages used to take their *nistar* requirements directly, while those that did not have forests of their own relied on other villages.

Past experience in Madhya Pradesh also suggests that the liberalization of transit permits and the promotion of the Lok Vaniki scheme could lead to illegal and large-scale forest felling as detection of the source is not always possible. The Malik Makbuja right, under which farmers had a right to sell timber trees standing on their own land, was grossly abused in places like Bastar. There private traders bought land from poor non-tribals at nominal rates simply in order to sell the trees on it, or acted as agents for tribals in order to get the necessary permits. In both cases, the traders and officials made enormous profits while the landowners got next to nothing. The absence of proper demarcation between revenue and forest land in some places also enabled traders and government officials acting in collusion to claim trees on forest land as private trees and fell them. In 1997, in response to a writ petition filed by activist S. R. Hiremath and Ekta Parishad, a people's organization, the Supreme Court imposed a ban on felling in Bastar where the scandal was first unearthed. Following further investigations in other districts (Damoh, Mandla, Jabalpur) by an independent journalist, Santosh Bharati in December 1999 the Supreme Court extended the ban on felling and transport of timber to the whole state (for more details on this see Sharma, Chandra, and Naidu 1997, 1998; Sundar 2000a).

Although MP has fewer well known NGOs compared to several other states, it has a high proportion of scheduled tribes, some of whom have been organized under the banner of mass tribal organizations—such as Khedut Mazdoor Chetna Sangh (KMCS), the Ekta Parishad, the *Adivasi* Mukti Sanghatan—or parties like the Communist Party of India or the People's War Group. These organizations have opposed the World Bank project on the grounds that it is an underhand means of stopping encroachment, removing villages from within protected areas, encouraging more plantations to benefit industries, and getting the FD staff more jeeps and equipment. JFM is also seen as a reformist illusion aimed at diverting

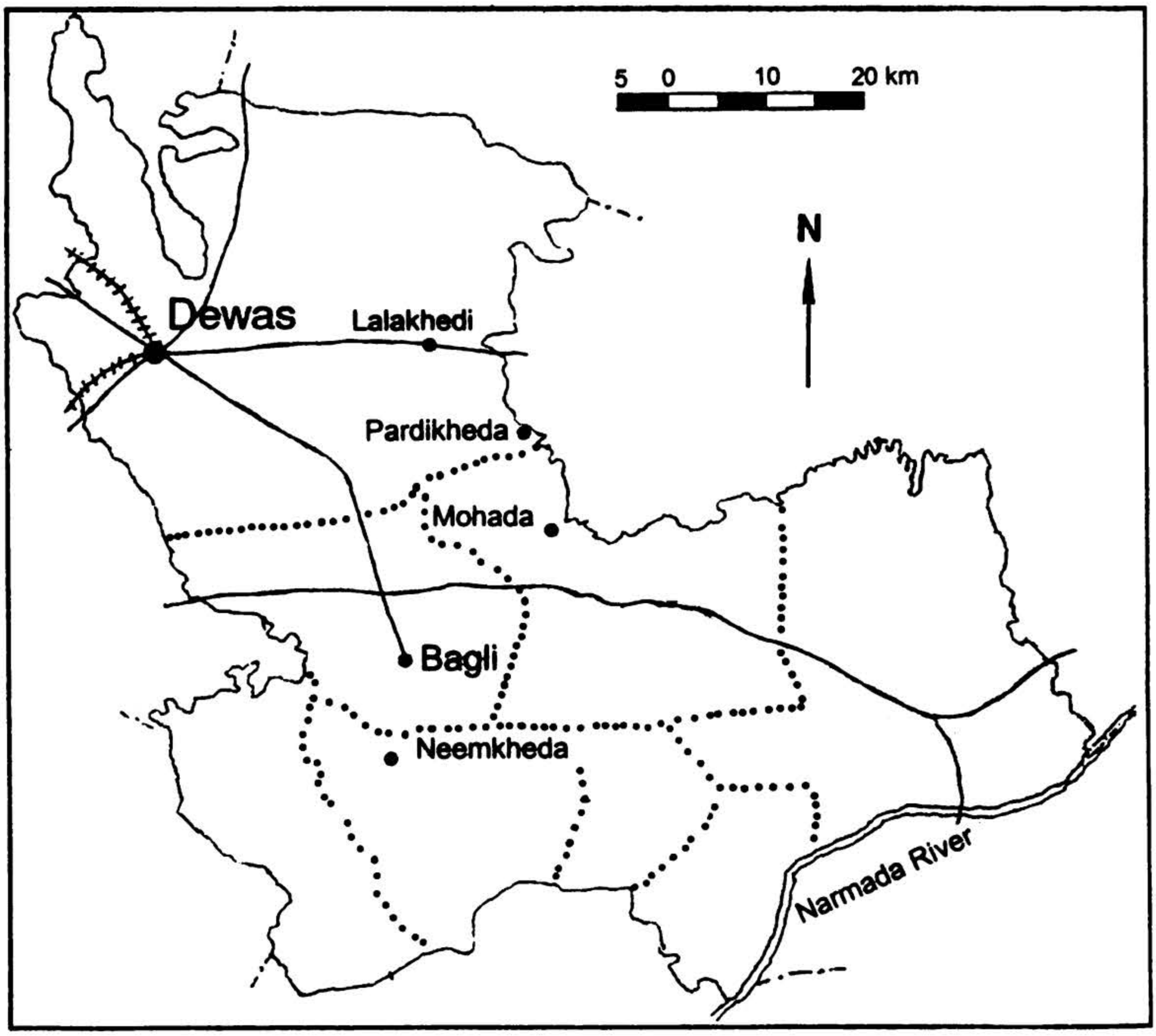
attention from the real demand for complete people's control (Jan Sangathan 1996). Some of them have organized villagers in defence of their forest rights, continuing earlier traditions such as the forest movements of the 1940s, or influenced villagers to protect their forests.[12] They have made no organized attempts, however, to promote community management of forests, and the emphasis has thus far largely been on getting title to forest land.

While there is great evidence of new ideas and schemes mooted by the forest department (to provide for income generation through NTFPs medicinal plants, hybrid seeds, etc.) as it stands in MP, JFM has come about almost entirely because of orders and monetary inducements from above. It is unlikely that such a birth can have democratic consequences.

Dewas Division

The division is in west-central MP (see Map 2.3). Its northern portion is part of Malwa, a land of fertile black cotton soils, where for miles on end only fields are visible, with an occasional low hill. Towards the south and east, bisected by the Vindhyan range and bordered by the Narmada in the south, the terrain changes to become more hilly and forested, and the population changes correspondingly, from mixed caste groups to *adivasis*. The region was carved up in the eighteenth century by various Maratha generals: Holkars in Indore, Scindias in Gwalior and the Puars in Dhar and Dewas. Dewas state was founded in 1728 and later divided into junior and senior branches. A century or so later (1818–19), these states entered into treaty relations with the British. After independence, with the merger of princely states and the formation of Madhya Bharat in 1948, the district of Dewas came to include all of the two former states of Dewas, and portions of the former states of Gwalior, Dhar, Holkar, and Bhopal. The western side of the district, especially Dewas town, is relatively industrialized and urbanized, with 47 medium and big industries. However, despite the relatively good forests in the south, there are no forest-based industries. The rest of the district continues to be largely agricultural. Population density in Dewas is about the same as that of Madhya Pradesh as a whole (149 per square kilometre).

Dewas forest division (covering 7020 square kilometres) is coterminous with Dewas district, and is part of Indore circle. Of the total geographical area of the division approximately 29 per cent is officially under forests, almost all of which is Reserved. Forests here are classified as a 'southern tropical dry deciduous type', with a predominance of teak (82 per cent). These may be divided into dry teak forest and dry mixed



Map 2.3: Dewas Forest Division, Madhya Pradesh

forests.[13] Like the district, Dewas division is an amalgam of the forest lands of former states.

The implications of the variations between British India and the princely states for forests and forest management regimes are important but still little understood. Some recent work on the old Central Provinces (Prasad 1994; Rangarajan 1996) and the Chattisgarh Feudatory States (Sundar 1997), has begun the task, but very little is known about systems of management or forest tenures in the princely states that constituted the Central India Agency. According to the Gazetteers and Working Plans available, forest organizations came into being much later than in British India. In Dhar, the post of Jungle *Muntazim* was created in 1896, while in Indore, the first Conservator of Forests was appointed in 1903. A formal department was created in Gwalior only in 1904, though preliminary reservations had been carried out in 1896–7, under the Director of

Land Records (Anon. 1981). Initially, in all the states, the same officer performed the tasks both of revenue collection and forest protection. Gradually tasks were differentiated. For instance, in the state of Dewas senior, responsibility for forests was handed over to forest officers, while in Dewas junior, the Forest Department handled forests at the state level and the revenue officer handled forests at the *pargana* level (Sinha 1993: 18). Older villagers claim that forest administration was much stricter in the time of the princely states, especially in those forests owned by local zamindars.

Demarcation of reserves took place in almost all the states in the early decades of the twentieth century (Sinha 1993: 18). Gradually, working plans were put into operation, the first systematic one for Dewas range dating only as far back as 1942. In both Dewas and Indore states, teak was treated as a royal tree and royalties had to be paid to the state for felling. In Dewas, payment of royalties permitted unrestricted felling whereas in Indore only dry teak could be felled. In Dhar a system known as *khud-katai* was prevalent all over the forest, till it was finally stopped in 1913. Under this, contractors or individuals could cut whatever they liked in return for a simple charge per axe, which was as low as 12 annas (Anon. 1981: 128; Sinha 1993: 19). Post-colonial interventions, however uniform, thus rest on a variegated base.

Villages

Mohada, one of the oldest protection committees in Dewas (VFC), is one of about 49 villages which are concentrated in four ranges below the hills. Mohada served as a hunting spot for the Holkar kings before it was abandoned due to attacks by wild animals. With independence, the revenue land was given to Sindhi settlers who later moved to Panigaon, a nearby small town, but some of whom continue to have large farms in the village. Around the 1950s, Barela migrants from Khargone came in search of land and settled near the revenue plots allotted. As their numbers increased they expanded onto forest land. This slow accretion is reflected in the way the village is settled—across 7 kilometres in long straggly stray lines across undulating hills, with no easily identifiable clusters or hamlets. Some of the *adivasis* have constructed houses deep into the encroached forest patches. Central government orders regularising encroached forest land and giving land ownership rights to individuals[14] exacerbated the phenomenon, which itself was sustained through the active collusion of the FD. *Adivasis* entered into some kind of share cropping arrangement with the FD, with occasional conflicts when they refused to pay their cut.[15] JFM was introduced in 1993, primarily through

the offices of a local missionary group, to solve the twin problems of encroachment and illegal felling in the neighbouring forests. Villagers were to stop further encroachment and protect the forests from outsiders in return for regularization of existing encroachments. It now has a JFM committee as well as a watershed committee under the Rajiv Gandhi Watershed Mission. Initially the village started off with rotational patrolling (by men), but this involved too much work, and was replaced by the practice of keeping informal watch when engaged in agricultural or other work. In all the Dewas villages, the Forest Department appoints watchers to look after its plantations and neighbouring forest patches, who are paid through FD funds routed through the village (under VRDP etc.).

Neemkheda, the other site below the hills, was originally a village of Rajputs, Gwalis, and Korkus, and known for milk and milk products. It then became depopulated and was later reconstituted as a forest village by Dhar state by bringing in labourers, basically Bhilala tribals, from Badwani district. In 1962, Neemkheda was converted into a revenue village.[16] However, the forest around the village is still good, with felling coupes in operation almost every year. Apart from Bhilalas, Neemkheda's population of 140 families also contains some Muslims who are economically and politically dominant. About five years ago it was adopted by an NGO, Samaj Pragati Sahyog, which not only experimented with innovative small-scale water management, but also built a grain store, mill, etc.. Attempts by the NGO to initiate an FPC in 1994 and again in 1996 had little support from the FD and foundered in the face of opposition from an anti-NGO group within the village.

Pardikheda is in the eastern part of Dewas Range. It is an old village, formerly part of Gwalior state. The dominant caste group, Sendhos, migrated from Sindh about 400 years ago, after a dispute with the local king. For some reason the 350 families who remained in Nimar are called Chatri Rajputs while the 350 who settled Pardikheda and surrounding areas are called Sendho Rajputs. Their language is still mainly Sindhi and they are mostly engaged in agriculture. Two other castes, the Balai and Malwis, have also lived in the village for a long time, providing labour on the Sendhos' fields, though some are engaged in agriculture of their own. They depend on the forests to a much greater extent than the Sendhos do. The most recent settlers, the Bhopas, are all landless. They were originally involved in headloading, but with the formation of the Village Forest Committee they have shifted to stove repairs, for which the men migrate annually. The women have also taken to begging. The FD portrays Pardikheda as a model JFM village, and frequently includes it in the JFM visitors' itinerary. However, watchmen paid through forest

department funds do all the protection, and the situation is effectively very similar to the old regime.

Lalakhedi, like Pardikheda, is composed of Sendhos who are economically dominant agriculturists and lower caste Lodhis, Balais and Chamars. Several among the Chamars and Malwis are entangled in the *Mahinadari* system, a form of bonded labour. Some of the Lodhis also do agriculture, but their major occupation is felling trees from private land and house construction work. Some Chamar families are involved in head loading at Sonkutch, though in the last five years the forest guard has more or less stopped this. Very few households in the village are involved in the collection of NTFPs. The original settlement has become Sendho dominated, and the other castes have shifted to a settlement on the road and near to the forest. The village has a very degraded forest patch on its east and north, which has been taken up for compensatory afforestation by the Narmada Valley Development Authority (NVDA). Initial efforts in 1994–6 to initiate a protection committee in the village failed in the face of strong political divisions among the Sendhos. By 1999–2000, however, the forest department had succeeded in restarting the Gram Van Samiti with a neutral Sendho chairman, and was proposing to transfer to it one compartment from the NVDA authorities. As in Pardikheda, the lower castes seem to be effectively excluded from the samiti.

ORISSA

The population of Orissa has poor health, low levels of education, and absolute poverty in terms of famine deaths (a recurrent feature of Kalahandi and Koraput districts in the south of the state). The four main geographical regions are: the northern plateau, the central river basin, the hills of the Eastern Ghats, and the coastal plains. The northern plateau, with its hill ranges and cultivated valleys, forms part of the Jharkhand belt, which stretches across to Bihar and West Bengal. About 45 per cent of this area is covered by forests and contains much of the state's primary resources (coal, iron ore, hydropower). In the central river basin, the flood plain of the Mahanadi River, irrigated agriculture produces good crops of rice. This area, which includes Sambalpur, has little forest cover.

The hills to the South, including the areas of Koraput, Ganjam, and Phulabani, are characterized by terraced rice cultivation and shifting agriculture, though this is under both government and ecological pressure. Several industries are being proposed to take advantage of the area's mineral reserves, and are facing some resistance from those likely to be

forced from their homes, who have the example of the factories at Sunabeda and Damanjodi, and the Machkund hydro-power project before them. None of these gave any benefits to the local *adivasis* who lost their forests. The northern plateau and the southern hills are home to the bulk of the state's sizeable tribal population. According to the 1991 census, both the Scheduled Tribal population (22 per cent of the total) and Scheduled Caste population (16 per cent) were well above the national averages.

The fertile alluvial delta along the eastern coast is densely populated, but has very little forest. This region has the reputation of being the 'rice bowl' of Orissa, apart from growing coconuts, cashew and banana. Despite the presence of industry, agriculture remains the economic mainstay with an estimated 64 per cent of the population in Orissa directly or indirectly associated with it (Government of India 1999).

The classified forests in Orissa cover 57,184 square kilometres, but only about 30 per cent is actually under forest cover. A per capita forest cover of 0.15 hectares conceals a very uneven spread, with Phulabani, for example, having 54 per cent of its land under forests and Balasore only 6 per cent (Council of Professional Social Workers 1994: 31). About 32 per cent of the forest is degraded. The forests are mostly sal dominated (43 per cent), with some areas of mixed deciduous and teak forests in the coastal plains and the Ghats, and mangroves along the coast (Council of Professional Social Workers 1994: 40). Most of the bamboo forests in the state have been given to four paper industries on a long-term lease (Council of Professional Social Workers 1994: 41–3). In March 2000, the state passed a new NTFP policy, doing away with leases on NTFPs (see Chapter 4).

The main feature of Orissa, from the point of view of JFM, is the rapidity with which large numbers of Forest Protection Committees (Vana Samrakshana Samitis or VSS) were established. Orissa was the first state to pass a JFM resolution (on 1 August 1988), even before the Government of India in Delhi issued its order in 1990. The Orissa Order allowed for villages on the periphery of Reserved Forests to be involved in protection (in 1990, this was extended to protected forests), in return for which they would get all their '*bona fide* needs of timber and fuelwood' free of royalty. In 1993, a revised order gave VSS members a 50 per cent share of timber harvests either in cash or kind (along with a 100 per cent share from all silvicultural operations). Membership of the committee, according to the Resolution, should consist of two adults from each household, of which one must be a woman. There is an approximate ceiling of 200 hectares per FPC/VSS.

Unlike other states, where strong NGOs or donors have been the

impelling factors behind JFM, in Orissa it seems to have come about as a result of the government's own policy-making, the Social Forestry experience, and the pre-existence of numerous forest protection groups all over the state. According to one estimate, by the late 1980s there were three to four thousand committees covering 10 per cent of Orissa's forest area (Kant 1990, cited in Poffenberger and McGean 1996: 34). By 1993, when the Government of Orissa issued a revised JFM order, the area under protection had increased to 27 per cent (Poffenberger and McGean 1996: 35).

Several reasons have been advanced for the spread of FPCs across Orissa. The most commonly cited cause is growing resource scarcity faced by villagers (Conroy, Rai, Singh, and Chan 2000; Poffenberger and McGean 1996: 29–30, 34–5). This is attributed to unsustainable exploitation by the FD, encroachment for agriculture, smuggling, and diversion of forest land for mining, industries, and large dams, as well as resettlement projects. Orissa has one of the highest rates of diversion of forest land to non-forest uses, with approximately 12,742 hectares being diverted in the five year period between 1989 and 1994 (Forest Survey of India 1996). Unlike Gujarat, where the landless can migrate in search of work, Orissa has fewer alternative livelihood options, forcing villagers to conserve whatever they have (Raju, Vaghela, and Raju 1993: 137). As one village started protecting there was a domino effect as neighbouring villages that had been excluded took the hint and started their own committees.

Others, like Shashi Kant, have pointed to the formation of large gram panchayats stretching across several villages or hamlets which allowed for local level organization to be retained without undue politicization. Forest protection is just one of a range of 'community governance activities, including the management of village water-ponds, temples, etc. (Kant 1990, cited in Poffenberger and McGean 1996: 34). This is also corroborated by our research. One notable feature of Orissa is the large number of registered NGOs: in many cases these consist of small village youth clubs or women's income-generating organizations (mahila mandals). In both Sambalpur and Koraput, youth clubs appear to have been active in initiating forest protection. In Sambalpur some of these youth clubs are a spin-off of the programme of the Nehru Yuvak Kendra in the 1970s. Their involvement in forestry is an interesting example of the unintended consequences of government efforts. Prafulla Gorada, a native of Koraput, has speculated that the youth clubs of Koraput are reconfigured versions of the youth dormitories common to the Dandakaranya belt, like the famous Bastar *ghotul*.

Some NGOs engaged in the forestry sector have recently emerged at the state level, such as Vasundhara, Sanhati, Regional Co-operation Development Council (RCDC), Council of Professional Social Workers (CPSW) and Oxfam. However, they are mostly involved in documenting FPCs, promoting federations, providing training or changing policy in the state level steering groups set up for the purpose, rather than implementing JFM at the village level. In other words, they are a consequence rather than a cause of the spread of FPCs across the state.

Saxena argues that the 'ambiguous status of protected forests' was conducive to village initiative. Compared to AP and Gujarat, where the majority of forests are reserved, in Orissa, Reserved Forests cover only 47.4 per cent of the total area classified as Forest, while Protected Forests cover 52.6 per cent (All-India figures are 54.4 per cent Reserved and 29.2 per cent Protected) (Forest Survey of India 1998). Ownership of these Protected Forests lay with the Revenue rather than the Forest Department, and few of them were managed under any working plan.

> Thus an important factor behind the success of community action has been the long-term association of these villages with "their forests" and heavy dependence on these, and the loose control of the FD over PF. There are of course instances of successful protection of Reserved Forests too, but invariably these are patches where the control of FD had become weak and no "management practices" were being followed.
>
> (Saxena 1997a: 60)

Not only the history of forest demarcation in Orissa, but also the history of land revenue settlement contributed to the existence of FPCs today. Not only could the FDs not control Protected Forests, which allowed for communities to step in and fill the vacuum, but there were also rules that actively solicited community management of village forests (as in the former Central Provinces in MP and the Agency Areas of AP, but not in Gujarat or other parts of MP and AP). Within some of the Orissa protected forests, 'B' reserves or *khesra* forests, villagers even had the right to cultivate (with permission), in addition to access to forest produce (Orissa Forest Enquiry Committee 1959: 25). We give more details in the section on Sambalpur division, and the discussion in Chapters 3 and 4 on the rules framed by the FPC in Lapanga village.

Long after Orissa was constituted as a separate province in 1936, it continued to be governed under two Forest Acts: the Madras Forest Act which was in force in the southern districts of Ganjam, Koraput and parts of Phulbani, and the Indian Forest Act, 1927, which applied to the rest of the state. The various princely states and zamindari areas generally had their own rules, though they were usually very similar. In 1972, an

Orissa Forest Act replaced both the earlier Acts. Despite this new-found uniformity, given the very different tenurial arrangements and rights that previously existed in different parts of the state and which had entered into local consciousness, the incentives provided by JFM agreements, with their promise of free intermediate NTFPs and final harvests, were bound to receive differing welcomes.

The Orissa Forest Act allowed for the declaration of any land, including reserve forests, as village forests. In 1985, in addition, Village Forest Rules were issued. These rules were meant to govern the village woodlots and Social Forestry block plantations raised under the SIDA-funded Social Forestry project (1984–1994). The 1985 rules provided for the formation of a village forest committee headed by the Sarpanch, the management and protection of the woodlot, and its eventual sharing. The funds from the final harvest were supposed to go into the gram panchayat, with the villagers paying a royalty for use of material. Under a 1994 amendment to the JFM order, these village woodlots and block plantations were brought within the ambit of JFM, after being notified as village forests. Villagers would get 100 per cent of the timber from those woodlots. Subsequent plantations or regeneration on those woodlots would entitle the villagers to the normal 50 per cent share under JFM.

Some of these woodlots have only recently begun to mature, and initially agents obtained timber at ridiculously low rates, such as 40 paise for a eucalyptus pole. This was exacerbated by the relaxation in timber transit rules for woodlots. In Nayagarh, a forest protection movement known as Bruksha o Jeevan Bandhu Parishad (BOJBP) started a mass campaign against the harvesting of these woodlots. They argued that FD encouragement of harvesting shows that Social Forestry was aimed at supplying wood to industries rather than meeting local fuelwood needs. Instead of clear harvesting, they advocated a system of rotational felling, with some money being ploughed back for the maintenance of the stand (Interview, Feb 1995). In some cases, there is an overlap between the VFCs that grew out of the Social Forestry scheme and the Vana Samrakshana Samitis established under JFM.

No single explanation for the rapid spread of forest committees in Orissa can be adequate. The complexity of forest rules as well as land revenue settlements, which gave villagers differing access to forests, growing scarcity, the trajectory of Social Forestry, and local institutional arrangements which governed the management of natural resources and collective village activities, all came together to create a wave of forest protection. Because the Orissa FD has had a limited role to play in all

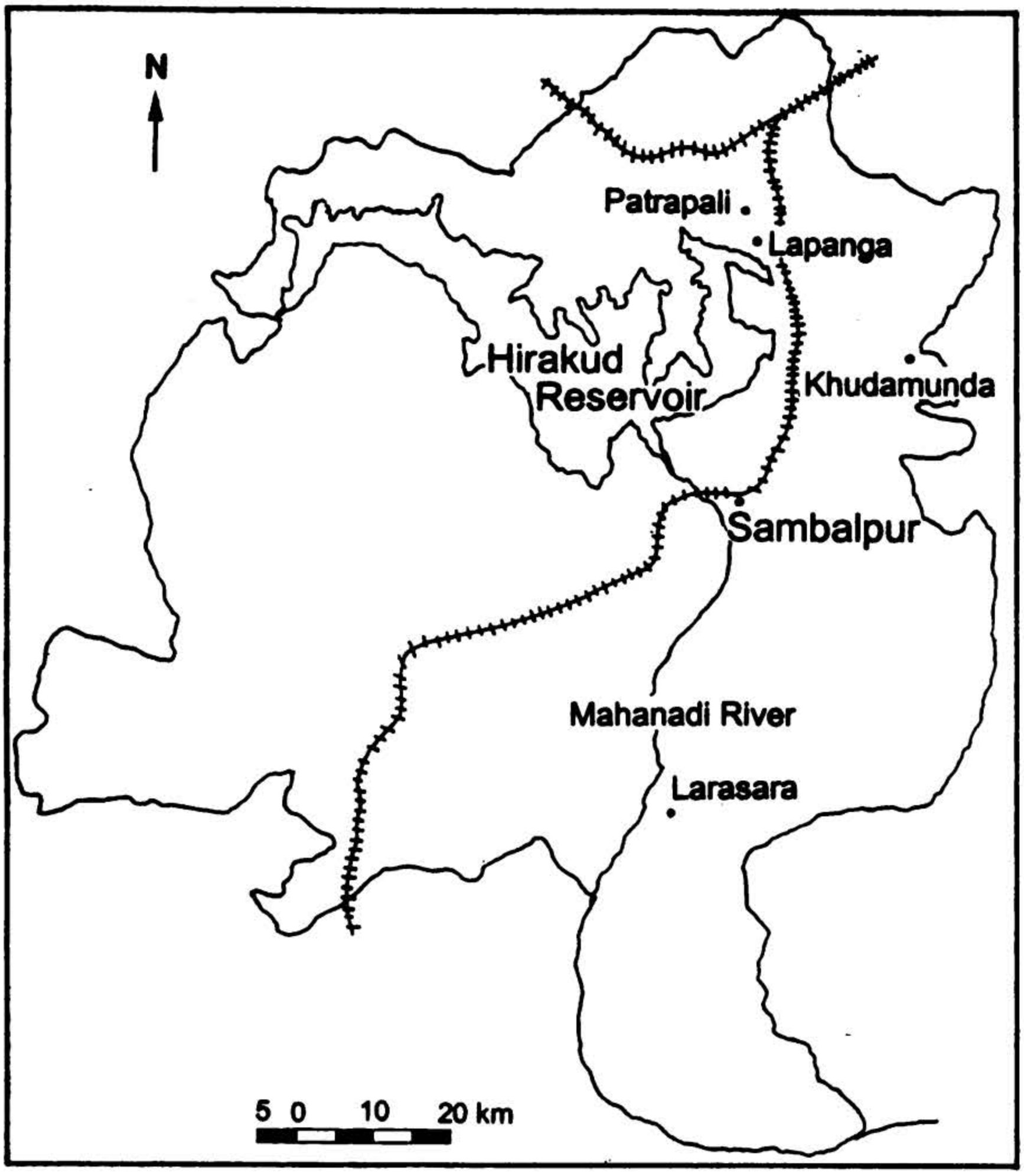
this, the term 'community forest management' is more appropriate than 'JFM' to much of what is happening in Orissa.

Sambalpur

On the north-western edge of the state, Sambalpur lies in the flood plain of the Mahanadi, which divides east-west the Bargarh plain from the forested tracts of Sambalpur's Dhama range. In the north of the district, separating Sambalpur from Chattisgarh is the Barapahar range of hills. Its past under Gond Zamindars is still visible, in the numerous stone-stepped, tree-lined ponds that they encouraged through revenue remissions (Senapati 1971: 117). Upriver from Sambalpur town is the massive Hirakud dam and reservoir, covering an area of 743 square kilometres, which has transformed the district. About two thirds of the submerged area was cultivated, affecting 249 villages in Sambalpur and a further 36 villages in the adjacent Raipur district of MP; officially, at least 1.1 lakh people have been displaced (Viegas 1992: 36). As a consequence, however, some farmers grow two crops a year even during drought years. Based on power supplies from Hirakud, several industries have been set up including the Indian Aluminium factory (Indal) and Cable factory at Hirakud, Orient Paper Mills and Collieries at Brajrajnagar, the Belpahar refractories, and the steel plant at Rourkela. Sambalpur has the second highest concentration of industries in the state following Sundergarh. The years from 1941 to 1950, following the establishment of Indal and the commissioning of the dam, saw a record increase in the population, of 15.9 per cent. Formerly known for its diamond mines, the district is now acquiring a reputation for its coal deposits.

Sambalpur was part of a cluster of eighteen states known as the Atharagarhajat, which came under Maratha overlordship, and then lapsed to the British in the nineteenth century. Sambalpur changed administrative hands several times between 1849 and 1912—between the Bengal Presidency, Central Provinces, Province of Bihar and Orissa—before finally coming to rest as part of Orissa province in 1936. In 1948, with the merger of the ex-princely states, it incorporated the former states of Bamfera and Rairakhol, and several ex-zamindari areas. In the early 1990s, as part of a state-wide reconstruction of boundaries in order to ensure administrative efficiency, it was divided into four districts—Sambalpur, Jharsuguda, Bargarh and Deogarh.

Sambalpur Territorial Forest Division is coterminous with undivided Sambalpur District and is a part of Sambalpur Circle (see Map 2.4). The division was constituted in 1889. The first working plan was introduced in 1898 for Barapahar and neighbouring forests. The incursion of the



Map 2.4: Sambalpur Forest Division, Orissa

railways in 1894 kick-started the demand for sal timber and railway sleepers. The total geographical area of the division is 7496 square kilometres, of which forests cover 22 per cent (17 per cent Reserved Forests, and 5 per cent Protected Forests). Large chunks of forest were lost to the division due to the Hirakud submergence and resettlement operations, as well as the transfer of the Debrigarh Reserve Forest and Lohra Reserve forest to the jurisdiction of the Badarma Wildlife Division, in 1990. Sambalpur's forests consist primarily of sal, and its associates—sahaj, dhaora, kendu, bija, and sissoo. Lac, honey, char seed, silk cocoons, mahul, siali, myrobalan, karanja, neem, and tamarind are important NTFP. Dry mixed forests covering a small area include karla, amla, kendu, char, and several of the other sal associates. Bamboo is found both in the sal and mixed forest areas (Senapati 1971: 175–6).

Before the nationalization of bamboo by the Government of Orissa in

1988, Orient Paper Mills Ltd worked all the bamboo coupes. The Orissa Forest Corporation now works both the bamboo and timber coupes. Other forest-based industries in Sambalpur include Kamala Wood Products Ltd., which has a Katha Factory at Deogarh in Sambalpur division, and some 67 registered sawmills. However, most of the sawmills are now idle and many have not renewed their licenses. The Gujaratis in Sambalpur (who form a substantial community) are said to have made their money entirely on the timber trade. Legally no timber can now be felled in Sambalpur, following the ban on logging in Orissa since 1984.

A brief excursus into local history helps to give us a deeper insight into how local institutions developed and contributed to community forest management. The rebellion of 1857, which coincided with discontent against massive increases in land revenue and the resumption of revenue-free tenures in Sambalpur, led to a prolonged war of attrition under the leadership of Surendra Sai, supported by various Zamindars and local headmen. This was finally suppressed in 1864, but, as a result of the movement, land settlement in Sambalpur took place at a later date than other districts in the Central Provinces, and was finally carried out on different principles (Fuller 1893: 3). The district was divided into *khalsa* and *zamindari* areas, the former under the direct control of the British run administration and the latter under their own local chiefs. In both these areas, there were also appointed (but usually hereditary) village revenue headmen known as *gaontias*, whose duty it was to 'watch the interests of the state, collect and pay in the revenue and report on the condition of the village from time to time' (De Brett 1909: 10). Among their other responsibilities, the *gaontia* 'acted as a trustee on behalf of the government ... to ensure that the village forest were used for community needs' (Senapati 1971: 347).

Different categories of forests corresponded to different revenue tenures in *khalsa* and *zamindari* areas. During the settlement operations of 1872 and 1876 certain forested 'hill and jungle' tracts in the *khalsa* areas were demarcated, eventually becoming Reserve Forests under the 1878 Forest Act. These areas, ostensibly 'in nobody's possession' (Senapati 1971: 179), were gradually subject to the operations of 'scientific forestry'. Up to 1887, when a Forest Officer was appointed and Sambalpur forest division formed, these forests were under the control of the Revenue Department.

Simultaneously, village forests were created during the 1885–9 settlement by marking off partially cleared jungles and placing them within village boundaries (Fuller 1893: 8). These village forests were set up partly as fuel reserves, 'with a view to the convenience of the people, not

to the realization of an income for Government' (Fuller 1893: 41), although the prospect of meeting the demand was not assured:

> Such areas have been marked off in most villages. They are managed by a *panchayat* of villagers, the cutting of wood or digging up of roots being prohibited until the forest growth has recovered itself. The people admit that during the two years which have passed since conservation was started, these village jungles have greatly improved. They will be of great help to the people in various ways, but it is doubtful whether in most cases they will ever be able to stand the drain of a demand for village firewood.
>
> (Fuller 1893: 8)

Despite the emphasis on local management, the village *wajib-ul-arz* (or record of rights) stipulated that the '*gaontia* and *ryots* shall observe any rules which may be issued by the Deputy Commissioner for the management of the village grazing and forest lands' (Fuller 1893: Wajib-ul-arz form). There were strict injunctions not to bring grazing and forest lands under cultivation. Villagers were entitled to graze their cattle and take free firewood and leaves from these village forests, but only for subsistence and not for commercial retail. There was even a provision for selected timber felling for the repair of houses, fences and ploughs under the supervision of the panchayat and the *gaontia* (Fuller 1893: Wajib-ul-arz form). In other districts too, under the 1962 Orissa Survey and Settlement Rules, tracts of good forest outside reserves were included in village boundaries. Ten per cent of this was to be maintained as a '*gramya* jungle' or village fodder and fuel reserve. The rest was often encroached for agriculture (Das 1992: 15). As will be evident from a later discussion of forest protection in Lapanga village, the rules first set in place by the *gaontia* in council continue to influence management of the village forest today, with its carefully specified distinction of rates for timber for different settlers.

In 1885 zamindari forests (375 sq km) were almost as extensive as government reserves (396 sq km). Prior to their merger in 1948, they were managed under the 1930 Sambalpur Zamindari and Malguzari forest rules. In some cases, village fodder and fuel reserves were constituted similar to those in *khalsa* areas, but elsewhere villagers exercised their *nistar* rights from the *zamindari* forests at large (Fuller 1893: Wajib-ul-arz for Chandarpur-cum-Padampur *zamindaris*).

There were thus three categories of forest and styles of forest management:

(a) Regular forest reserves progressively managed under relatively centralized 'scientific forestry';

(b) Zamindari areas which technically remained outside the purview of the FD but were increasingly under pressure to adopt similar rules and generate revenue; and
(c) Village forests, which were part of a decentralized scheme to be administered through *gaontias* and village panchayats.

This distinction is visible today—with villagers engaged in community protection on their own village forests, and sometimes also of government reserved forests, and FD staff engaged in protection of their own reserves, occasionally essaying forth to appropriate community managed forests under the guise of 'joint' forest management.

The process of management by *gaontias* and community leaders was not a continuous one, however. By 1910, many of the village forests in Sambalpur appear to have been denuded or encroached upon. *Gaontias* proposed to transfer timber from one of their villages to another or to their town houses, but the principle of non-export from village forests was thought important to maintain (Dewar 1908: 93; Senapati 1971: 180). It is possible, therefore, that there was a long period of decline, followed by a resurgence of local management. Submergence destroyed some forests, and people forced to move by the Hirakud dam cleared some more for cultivation. Increased demands for fuelwood, and smuggling (dealt with in Chapter 4) created growing scarcity, to which villagers responded by renewing protection. Official estimates in 1996 put the number of formal VSS in Sambalpur at 31 (protecting 5386.71 hectares of forest land), with memoranda signed with a further 29 (Information Department of the Government of Orissa 1996). The number of unofficial, unregistered groups is likely to be much higher.

Villages

Of the four villages selected for the study in Sambalpur, Lapanga lies closest to the Hirakud, on one side of a little outlet of water that separates it from the Mawlabhanja reserve forest. Lapanga is a large village with twelve hamlets and a total of 358 households from a variety of castes: ranging from the upper caste Brahmans and Sundis to the middle peasant Kultas and Kisans to *adivasis* like Gonds, and Sohras. Many of the village households (43.3 per cent) are landless labour, mostly from the scheduled castes (Ghasis, Gandas) or scheduled tribes (Gond, Sohra). Marginal farmers (26.5 per cent) follow next. Subsidiary occupations for these groups include tailoring, *bidi* making, cultivating or vegetables. Only 6 households (under 2 per cent) of the village could be classified as big farmers, out of which four are Brahmin households. Perhaps this village, more than any of the others, reflects most closely developments that have

occurred in the district at large. The Hirakud dam submerged two-thirds of the agricultural land of the village. Several landless families left in search of labour opportunities in the newly irrigated tracts of Bargarh and Rengali while other dam oustees came in and settled, forming an entire hamlet of their own. Although oral history suggests that the village has been protecting its forests from the last century, it is now faced with the threat of a power plant being set up in the immediate vicinity.

The committee employs a forest guard throughout the year but in addition one or two members occasionally go on patrol. During September/October (the Dussehra period) the number of guards is increased to two, as it is a slack agricultural period, and villagers might then be tempted to 'turn their attention to the forest.' The guards get a monthly amount of Rs 200–50 plus fifty per cent of the compensation levied on any illegal felling. This is deemed sufficient and the original practice of contributing paddy by each household has been discontinued (see Chapter 3 for more details).

Situated about 25 kilometres from Sambalpur town, Khudamunda is officially a hamlet of Baradungri revenue village, but has seven sub-hamlets of its own all within a one kilometre radius of the main hamlet. The two kilometre dirt track leading to Khudamunda from Baradungri is flanked by paddy fields or wasteland dotted with mahua, and sometimes sahaj trees. As one nears the first hamlet the protected patch appears as a backdrop, with good sal coppice. Approximately 15 per cent of the village is landless, mostly consisting of adivasi Munda and Kharia families, while big farmers constitute 7.5 per cent of the village (mostly Brahmans, but also Oraons and Gond). Most households consist of middle and small farmers who make up 31 per cent and 47 per cent of the village households respectively. Nuapada hamlet comprises of Hirakud oustees who have settled in the village since 1956. A local Sambalpuri NGO, MASS, has been active in the village, setting up thrift groups, and has had some involvement with the forest protection committee as well. When the villagers first formed a youth club and started to protect the forest in 1978–9, they did not have any regular system of protection. Anyone who was willing and had spare time used to keep an eye on the forest patch. From about 1987 onwards, however, they adopted the *thengapalli* system (two people patrolling the forest in turn). This stopped when some households started to send young boys instead of adults, and was replaced by a *chowkidar* paid through monthly contributions by each household.

Patrapali has a mixed caste composition similar to the other villages in the area (see Table 2.2). The bulk of the village consists of marginal

farmers, followed by landless households. The village was a part of the former Rampur *zamindari*. Some of the forest was kept for the exclusive use of the *zamindar*, and strictly controlled, and the rest open to access by villagers. After the abolition of zamindari (early 1960s to late 1970s), however, the *zamindars* cut the forests down (before the government could), and the villagers followed this example, leaving the forests highly degraded. Patrapali villagers began protection in 1981 to finance their local high school, through the sale of timber, membership fees of the FPC, charges on each headload of fuelwood (Re 1) and revenue generated through fish rearing in forest ponds. (The government took over the high school in 1988). Since protection began, according to the villagers the forest has seen remarkable regeneration. They named their committee the 'Patrapali Gramaya Jungle Suraksha Committee'. The forest patch protected is partly *gramaya* Jungle and partly '*tikara chattan*' (*zamindari* jungle kept for village use), and constitutes approximately 290 ha. In 1994–5, faced with growing depredations by the neighbouring villages of Rampur and Malda, they approached the Forest Department for help and formed a VSS under the JFM guidelines. Both the old committee and the new VSS coexist, and 70 per cent of the members are common, with the exception of the stipulated women members in the new VSS. The village has appointed a watchman, but also practice some *thengapalli* or rotational patrolling, especially during the summer when they stock up on fuel for the monsoons. In case of theft, the whole village (men) may turn out to catch the offender(s).

Larasara, to the south in Dhama range is a brown and barren settlement of three hamlets, 500 metres apart: Larasara, Jamtikra, and Banpur, each of which is further sub-divided. None of them are involved in JFM agreements. Our study concentrated only on the first two hamlets. The agricultural land in the village is concentrated in the hands of only 10.5 per cent of the total population while the landless constitute 71 per cent of the total population of Jamtikara and Larasara. Jamtikara has most of the Dalits. Situated just one and a half kilometre from the River Mahanadi, it is an ideal site for smuggling timber across to Bargarh district on the other side. Apart from its mud houses, the village has a concrete clubhouse with graffiti on the walls where men gather to play cards, and a hand pump.

ANDHRA PRADESH

AP has roughly the same population as MP, but only 62 per cent of its land area. Hyderabad, its capital, is the fifth largest Indian city, with over

4 million inhabitants, and the port of Vizagapatnam also has a population over 1 million. These two are the main industrial centres of the state, which remains largely agricultural, despite having some of the richest mineral deposits in the country. Rice and sugarcane grow well in the fertile deltas of the Godavari and Krishna rivers, compared to the semi-arid Deccan plateau, where pulses, millets, cotton, etc. are grown. Much of the state was under the control of the Nizam of Hyderabad until 1948, when he was forced to accede to the Indian Union, but the new state also included areas that had been under British direct rule, as part of the Madras and Orissa provinces. Currently, there are three distinct administrative regions: Coastal Andhra, Telengana, and Rayalseema, the first two of which also have distinct Scheduled or Agency Areas with high concentrations of Scheduled Tribes. In 1967 the Andhra Pradesh Forest Act was made applicable to the entire state, replacing the Madras Forest Act of 1882, which had governed the Andhra areas, and the Hyderabad Forest Act, which was in force in the Telengana region.

About 23 per cent of the state's area is under FD jurisdiction, and of this area the Reserved Forests are the largest category at 79 per cent. However, about 26 per cent of the official forest area lacks any forest cover. The area is mainly mixed-species forest (86 per cent), plus some teak and bamboo forests. The forests are classified as southern tropical dry deciduous and moist deciduous, southern tropical thorn forests, with small percentages of littoral and mangrove forests (Government of Andhra Pradesh Forest Department 1992). AP's forests are mostly in the west and north of the state, in the semi-arid hills of the Deccan and on the borders of Orissa. As in Gujarat, this also maps quite neatly onto the tribal concentrations in the state. Of the four states under comparison, however, it has the lowest percentage of tribal population, at 6.3 per cent.

The AP regulations governing JFM were first published in August 1992. Initially, the membership of the VSS was promised complete access to non-timber forest products in the protected areas, 25 per cent of the timber and one-third of the revenue from the sale of the rest of the timber. Under a revised order of 1996, the VSS is entitled to 100 per cent of the timber and bamboo harvested after deducting costs, with the proviso, however, that 50 per cent of this revenue should be ploughed back for the management of the forests. The VSS is entitled to all non-nationalized NTFP. For those NTFP over which the Girijan Co-operative Corporation (GCC), the state NTFP federation, has monopoly rights, the villagers have only collecting rights in their area, and have to sell to the GCC at its rates. Some changes have been made to other

provisions as well, such as the composition of the executive committee, and the right of the VSS to apprehend offenders.

Two particular factors have affected the nature of JFM in AP. The first is the AP Forestry Project, sanctioned for six years from 1994 to 2000. The overall project cost is US $89.10 (Rs 3536.5 million), of which the bulk consists of a loan from IDA. According to a seemingly frank account by the World Bank (Clark 1995: 27–34), the Bank started discussing an AP Forestry Project in 1991, when the AP FD wanted guns and ammunition, more staff, subsidized distribution of seedlings for farm forestry, research and so on. The Bank started a slow process of introducing new ideas into the AP FD's thinking about new approaches, and hired Indian consultants who had experience of the way the West Bengal Government had developed participatory approaches. After workshops in 1992 with FD staff and NGOs, and visits by AP staff to see what was happening in West Bengal, the principles of the project were agreed between Bank and FD staff. When a new PCCF tried to change these principles, the Bank was able to have him replaced with a person of their choice. About 30 per cent of the project base costs are reserved for JFM related components (participatory forest rehabilitation, JFM and Tribal Development Special Action Programmes).

Major conditions of the World Bank loan also include restructuring of the FD, and policy reforms that open the sector up to private initiative. Other familiar components include overseas training and the freeing up of forest land in large enough blocks to allow for soil preparation machinery. Studies by local NGOs have shown that this machinery would reduce the employment generated by the project, and the likelihood is that rather than making available degraded land, good forest land located near industries will be given over for plantation (Centre for Environment Concerns 1995). Initially progress was slow, and the Bank expressed some concern over the quantity and quality of VSS. There were also problems of co-ordination between the Tribal Welfare Department and the Forest Department over who would implement the Bank-initiated Tribal Development Plan (TDP), to provide alternative income to those adversely affected by the closure of the forests. It was finally decided that the FD would implement both JFM and the TDP, and that TDP would be implemented in all VSS with a tribal population of over 15 per cent (Rangachari and Mukherji 2000: 132–4).

In late 1995, the Chief Minister, Chandrababu Naidu, saw in JFM a state-wide programme he could use as a high priority means of giving employment to rural youth and women. His idea was to form small groups who would be allotted land for afforestation. His efforts were frustrated

by local FD officials who pointed out that such a move would contravene the provisions of the Forest Conservation Act as well as go against the spirit of JFM. January 1996, therefore, saw the launch of the Vana Samarakshna Udyaman (Forest Protection Movement), which sought to expand vastly the area under JFM, mobilising funds from rural development schemes already in operation in the state, such as the Jawahar Rozgar Yojana (Mukherji 1998: 24). Far more resources are available under the World Bank funded AP forestry project than in the CM's JFM, leading to fears of jealousy between villages and unsustainability. But Naidu's interest has given JFM a much higher profile in the politics of AP than it has had in any of the other states we have been studying. Recently, Naidu was ranked as the 'greenest' chief minister by the readers of India's leading environmental magazine, though the same article reported that environmentalists in the state itself were divided on his rating (*Down To Earth* 1999).

Social Forestry in AP had a limited impact, since there was not enough community land available for plantation. According to the Andhra Pradesh FD, the major reasons for forest loss in the past were smuggling and encroachment on to forest land for cultivation, encouraged by the Marxist–Leninist People's War Group (PWG), especially in Adilabad and parts of the Eastern Ghats. A proposal mooted by the GoI to regularize and give titles for forest land encroached before 1980 apparently further extended the process of deforestation. JFM was seen as a way of checking this, and a revised JFM order, promoting intensive tree plantation with people's participation, was seen as a replacement for the land regularization proposal (Rangachari and Mukherji 2000: 136; see Chapter 4 for a discussion of encroachment).

The AP FD also sees countering the 'Naxalites' as one of the major successes of its JFM policy. According to the Forest Secretary and the PCCF, in Adilabad, one of the strongholds of the People's War Group: 'today the forester feels safe to visit Naxalite-infested localities because of the protection by VSS members' (Rangachari and Mukherji 2000: 149). However, a more likely reason is the severe repression that the state government has unleashed on these areas, with more than 600 deaths due to 'fake encounters' in the last few years according to Andhra Pradesh Civil Liberties Committee. PWG scepticism about JFM—as simply a means to deprive people of land which would be used to plant trees for industry instead—also seems to have given way to an understanding that protection is necessary (Committee of Concerned Citizens 1998: 70).

Most other NGOs in Andhra Pradesh have been glad to become involved in JFM. The JFM order makes provision for a local NGO

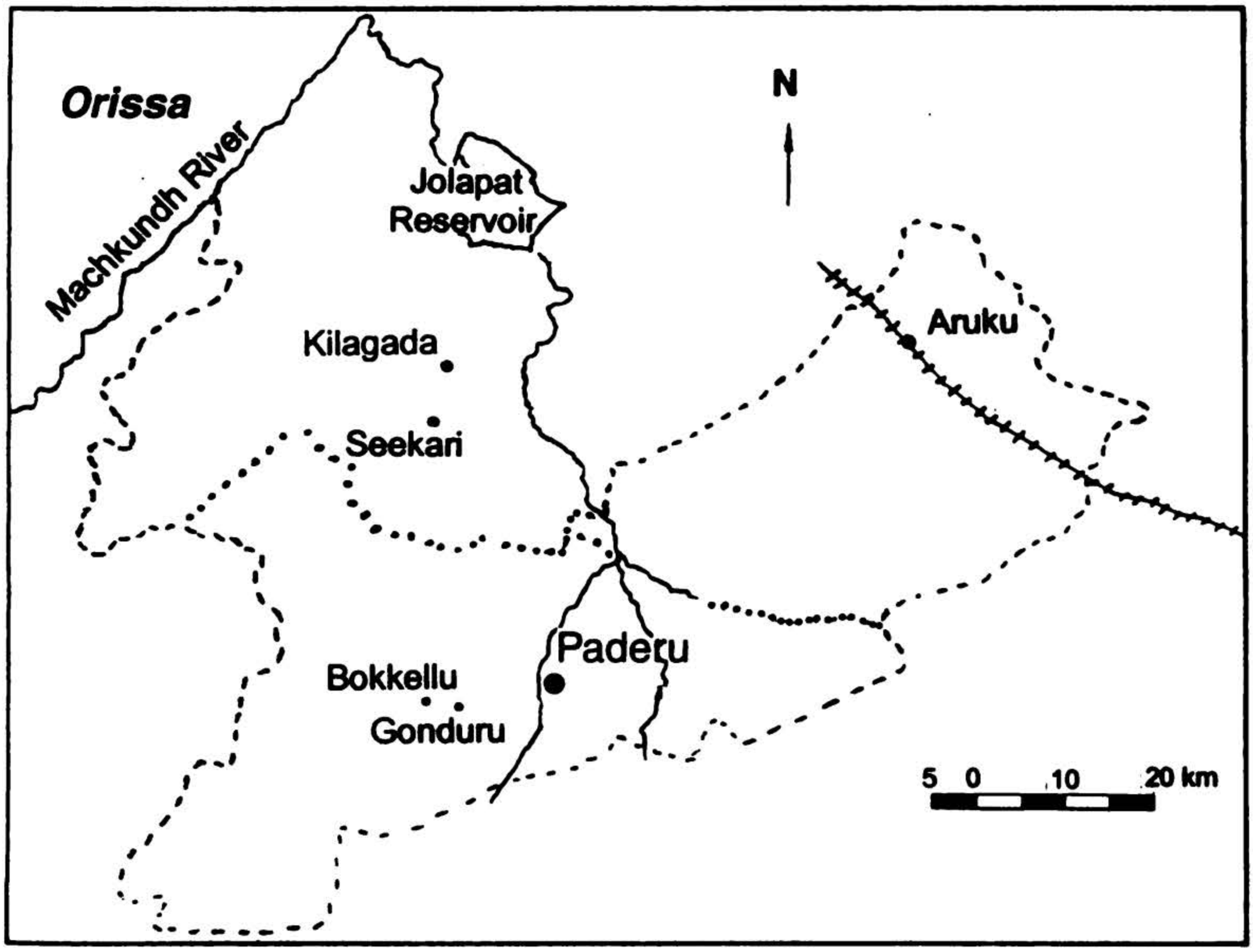
representative to be a member of the VSS Managing Committee, and to play a 'facilitating' role (see Chapter 5 for more details). Very few NGOs are found in Telengana, the most forested region where the PWG is most active, with far more in coastal areas. Even before the JFM order, some NGOs were active in the forest sector. In Vizagapatnam, Samatha fought against Birla Mining in Paderu, and worked on land and water management, as did the NGO ARTIC in Srikakulam. Others, many with government funding, have become active after the Government Order (GO) on JFM; they tend to be seen by the FD almost as more efficient wings of the government. NGO networks working on environmental issues include the Aranyika network in the Eastern Ghats, the Praja Paryavarana Parirakshana Udyaman in Chittoor and the Anana Paryavarana Parirakshana Samatha in Rayalseema (Andhra Pradesh State Secretariat 1998), funded by the SPWD. Unlike activists in Madhya Pradesh, NGOs in Andhra Pradesh—whether large or small—do not see themselves, nor can they be seen, as an alternative to government. They all presuppose a government and state spending in the social sector. Their main role is to act as intermediaries, to try and attract government funding to their villages.

Other notable features of Andhra Pradesh, in the context of JFM, are the long history of tank irrigation, and the Janmabhoomi programme. AP is one of the first states to have participatory irrigation management, though its relation to other forms of collective action, even within the same village remains to be fully studied.[17] Under the Janmabhoomi programme set up by Chandrababu Naidu, people take up projects at the level of their *gram sabhas*, and contribute a percentage of the cost in the form of free labour.

Paderu Division

Paderu, in the Eastern Ghats, is referred to as the Agency Area of Vizagapatnam district (see Map 2.5). In the hills above Vizagapatnam there was a tangle of different states: some large kingdoms, and some small *zamindaris*. Paderu was the first site of the Madgole *zamindari*, which owed suzerainty to the Vizianagaram king. In 1770 the *zamindar* was overthrown with the help of Company troops, enabling British control over the estate (Carmichael 1869: 320).

Following protest in Gumsur in the 1830s, the hill estates were exempted from the normal operations of civil and judicial laws. Consequently, in 1839, the Ganjam and Vizagapatnam Act (Act XXIV) was passed, constituting the 'Agency' area, under the special charge of the District Collector, who was also known as the Agent to the Governor General. The 1839 Act was followed by the Scheduled Districts Act,



Map 2.5: Paderu Forest Division, Andhra Pradesh

1874; the Agency Tracts Interest and Land Transfer Act, 1917; the Government of India Act, 1935; and the Fifth Schedule of the Constitution—all of which marked the agency tracts apart in legal terms, ostensibly in order to protect the local tribal population against rapacious plains dwellers, traders and moneylenders (Carmichael 1869; Francis 1907). *Muttadars* in Paderu took the role played by *gaontias* in Sambhalpur. They had the right to collect revenue, and although they had no ownership over forests, they were required to preserve the forests by discouraging *podu* (shifting cultivation) and forest fires, and encouraging settled agriculture. In Paderu, most of the *Muttadars* were Bhagatas, and although estates were abolished in 1948, the Muttadars were retained till 1969. Land was surveyed between 1971 and 1974 and title deeds given to the landholders (Sastry and Reddy 1991). Near Paderu town a statue of Alluri Sitaramaraju, the great rebel hero of the Agency Areas who fought the British in the 1920s for access to forests and against restrictions on *podu*, serves as a reminder that these issues have always been important ones in the Agency Areas.

Paderu Division is one of the five divisions of Vizagapatnam forest circle. In 1948 after the abolition of hill estates, the Revenue Department managed their forests for a while before being merged with Vizagapatnam forest division (Rao 1979: 22, 36). Paderu division was started in the early 1960s as a soil conservation division to treat the Machkund river basin. From 1984, the division was assigned territorial functions as well. It consists of three ranges—Pedabayulu, Paderu and Araku. The forests in Paderu are classified as southern tropical moist deciduous forests and dry savannah forests, with few big trees; almost all forest cover is of secondary origin, having regenerated after shifting cultivation, grazing and burning. Common species include mango, dhaora, sahaj, with an under-storey of bamboo *Dendrocalmus strictus*. Several plantations of silver oak, coffee and pepper can be found *en route* to Paderu from Vizagapatnam.

After independence, Paderu was constituted as a mandal (sub-divisional) HQ, in Vizagapatnam district. In 1956, under the Second Five-Year Plan, four multi-purpose projects were set up at Utnoor in Adilabad, Narsampet in Warrangal district and Araku and Paderu in Vizagapatnam district. Later, these were converted into Tribal Development Blocks, and in 1975, the Paderu Integrated Tribal Development Agency (ITDA) was set up, covering a little more than half the area of Vizagapatnam district, but with a little less than 13 per cent of its population (Government of Andhra Pradesh 1996: 51, 83–4; Tribal Cultural Research and Training Institute 1991). Almost 90 per cent of Paderu's population consists of Scheduled Tribes. Until recently, an Assistant Collector, an officer of the Indian Administrative Service, doubled up as ITDA Project Officer. In the 1990s two ITDA project officers were forest officers, which was seen as a victory by the forest service, and part of the World Bank supervised agreement to have the forest department implement the Tribal Development Plan. Irrespective of inter-departmental rivalries, understanding forests is crucial in an area where they constitute almost 61 per cent of the total ITDA area and are an important, if not the major, source of cash income for the local people. One interesting feature of the AP JFM process has been the setting up of a 'Multi-Disciplinary Team' consisting of representatives from all the government departments (forest, animal husbandry, agriculture, fisheries, horticulture, civil engineering, etc.), and chaired by the Project Officer ITDA to ensure 'integrated development' of the villages through JFM.

The traces of vast sums of money going into tribal development are visible in the large college and hostel buildings at Paderu, the imposing ITDA office, the Tribal Cultural Research Institute, the smaller offices

of the FD, an iodized salt factory, and a couple of private institutions—a missionary school, theatre, temple and church. Apart from these few buildings, Paderu hardly looks like a town, and the villagers do not seem to have appreciably benefited from 'tribal development' programmes. Local NGOs include AWARE and Care-India which work on rural credit, and women's thrift societies, and smaller ones like TERDS (Tribal Education and Rural Development Society), Integrated Development through Environment Awakening (IDEA) which is working on rural development, and Samatha, which was working on tribal land rights and legal aid. In the mid-1990s, Samatha successfully fought a landmark case against the Birlas, pointing out that the company violated both the Forest Conservation Act and the Act regarding alienation of tribal land.

Everywhere in Paderu one is surrounded by hills, covered with the signs of *podu* or shifting cultivation, brown and bare after the harvest, and covered with a swathe of green during the monsoons. *Podu* in this area is not the ecologically sound affair it can be in areas with dense forests and enough time to regenerate. Here, the limited scrub and grass that is available to be burnt is not enough to add fertility to the soil and production per acre has declined to half of what it used to be about twenty years ago. Nonetheless, it remains an important source of local subsistence (Rao 1993: 155). It is not clear, however, whether the bare hills represent 'deforestation' from the last century. As a Gazetteer of the early twentieth century puts it, 'most of the country consists of exceedingly bare red hills, covered with dry cultivation, coarse grass or dwarf dates, and boasting hardly a tree' (Francis 1907: 284). However, older villagers claim that there was dense forest with trees like Madi, Nalamadi, Vengasa, and Ganari. One resident, 96-year old Sanyasi Rao, noted that contractors on behalf of the AP Paper Mills at Rajamundhry used to visit frequently in search of bamboo but restricted themselves to the *ghat* road and did not come to Paderu.[18] Vizagapatnam district has 503 sawmills and woodworking industries.

The main crops grown are paddy and coarse grains like *ragi*, but some people also grow turmeric or vegetables for sale. Common NTFPs include hill brooms, tamarind, jackfruits, and *adda* leaves. Across the border is Koraput district in Orissa, a useful avenue for both timber smuggling and alcohol, compared to prohibition-bound Andhra Pradesh. This belt is part of the Dandakaranya culture zone that stretches across AP, Orissa, MP and Maharashtra, and villagers here are fluent in both Telugu and Oriya, as are those across the border. Yet, programmes like JFM provide the occasion when boundaries are invoked—with the Andhra tribals blaming the in-comers from Orissa for continuing with shifting

cultivation (see Chapter 4). According to the DFO of Rayagarha in Orissa, some 500 square kilometres of territory in this region is still disputed between AP and Orissa.

Villages

Kilagada, 47 kilometres from Paderu, close to the Orissa border, is a multi-caste village in which the Bhagatas dominate over the other castes, the Kondadoras, Nukadoras, Gouds, Parajas, Kammaris, Kodus, and Valmikis. It was the main village of a former *muttadar* whose lineage had the same name. After the abolition of the Muttadari system it was the site of a Mandal HQ, which was later shifted elsewhere. Nevertheless, like Lapanga in Sambalpur, it bears the trappings of a large and well-established village—a bank, post office, a mobile medical unit, a panchayat office, residential school, and a library (with no books). Out of the 259 households in the village, the villagers ranked 10 per cent as 'rich', 15 per cent 'middle income' and the rest 'poor'. But the richest person has only approximately three to four acres of land, an indication of what being 'rich' means in these tracts. It was the first village taken up for JFM in Paderu division.

Seekari is also in the same Pedabayulu range as Kilagada, but it tells an altogether different story. After seeing the benefits Kilagada had gained, the villagers asked for JFM, but the agreement has since fallen under the weight of internecine squabbles. The village is split between supporters of Congress and the Telugu Desam, but, additionally, the eight hamlets are difficult to manage: some of them are part of Seekari panchayat and some are not. Like Kilagada, it is composed of several ethnic groups. Among these, the Gouds, migrants from Orissa, are victims of the Machkund hydro-power project. Most houses are of mud, though some more durable ones have tiles and grills.

Gonduru and Bokkellu, five and seven kilometres from Paderu respectively in the other direction, are almost exclusively Kondadora settlements, again with a few Gouds from Orissa. Gonduru is a panchayat headquarter bordered by Iridapally reserve forest on the south and the Paderu–Chintapally road on the north. Of the 84 households in the village, 14 per cent are rich, 56 per cent make it to the middle range and 30 per cent are poor. Although there is a primary school in the village, the literacy rate is only about 10 per cent.

In all the three villages we studied, protection had just begun and the villagers had still to formalize procedures. Men patrolled irregularly and women did not patrol at all, and in almost all cases this was being replaced by a watchman paid out through the JFM funds given by the FD.

Bokkellu is even smaller, with 37 households. It has no JFM. In addition to the 27 families of Konda Doras, there are four families each of Gouds and Bhagatas, one Valmiki teacher and a Kapu from the plains who runs a tea shop and a flour mill. Here, unlike Kilagada, the Bhagatas are said to be 'docile'. *Podu* is quite common in the village. Nine families own over three acres of land, 16 have one to three acres and 12 families are landless or own less than an acre.

CONCLUSION

This brief overview of the four states shows that there is no uniform programme called JFM. The problems it is meant to address vary across states, and even among villages within a division. In the Paderu villages, the AP FD intended to use JFM primarily to check encroachment for shifting cultivation. In Rajpipla, it was seen as a way of reducing conflict between the FD and villagers. In Sambalpur, the villagers themselves started protection, in some cases due to scarcity; in others as a continuation of an older method of managing resources at the village level. In Dewas, 'problems' included encroachment and smuggling. In both AP and MP, the main 'problem' also seems to have been how to spend the World Bank money that had come in for JFM. In Paderu, the causes of deforestation are largely diversion of forest land and shifting cultivation, while in the other three sites, production for revenue has had a significant role, along with diversion to dams (Hirakud in Sambhalpur and Ukai in Surat district).

Again, the immediate context in which JFM was introduced is quite different in each of the four states. In MP and AP, the immediate policy draws heavily on World Bank projects, while in Gujarat it is a mixture of FD, NGO and villager initiative (as in the Panchmahals). In Orissa, the credit for initiating protection on a large scale, whether one would wish to include it within the rubric of JFM or not, must go largely to villagers. Finally, as the resolutions reveal, the objectives of JFM also vary across States, with MP being the only one that had (before the MoEF 2000 guidelines) made some provision for protection of good forest land as well. Given the differences in problems, immediate trajectory, objectives and form taken across states as well as within states at different levels, we need to find new words to describe a phenomenon like JFM. Is it a bundle of concepts, with different ingredients for different states, a common government programme that is substantiated in different ways at different level, or a movement comprising different interest groups, who are united merely by a name? Finally, what difference has JFM really

made, either to the forests, or the people depending on them? These issues will be taken up in greater detail in subsequent chapters.

NOTES

1. In Jhabua, this DFO had 'converted' to JFM after a bloody incident when villagers protesting against the forced imposition of cattle proof trenches and plantations in Kiti, Jhabua, were fired upon; see Bannerjee (n.d.). Bahuguna (1993) has a positive description of JFM in Jhabua.

2. This is an amendment of the earlier resolution, which differentiated between villages depending on who was funding the plantation on the protected area—the FD or an NGO. FPCs funded by NGOs would have got an 80 per cent share of the timber while FPCs funded by the FD were to get a 25 per cent share.

3. The Japanese funding arrived after our fieldwork had finished, and hence it has not been taken into account in the study.

4. The situation appears very different in other areas, where villagers and NGOs have had considerable battles with the forest department to prevent appropriation of land they had been protecting. See Khare *et al.* (2000).

5. Until independence a movement continued for land rights, establishment of co-operatives, and for release from indebtedness and the practice of forced labour. By the 1960s, however, *adivasi* leadership of such movements was supplanted by the established non-*adivasi* leadership of the Congress party, though there continued to be some struggles, for example for minimum wages in the 1980s, or for regularization of cultivated forest land.

6. In both villages the fines were Rs 15 in 1995, and Rs 20 in 1996.

7. According to Chatrapati Singh (1993), the rates were: free *nistar* (for minor forest produce); concessional *nistar* (for timber poles at 50 per cent of the royalty rates, and fuelwood and bamboo at 1/20th of the market rates); occupational *nistar* for basket makers, *beedi* frame manufacturers etc.; commercial *nistar* (bamboo and timber at 80 per cent of the royalty rate for villages not covered under concessional *nistar*) and finally consumer *nistar* (of timber upto 0.5 cu. m. for commercial fuelwood depots). Post-JFM and a new *nistar* policy, there are different rates for protecting and other villages.

8. This is in keeping with the Hoshangabad model developed by a DFO, Rathore, who was credited with persuading villagers to protect forests or desist from illicit felling and grazing in return for 'development inputs' like lift irrigation, wells, health care, etc.. The FD was to co-ordinate funds from other development departments (SPWD 1992a).

9. Nistar policy: order no. F-7-22/93/10/3, dated 26 December 1994.

10. Transit order: order no. F/30/28/941/10/3, dated 9 November 1994.

11. Order no. 0/6/64/10/3, dated 10 October 1994.

12. Some villages that are part of the Narmada Bachao Andolan, such as Jalsindhi, have been actively protecting their forests, even as they are threatened

with submergence. In Kanker, Ekta Parishad has facilitated forest protection in several villages.

13. Three additional subtypes in Dewas are: Hardwickia (Anjan) forests; Boswellia (Salai) forests and Butea (Palas) forests.

14. One regularization order was passed for encroachments up to 31/12/1976, followed by another for encroachments up to 24/10/1980 (Order No. 16/21/92/ SAT/2A, dated 21/4/1994).

15. A total of 904.637 hectares of forest land has been encroached upon in these 49 villages This works out to 455.69 hectares for Panigaon range, of which just a little under half (207.11 hectares) has been encroached in Mohada alone. This excludes the 130 hectares encroached in seven forest villages (FD record for regularization of 1980 encroachment, Dewas Forest Division).

16. Currently there are only 12 forest villages left in Dewas division.

17. Wade (1988) provides more details on collective irrigation management systems in Tamil Nadu.

18. Interviewed by Prafulla Gorada at his home in Paderu, 15 March 1996.

3

'Jointness' in Joint Forest Management

Institutional Arrangements at the Village Level

A variety of influences were discussed in Chapter 1, both specific to India and at the global level, that forced a shift in thinking about forestry. These included: increasing degradation; reduction in forest revenues and capacity to meet demand; loss of control and legitimacy on the part of the Forest Department and consequent conflicts between forest staff and others; the limitations of 'scientific forestry' and its inability to ensure sustainability; and the ethical issues posed by NGOs and others regarding social justice and poverty alleviation among forest dependent communities. Little more than a century after forests were expropriated from communities in many parts of the world (Gadgil and Guha 1992; Peluso 1992; Scott 1998; Thompson 1975), there has been a sea change, at least in theory. 'Community forestry' and 'participatory forestry' have become standard paradigms (Gauld 2000; Hobley 1996; Kothari, Pathak, Anuradha, and Taneja 1998; Lynch and Talbott 1995; Poffenberger 1990a; Poffenberger 1990e; Poffenberger and McGean 1996; Schroeder 1999; Singh and Ballabh 1996).

In concrete terms, as is evident from both the implicit assumptions of the JFM orders and popular expectations among non-governmental supporters of JFM, JFM in India has introduced new parameters in three major respects: community, power and choice.[1] With the shift away from state management, 'communities' have been identified as important and essential actors in any movement towards regeneration of forest land.

Following the new emphasis on 'participation', there is an effort to challenge and restructure power relations between communities and forest departments. Presentations attempting to describe the new roles of forest officers under JFM are replete with phrases like: 'from regulators to facilitators', 'from policing to partners', 'from target approach to process approach', 'from conflict to collaboration'. Foresters routinely use words like 'empowerment' and talk of the need to consult 'stakeholders'.[2] Finally, the emphasis on 'participation' also means that, ostensibly at least, choices are being offered to villagers to decide how and which forests will be managed, shown by the clauses on species selection and the preparation of micro-plans in JFM orders. This chapter unpacks these categories in order to assess what difference JFM has made at the 'community' level. While we could have chosen to focus on 'participation', we felt that the concept would restrict us to the relations between the Forest Department and villagers, whereas in fact JFM has been considerably influenced by, and has in turn, reconfigured relations among villagers and within the Forest Department. 'Power' and 'choice' thus serve as more nuanced concepts with which to think through the changes that JFM has introduced. Questions of power inevitably relate to the relation between FDs, NGOs and donors as well, but this is the subject of Chapter 5.

COMMUNITY

Discussions of community in forest management often draw on the common property literature (see Bromley and Cernea 1992; Ostrom 1990) to examine how collective action is generated and sustained, and how conflicts and equity considerations in the distribution of costs and benefits are managed. The International Forestry Resources and Institutions (IFRI) research programme based at Indiana University has developed a database of community managed forests to predict when collective action will succeed. According to Ostrom (1999), this depends on several variables:[3]

- The attributes of the resource (the feasibility of improvement, reliable and valid information about the resource at reasonable costs, predictability of the resource, and spatial extent)
- The attributes of the users (salience or actual dependence, common understanding, discount rate, similar distribution of interests among members with different economic and political assets, trust, autonomy, and prior organizational experience)
- The 'design principles' which have been created for management

(clearly defined boundaries or a match between people and resources, congruence between costs and benefits, collective choice arrangements or the participation of those affected, monitoring, graduated sanctions, conflict resolution mechanisms, minimal recognition of rights to organize, and for those common pool resources which are part of larger systems, appropriation, provision, monitoring, etc. organized in multiple layers of nested enterprises).

Much of this research is, no doubt, important and useful in explaining the outcome of particular cases. In the absence of replicability on all variables in the different case studies (omitted variable bias), and appropriate weightage, however, it is difficult to test the causal efficacy of any one variable (Agrawal 2000). Moreover, 'success' and 'sustainability' are themselves contested concepts. Take, for instance, the notion that size, composition (whether *adivasi* or not) and homogeneity are important factors in determining the likelihood of collective action. Social heterogeneity is usually argued to reduce the chances of JFM 'succeeding' (Baland and Platteau 1996; Chambers, Saxena, and Shah 1989: 161–2; Jodha 1990; Ostrom 1990; Ostrom 1999; SPWD 1992b: 5). Our evidence on this is contradictory: the most longstanding example of community management in Orissa was from Lapanga village, which is large and heterogeneous. On the other hand, in Pardikheda and Lalakhedi in Dewas, size and sharp class and income disparities did limit the formation and effective functioning of a committee. In both cases, however, dominant groups controlled decision-making. We need to identify the specific kinds of situations in which heterogeneity makes a difference—how, and to whom. Heterogeneity *per se* is not an obstacle to sustaining efficient forest protection committees, if the goal is merely forest regeneration. A dominant caste or village headman may be effective in closing off village forests to allow for regeneration, thus placing great hardship on the poorer sections, particularly women, who are predominantly dependent on the forest.

The focus on attributes of the user community and the resource also detracts from looking at external (divisional/state level) policies, or at external forces such as the market or population growth (Agrawal 2000; Hobley and Shah 1996). Moreover, most JFM plots are not a simple example of a common property resource. As Lele points out, from the ecological perspective, forests provide multiple services such as carbon sequestration, biodiversity conservation, fuelwood, timber, minor forest produce, etc.. These goods are not all divisible and even where divisible, the relevant community varies (Lele 1998b: 3). In terms of regulation, too, JFM rules are not the same as design principles devised by

communities, and go beyond the management of a 'community resource' (see also Arnold and Stewart 1991: 3–4). In addition to the GoI policy guidance, 23 states have passed their own orders, with the central and state orders interacting with each other. As we showed in Chapter 2, JFM does not arrive in uncharted seas and the JFM order is not the only one that touches upon people's access to forests or their right to manage it.[4] The same space or forest plot may be subject simultaneously to the very localized understandings of forest guards and villagers themselves, the carrying out of the order by district forest officers based on their personal predilections, the organizational culture of the state FD, or some understanding of what local ecological conditions require, the MoEF with their vision for afforestation, or even the Supreme Court in its judgements on what is allowed on forest land.[5] Within this, it is important to understand how 'citizenship' in forest resources has been redefined.

The common property literature is also problematic in that it naturalizes 'community'. It assumes that ready made communities exist, and what matters are 'variables' such as size or heterogeneity. Anthropologists and historians are increasingly pointing to the 'constructed' nature of community. What we call dividing lines—such as race, class, gender, religion, ethnicity or age—may also be forms of community in their own right (Chatterjee 1998: 278). But none of these forms of community arise naturally, simply by virtue of membership in that category: they have to be created and given a tradition (see Breckenridge and van der Veer 1993; Ludden 1996 on the creation of 'Hindus' as a 'community'). Social units are often constructed for specific purposes, under specific rules. The 'communities' that are basic to JFM policy may be better seen as forms of social life that have been created by JFM resolutions, rather than as inherent attributes of the people and the place themselves. However, these are not totally 'fictional'. It might be useful here to invoke Daniel's 1996 distinction between real and imagined communities—those real communities made up of people engaged in actual interaction, and those imagined communities made of people grouped along some particular form of likeness (Daniel 1996: 18–19). The power of regulations like JFM lies in their ability to arrange real and imagined communities on to the same geographical space, such that belonging to one village with its identification with one plot of forest, rules out some other forms of interaction across villages or groups.

Historically, the notion of public interest or eminent domain has been used against small-scale peasants or forest dwelling groups, to expropriate them, thus often replacing local management of resources with individual or state ownership (Singh and Kumar 1986). Where customary

usages were recognized, they were recorded as 'privileges or concessions' rather than tenurial rights. Given this history of displacement, it is common for NGOs and activists to argue that JFM merely restores control over neighbouring forests to those who owned them in the first place—village communities (Ravindranath, pers. comm; Sharma 1995). Many environmentalists feel that community institutions are still extant and, having survived colonialism and 'modernization', can provide a path forward. However, there are several crucial differences. Under JFM, ownership of forest land continues to reside in the state, while villagers are merely given usufruct rights and a share of the timber on whatever land the FD considers suitably degraded. In 'traditional' systems, ownership and control may have resided in corporate (male) communities of original founding lineages (see for example, Kelkar and Nathan 1991; Sundar 1997), whereas JFM aims to give access and control to the entire village, including women and later settlers. Villages themselves today are quite different entities from what they may once have been (see Breman, Kloos, and Saith 1997; Chakravarty–Kaul 1996). In short, where the moral claims of local people are being recognized by the state, this is not on the basis of the historical rights of people and the traditional duties of a paternalistic state alone. These ideas are selectively retained and sought to be transformed into new, limited rights, granted only when villagers have demonstrated their entitlement through their work in reforestation. In order to examine how these new rights and duties are being institutionalized in practice, we look at the manner in which community has been conceptualized in the JFM resolutions.

The Construction of Community in the JFM Resolution

In this section we examine how promoters of JFM imagine and seek to produce the localized units that are needed to implement it. In practice, what concept of community do foresters, and villagers work with? What kind of institutional arrangements are being conceived in order to ensure the continuing functioning of this community? In the process, whose opinions count, and whose are marginalized?

The 1990 JFM resolution defines community as 'village community' in the title. It goes on to specify that this 'village community' must be

> organized into a village institution, specifically for forest regeneration and protection. This could be the *panchayat* or a co-operative in the village, with no restriction on membership. It could also be a Village Forest Committee. In no case should any access or tree *pattas* be given to individuals.
>
> (MoEF 1990: Section 3.i)

Thus, a 'village community' could mean anything from a panchayat

covering one or more revenue villages,[6] a forest committee restricted to a hamlet of a village, or a co-operative made up of particular resource users across several hamlets who have paid up membership. Section 3.vi also notes that the area to be selected for protection and sharing of usufructs should be selected such that no non-beneficiaries have claims, and conversely, no existing user is denied the chance of being a beneficiary. Criticizing the diversity of names for local JFM organizations, the revised national JFM Guidelines stipulate that committees should henceforth be known uniformly as JFM committees in all the states, and that by 31 March 2000 state governments must register all JFM committees under the Societies Registration Act, 1860 (MoEF 2000).[7]

In practice so far, the four states in our study have followed a village-centred model, in which the community is strongly correlated with a village or group of villages that are proximate to the protected resource. In Gujarat, while the village organization is expected to comprise of at least 60 per cent of the families in a village, it could be the 'village panchayat or a co-operative society or development organization or a forest development and protection committee' (Government of Gujarat 1990: Sec. 3). In MP, under the revised 1995 order, the committees (VFC and FPC) are both village-based—VFCs for open and FPC for closed forest. In Orissa, if individual villages do not volunteer, the gram panchayat (a body covering one or more villages) can constitute a VSS. A November 1995 decision of the Steering Committee recognized the legitimacy of existing Village FPCs (essentially, the informal ones) without requiring further sanction. In AP, a special dispensation has been made for dispersed settlements in tribal areas, where not just the village, but an individual hamlet may be treated as a unit. To decide to form a VSS, a 50 per cent quorum of households (not all adults) is required.

All the resolutions assume that there must be some corporate body that is willing to take up the task and share common responsibility, and that a village is the best such corporate unit. The resolutions share two unexamined assumptions. First, that the forest is an indivisible resource, or an ecosystem providing a variety of benefits (like carbon sequestration, prevention of soil erosion, or improvement of micro-environments) that individual trees alone cannot provide. Second, that it follows from this that the forest is best managed as state-owned land or commons territorially identified with a village, and not as a collective of individually owned or managed plots or a commons that is identified with multiple, and sometimes, transient users. Alternative tenurial arrangements—such as those under which individuals may privately own trees (for example, mahua trees) even within a common forest patch—are ruled out

of consideration (see Peluso 1996 and Rocheleau, Ross, Morrobel, and Hernandez n.d. for other types of complex arrangements). At the same time as management is meant to be collective, other aspects like the eventual sharing of the final harvest are meant to be on an individual or household basis.

Coupled with the insistence on managing the forest as a commons is an assumption that in such communities, common goals inform individual interests, or even determine individual interests completely. This becomes manifest in phrases such as 'the village community may be permitted to plant such fruit trees as would fit in with the overall scheme of afforestation' (MoEF 1990: Section 3.xi).

As Seyla Benhabib has pointed out, there are two models of community (and communitarianism): the 'integrationist' model emphasizing the importance of a shared discourse of moral values; and the 'participatory' model emphasizing the need to acknowledge and respond to diverse views on what is desirable (Benhabib 1992: 81). Nurturing a fit between individual and community interests is thus the task of detailed institutional arrangements that are comparatively neglected in the JFM resolutions. Fortunately, as JFM has taken root and developed its own set of issues and problems, significant attention has been focused on developing such arrangements (Balakrishna *et al.* 1998; Raju, Vaghela, and Raju 1993; Sarin *et al.* 1998; Sarin 1996).

Where villagers have themselves initiated protection efforts, the revenue village is not always the unit they select. For instance, in Kenaloi, Sambalpur, the village has sub-divided the protection committee into committees for different hamlets, in the interests of greater efficiency. In Nayagarh or Budhikamari (elsewhere in Orissa), groups of villages have formed a protecting unit. In many Orissa villages the organizing spirit comes from village youth clubs, not a formal committee of household representatives or even village elders (for further evidence of this process, this time from Oriya fiction, see Mahapatra 1998). Other traditional systems of managing community affairs have often prioritized caste over village. For instance, in Pardikheda, Dewas, villagers organize on a caste basis for collective activities, for example to build a Ram Mandir and to settle disputes, etc. (see Hayden 1980 on the caste-base of dispute-settling panchayats). There is some tension between the construction of community as a village unit in the resolutions and the multiple forms that indigenous organizing takes (Mosse 1995: 22–6; Nuitjen 1992: 202). But villages have also become a unit in their own right as a result of administrative and political interventions (Breman 1997). In the JFM case, these interventions include village-based development works and the

allotment of a forest patch to a village. 'Village communities' are thus often the product, and not necessarily the precondition, for a JFM type management system.

Community vis-à-vis Committee

The JFM resolutions also assume that committees can represent the community at large. A similar situation in the Philippines has been described as 'bureaucratizing communities' (Gauld 2000: 244–5). The Forest Department is not alone in this assumption. An analysis of government schemes in Dewas district revealed at least twelve official committees (Vasavada, Mishra, and Bates 1999: 156–60). Apart from the FPC, these included, for example, women's thrift societies, health committees, education committees, and watershed committees. Each department or funding agency wants to have its own outlet or opportunity for patronage in a village, but officials also claim that the multiplicity of committees provides an opportunity for more people in a village to gain leadership experience, and that each committee addresses a different group of stakeholders. Sometimes NGOs working in an area add to the complex of communities. As we discuss later in this chapter, however, it is not uncommon for the same people, or at least the same family, to figure as leaders in all committees. Nor do different committees necessarily target different groups of stakeholders.

For instance, in Orissa, the Social Forestry wing used to concentrate on plantation work on revenue lands while the Territorial wing concentrated on forest land. The District Rural Development Agency then decided to step in and give money to the youth clubs for plantations on revenue lands, leaving three different bodies carrying on plantation work separately from one another in the same area. In Mohada (Dewas), both the FPC under the JFM programme and the watershed committee under the Rajiv Gandhi Watershed Mission have undertaken soil and moisture conservation work in the forest. While Mohada villagers are familiar with the FPC's existence and role, particularly since they associate it with an FD promise not to disturb existing encroachments, few are aware of the existence of the watershed committee. Most people attribute its work on forest land to the forest committee. What matters to them is wage employment, not which department offers it.

Some villagers are cynical about this proliferation of committees. Jasratbai of Pardikheda (Dewas) argued: 'All these different committees are just different avenues for people (especially government officials) to make money.' Yet others have a clear sense of the advantages that either side gleans. As Nathu of Mohada (Dewas) asked: 'What is wrong with

this? The greater the number of committees, the more benefits we will get!' Villagers in Lapanga (Sambalpur), also feel that having different committees will help them get benefits from different departments (Vasavada, Mishra, and Bates 1999).

So far, the relationship between these committees and the panchayats is tenuous, but is slowly evolving. Under the 73rd and 74th constitutional amendments, which gave panchayats constitutional status, there has been a gradual devolution of administrative—particularly developmental functions—to the panchayat, and the gram sabha is supposed to supervise all the committees in a village. However, government staff prefer having departmental committees so that they can control funds and avoid the politicization that panchayats are prone to. In many cases, panchayats consist of multiple villages, and although JFM resolutions require the presence of *panchs* as part of the executive committee, they may have little stake in the forest as they may come from another village. For example, villages Kandia and Potla in Dewas have separate *nistari* forests, but are part of a joint panchayat. The sarpanch was from Potla and neither she nor the other *panchs* from Potla ever came to the Kandia VFC meetings. In Orissa, the 1993 JFM resolution initially made the *naib* sarpanch the chair of the VSS, but given the size of the panchayats and the fact that the *naib* sarpanch is statutorily a woman, her attendance was rare. The order was subsequently amended to make the *naib* sarpanch merely an advisory member. In both MP and AP, the availability of World Bank funds has meant that the JFM committee has taken up works that would normally be done by the *panchayat,* such as building approach roads to the village (Mohada), providing a water tank (Pardikheda), a meeting place (Kilagada, Seekari and Gonduru). As we shall show in the next section, this has reconfigured the relations between the JFM committee and the panchayat.

Administrative interventions, of which the JFM resolution is a specific example, thus seek to create a certain notion of community that is assumed to rest in a village and (in the process) ignore some of the other informal linkages that crosscut villages or forms of solidarity that are subsumed within them. At the same time, the creation of multiple 'participatory' committees to implement development programmes succeeds in carving up village communities in new ways that co-opt them further into the wider administrative and political set-up. This 'divide and rule' strategy is a means by which State control is extended into the village. Forest users increasingly can only 'speak' through 'the channels mediated by the FD' (Hobley and Shields 2000: 28; see also Hobley and Shah 1996).

Membership of FPCs, and Representation in the Executive Committee

The revised national JFM Guidelines (MoEF 2000) stipulate that 'all adults of the village should be eligible to become members of the JFM Committees.' So far, not all residents of a village have automatically become members of the village JFM organizations (Table 3.1 summarizes the rules for the sample states). For example in Tabda village, Rajpipla, several households did not join initially because not everyone wanted to contribute Rs 11 as membership when they were uncertain about the potential benefits. Only 144 out of 325 households became members of the committee. Some members argued that membership should be opened up only after the first round of harvesting is over. Since forest closures affect all residents, some members of the National Support Group for JFM have argued that the resolutions should make the membership of every adult in the village mandatory. On the other hand, NGOs like SPS in Dewas have argued that given factions and class divisions within a village, expecting universal membership within a village is unrealistic (see Chapter 5).

Even in the 'community-managed' forests of Sambalpur, not all members enjoy equal rights. In many cases, these rules reflect earlier arrangements initiated by the state (described in Chapter 2). For instance, in Lapanga, which has had an ongoing committee to look after its forest (known as the Dalki forest) for a hundred years or so, there is a three-fold classification of residents and rates for felling timber: Praja 'A', Praja 'B' and Sukhvasis. Praja 'A' comprise those who have land and whose ancestors were said to be involved in the initial protection efforts, either in terms of contributing their uncultivable land to make up the protected area, and/or voluntary contributions of paddy proportional to their rent in order to pay a watchman. This category is entitled to timber at the lowest rate. Praja 'B' residents, also landowners, do not enjoy the lower rates for forest produce from Dalki, but must apply to the committee and buy the produce at the higher rate of 1.5 times the Praja 'A' rate. The Sukhvasis (landless residents) are in the same position as Praja 'B'. Certain households do not have land but are still eligible for Praja 'A' benefits. We assume that these households had land earlier (and had contributed in one of the two ways towards management) but due, for instance, to submergence by the Hirakud reservoir, or a large number of siblings resulting in increasing land fragmentation, gradually lost their land holding status. Conversely, even if a Sukhvasi, due to change in economic status, is able to buy land in the village, the rights to lower

TABLE 3.1
RULES FOR MEMBERSHIP OF FOREST PROTECTION COMMITTEES IN GUJARAT, MP, ORISSA, AND AP

	Gujarat	*Madhya Pradesh*	*Orissa*	*Andhra Pradesh*
Membership of General Body Meeting	At least 60% of families in a village	One male and one female from each household	Two adults, at least one woman from every household, including all households with rights in the forest area	Any two adult members from each interested household, of which one must be a woman. SC/ST households are automatic members
Benefit Sharing	After deducting costs, 50% share to be 'suitably distributed'	After deducting costs, for VFC: 30% share distributed equally among all members; for FPC: nistar	50% share to be equally distributed among HH	After deducting costs, 50% share to VSS for reinvestment, 50% shared equally among members
		Executive Committee		
a. People's Representative	At least two women members, one member from village panchayat or other members with interest in forest protection	At least two women, and two landless (for both VFC and FPC), Sarpanch, Panch (ward members)	Six to eight members (at least three women), Naib Sarpanch, ward members	Ten to fifteen elected reps from VSS (30% women). In ITDA areas, all elected members to be Scheduled Tribes
b. FD Representative	–	Beat guard or forester	Forest guard and forester	Forest guard & Forester or Deputy Ranger
c. Others	NGO	Resident teacher	NGO	Local NGO, Village Administrative Officer/ Village Development Officer/ Teacher

rates for produce from the Dalki Forest are not automatically transferred to the new owner. In short, residents are only entitled to lower rates for timber if they are descended from the original families that settled and protected the Dalki forest. The 10–15 original households have now expanded to 107, but they still comprise merely 30 per cent of the total population of the village. These families no longer pay for the upkeep of the forest, however, and currently all the expenditure of the forest protection committee is met from the sale of timber and fuelwood to both Prajas and Sukhvasis. In one sense therefore, the Dalki forest is managed as the private concern of a few families, for which other users are required to pay higher rates. The Sukhvasis appear to accept the inequality on the grounds of original contribution, but also because the rates charged for timber from the Dalki forest are lower than the market rate.

The village forest committee, which looks after the day-to-day management of the forest, has approximately 10–12 members, from different castes, although with a heavy component of the upper castes, Brahmans and Kulithas. They are all male. A general body meeting (AGM) is held every June 15th at which the executive committee is formed and accounts are presented. In practice, however, very few people apart from the Prajas attend the AGMs. While the membership of the AGM is open to the entire village, only a Praja can be a member of the executive committee. Since 1963, the presidents of the committee have been Brahmans, except for two brief spells of two and three years respectively, when there have been Sundhi and Kulitha presidents.

In general, those who are most dependent on the forests but relatively powerless in the village are often excluded from membership of the FPC and representation on the executive committee. This also affects the kind of decisions that are taken, as will be evident in the next chapter on how uses of the forest have changed. This is the most glaring in stratified villages like Pardikheda and Lalakhedi, where the committees are dominated by Sendho Rajputs, who have continued to engage in illicit felling and encroachment themselves while putting an end to headloading by the scheduled castes. Certain categories—*podu* cultivators, headloaders, migrants—are seen by the more powerful elements as expendable portions of the community in the differential allotment of pain and pleasure that closures of the forest bring. One of the most glaring exclusions, however, is that of women, and it is to this that we now turn.

Gender as a Fissure in 'Community'

Since the UN Decade for Women (1975–85), increasing attention has been focussed on the role of women in development. Policy approaches

have taken two forms predominantly—the Women in Development (WID) and the Gender and Development (GAD) approaches. The key argument in the WID approach is that women are an untapped resource and must be mobilized in order to improve existing development programmes. There are affinities to ecofeminism (see for example, Mies and Shiva 1993; Shiva 1989) in the assumption that since women have a closer relationship to the environment and are the primary resource managers, conservation programmes will succeed better if women are involved. By contrast GAD, which came later, focuses on gender (women in relation to men) rather than on women alone, challenging the idea that women have any intrinsic or essential knowledge of or relation to the envir- onment (see Agarwal 1992b; Jackson 1993a; Jackson 1993b; Jackson 1993c). GAD proponents do not just try to incorporate women into existing paradigms of development, but to transform existing gender relations (including the division of labour) in order to achieve gender parity and empowerment for women. While the WID approach has traditionally focussed on such interventions as credit for women or access to employment, GAD programmes concentrated on unpacking the household and seeing what measures can improve women's control over resources and their bargaining power. Several developments within both WID and GAD have justified women's participation in development on the grounds of welfare, equity, anti-poverty, efficiency and empowerment in turn (see Moser 1993: 56–7; for a succinct discussion of the WID and GAD approaches in relation to JFM see Locke 1999).

In general, GoI's attempts in forestry have been based on the WID approach, with a focus on ensuring formal gender representation, or promoting the employment of women in NTFP collection and processing, nursery raising, etc.. Although the 1990 JFM resolution omitted any mention of women, the 2000 guidelines attempted to rectify this by introducing quotas for women both in the general body and executive committee, as well as in the quorum necessary.[8] Different state resolutions have different rules to ensure some sort of representation for women.

Some states (for example, MP, Orissa, and AP) have specified one man and one woman per household as members. Even here, however, some women in larger households—especially widows, unmarried women, and daughters-in-law—are likely to be denied the opportunity of becoming members, despite constituting a significant proportion of the primary users of the forest. Inevitably, men become members and make the decisions regarding which areas to close off from the collection of firewood and grazing, or what is to be done with the final harvest. The household as a unit gets the share in all the states except for MP, which

recognizes that men and women may have different priorities and gives them equal shares as adults (see Sarin *et al.*. 1998 for an extensive discussion of these issues). These state rules thus appear fundamentally flawed, in that they construct the household as a nuclear and socio-economic unit in which there is equal control over resources and decision making between men and women, with benefits to the head of the household trickling down to everyone else (see World Bank 1991b for further elaboration of these points with respect to India).

A study of 10 VFCs in Uttara Kannada district in Karnataka revealed that in many cases women were unaware of the very existence of the VFC. Even where they did know of its existence, they were uncertain of its functions or their own powers in it Correa 1999. This is corroborated from our findings in the four states. In Dewas, for example, we met one woman who was unaware that her husband had been attending general body meetings on his own and her behalf, each time signing the register twice, once in his name and once in hers.

The situation is, inevitably, no better in the 'self-initiated' committees of Orissa, and possibly even worse without any external pressure to ensure the representation of women. Here too, decisions to start protecting were invariably made by men—mostly members of the (all-male) youth club in consultation with senior men. Women of all castes in Khudamunda asserted that they had never been consulted in the formation at any stage, never invited to attend meetings or asked to be members, and had come to know about the protection only from their husbands, fathers or brothers, often only upon asking. In the words of some Kenaloi village men, women are too weak for the hardships of protection activities and anyway, 'what will the goats [women] do when the tigers [men] are involved?'

On the other hand, there are also some cases of all-women committees, where the women go on patrols, for example, in Mayurbhanj district. Unlike men's patrols, all-woman patrols can prevent other women from entering the forest without being accused of molestation or rape. In the Mayurbhanj case, they said they stopped men from stealing or felling trees by encircling them until help arrived. The involvement of women in patrolling assumes added importance because in many cases the 'offenders' are women. In some cases, even where women do not patrol themselves, the male members of the VFC want to have them as members of the committee in order to warn off other women (see Sarin *et al.* 1998: 18).

Ensuring a token presence for women does not translate into efforts into making sure they know why they should be involved. Nor does it

challenge the existing division of labour. Two women in Gonduru village (Paderu) exemplify the limits of women's power and knowledge. One, an executive committee member, said she had never met the DFO, nor had she ever visited the Forest Office at Paderu. The second had spoken with a World Bank visitor about the possibility of sewing machines being paid for under the forestry project. Both agreed that the chairperson and the male members of the VFC failed to inform women of funding and expenditure plans. Even where women do know of the committee and attend meetings, there is often a reluctance to admit to this or demand more information and involvement for fear of being thought too 'forward'. One of the women complained that older women in the village criticized their 'shameless' behaviour if they spoke out at meetings.

Women's position in the household influences their ability to speak outside. Young daughters-in-law, unmarried women, and widows are particularly marginalized. For instance, in Gonduru again, a very vocal young woman was nominated for the management committee. She was subsequently married within the village to the younger brother of the chairperson and it became impossible for her to speak in the meetings. As a 'daughter of the village' she could voice her opinion but once she became a 'daughter-in-law of the village', moreover, one married into the chairperson's household, her freedom to speak in front of family and village elders was severely curtailed.

As Bina Agarwal argues, unless there is a 'critical mass' of women, the token presence of one or two is unlikely to make any difference to the outcomes (Agarwal 1998: 77–8). Norms regarding how women should behave and what they can say constrain their public participation. One solution that has been suggested is having separate meetings for women (Sarin *et al.* 1998), but caste and class differences may make it difficult to get a consensus on a 'women's position'. This is illustrated by a women's meeting held by our team in Lapanga village (Sambalpur). Initially, the Dalit women were seated around the edge of the room. When the team researchers asked them to come forward and sit on the carpet, women from the upper castes tried to discourage them. The Dalit women were irked by this and started talking amongst themselves and then walked out soon after. While the meeting lasted, the upper caste women accused the Dalit women of stealing fuelwood from the forest so as not to have to pay the rates of fuelwood fixed by the committee, a charge that the Dalit women denied. In an effort to prove that they never went to the forest themselves, the upper caste women also claimed that they bought their NTFPs (for example, mushrooms, leaf plates) from the Dalit women, which the latter disputed. Dalit women are doubly

disadvantaged. Even if token representation is ensured, as in panchayats, they may be ineffective in the absence of a wider democratization, which none of the mainstream political parties are willing to do (Sainath 1998).

It is possible, however, that as the programme becomes more entrenched and the benefits or problems of protection more evident, knowledge about the committees will become widespread. In fact, at the moment, it is not just women, but also many village men and forest staff who are confused about the provisions of the JFM resolutions.

Gender inequalities in FDs, NGOs and FPCs

Gender inequalities in village forestry organizations are matched and reinforced by those in the FD. Male forest staff find it easier to deal with their male counterparts within a village. But even where sensitive forest officers (like one RFO in Dewas) have attempted to involve women, their mere presence is often not enough. Our observations in meetings throughout the four states tell similar stories of discussions dominated by men.

In Paderu, although NGOs and forest staff alike often acknowledge how essential it is to involve women in their mutual interaction, each institution (FD, NGO, and village committee) shifts the responsibility of involving women on to the other. Samatha staff, for example, would tell the people about the importance of woman's participation, but leave the actual responsibility for ensuring this and selecting women for the executive committee to the VSS chairperson. Often meetings are held at night so as to ensure that all the men in the village are back, without considering that this makes it difficult for women to attend. The above-mentioned Gonduru women said that they saw the NGO Samatha and the FD as having similar roles and ideologies: 'They ask us what we are doing. They talk about daily work and payment of wages. The (NGO) people can sing very beautiful songs.'

Under pressure from World Bank funding, the Dewas FD made desperate attempts to locate a 'lady NGO', but NGOs themselves, while ostensibly mouthing a more gender sensitive rhetoric, appear to have made few serious efforts to mobilize women in village-wide initiatives. Although SPS in Dewas has almost 50 per cent female membership, it does not appear to involve women in any decision making, while in Sambalpur, MASS has paid attention to women only to the extent of forming women's thrift groups.

One partial exception is provided by AKRSP, though only six of their 100 staff in 1995 were women. In 1994 a new post of Programme Organizer (Gender) was created in line with the new mission statement: 'AKRSP (India) exists to enable the empowerment of rural communities

and groups, particularly the underprivileged and women, to take control over their own lives and manage their environment, to create a better and more equitable society' (AKRSP 1996). In 1987, AKRSP decided to develop a cadre of village-level functionaries selected by village institutions and AKRSP. These Extension Volunteers were expected to be public-spirited and keen learners of new ideas and policies, and willing to devote time and effort to sharing their knowledge and skills with others (AKRSP 1996). Female Extension Volunteers were first substantially involved in forestry in 1993–4, when 35 women from 21 villages were selected for the Farm Forestry Programme. The programme involved increasing the tree cover on privately owned village land. Women Extension Volunteers were a novel idea and village elders were often apprehensive. The volunteers needed to be literate and to be able to deal with village men as well as those employed by AKRSP. Women with primary schooling were young and unmarried, two characteristics that generally placed them low on the authority scale. It took many group and individual meetings to allay people's fears.

Forest Patrolling and the Gender Dimensions of Conflict

While women are unrepresented in decision making, they are usually among the first to suffer the consequences of those decisions. The following case from Kalibel, Rajpipla, illustrates the conflicts and dilemmas involved, especially when women 'trespassers' are involved. Four villages (Kalibel and three others) surround a single forest patch and each has its own protection committee. Because the hamlets are spread out, some households from one village are closer to the forest patch of another village than to their own forest patch, and there is the possibility of frequent disputes. One among several such disputes took place between Kalibel and Regamma villages:

In 1989, the forest guard for village Kalibel was beaten up by the villagers for arresting some men who were cutting saplings in the FD nursery. But when JFM was started a year later, pressure shifted to a dispute regarding the boundary between the neighbouring villages of Regamma and Kalibel, with each side attempting to gain more forest area. The villagers went to the FD to settle their dispute. The RFO instituted a survey and the boundary dispute subsided when both villages agreed to the decision taken in 1992. In 1994, three women from Regamma went to the Kalibel protected patch (which is closer to their houses than their own forest) to collect leaves, and were accosted and beaten up by an allegedly drunk Kalibel patrol. The Kalibel patrol claimed the women were out to steal grass (which unlike leaves is a direct product of protection). The case then went to court, with the Kalibel villagers having to make several trips for

hearings. Eventually Kalibel and Regamma negotiated a settlement with the Kalibel FPC paying the affected women Rs 1500 in compensation.

This example is revealing in several ways. First, it shows a shift from conflict between the FD and a village, to conflict between two neighbouring villages. Second, we can see the multiplicity of interpretations that are involved, with villages giving different accounts. Third, unless there are external efforts to arbitrate, it is easier for one party to drag the other through the courts, since they are not bound to attend the hearings themselves. Fourth, it exposes the need for the FD to be careful regarding distances and the convenience of the villagers in demarcating areas for protection. Finally and equally importantly, it illustrates women's vulnerability under community policing arrangements.

In this case, and in one from Paderu over *adda* leaves (discussed in Chapter 4), sexual threats lurk behind the more overt dimensions of disputes. People are quick to lay these charges on each other precisely because such charges are part of the everyday manner in which control is exercised (Scheper–Hughes 1992: 229–30). Sexual threat, like the threat of witchcraft, involves a symbiosis between the threat of physical aggression and the threat of accusation. To understand the sexual politics of forest management we need to take into account not only the real sexual threat to women in forest work but also men's fear of being accused of molesting women. The latter, for example, explains why in some contexts illegal forest extraction is mainly done by women, since forest guards are less likely to arrest women than to arrest men. A group of women in Makanjhar, (Rajpipla) said they found it easier to get fuelwood from the forests than the men, because the guards knew they were unlikely to be cutting big timber. Unlike men, they simply cannot cut and carry large logs home. At the same time, they said, 'The guard knows that if he prevents us, or says and does something wrong, we can go to the police station and report him.' Sceptics might well point out that their view of the police is not likely to prove so rosy in practice, with the police more inclined to take the guards' side than theirs. But what is interesting in the telling is the manner in which they play upon their own position as victims, using it in practice as a strength that enables them to cut wood from the forest.

On the other hand, men can use this notion of women as victims of assault to get even with men of another village. They may, for instance, accuse the opposite patrol of molesting their women when the latter claim they were only exercising their right of protection. This is strongly reminiscent of the argument that women are merely used as pawns in a game

of 'honour' that men play with each other, the repositories of one village's pride against another (Chatterjee 1997; Menon and Bhasin 1998: 45).

Even as women's honour becomes an issue in inter-village disputes, within a village itself, women, especially poor and heavily forest-dependent ones, suffer from the strict policing by their own village patrols. As one desperate woman asked a forest protection committee, 'do you expect me to cut off my hands to feed the hearth?' (Sarin *et al.* 1998). The idea that women should act as the vanguard for a raiding party (metaphorically speaking) into someone else's protected patch, also enables the division of labour to be perpetuated. Women are forced to retain the tasks of fuelwood collection, simply because it is 'easier' for them than for men not to get caught.

Despite all this, women do benefit when their forests regenerate. All-women patrolling squads are not just about catching other women, they are also about solidarity within. The area under forests has increased as a result of JFM, according to the Forest Survey of India (Forest Survey of India 1998). Foresters and NGO staff have at least some theoretical awareness that women must be consulted, whether or not they do so in practice. And even though JFM has generated disputes, it has also generated the means to resolve them (see section on federations, Chapter 5).

The prototype of the 'community' that emerges under JFM, then, is one that is village-based and which comprises primarily upper caste or economically dominant male elders. The same group of people tends to take all decisions and participate in all committees. This influences the type of decisions that get taken—for example, whether and which portion of the forest to close, or how shares of the intermediate and final harvest will be handled—as will become clear in Chapter 4. These are never straightforward issues, however, and the dependence of elites on the lower castes for agricultural labour, or the risk of patrolling men being accused by forest dependent women of rape and molestation means that the overt consensus which emerges is invariably negotiated.

We now turn to an understanding of how structures of power shape this negotiation and are, in turn, restructured, the different interstices through which power flows, and finally, how JFM serves as one more arena through which power is mobilized and exercised.

POWER

The rhetoric of JFM is often associated with the notion of a transfer of power, from FDs to villagers and NGOs, but as Table 3.2 shows, only limited powers have been transferred to village committees, with the FD

TABLE 3.2
SALIENT FEATURES OF JFM RESOLUTION (as of June 2000)

Issue	*Gujarat*	*Madhya Pradesh*	*Orissa*	*Andhra Pradesh*
Legal status of the committee	Registered under Society's Registration Act, 1860, or Bombay Public Institution's Act, 1950	Registered with FD	–	Registered with Forest Department
Management unit	Village	Villages adjacent to forest	Village(s)	Hamlet/village/cluster of villages
Eligible participants	Membership of 60% of the families is necessary for committee formation	Minimum 50% of adult residents with one male and one female from each household	One adult male and one adult female from each household	All households of the area
Power of the committee	Not specified	Punish and fine; cancel membership	Frame rules	Not to fine or punish but to hand over the offender to the FD; cancel membership; frame rules
Power of the FD	To dissolve committee	Dissolve the committee	Cancel membership; dissolve committee	Not specified

Source: Folder of information provided by the Indian Council of Forest Research and Education, for the international workshop 'A Decade of JFM, Retrospection and Introspection', 19–20 June 2000, Vigyan Bhavan, New Delhi.

normally retaining the ultimate sanction of dissolving the committee. An institutional development study by Maheshwari and Moosvi, organizational consultants to the AP FD, relied on a series of dichotomies to signify what has changed or should change in the forest department, especially in terms of its relations with villagers (see Table 3.3).[9]

TABLE 3.3
PARADIGM SHIFT: INSTITUTIONAL DEVELOPMENT STUDY OF AP FOREST DEPARTMENT

From	*To*
Reactive	Proactive (anticipation of problems)
Helplessness	Resourcefulness
Adversary	Partnership
Monopoly	Sharing
Policing	Persuasion and education
Doing everything	Focusing on core functions
Static	Dynamic

Source: Maheshwari and Moosvi n.d.

This concept of JFM also involves the transmutation from a Weberian zero-sum sense of power as exercised by foresters over and against the will of villagers, to an Arendtian sense, in which power is exercised collectively—foresters and villagers together—in order to achieve a common good (Arendt 1969; Weber 1978).

But even in the pre-JFM days, foresters were not always able to impose their diktat on villagers. There was both conflict and negotiation, of both overt and unstated varieties. We need to disaggregate the particular exchanges in order to understand the specific conduits through which each side respectively exercised influence or control (Oppenheim 1981: 40–3). For example, women's collective ability to evade arrest for tree-cutting by threatening to charge the forest guard with sexual assault constitutes a certain exercise of power within a specific social and cultural milieu. At the same time, however, this is countered by the forest guard's ability to prevent the women from cutting wood, and more exceptionally, actually to assault single women. The two types of power, moreover, are clearly asymmetrical.

Power may be manifested at different levels (Lukes 1974). A one-dimensional view of power would understand it solely in terms of who prevails in decision-making (Dahl 1957). A second dimension involves the exercise of power in terms of setting the agenda (Bachrach and Baratz

1962). The third, most fundamental exercise of power is the power to shape or influence the beliefs of others, so that overt conflict is avoided (Lukes 1974). In different ways, Gramsci's concept of hegemony, Bourdieu's concept of doxa, and Foucault's notion of power as constituting subjectivity, all tend to this notion of power as defining truth, as defining the limits of what is permissible to think and act (see Dirks, Eley, and Ortner 1994: 13). Of course, there are differences, for example between Gramsci and Foucault as to the locus of power. For Gramsci, power cannot be divorced from the interests of the ruling class, whether acting through consent or coercion, through civil society or the state (Hoare and Smith 1971). For Foucault, what we need to focus on is the technology of domination at its point of application, the individual, 'eschew(ing) the model of Leviathan in the study of power' (Foucault 1980: 102). In its initial, radical sense (Freire 1972), 'empowerment' involved workers, peasants and others recognizing this hegemony or recognizing that they were being exploited and that they had the power to organize collectively to end such exploitation. While this continues to be one genealogy, much of the current development sense of 'empowerment', however, draws equally upon management discourse (James 1999). Apart from obscuring wider relations of power and economic control, and suggesting a lack among those to be empowered (rather than a failure to recognize one's own power), this sense of empowerment is restricted to giving people 'voice' only within a set framework of projects and programmes, which themselves are not up for negotiation. This is evident from the section of this chapter on 'choices'.

In this section, we examine the first two dimensions of power: the relative power of different groups in making decisions, and the power to set the agenda. These are played out in different arenas: between the FD and villages, between villages, within a village, between villages and NGOs. A related question is whether 'decentralization' or devolution, of which JFM is one example, actually brings power into the hands of those hitherto excluded from it, or whether it actually strengthens local hierarchies by giving elites a further arena in which they can exercise their power. There is some evidence of a growing consensus over what the objective of forest management should be, both among foresters and the dominant section of villagers, often in ways that rule out alternative goals espoused by the relatively powerless.

Changing Power Relations Between FD and Villagers

Ostensibly the overt exercise of power that formerly existed has been mitigated by the soothing presence of newly joint arrangements.

According to the forest secretary and Principal Chief Conservator of Forests (PCCF) of AP, 'people now look upon the foresters as their benefactors rather than as exploiters' (Rangachari and Mukherji 2000: 148). As we saw in Chapter 2, in many cases JFM arrangements followed violent encounters between villagers and the FD, which required fresh approaches from both sides. In other cases, JFM was simply the formalization of a negotiated but unofficial understanding, as in Netrang (Rajpipla) or Vankachinta (Paderu) where NGOs had already begun plantation work on forest land. Although the policing efforts of the FD may have given way in some cases to a genuine effort to promote good relations and work by consensus, many foresters are still ambivalent about the long term future of JFM (see Chapter 5). In this section we explore how much and what has changed, from the perspective of villagers.

Ritual and Display at Meetings

Nowhere are absences and silences, hierarchies and conflicts more visible than in the dramaturgy of meetings between FD staff, or NGOs and villagers. In some cases, meetings are more like *durbars* organized by the department to proclaim their views and receive supplications, or 'affirmatory state rituals' as Skaria calls them (Skaria n.d.; see also Cohn 1983). Seating arrangements at such meetings are often good indicators of existing social hierarchies. In Paderu, Dewas and Sambalpur, at several meetings observed, the highest ranking forester present spoke first, occupied the central chair in the room, and decided which questions would be taken. Meetings invariably started with the villagers being told about the importance of the forest, as if they were not already aware of this. Women never sat on the dais, but on the ground just below. The officials and guests addressed open questions to the audience and it was always the men who answered. In one gram sabha meeting attended in Mohada (Dewas), of the fifty or so people present, just ten were women. The most influential men of the area, including the secretary of the panchayat, sat in the middle and made all the decisions without any discussion. The rest of the men sat in a circle around them and the women were in the last row, with their backs against the walls. The women were never asked about anything. Although the sarpanch was a woman, her deputy, the upsarpanch, was making all the decisions.

Meetings or public occasions do not simply reflect existing relations of power, they are also performative moments when power is displayed, contested, and new relationships developed. Participants come to a meeting with different interests, and while it often happens that the interests of the dominant sections get reflected as the 'consensus', a meeting can

also have its own trajectory, with unintended consequences. The presence of women, for instance, whether they articulate their demands successfully or not, can make a significant difference. In various conflict resolution meetings held in Paderu following disputes between villages as a result of protection activities, the men agreed upon the long-term goal of JFM in terms of regeneration, but the women were more concerned with their immediate subsistence and threats to it.[10] The women spoke about specific problems, for example, not getting enough leaves and tubers during a particular season, complaints about a particular woman from a particular village carrying away a particular plant, etc.. Their presence and demands unnerved the forest staff, who saw them as a threat to the smooth conduct of business (leading to agreements amongst the men), and attempted to suppress them, saying they spoke nonsense.[11]

Even where foresters appear to have control, there may be a 'hidden transcript' (Scott 1985). At a meeting for VSS chairpersons in Paderu, the Ranger told them how to run their committees, who to elect (widows and divorcees as they had more time to spare), and what benefits they should ask for. The Ranger also insisted on a strict dress code, ticking one chairman off for not wearing a suitably formal outfit (he was wearing only a *dhoti*), and sought to inspire the chairpersons by telling them, 'You are now a part of the FD working at the village level.' However, the chairpersons complained later of not being given enough advance warning of the meeting, and once they had come prepared for a three-day meeting, were upset to have it concluded on the first day on the DFO's orders. They were reluctant to be drawn into the *ad hoc* style of the FD, and the culture of pleasing superiors by gearing up work towards inspection time.

In general, the frequency of meetings has increased since JFM began, including people-friendly initiatives like an eco-camp for children from JFM villages organized in the Kevdi forest in Rajpipla Gujarat. Villagers, particularly chairpersons, appear pleased about their direct interactions with the senior forest staff, many of whom they had never seen before, and the degree of outside attention that they are now getting, including that from researchers. In Mohada, Dewas, the villagers noted that earlier their world was limited by their interactions with the *nakedar* (forest guards).

Often the lower-level forest staff lose out in the JFM meetings, both in terms of local awe and the unofficial payments this inspired. Inevitably, there is some resentment. In Rajpipla, for instance, the attempt to reverse hierarchies at village meetings meant that while the VSS chairpersons got to sit on chairs in the front along with forest officials, beat guards were made to sit with the other villagers on *dhurries*.

In Pardikheda, where (despite the presence of a VSS) forest guards had been retained to patrol each compartment, the staff often complained that they did all the protection work, but the village committee got the credit, especially since the DFO was keen to portray this as a model village. Nor are villagers always supplicants in the face of forest staff. The richer, more dominant sections of a village, especially those with political connections, may actually exercise significant power, and forest staff in Dewas often complained of being pressurized by politicians to condone Sendho (rich, upper caste peasant) offenders or risk being transferred. For example, in one of the Dewas villages, the Sendho Patel (headman) had been violating the restrictions on grazing. Since he was a Patel and a rich man, it was exceptionally difficult for the FD watchman, who hails from the village and who belongs to a lower social and economic group, to take action against him. He could only plead with the Patel: 'You will put my job into insecurity. So many big officers come to visit this village. If any of them notices it, then my job will be at stake.'

Few of the staff are willing to antagonize powerful local interests, and 'understandings' between them and local leaders are much more the norm. In July 2000, a new RFO was appointed to the Panigaon range. The FD staff had recently caught a bullock cart filled with timber, belonging to the Pardikheda Patel's nephew, which had been illicitly cut from the forest. The Patel claimed that he had cut a tree in one of his fields to repair some agricultural implements and that he couldn't be expected to wait for the government's permission (necessary when teak trees are involved) during the prime agricultural season. The RFO's first visit to the 'village' really meant a visit to the Patel's house at night, where the first topic of conversation was the Patel's confiscated bullock cart. The Patel complained bitterly that despite feasting him well, the previous RFO had not released his cart. The new RFO assured him that this would be done.

A degree of solidarity is often displayed between lower forest staff and villagers, especially when the former are subjected to the harassment of senior officers. An extract from Mishra's and Peter's diary brings this out:

> Today the PCCF was visiting Dhama to see the working of the bamboo coupes. The Forester in full uniform had already visited the site in the morning, and was waiting impatiently for the officers to arrive at the Larasara Rest house, which had been prepared for the visit. The Forester said he felt like a woman, who spent all her time cleaning the house and decorating it in anticipation of a guest. He was so restless that after every few minutes he checked his cap to see that it was in place and the badge rightly put on. Each time he heard a jeep he ran to the

gate to receive the PCCF with a salute. The first time it was not the PCCF, but the Paper Mill officer. The villagers were enjoying this parade and teased him by saying 'today is your punishment day'.

The villagers treat the lower FD staff as someone they have to live with, whose aberrations in the form of corruption are tolerated, even if not necessarily approved. In one village in Srikakulam, the forest guard had kept Rs 3000 out of Rs 15,000 sanctioned for building the village meeting place, ostensibly to cover his own travel to the village and expenses on the DFO's visit. The villagers said they saw nothing wrong in that since the village too was getting something out of the department, which suggests, also, that they saw JFM merely as a departmental programme, rather than a means of gaining control over their own forests.

The social background of staff also makes a difference to the way in which villagers and forest staff interact, but ultimately it is the power of their 'office' which seems to determine action.[12] At the higher levels (DFO and above), forest staff are usually from the middle classes, and often from other states, whereas at the lower levels, the staff are usually local or from neighbouring districts. Both Rajpipla and Paderu are 'tribal' areas, but whereas in Rajpipla ground level staff (beat guards, foresters) are often *adivasis* from the same villages, in Paderu they are generally from the plains, due to a lack of local educated *adivasis*. This may account for a somewhat greater degree of equality in the meetings conducted between forest staff and villagers in Rajpipla.

Both Dewas and Sambalpur are more stratified in class and caste terms, and have large reservoirs of educated personnel. In these Divisions, not just rock bottom field staff but staff just below the level of DFO such as Assistant Conservators of Forests (ACF) are often recruited from local families (ACFs are generally within the state forest service, and therefore, recruited at state rather than national level). Some of them, in turn, use their networks within the FD to enhance their economic standing. One RFO in Dewas, despite having a significant amount of land and a real-estate business in Indore, continues to work in the forest service as it gives him some power. On the other hand, some (though very few) staff note that local relations hinder their ability to work. For instance, one forester in Dewas told us he preferred to be posted out of his own area. If posted locally, the fact that offenders may be relations or co-villagers meant that either he had to keep quiet about violations, or, if he took action, his family might be socially and physically threatened. Similar sentiments were also voiced by some in Rajpipla.

In this section we have shown that the state is not a looming block 'out there', but is enmeshed in local structures of power.[13] In some cases,

local hierarchies overwhelm any reforming tendencies the forest staff might have, such as trying to include women in meetings, or stopping illicit felling by rich villagers. In other cases, FD hierarchies have succeeded in drawing villagers into their fold, through the new 'meetings' culture where the dominant elements of the village participate. Imagined as a sort of beehive, the FD under JFM has become an institution in which chairpersons and FPC members now occupy newly created niches, sometimes a rung or so higher than the guards with whom they formerly had to negotiate. In yet other cases, there is a close overlap between village and state hierarchies and ideologies, with each feeding off the other. Unless these various dimensions of power are recognized and addressed, the 'transfer of power' associated with JFM will be real but insufficient.

Setting the Agenda

New forms of co-operation are clearly being developed, but the FD retains the power to set the agenda in several crucial ways. It keeps control over essential aspects of the functioning of JFM, including: which villages committees will be established; what land will be given; who will register the committee, and therefore, what legal status it will enjoy; what expenditures will be made; who will levy fines; and what information will be released to villagers.

Number of Committees

The number of forest protection committees that can be set up is limited by targets, by funding (especially in the states where there are large donor projects) and by the person-power available to the FD. Under the MP World Bank project, nine divisions were to be taken up in the first year, three ranges within those divisions and three villages within each range. In making a choice between villages, one criterion is the presence of at least 300 hectares of degraded land, without any prior plantation. In Dewas, villages were sometimes selected by range staff on the basis of their perception of which was a 'good responsive' village or had some major problem to be addressed (like timber smuggling). In one range, however, only three villages satisfied the criteria of 300 hectares degraded land. Similarly, in AP, each division was given targets, both under the WB Forestry Project and under the Chief Minister's JFM. According to staff in Paderu, choices were generally made on the basis of visibility and accessibility, but the contacts of individual villagers with the administration also made a difference. Given that JFM is, at some level, a privatization of land into the hands of individual villages, the consequences of not being selected for JFM can be quite serious. There are no

overall mechanisms for choosing between villages in a division, in which villagers could also exercise their opinions, for example, through a district council meeting.

Selection of Area to be Protected

In most state resolutions, people's protection is limited to forest land with less than 40 per cent crown density.[14] This restriction effectively meant that 60 per cent of the country's forest area was 'out of bounds' for JFM (Khare *et al.* 2000: 90). In other words, the bulk of forest management was non-participatory. In practice, individual forest officers may have defined 'degradation' to allow for good forests to be managed as well (DFO Rajpipla East, pers. com). Much more common, however, was strict rule—following that often violated traditional patterns of use and access. For instance, in Pardikheda, Dewas, the villagers had been allotted compartments 60 and 61 to protect when their committee was first formed. However, while preparing the micro-plan in 1996, the forest department realized that these compartments did not fit the requirement of 300 hectares without plantation work. In August 1996, therefore, the village was 'allotted' another 500 hectares, in compartments 62 and 63. This however, is used by another set of villages for *nistar*. A similar situation occurred in Kalwarpathar village, where in order to prepare an appropriate micro-plan, forest being protected by another committee was included. The dispute between Bharada and Tabda (in Gujarat) described later in this chapter is also a product of non-participatory site allocation.

The restriction on degraded land in all the states is likely to change following the 2000 GoI guidelines, which allow the implementation of JFM in good forest area. But the phased and somewhat reluctant manner in which this is being done (with lower benefits of a maximum of 20 per cent of the timber harvest, and that too, only after at least ten years of protection) suggest that the basic problem of pre-determined site allocation remains. This differential benefit arrangement particularly affects those communities which had started protecting on their own and which have managed to transform their forests from degraded to dense jungles. Many such communities, particularly in Orissa, are reluctant to give up their control and their right to a 100 per cent share for the limited benefits JFM offers (see Kenaloi example below).

Registration/Legal Status of committees and shares

In most states, the committees are simply registered with the FD (see Table 3.2 for more details). Only in Gujarat do the VPCs have an independent existence as co-operatives registered under an Act. But such

registration is a complicated business,[15] and few villages have succeeded in going through the whole procedure; this in turn restricts their ability to have a working scheme and to harvest timber. In an attempt to give JFM committees a legal backing, the 2000 GoI guidelines have extended the Gujarat provision for registration under the Societies Act to the whole country. They have also recommended giving all such protecting committees a standard name, JFM Committees. Some critics argue that this would impose an unnecessary straitjacket on the variety of institutions currently engaged in forest management, such as the UP Van Panchayats which protect revenue land (Madhu Sarin, Ranjan Panda, February–March 2000, pers. comms).

Thus far, FDs have reserved the right to dissolve committees if they perform unsatisfactorily, or at least, deny them the shares expected (Poffenberger and Singh 1996: 71). Although as yet this trump card has not been played in any of our sites,[16] FDs have refused to register existing committees, especially if the forests they have been protecting have now turned from degraded into good forests, as happened in the Panchmahals in Gujarat (Agarwal and Saigal 1996: 71). In Orissa, the FD attempted to claim existing committees as their own, while simultaneously denying the legitimacy of the rules these committees may have framed earlier, if they did not fit into state resolutions. For instance, in village Kenaloi in Sambalpur district, an existing committee was formally given the status of a VSS in 1994. Not only were the President and executive committee of the new VSS different from those of the earlier committee, but when a new assistant conservator saw villagers cutting fuelwood in the protected patch according to the rules of the older committee, he caught and fined them. Under the JFM rules, villagers can only collect dry and fallen wood. The role of the committee in silvicultural management is merely to assist the forest officials in carrying out operations in accordance with the management plan and in the distribution of forest produce among the villagers. Not surprisingly, the Kenaloi villagers were loath to give up their former control in exchange for the limited 'participation' offered to them under JFM, and decided not to form a VSS.

Similarly, the MP, Gujarat and Orissa Government Orders make it clear that the FPC's share of the final harvest is contingent on its performance. Since there is no benchmark for performance, the committee becomes dependent on the goodwill of the FD. The rules may also be changed midway, as in MP. Villagers in good forest areas who started protection in 1991 in expectation of a 20 per cent share of timber after five years found after 1995 that under the revised JFM rules all they could expect to get is continued access to *nistar*. In 2000 they learnt that an

additional 10 per cent of the final timber harvest was now on offer. Of course, changes in rules in themselves are not necessarily bad, especially if they are the result of negotiation by the state and affected groups or those representing them. But participation then becomes a rule-bound exercise, being summoned in different measure and for different purposes according to the current rule. Sometimes, even forest staff cannot keep up. The new partnership between lower FD staff and villagers then becomes a partnership in jointly struggling to understand and negotiate new rules. For instance, the 1995 revised resolution in MP provides for two types of committees known as Van Suraksha Samiti (Forest Protection Committee) and Gram Van Samiti (Village Forest Committee) in good and degraded forest areas respectively. Staff derived their own terminology, hedging their bets about which title was appropriate in a particular case by combining the two terms, resulting in several committees being named Gram Van Suraksha Samiti (Village Forest Protection Committee)!

Funds and Bookkeeping

A study of village funds in JFM across eight states by a consultancy organization (Ecotech Services 1998) noted that funds came from five main sources. First, from the JFM plot itself, directly through charges for collection, auction, or sale of produce. Second, from members' contributions and membership fees. Third, through hiring charges of utensils, sound systems, etc. purchased by FPCs. Fourth, through fines; and finally, through external sources.

In the case of MP and AP, funds come largely from their respective World Bank projects, but forest staff in Dewas also attempt to get funds from other development programmes like the Jawahar Rozgar Yojana, the Welfare Fund of the World Food Programme, or the general budget of the FD. In both these states, the funds are largely earmarked for wages for treatment practices on the protected patch, including plantation, as well as 'development inputs' or incentives for the villagers, about which they may have little choice. In Rajpipla, the FD and AKRSP are the two major sources of funds.

In contrast to the other states, in the community managed forests of Orissa, funds are largely generated from the protected patch itself—through purchases of timber by individual villagers, or from a major sale to outsiders. These funds are used for some community activity, such as building a school or financing a local festival. Thus, villagers have a greater degree of control over both the source and use of their finances. In the other states, where villagers manage funds themselves, uses include

protection of the JFM plot; credit facilities to members; community assets; and community services (Ecotech Services 1998). In 1997 we visited one village, R.K. Nagar, in Vizianagaram division, where the FPC was engaging in successful entrepreneurial activities, having purchased a microphone set, cycle, gas light, television, and tent house for rental on weddings and other occasions. In many cases, however, the funds are simply left unused in savings accounts.

The influx of large sums of money under the World Bank programmes (in MP and AP) creates marked disparities and tensions between villages fortunate enough to have been included under the scheme and those funded from more meagre sources such as funds from other departments or employment generation schemes. The forest staff argue that this is inevitable and the state has to choose between villages rather than spreading itself thin (interviews, Bhopal, 6 July 2000). However, this suggests a top-down approach, where villages have to be bribed into protection, rather than a widespread effort at mobilization. In Dewas, Rs 90,000 is allocated per year per committee, in addition to any funds they may generate themselves, and villagers have now begun to treat this flow of funds as a matter of right, in exchange for the help they give the department in protection. Similarly, in AP, villages funded under the World Bank scheme get Rs 70,000 each for development extras, while those formed under the Chief Minister's scheme only receive wages for plantations or nursery work. The money for the Chief Minister's scheme comes from the Employment Assurance Scheme run by the ITDA or JRY.

In almost all the villages where funds come from outside, fund management lacks transparency, and consequently, rumours of misuse are rife, directed against both the forester and chairperson. In Daulatpur village, Dewas, the villagers wanted to open their own account in order to deposit fines, rather than the official JFM account opened by the FD. Foresters in Paderu often complained of the extra burden village fund management imposed on them. In Paderu, unlike in the other sites, few people in JFM villages are literate and numerate enough to manage funds and there has been little effort to address this problem. Occasionally, villagers complain that they have to bribe the forest staff in order to get them to release funds. The availability of funds under JFM has often led to conflict with panchayat members (as we shall see in the subsequent section on village politics). Control over both the actual disbursement of funds and knowledge about the quantum and use thus remains one of the major advantages the forest staff continue to enjoy in their dealings with villagers.

Fines/FDs' Institutional Support to FPCs

In several states, the FPCs' ability to fine or to 'arrest' offenders has become a critical point of contention. Legally, they have no powers to do either and can be challenged in court, especially when they violate the 'customary rights' of others. For instance, in village Semli, Dewas, when the VFC apprehended a Dalit man from within the village, he appealed under the Atrocities Against Harijans Act. In practice, there has to be an informal understanding between FD staff and villagers for protection to succeed. In MP, as elsewhere, villagers are required to hand over offenders to FD staff. Although the 1991 JFM order in MP made it mandatory for the RFO to let the committee know the action taken within seven days, failing which it could appeal to the DFO, this provision has now been removed from the 1995 order. Thus, committees are left with no legal recourse. In Daulatpur village, Dewas, the staff's failure to support the villagers in their attempts to catch wood thieves led the members to change their president in favour of one who had better political links. In Dewas, FPC members expressed a desire for weapons to face smugglers and badges or some emblem of authority. They also demanded insurance when battling armed poachers—a demand which has been met in 2000 by granting JFM Committee members the status of public servants in case of death or injury while protecting. However, villagers appear to be taking on quasi-policing roles themselves, with all its attendant paraphernalia, and there is little change in the ideology behind such policing structures.

What is also often at stake is who keeps the money, or at least some common formula for how it should be divided. In Dewas, earlier it depended on the whims of the forest staff. In one case, the VFC received Rs 200 out of a fine of Rs 500, while in another case, they were given only Rs 700 out of Rs 7000. A new practice developed, of fining the offender twice—once by the committee (which keeps its fine), and secondly by the FD (kept by them). The MP 2000 rules now give the village 50 per cent of the fine, although the total fine is still fixed by the forest staff. In Paderu, the VSS has no stake in the fine,[17] merely reporting the crime and criminal to the foresters, who then take whatever action they want, though often this is done in consultation with the VSS chair. Each VSS has also formed its own rules to fine the violators and the owners of animals, if found destroying plants. In Gujarat, if the FPC has been registered, it gets to keep the fine, or else the fine goes to the panchayat. The timber confiscated, however, is invariably taken by the FD and auctioned at the depot.

According to Lapanga villagers, since legally they cannot charge fines above Rs 5, they charge 'compensation'. The guard's salary is made up of a fixed payment of Rs 250, with an incentive of 50 per cent of compensation charged to any offenders caught by him in that month. Compensation could be as much as Rs 750 for one case. Anyone else who catches an offender also receives 50 per cent of the compensation, providing some incentive to villagers to be vigilant. In Kenaloi, locals who steal are fined in the local panchayat (Rs 20 to 25) and some of this is given to the forest guard. Recalcitrant offenders or exceptional cases are taken to the Forest Office to be dealt with there. In Nayagarh, a federation of FPCs (called BOJBP) has developed an unusual method of dealing with offenders—FPC members prostrate themselves before the criminal in order to shame her/him (Interview with Bappa, 1997). In general, the evidence from community-managed forests suggests that villagers handle all cases themselves, relying on the FD only where they deem it necessary.

Information Released to Villagers

In each of the elements discussed so far, 'transparency' is a major issue that is only slowly being addressed in networks of NGOs (see Chapter 5). Village committees rarely have independent sources of information about changes in rules or regulations, or about the paperwork involved in establishing individual JFM agreements. Despite the National Forest Policy Resolution (NFPR) objective of 'creating a massive people's movement' hardly any arrangements exist for education and communication of the basic information about the rights of the committees, etc.. Most material is given out orally, in general terms, and villagers are left uncertain of the details.

Restructuring Power within Villages

JFM has changed relations within villages as well as between villagers and outsiders. For many village leaders, becoming the chairpersons of the FPC/VSS, along with the attendant interactions with senior forest staff, visits by other notables and demonstration visits to other FPCs, has increased their stock of 'cultural or symbolic capital' (Bourdieu 1977: 179–80). As the Kilagada chairperson boasted, ever since he had charge of the FPC and the funds that came with it, no one has had much time for the panchayat president: 'Nobody cares about the sarpanch now. What can he do for the people? After the formation of our VSS, I took a personal interest in getting our school upgraded. The roads were repaired, drinking water and tiles for roofing were supplied. Within a short span, our village was well organized.'

Much time and effort has to be invested in maintaining this capital, however, through visits to the forest office at the range, or even at the district headquarters level, maintaining rosters of people employed in plantation programmes, etc.. In Gonduru, Paderu, the chair was keen to retire, since he could not afford the time involved in frequent visits to the FD, or the effort required to host visitors, manage programmes, funds, etc.. He also complained to us that the position of chair had cost him some friendships and that other executive members did not perform their role. In a workshop organized by the FD, one village chairperson suggested having a revolving chairperson from the management committee to share the burden, but the forester rejected the suggestion. From the bureaucracy's point of view it is important to have one person to liase with. In general, men from the wealthier households or educated young men are the only people with the time and skills to invest in this kind of activity.

We will consider three aspects to flesh out how power structures have been changed, if at all: the social background of the FPC leadership; factionalism in the working of the committees; and the role of political parties.

Within any village, power can be gained in several arenas, and diverse bureaucracies build upon this when they form their own committees. But the degree to which authority is really dispersed varies. Panchayats in Orissa are often conglomerates of two or more villages, and FPCs seem to attract a different type of conspicuously non party-political village citizen—village elders or leaders of youth clubs. In Lapanga, for example, leadership is generally revolved among the 'important families'. In one family, the father is the secretary of the FPC, the son is the (non-party affiliated) sarpanch, and the daughter is the president of the mahila samiti or women's committee. The President of the FPC also belongs to one of the 'original' Praja families who contributed land and effort to the original creation of the forest. In Gujarat, usually the elders of the village were selected as members of the executive committee or chair. Many of them had experience in dealing with the administration but they were rarely involved in party politics. In Makanjhar, after a few years two educated young men replaced the chair and secretary, because of some impropriety they had committed with respect to FPC funds and rules. But again, these young men were not involved in party politics.

In Paderu, the FD had limited success in their attempts to avoid party politics in the FPC by appointing elders or educated younger men to chair executive committees. In Gonduru, the chair was an older man who had no particular party affiliation and was generally an effective liaison man,

while in Kilagada and Seekari, the chairs were initially young men who the FD thought would be interested in and have enough time for an FPC. In both these latter two villages, however, the post rapidly became politicized and strongly contested. In Dewas, the chair is usually a dominant person (the chair of the Pardikheda FPC is also the village money lender; while in Mohada, the Patel or headman was the chair of the VFC and his brother was the chair of the Watershed Committee). In neither village had there been elections since the committees started, over six years, at least. Even where the position is contested, the chair is inevitably from within the dominant section of the village.

Factions are evidently important factors in explaining the trajectories of individual VSS, but factions within the village are not so much between groups linked by vertical patron–client links, but 'conflict within an oligarchy' (Hardiman 1983: 221). In Kilagada, all the three contenders for power—sarpanch, old and new chairperson—are Bhagatas and among the well-off families of the village. Similarly, all the struggles in Pardikheda, and Lalakhedi are between different groups of Sendho Rajputs. Disputes about power or control over the chair of the executive committee rarely percolate down with any effect onto the lower castes.

In some cases, lower-level staff attempt to create their own bases in the village as a bulwark against future challenges. In Neemkheda, Dewas, an apparently factional fight which destroyed the FPC was later explained to us as the resistance mounted by various people who received a cut from the bribes given to the *nakedar*. In the heavily politicized villages of Paderu, JFM is seen as an avenue for the chair to dispense patronage, basically by deciding who to call for plantation work. Since employment is seen as one of the main benefits of JFM, these villagers are unlikely to develop a sense of ownership over the programme.

In Seekari, Paderu party politics had rendered the chairperson ineffective. The VSS consists of eight hamlets, all of which are part of Seekari revenue village, a constituent member of Seekari Gram Panchayat. The sarpanch was from the Telugu Desam Party, while the VSS chair came from a family of Congress supporters: consequently the VSS chair accused the sarpanch of having undermined his efforts to mobilize villagers. They also belonged to different castes, but both castes were relatively powerful in the village hierarchy. The chairman's youth and the fact that he was studying at Paderu exacerbated the problem. He thus found it difficult to get older people to listen to him.

The forester concerned with the village and the VSS chairperson blamed each other for the disintegrating VSS in an escalating cycle of disinterest. The forester claimed the villagers wanted to form a VSS only

to gain the material incentives they saw Kilagada acquiring. The Range Officer also told us that party politicians attempted to use the VSS as a platform to campaign for votes. Once they were kept out by the FD, however, they attempted to mobilize villagers against it, saying that JFM was an excuse for the FD to appropriate *podu* land. The VSS chairperson, on the other hand, blamed the department for favouring Kilagada and not helping him to resolve differences within the village.

In Lalakhedi, Dewas, initial attempts by the FD to set up an FPC failed in the face of bitter factional fighting in the village along party lines. Almost as soon as Shilpa Vasavada and Nabarun Sengupta entered the village, they were told: 'This village has a very bad name, people say that there are twenty residents and twenty two leaders.' The Sendho families in the village were divided between the Congress and the BJP, and almost every issue excited such passions that it had to be referred to the Sonkutch police station. The leaders of the village, like the sarpanch, were petty regional politicians in their own right, with well-connected networks among other Sendho villages. By 2000, however, the FD had succeeded in getting a 'neutral' Sendho chair appointed, and a VFC begun.

Conflicts: Restructuring Power between Villages

While JFM has provided a fresh arena for village-level politics, it has also remapped the contours of power between villages. In the new 'legal geographies' (Blomley 1994) created by JFM, spaces that were formerly equally restricted for all or equally violated by all, that is, Reserve Forests, have now been attached to particular villages, with the attendant exclusion of others. Thus, particular 'user groups' have been crystallized out of the dense matrix of affective, economic and political relations that criss-cross the countryside and are set in opposition to each other. Inevitably, this has generated conflict between villages. But equally, there are signs of hope in villages coming together to form federations, in novel constellations of co-operation and negotiation.

As Madhu Sarin notes, conflicts within a village may arise due to: 'perceived inequity in the distribution of costs and benefits of forest closure, doubts about fiscal integrity, obstinacy of some members in accepting common rules, and suspicion that the leadership is unduly favouring its own vested party.' Conflicts between villages, on the other hand, commonly arise due to 'boundary disputes, denial of forest access, or the usurpation of the rights of a weaker community by a more powerful one' (Sarin 1996: 198). To this list one might add jealousies over differential funding, or the lack of support by the FD.

In MP and AP, the JFM 'model' involves pumping funds into JFM

villages in order to wean villagers away from dependence on the forest. This has led to a sense of grievance among villages denied these developmental inputs. For instance, villagers in Bokkellu (Paderu) felt that they had not been selected for JFM and the forest patches that they depended on had been allocated to other villages, because they were migrants from Koraput. The AP foresters, therefore, did not care about them—or so the Bokkellu villagers claimed. Although giving development funds to protecting villages has had positive demonstration effects and encouraged other villages to take up protection (for example, Makanjhar villagers followed the example of Gamtalao in Rajpipla, and Seekari followed the example of Kilagada in Paderu), the whole approach is limited by the amount of funds available.

In cases where boundary divisions have created conflicts within villages, it has often proved easier for a village simply to give up protection rather than run the risk of facing social ostracism from neighbours. In village Pathramunda in Sambalpur, the villagers argued that they were reluctant to stop the depredations of neighbouring Kersamal, as it was a bigger village and they had to cross it on their travels. Moreover, since the FD did not compensate them for catching wood thieves and they had no power to do anything themselves, they felt it might not be worth their while to catch offenders and create ill feeling. Similarly, villagers in Fatehgadh (Dewas) were scared to discover that some offenders they had beaten up were from Kannod, where the weekly market was located. The forester attempted to mediate by holding a meeting in Fatehgadh, to which he invited the Kannod people. However, he was unable to inform the Fategadh villagers in time. Consequently, when the Kannod farmers came on their motorbikes, the entire village fled in panic, thinking this was the onset of a revenge attack. Certain villages which are larger, more prosperous, dominated by higher castes, or which are strategically located near some important resource—a water body, forest or trade centre—sometimes exercise undue influence. Often raiding of protected patches by neighbours is pre-empted by 'self-destruction'. In village Malda in Rengali range of Sambalpur, faced with marauding neighbours, the villagers cleared the entire forest which they had been protecting over 20–25 years, in approximately three nights. Similar cases have been reported from Ratlam (Chief Conservator of Forests, Indore Circle, pers. comm.).

The notion of a 'boundary dispute' is not a simple one. Although villagers and foresters alike subscribe to certain notions of custom, such as the idea that forest land within the revenue boundary of a village should be given to it for protection, these are contingently invoked. Moreover, contemporary notions of village boundaries are often determined by

settlements previously made by the FD, and the 'customary rights' that villagers fight to retain are often the 'privileges' conferred by earlier administrations. For instance, in 1992, the forester responsible for two neighbouring villages in Rajpipla West Division, Gujarat, gave 61 hectares of Bharada village's forest land to village Tabda to protect. The apparent logic behind this was that the Bharada villagers had encroached on parts of forest land, and also because Tabda was a larger village. In this 61 hectares within the Bharada boundary, the FD had planted khair (*Acacia catechu*) in 1987, as part of a standard departmental plantation, that is, one that would have excluded villagers. Thus, when Tabda got the patch to protect, they started with a five year plantation. According to the Tabda villagers, the forester told them 'whether it is in Bharada or Tabda's boundary, it belongs to the FD and whoever protects it will get it.' In contrast, the Bharada villagers felt strongly that the forest land within their boundary was theirs, because their ancestors put free labour into planting and protecting it. They also said that their 'encroachments' were of long standing, and that they had recently won their case to get titles for the land. In fact, there were several hamlets of Bharada in this area and nearby which were later depopulated due to cholera. Matters have been complicated by the practical problems imposed by the type of species planted on the land, and the fresh claims that protection has generated. The Tabda villagers said that they would return the land with the khair plantation after the first felling, while the Bharada villagers argued that the FD should give wages for protection for 4 years to Tabda and return the land to Bharada. Since teak and khair plantations take 30 to 40 years to mature, the Bharada villagers may have to wait a long time to get their land back (Field notes, 1996). Given the complex interplay of 'customary' boundaries, actual usage, the definition of forest as state property and new claims as a result of a changed context—all of which are invoked at different times—the concept of boundaries is necessarily fluid.

Where villages have started protecting on their own, as in Orissa, they have often been faced with endemic low-level conflict. In some cases, they voice the need for greater support from the FD to reinforce their claims against other villagers (as in Patrapalli, which was facing timber raids by neighbouring villages, Rampur and Malda, which had cut down their own protected forests. Although Patrapalli had been protecting its forests since 1981, in 1995 they asked the FD to set up a VSS as well). In other situations, FD help has turned out to be counterproductive, or at best, has brought villagers together to avoid external interference.

During the late 1950s and early 1960s, Khudamunda and Baradungri

both protected a common village forest using a jointly appointed guard. When people from a third village, Tamperkella, started to cut trees from the protected patch in 1966–7, other people from all three villages followed suit and the forest was destroyed. People from two of the villages were fined, but Khudamunda villagers say they were exempted because the Revenue Inspector recognized their right to take wood from that forest area.

After this major destruction, there were no protection efforts until youth clubs were formed in 1975. Following this were several incidents in which Tamperkella club members intervened to prevent and punish small-scale forest product extraction by Khudamunda villagers. In one case this resulted in three Khudamunda villagers being fined, which then provoked a counter-arrest of Tamperkella boys who had taken thorn for making a fence from the Khudamunda forest. The Tamperkella boys filed a case against the president of the Khudamunda youth club, following which the police filed a case against 11 members of Khudamunda and 6 members of Tamperkella. This finally provoked a compromise between the villages, with the Tamperkella youths dropping their case and promising not to enter the protected forest.

Although it may have reduced conflict between the FD and villagers, JFM has shifted conflict to the village level: between and within villages. Ultimately, the policing power of the FD has not been reduced, it has merely been dispersed more broadly. In the process, a new image of the state has also been developed—of the state as impartial arbitrator of conflicts. The power of innovations like JFM lies in the fact that they can be (and often are) justified in terms of a larger public interest, such as the regeneration of forest cover, the provision of fuelwood, fodder and employment to villages. Thus, not only is community conservation successful at moving power (and the accompanying violence) outwards and downwards, it is also, through its harnessing of legitimacy, successful in shoring up power at the centre.

Equally, JFM may be the first step in actually making this legitimacy work. For example, there are growing moves towards federations that can serve as a forum to decide conflicts and negotiate with the FD (see Chapter 5). The beginnings of a shared discourse can be sensed, as villagers, forest officials and others seek to comprehend and redefine their relationships in terms of new territorial understandings. However, this in turn raises the question of how these new understandings are being formed. In the next section, we examine the exercise of power at the most fundamental level: the ability of the FD to influence people's 'choices' or shape the construction of 'needs'.

CHOICE AND THE CONSTRUCTION OF NEEDS

Participatory Identification of Options and Priorities

Tracing the history of development discourse through what he calls the 'neo-Fabian', and 'neo-Liberal' stages, emphasizing the role of the state and that of the market respectively, Robert Chambers hits upon a third paradigm, which he calls 'an ideology of reversals of the normal.' This third ideology currently enjoys dominance in the discourse of development agencies—notably donors, professional NGOs, consultants and related academics. It is characterized by 'putting people before things and poor people first; development through learning process rather than blueprint; decentralization, democracy and diversity (to value local knowledge, participation and small group and community action): open and effective communications and access.' 'What is especially new,' adds Chambers, 'is the value placed on adaptive and iterative rather than linear processes, on learning and changing rather than implementing a set plan, on differentness, on empowering local groups, and on demand from below' (Chambers 1992: 31).

In this whole process, participatory planning and learning methods (often called PRA, or Participatory Rural Appraisal in rural areas) play major roles in eliciting local knowledge and in motivating people to participate in planning and implementation. Chambers, one of the people most closely identified with the development and spread of PRA, describes it as 'a family of approaches and methods to enable rural people to share, enhance and analyze their knowledge of life and conditions, to plan and to act' (Chambers 1994: 953). It generally includes 'participatory mapping and modelling, transect walks, time lines and trend and change analysis, seasonal calendars, daily time use analysis, livelihood analysis, well being and wealth grouping and ranking, matrix scoring and ranking', etc. (Chambers 1994: 960).

PRA has been widely adopted in the process of implementing JFM. It is not uncommon to hear forest officers say that they have 'conducted a PRA' between breakfast and lunch. The specific instrument for actualizing or implementing the knowledge gained through PRA is the micro-plan or the process of creating a micro-plan, where, in theory, villagers are asked what their problems are and the best way of redressing them. Following the growing emphasis on the uses of 'indigenous knowledge', especially among World Bank circles (see Warren 1991), this is perhaps the first time that local knowledge and action is apparently being formally tapped within forest policy. For example, the APFP Tribal Development

Plan includes among its objectives 'fostering full respect for tribals' dignity, human rights and cultural uniqueness.' Strategies to achieve this include 'informed participation of the tribals themselves, identification of local preferences through direct consultation and incorporation of indigenous knowledge in project approaches' (Rangachari and Mukherji 2000: 133). In practice, of course, much of the work of FDs has depended on the intimate knowledge and expertise of villagers regarding the forests in their vicinity, especially for the collection of NTFPs which have constituted a significant but underrated portion of FD revenues (see also Grove 1998b).

Underlying the concept of JFM is, thus, a certain notion that villagers are free to determine their own needs, in the light of their own understandings of forest use practices, and to make choices regarding how those needs can be satisfied. JFM is at least partly, therefore, about increasing the liberty and choice that forest-dependent villagers have under the current system of forest management. These terms need to be deconstructed further, however, to see what kind of choice or freedom JFM offers.

Isaiah Berlin's classic essay outlines two conceptions of liberty: the positive and the negative (Berlin 1969). To have negative liberty is merely to have freedom from constraint, whereas to have positive liberty is to have the freedom to recognize one's real interests. The 'liberal' route is to define freedom in terms of choice. The greater the range of choice, the greater one's freedom, even if none of the choices are particularly good for one. The other route is to define it in terms of real interests or choices. While it is difficult to decide what counts as a genuine choice, a choice made without full knowledge or under manipulation by those more powerful is no choice. Further, a choice which one has no power to fulfil is meaningless (for one discussion of these issues, see Grey 1991).

In many of the areas freed up for local initiatives in JFM, while villagers are free to 'choose', the menu is fixed. They are not free to alter the range of choices or demand a change in the paradigm itself, to choose whether to have JFM or not (see also Savyasaachi 1999). Further, in what Elster calls, 'adaptive preferences' their very choices are determined by the set of choices available to them: 'we need to distinguish between preferences being the cause of a restricted feasible set, and their being an effect of that set. The oppressed may spontaneously invent an ideology justifying their oppression, but this is not to say that they have invented the oppression itself' (Elster 1999: 223). Thus, when poor village women choose to plant teak trees in their JFM patches, their choices may be the result of an 'adaptive preference' rather than 'autonomous' choices.

In this section, we take certain parameters—the concept of micro-planning, the concept of 'incentives' to induce villagers to protect, and the choice of species planted—to explore the manner in which 'choices' are formed and maintained. The choice of sites to protect and how to spend money (control over funds)—two other areas where villagers might expect to exercise choice under JFM—have already been discussed.

Micro-plans

In the Orissa JFM Resolution, the micro-plan is defined in the following terms:

> It should consider the forest and local community together as a system, instead of viewing the two separately, or the forest in isolation from user-communities. It would be based on a diagnostic study of the specific problem of forest regeneration of the locality and the specific cost-effective solution for the same that may emerge from within the community. The views of all the sections of the community, particularly the womenfolk, should be elicited in the PRA exercise for preparing the micro-plan. The management focus under JFM is likely to be on increasing the output of non-timber forest produce, and their processing in some cases to get value-added products. The other important aspect of the micro-plan would be to put in place a system of access-control into the forest; and there may be provision for a token monetary incentive to the community for enforcing proper watch and ward. As part of the incentive scheme some alternative livelihood support should be thought of for the sections of people within the community who are likely to be the most affected by enforcement of strict forest protection, such as the head loaders, the cowherd boys, etc..[18]

Thus, even as the order notes that the diagnoses of the problem and its solution should emerge from within the community, it also suggests its own management objective—increasing the output of NTFPs—and ways of getting there. These include monetary incentives for guarding and providing alternative livelihood systems for those affected. In September 1995 the Orissa FD decided to prepare micro plans under JFM in 14 Territorial Divisions of non-tribal areas.[19] Each division was to make four micro-plans with a budgeted expenditure of Rs 1.25 lakh per micro-plan. The parameters of each micro-plan were prescribed:

- Basic information, demographic data, etc.
- Resource assessment.
- Action plan, which would have:
  - Protection plan
  - Regeneration of existing rootstock
  - Plantation, soil moisture conservation measures, fencing and demarcation

Silvicultural operations
Arrangements for distribution of forest produce
Processing and sale of Forest Produce, sharing mechanism.

- Annual Progress Report, with a schedule of operations, to be done by the department, the village people and combined.
- Stock Map
- Management map

The experience of creating micro-plans was a disappointment. In the four villages observed in Sambalpur that had micro-planning exercises, only basic data were collected. Many of the staff did not feel that these exercises were 'serious', and thus, most information was gathered from secondary sources like the revenue department, and other government departments at the block level. Moreover, since the PRA exercises were not embedded in any lasting participatory context, they were generally one-off exercises conducted in half a day. In Patrapali where the exercise had generated tremendous enthusiasm, the forester later found that the proposed JFM area did not belong to the village. The whole micro-plan was dropped but the village was not informed until much later. In Kenaloi, a VSS was formed in early 1994, superimposed on an existing committee, but with a different executive. Thereafter, there were no visits by the FD till late 1995, when they arrived to create a micro-plan. While the micro-plans lay great emphasis on technical aspects and calculations, tables on various future benefits and operations that are to be carried out, there is less emphasis on the village institution, or the non-technical support that the Department can provide.

In MP, spearhead teams were formed in those divisions taken up under the World Bank project (and disbanded after the first phase ended). These teams were trained in the concept of JFM, 'participatory methods' like PRA, formulating micro-plans, etc. and were expected to train other staff in turn. Micro-planning was restricted to those villages with a VFC, and at least 300 hectares of degraded forest. Both the MP and AP experiences with micro-planning have marked similarities to that in Orissa—with PRA being basically a standard data collection exercise, and most information being collected from secondary sources.

Despite the fact that the micro-plan affects everyone, a full turnout of villagers in the Dewas micro-planning exercises was rare and the presence of women even more unusual (see Table 3.4). Villagers were asked about their problems and also consulted on how and where to institute rotational grazing, but given that the department spoke of 'incentives' and the micro-plans were drawn up with an eye to future budgets, all the demands expressed were of an infrastructural variety.

TABLE 3.4
ONE MONTH'S ACTIVITIES OF A SPEARHEAD TEAM, MP

No.	*Village*	*No of days*	*No of FD Staff Present*	*Night Halt Made*	*Place where held*	*Villagers present*	*Females present*	*Major topics discussed*	*Problems taken up under Micro-planning*
1	Manapipalia	3	6	Two	House	125	Nil	Rotational Grazing, Firewood, Village Development	Stopdam, Road, Tank, Temple
2	Chandakhedi	2	6	One day	House	75	Nil	Rotational Grazing, Firewood, Village Development	Road, Stopdam
3	Pardikheda	3	6	One day	Mandir	10–15 Shifting	Nil	Fuelwood collection Rotational Grazing	Drinking Water, Employment, Land, Development
4	Devli	2	8	One day	Forest chouki	65	Nil	not stated	Stopdam, Road
5	Dev Siralia	2	9	One day	School	80	Nil	not stated	Road, Stopdam, Drinking water
6	Dobla Kho	2	6	One day	School	90	2	Fuelwood	Stopdam, Road, School, Drinking water
7	Kheda	1.5	8	Yes	Community Hall	25+	20 partly	Protection in General; Fuelwood Collection; Rotational Grazing; Farm Forest; Watershed	Employment, Stopdam, Credit
8	Kailash Nagar	2	7	Yes	Community Hall	15	Nil	Fuelwood	Lift Irrigation
9	Chavraguari	2	8	Yes	School	70–75	Nil	RDF through Samity Fuelwood	Stopdam, Road, PHC, Cottage Industry

Source: Pradeep Khare, Member, Spearhead Team, Dewas Division.

Forest staff are often doubtful about the villagers' capacity to determine what foresters see as technical questions. This doubt is used to reinforce the department's justifications for controlling the budget. As one Range officer told another in Dewas in discussions of how much of the budgetary process should be under the control of villagers: 'How will villagers know technical details like what is required where, which species to plant, or where to dig a trench?' (see also Sivaramakrishnan 1996a, on how foresters define and retain control over 'expertise'). In terms of silviculture, then, rather than providing an alternative local perspective, the micro-plans further entrench the principles of scientific forestry. We discuss this in Chapter 4, where we argue that the actions taken under JFM (such as multiple shoot cutting, regulations on grazing, or banning shifting cultivation) reflect long-held FD animosity towards some dimensions of villagers' livelihood practices.

While micro-plans are drawn up, working plans which lay out in detail the working of the FD over a twenty-year period continue to exercise pre-eminence (see Chapter 5 for the experience of AKRSP). The revised MoEF guidance on JFM (MoEF 2000) specifies that in new working plans, there would be an overlapping JFM working circle to incorporate micro-plans. In existing working plans, deviations to accommodate micro-plans would be permitted only to the extent that they focussed on NTFP management. Yet working plans and micro-plans are rarely made available to villagers. In one case, in Sambalpur, although the information needed for a micro-plan was gathered from the villages at open meetings, the micro-plans themselves were created in the DFO's office, following a model from another district, and the resulting report was written entirely in English. Elsewhere, micro-plans may be in both English and the local language, but working plans are always in English. It is also rare to find micro-plans in the villages themselves, since these are invariably kept with the forest staff.

Incentives

In Paderu, the JFM process is closely tied up with giving 'incentives' to the village, in order to induce them to protect. In Vizagapatnam district the 'incentives' offered—meeting places and the models on which they are to be built—are the same throughout the district. The models come from headquarters, and the foresters guide and instruct the VSS chairpersons what to do, with no sense that these incentives need to be adapted to local requirements. Women in Gonduru said that the funds allocated to the building of meeting places would have been better spent on providing houses and roofing tiles. The following description of a division-level

workshop for JFM chairs also brings out the cut and dried manner in which benefits are correlated to the availability of government funds:

> The RFO declared the training session of the day closed. Before winding up he asked the participants to review the progress of the work for JFM. However, he did not wait for the response and said that before the end of March 1996 (financial year) all the pending work had to be completed. He said 'money is there and the FD has to spend Rs 50,000 for each new VSS'. He directed the members of the newly formed VSSs to start construction of the meeting places immediately and complete it before 24 March, based on a sketch model supplied by him. One person said that it was difficult to get timber for the construction. The RFO responded that if the timber was not available in the village, they could collect it from the forest so long as they gave a list of the trees being cut.

In MP, another state where the 'incentives' model is applied, income-generating activities are sometimes accompanied by efforts to locate and address genuine problems. Inevitably, however, the problems of the poorest sections are not always articulated, and the rationale for certain demands is not always visible to forest staff. In Pardikheda, forest staff took up water as an issue with the State Minister for Forests, seeing the problems labouring women faced. The Bhopa women themselves said, however, that they would rather have housing, since even if a pump were installed it would be the upper caste Sendho women who would get first right to the water. Thus villagers exercise limited degrees of choice over the benefits they are given, and within that, poor women exercise even less choice. The meaning of 'incentives' in this context becomes highly problematic; inevitably, accounts that focus solely on economic returns that can be measured (such as Hill and Shields 1998) are entirely misleading.

Selection of Species for Plantation

Species selection is one aspect of JFM that has been specifically set aside for villagers. Most sources assume that villagers will choose NTFP-bearing species. As Sivaramakrishnan puts it, highlighting the manner in which participation is compartmentalized:

> Foresters are intent on preserving their control (in the final instance) through silviculture, a knowledge that through manuals and working plans is claimed as their exclusive preserve. Given the participatory framework, this leaves the awkward question of what should be conceded to the domain of local knowledge, where under the rules of JFM villagers are skilled practitioners. The answer, jointly provided by environmentalists and development specialists, is the knowledge of NTFP collection and processing.
>
> (Sivaramakrishnan 1996a: 19)

In practice, targets, technical knowledge, and the availability of species in the FD nursery often determine what is planted. Sometimes this means that NTFP-bearing species are planted, but on other occasions timber species like eucalyptus are planted, since these may be all that the local nurseries have. The DFO in Paderu recognized that the department 'should give priority to people's choices,' but, he added, 'November is the time for preparing the nurseries. If we ask the villagers they may suggest mango, tamarind, etc.. But at this time the department does not have the seed stock for these and they are very costly. So we prefer to plant whatever is feasible within the time limit.'

Where NGOs are involved they may be better placed to cater to villagers' expressed demands, but there too, the process by which demands get expressed is not a straightforward one. For instance, in the plantation projects of the AKRSP in Gujarat, tree selection is done by village-level extension volunteers through PRA techniques like species ranking. (In the past, however, in contradiction of their own participatory rhetoric AKRSP have refused to let villagers select eucalyptus, even if it came on the top of the list.) Tree ranking is carried out with different groups of men and women and the two are then compared and a consensus formed. However, the very idea of ranking is something that is project-oriented and associated with the delivery of benefits, and not necessarily connected with the wide range of uses that villagers make of different plants (Mosse 1995).

In 1997 we visited several villages practising JFM in the Eastern Ghats (AP and Orissa). Here villagers did not ask for trees that had traditionally grown in their forest areas, or even for those species from which they collected NTFPs for sale. When asked why, a common reply was that these would regenerate naturally from protection, so it made sense to ask for new species, preferably timber species or commercially valuable species like coffee or jaffra, a red dye plant. In one village, the villagers asked for teak, although previously they had had mainly rosewood in their forests, because they had learnt from neighbouring villages and NGOs that teak was an important timber species. Thus, one finds villagers in diverse ecological settings asking for the same species, regardless of its suitability to the soil and the climate of the area—often despite the fact that they are aware and knowledgeable about the suitability of other species to those particular soil types. Furthermore, while villagers may recognize that regeneration might be sufficient to afforest degraded land without additional plantation, they are loath to turn down the possibility of getting free seeds and wages for plantation from the FD. Forest staff, on the other hand, sometimes complain that in providing

suitable technical advice to suit site-specific characteristics—including marketing advice—they have to persuade villagers of the benefits of natural regeneration and of traditional NTFP species, rather than giving in to their demands for the plantation of exotics like cashew. This is, in many ways, an interesting reversal of roles, in a country where the FD has long been castigated for large-scale plantations of alien species like eucalyptus.

In other words, villagers mould their own demands according to what they feel the project can deliver (see also Mosse 1995: 9), and according to perceived opportunities for new commercial enterprise. Location is also influential: in Koraput, Orissa, villagers wanted eucalyptus because of the proximity of various paper mills, whereas just over the border in Paderu, AP, the primary demand was for silver oak. Initially, fresh from the 'motivation speech' delivered by the forest staff, villagers in Kilagada, Paderu, cited ecological reasons, such as increased rainfall, for their involvement in JFM. Another reason cited was the fact that the FD had constructed a village meeting room and provided various other goods in order to improve their relations with the villagers. In subsequent meetings, villagers cited the increase in NTFPs as a factor for engaging in protection and later changed again, citing the income benefits from coffee as the major reason why they had taken to JFM. In Paderu, the Forest Development Corporation and the Integrated Tribal Development Agency (which together constitute the major initiators of 'development' in the area), have provided silver oak, which acts as a good shade for coffee. Coffee plantations are an important source of employment. Thus, even where the soil and climate is not suitable for silver oak, villagers often end up asking for it to be planted in their protection areas.

In general, one might argue, though, that this request for coffee comes from richer villagers who are not so dependent on the forests for the collection and sale of NTFPs like *adda* leaves. Choice of species or silvicutural methods is not just a question of local versus outside knowledge, but is also influenced by gender and class. Commercially valuable timber species are often associated with male elites versus fruit and fodder bearing trees associated with women and lower classes.[20] In many cases, however, especially for poorer women, 'subsistence' includes the sale of NTFPs or firewood through headloading, and unless some acknowledgement is made of this, environmental action meant to help women or poorer sections can often end up harming them (Rangan 1993; Sarin 1996). In short, what is represented as local knowledge to outsiders or gets adopted by villagers from the outside not merely 'matters of instrumentalities, technical efficiencies, or hermeneutics ... but involve

aspects of control, authority and power that are embedded in social relationships' (Long 1992: 270).

The expression of 'indigenous knowledge' or 'choice' through the prism of certain programmes has often more to do with the aims and structures of the programme than with any reservoir of local knowledge or actual needs. In other words, even where villagers do exercise initiative, it is under terms dictated by the overall framework of targets and activities prescribed by government rules, which, in some sense, distorts their agency. This has been well summarized by David Mosse in a different context: 'If projects end up ventriloquizing villagers' needs it is not only, or primarily, because artful and risk-averse villagers ask for what they think they will get. It is also because various development agencies are able to project their own various institutional needs onto rural communities' (Mosse 1995: 16). The kind of knowledge and choice that is mobilized within 'participatory' programmes for development actions like JFM is presumed to be one that is common to all groups within a village, regardless of their differing interests. In fact, the question of choice cannot be divorced from history and sociology. Understanding how choices are formed among different groups is crucial to understanding how JFM works.

CONCLUSION

This chapter has assessed what difference JFM has made to FD-village relations in terms of three parameters: community, power, and choice. In all the states, the JFM committees responsible for protection are village-based, and the membership and functioning of the JFM committees reflects the existing social structure, whatever the formal rules. In Gujarat, the largely egalitarian and collective base of the Chaudhury and Vasava tribal villages also translated into fairly transparent JFM committees, while in AP, the smaller 'tribal' villages with homogeneous populations functioned better than the larger heterogeneous (but also tribal) villages which were riven with party politics. In MP and Orissa, despite the protection groups of the former being state-imposed and the latter, 'self-initiated', the committees clearly reflected social arrangements in the village. In large heterogeneous villages like Lapanga in Orissa, and in the Sendho villages of MP, lower caste/class interests were not well served in the decisions taken by the committee. As we pointed out in the beginning of this chapter, size and homogeneity do make a difference to a group's ability to engage in collective action, especially that which meets the needs of its members. Much also depends, however, on the

external environment of state policies, local FD personnel and their practices, as well as the specificities of historical patterns of forest use, access to the forest and the presence or absence of competing groups of forest users.

In almost all the states, women played very little active part in the management of the FPCs, though in Gujarat and Orissa, they were involved in protection. In Gujarat, AP and MP, several took part in wage labour on clearing and plantation work under JFM. In all the states, inter-village conflicts over access to NTFPs or other boundary problems involved women, suggesting a need for women to become involved in decisions that have important influences on their lives. In all the states we studied, apart from limitations in the relevant provisions of the state resolutions, there are very few women forest officers in FDs and NGOs. Increased recruitment of female staff might result in more and better participation by village women in forestry; but this is not a foregone conclusion, since institutional norms may constrain female staff as much as male staff. AKRSP in Gujarat provides a partial exception.

The 'communities' identified from these accounts of JFM committees are not units that can be automatically harnessed to the cause of forest regeneration, and much reworking of their social hierarchies will be needed before equitable participation in JFM can be achieved. While JFM does introduce a collective interest, it can also be subverted through the opportunities for patronage it offers the leaders. This is particularly the case where large sums of money are involved, as in the MP and AP programmes, or where village-level politics are inflected by party divides again as in MP and AP.

The introduction of JFM has made some difference to the overt exercise of power by the FD over villagers, in all four states. However, there is no simple means of assessing this, particularly as many of these changes are qualitative dimensions of conduct at meetings, the holding of micro-planning exercises to ask villagers what they want, etc.. In all four states we see that the people who have so far been empowered by JFM are the leaders and the male elite: the interaction between women forest users and state officials has largely remained distant. One curious loser in this new-found bonhomie between villagers and higher-level officers may be lower forest staff, whose ability to dominate village elites has, in any case, always been variable and fragile.

The FD continues to hold real power when it comes to actually setting an agenda. In Gujarat its main competitors are the large NGOs, able to understand and critique FD actions independently. In the case of donor-driven programmes (MP and AP) the only constraint on the ability to

select villages or the amount of land to be protected is the funds available, since the donors are encouraging this top-down decision-making. In Orissa the villagers have set their own agenda on these issues as well as on the question of use of funds. Where the government has succeeded in pulling these committees under the JFM umbrella, there is a danger of them losing this autonomy. Fund management and the power to impose fines on offenders are two other areas in which none of the JFM committees we encountered enjoyed sufficient autonomy. The most serious concern is the inability of these groups to make any difference to the larger questions that affect their existence—such as the decision to build dams, or other large industrial projects—but this, of course, is a generic problem, not specific to JFM.

Finally, unless we look at the role of ideologies and interests in framing choices, we shall be unable to go beyond an incremental model of JFM. In this incremental version, one may see a shift in power, simply because some villagers are making choices through micro-plans, without looking at whether those micro-plans are really an alternative model of management. Villagers often 'choose' to accept whatever species the FDs offer or whatever they feel will be commercially valuable, rather than what they 'need' in subsistence terms. In MP, micro-planning is being conducted in a more systematic manner than in the other states, but here too, the FD retains control over silvicultural prescriptions based on 'scientific forestry'. Incentives that are offered by the FD in AP, MP and Gujarat tend to follow a set pattern, though in individual cases there may be some negotiation.

NOTES

1. These three categories are very similar to and draw upon those elaborated by Sivaramkrishnan in his examination of forestry and state-making in West Bengal. He argues that JFM has involved a reconfiguration of representations and practices along three axes: community, control and expertise (Sivaramakrishnan 1996c).

2. See, for example, the papers presented at 'International Workshop: A decade of JFM, Retrospection and Introspection' organized by the Indian Council for Forestry Research and Education, New Delhi, 19–20 June 2000.

3. See Baland and Platteau (1996) for a similar list.

4. Tenurial rights governing the use of forest land may depend on customary rights, administrative orders, court rulings, state and national legislative statutes and constitutional law (Arnold and Stewart 1991). See also Lele (1998a) on the multiple right regimes in Karnataka created by the co-presence of forest acts, non-forest laws, repealed laws and case law.

5. Under the Forest Conservation Act, any alienation of forest land to other uses can only be done with central government permission, whether or not that land actually contains trees. The Supreme Court judgement has gone further and completely banned non-forest related activity on forest land or anything that resembles the popular understanding of forest. Various state forest departments have challenged this. Supreme Court Orders of 12 December 1996, 4 March 1997 and 15 January 1998 related to the Forest Conservation Act and Environment Protection Act.

6. The term 'revenue village' is used here not in opposition to a forest village, but in terms of a village as marked in the revenue maps, which can include several hamlets. This may be different from the village as socially or ritually conceived.

7. As we show later in this chapter, such a rapid process of registration is impossible. The fact that the MoEF demanded it is a worrying sign that 'top-down' management by order is still a preferred means of acting.

8. The 2000 guidelines suggest that at least 50 per cent of the members of the general body should be women, and at least 50 per cent of the women members should be present in order for a meeting to be held. Women should fill 33 per cent of the membership of the Executive Committee, and the post of one office bearer. In order for an EC meeting to be held, at least one-third of women EC members should be present.

9. Presented at a seminar on the role of FD in the 21st Century. December 19–21, 1994, Hyderabad, Organized by APFD, World Bank (EDI) and ADB.

10. See also Gandhi and Shah (1991) on the common pattern of women's concern with 'bread and butter' issues while organizing.

11. See Gal (1991) on hierarchies of speech, where women's directness is treated as an impediment to skilful negotiation.

12. There is a well known, if dated, debate on the question of how class society is reproduced in the state (Miliband 1969; Poulantzas 1973). For Miliband, this is achieved through overlapping personnel or ideological congruity between the state bureaucracy and politicians (all ruling elite) and the capitalist class, whereas for Poulantzas, following Althusser, it is a consequence of the structural form of the state apparatus. Regardless of the ideology or social background of those administering the state, the state depends for its continued existence on the private accumulation and reproduction of capital. The situation is obviously different for different levels of the state (local, national, etc.) since the power to reproduce capital differs significantly (see Pickvance and Preteceille 1991). However, local governments, at least in India, are so far merely extensions of state bureaucracies.

13. See also Pathak (1994) on the role of intermediaries in state devolution, and Sivaramakrishnan (1999) on forestry as a key site of 'statemaking' where the boundaries between state and society are continually being redrawn.

14. The exceptions are West Bengal and MP, where two types of committees, FPCs, and VFCs, have been set up to protect good forest and degraded forest respectively.

15. In Gujarat the FD gives the Van Kalyan Samiti (as the forest protection committee is known) an *adhikar patra* (or letter of right) which gives the VKS

the power to stop any illicit felling in the forest. The letter also states that the VKS must be registered within approximately two years. The FD has held workshops in Mandvi to train VKS chairs about the registration process, but until 1999, fewer than a handful of VKS had been registered. Registration under the Societies Act requires five copies of a form, each to be individually hand-written, along with society bylaws. A *prayojak* is appointed in the village to collect money, deposit it in a bank, etc.. Each member has to pay Rs 10 as membership fee as well as Re 1 for admission. There must be a minimum of 11 members to form a co-operative society. To be able to pass any resolution in the society, 60 per cent of members must be present. Also payment must be collected from at least 60 per cent of the members.

16. A proposal within the Gujarat Forest Department to remove the clause allowing dissolution would also reduce the pressure on committees to register (S. Tyagi, DFO Rajpipla East, pers. comm., February 1999).

17. According to AP GO Ms. No. 21, dated 5 March 1998, VSS members are entitled to 25 per cent of the compounding fee for any offences they catch outside the VSS area, though none from within the VSS area. This is presumably meant to encourage extra vigilance.

18. Memo by Additional Secretary, Forests, to Conservators of Forests, in June 1995.

19. The Forest Department in Orissa is entrusted with formulating three categories of micro-plans, but all with a prescribed format. These are to be prepared by the territorial Divisions of tribal districts with funds from the World Food Programme; by social forestry divisions; and for JFM villages by the territorial divisions in non-tribal areas with funds from the state plan. The only difference in the micro-plans is the source of funding.

20. This has also been documented in the Chipko case (Shiva 1989).

4

Towards Productive Involvement

JFM and the Management and Use of Forests

JFM implementers are faced with several potentially conflicting objectives, including satisfying local needs, regenerating the forest, and introducing more people-friendly management practices.[1] In this chapter we examine JFM in the light of two of these goals:

- *Local needs:* how has JFM affected the access to and distribution of forest produce for different categories of villagers—for men and women, different classes and castes, and different occupations?
- *Management practices:* to what extent does JFM change silvicultural and management strategy, and does this involve new balances and complementarities between the priorities of conventional 'scientific forestry' and other dimensions of forest use and management? We argue that the answer to this question depends largely on the manner in which foresters perceive villagers' use of the forest.

Increasingly, social scientists have come to see forests as products of various interventions, as socially and historically created, rather than part of a given 'natural' environment (Dove 1993; Fairhead and Leach 1996; Schama 1995). In most JFM situations, where villagers are only invited to join in the protection of degraded land (with less than 40 per cent crown density), joint wasteland or scrubland management would be a more appropriate term.[2] Yet even the most 'degraded' land has several uses, primarily to the poor who have few alternative means to fall back on (Jodha 1994). JFM is partly about re-envisaging this degraded land, picturing what it once was and what it yet may be, as against what it is at present.

Within 'the archetypal Indian forest type' of the Central Indian deciduous region are several sub-regions based on their principal species: sal (*Shorea robusta*), teak (*Tectona grandis*), ironwood (*Xylia dolabriformis*), red sanders (*Pterocarpus santalinus*) and sandal (*Santalum album*) (Stebbing and Champion 1922: 44–5). Going south-west to north-east across Central India, teak gives way to sal (Rangarajan 1996: 49–50). Rajpipla and Dewas fall within the teak zone, Sambalpur is in the sal tract, but Paderu has no valuable timber species, other than ironwood. Consequently, timber exploitation for industrial purposes has not been a significant factor in Paderu's history; and unlike the other three sites, employment of villagers as wage labour in forest operations like logging has not been an important aspect of villager–FD interaction. The fault line for confrontation in Paderu has generally been around the issue of *podu* or shifting cultivation on hill slopes, rather than (as in the other three sites) illicit felling and smuggling.

Although teak and sal are both valuable timber trees, their different characteristics lead to different implications for forest management strategies. Unlike teak, sal is not conducive to artificial plantations, but coppices well and is likely to regenerate naturally through simple protection. Teak takes a long time to mature and has few payoffs other than timber, but sal yields a variety of intermediate products that can be used by villagers, such as leaves (for leaf plates and cups), seeds (sold for use in making chocolates and soaps), resin (used as incense locally), twigs (for cleaning teeth), and poles (for house construction).

In Paderu, adda (*Bauhinia vahlii*) is the most commonly collected and contested NTFP, while in Dewas and Sambalpur, and to a much lesser extent in Rajpipla, tendu (*Diospyrros melanoxylon*), used in production of *bidis* (hand-made leaf cigarettes), is a major source of local cash income. NTFP collection implies an additional sphere of interaction with the FD, through collection centres overseen by the FD. Nationalization of the tendu trade has meant that private traders no longer purchase it in the open market: the leaves are purchased by agents, mostly from within the village, appointed by the FD. Again, Paderu is distinctive for its lack of that other multi-purpose tree—mahua (*Bassia latifolia*)—which is central to food and recreation, oil needs and the religion of villagers in Gujarat, Madhya Pradesh, and Orissa. Mahua flowers are eaten or distilled into alcohol, and its seeds are pressed to yield oil, previously of major importance for lighting, especially in the absence of kerosene.

In short, the nature of forest cover, its potential for regeneration, the nature of interaction with the FD that particular forest products engender,

or even the market potential of certain species, all affect how JFM is viewed by villagers, and the incentives it offers them.

SILVICULTURAL REGULATIONS AS IMPLICIT POLICY

JFM Government Orders not only introduce institutional arrangements, they also seek to intervene on the forest floor. For instance, the orders of all four states note that the committees' duties include protection of the patch against fire, encroachment, grazing and illicit felling. In all the orders, villagers are offered intermediate benefits through procedures like cutbacks or thinning, both of which are ultimately aimed at producing good timber stands. In order to understand the reasons behind certain JFM interventions, and decide whether they represent a departure from existing conventions, we must examine foresters' classifications of different uses of the forest. Some of these have been gleaned from successive policy pronouncements while the others are reconstructed from the standard terminology used in Working Plans, to answer the following questions: Why are certain methods of regeneration preferred over others? Why are certain sorts of local uses legitimate and others not?

In the National Forest Policy Resolution (NFPR) of 1988, the first listed cause of degradation is 'increasing demand for fuelwood, fodder and timber,' followed by 'inadequacy of protection measures; diversion of forest lands to non-forest uses without ensuring compensatory afforestation and essential environmental safeguards; and the tendency to look upon forests as a revenue earning resource.' Shifting cultivation and encroachment on forest land are seen as practices to be actively discouraged (MoEF 1988: sec. 4.7 and 4.8). Forest conservation and meeting the needs of 'rural and tribal populations' for fuel, fodder, minor forest produce and small timber, however, are seen as basic objectives. Existing rights and concessions should be protected and related in turn to involvement in forest protection (MoEF 1988: sec. 4.3.4.2 and 4.3.4.3).

The 1990 GoI order on JFM reiterates that local requirements be treated as 'first charge on forest produce.' Extraction of 'grasses, lops and tops of branches and minor forest produce' is acceptable, but grazing and agriculture on forest land are not. Overall operations must be performed according to a working scheme, but one developed with local consultation. Within this sphere, NTFPs are encouraged (MoEF 1990).

Working Plans (the detailed printed documents drawn up every 20 years or so for each Forest Division) invariably contain a section on 'agricultural customs and wants of the people', under which they list timber for house construction and agricultural implements, firewood,

fencing, grass and grazing for cattle. A section on 'injuries to which the crop is liable' lists (among the human causes) illicit cutting, grazing, unauthorised cultivation and fires. Other injuries (like insects, climbers, drought and wind) pose the question of whose responsibility it is to protect the forest, and who bears the losses if they occur. Many of the practices in 'agricultural customs' which are acceptable and those listed under 'injuries' which are not—such as timber felling and grazing—coincide.

In these pronouncements, then, people's needs for fuel, fodder, small timber and NTFPs are seen both as sources of danger to the forest and as demands that have somehow to be met. Foresters (like many populist environmentalists) seem to distinguish between acceptable and unacceptable demands at the point when the requirements of agriculturists exceed their subsistence and they seek to enter the commercial world—when fuelwood collection, for example, crosses over into headloading for sale. There are parallels here with the contrast between the deserving and undeserving poor (Scott 1985): entering into commercial relations evidently disqualifies one from the deserving status.[3] Missing from such discussions, too often, is awareness that the key concern must be sustainable extraction, not the purposes for which the extraction is used.

Implicit or explicit categorization of extraction for commercial purposes as illegitimate also conveniently ignores the fact that the livelihoods of even very poor rural people typically have important commercial dimensions, including the sale of forest produce. Since commerce is often part of a minimal subsistence strategy, therefore, the subsistence/commerce opposition is intrinsically flawed. In any case, some subsistence activities such as shifting cultivation and forest grazing have been defined as illegitimate, so it is not only commercial extraction that is unacceptable. FDs set up forest villages when they needed cheap and accessible labour, but now want to prevent their residents moving on to farming in the forest. NTFP collection is usually carried out for both domestic use and sale. Forest settlements have been inimical to commerce in NTFPs (Tucker 1998: 466) except when it has been channelled through the FD or under its rules.

How, then, do foresters view village uses of the forest? The underlying criteria by which a practice is judged as legitimate or illegitimate are still how far the FD is able to control it, and how far it ensures revenue for the department. The ideology of forest management continues to be inflected with custodialism. Practices not controllable by FDs are denigrated as unscientific. Rather than challenging this, the interventions practised by the FD under JFM seem to reinforce this connection, attempting to persuade villagers over to their way of thinking.

We offer a three-fold typology of villagers' forest uses as perceived by FD staff: FD–tolerated interference, FD-approved involvement, and FD–disapproved practices. FD-tolerated interference, based on the term 'biotic interference' which foresters commonly use (see Forest Survey of India, 1988) includes all those demands that interfere with the main task of forest management (until recently, producing timber) but nevertheless have to be catered to, such as fuelwood, fodder, grazing and small timber. In the past, FDs sought to deal with this demand by specifying which trees could be cut and at what height, through grazing rules that specified the number of cattle, commutation dues, permits and, as in MP, through *nistar* depots. More recently, attention has shifted to providing alternatives such as smokeless stoves or biogas plants (MoEF 1988: Sec 4.3.5). FD–approved involvement encompasses wage labour on forestry works and those villagers' activities that directly produce revenue for the FD, such as NTFP collection and sale. FD–disapproved practices include those that gain no revenue for the department and compete with it for control, such as smuggling, headloading and shifting cultivation.[4]

In the foresters' ideal world, villagers would concentrate on the approved or productive activities like NTFP collection, cut down on tolerated activities like grazing, or at least meet their needs solely through departmental provisions, and desist from illegal practices altogether. In practice, however, such a move may be counterproductive. Villagers' knowledge of plant species, and therefore, the ability to collect for the market is intimately connected to their patterns of shifting cultivation (Savyasaachi 1999); and grazing may actually assist in sal regeneration (Anon. 1999b; Rangarajan 1996: 89–91; Sivaramakrishnan 1996c).

Although forest policy has now progressed—from seeing the provision of local needs as incidental to the management of forests for timber, to seeing local needs as 'first charge'—these claims have, until the recent revised national Guidelines (MoEF 2000), been directed towards degraded patches. In this respect JFM is similar to Social Forestry, which recognized the legitimacy of these needs, but sought to meet them from non-forest land. In ecological terms, JFM is partly about converting tolerated interference into approved (productive) involvement, to channel user needs into socially useful avenues. Multiple shoot cutting may be advocated to benefit the production of good timber by ensuring clean boles, and at the same time, to provide for the immediate fuelwood needs of villagers (Vasavada, Sengupta, and Singh 1996).[5] Work on JFM plantations or on protection activities serves the FD's need for labour without the accompanying problems of close supervision, and also provides an alternative to local forest dependency.

In the following sections we examine how far FDs have succeeded in subverting JFM to their own ends, the differential impacts on diverse people, and the everyday and not-so-everyday ways in which villagers have resisted. We argue that insofar as it is about self-regulation by villagers, JFM is just the latest step in a long effort by foresters to convert villagers from activities deemed illegitimate by FDs (forest farming, felling, girdling or grazing) into producing, protecting and supporting the FD. Our evidence suggests that the remoulding of villagers' forest use practices is far from complete. Villagers mostly continue in their old ways, relying on the Reserve Forests closest to them for their needs of fuelwood, grazing, timber and tradable goods. JFM has had the most impact on the poorer sections, as well as women—on all those who are most vulnerable to 'community' pressure, and whose needs are least likely to be registered in the apparently technical, but actually political, questions regarding silviculture.

RULES OF ACCESS BEFORE JFM

The different types of access historically enjoyed by villagers inevitably affect the kinds of intervention made by the FD (Hobley 1996: 33). They thus provide an essential baseline to study whether or not JFM has made a radical difference in terms of people's rights to forests. What follows in this section is necessarily a potted account covering a long time period. In all the four states, during the colonial period, villagers had limited access to reserved forests for some NTFPs, including fuelwood, under systems known as *mafikat* in Rajpipla, *ardhaani* in Holkar state and *nistar* in MP. In addition to reserves, some areas had protected and village forests, the most complex system perhaps being found in Orissa (see Chapter 2). Of the former estates in the Agency areas of Vizagapatnam (now in AP), only Vizianagram had any formal system of forest management. In the other estates, fuel and small timber were either free or available on permits, while shifting cultivation was permitted on payment of a small fee (Rao 1979: 40).

Carefully graded distinctions were made between different classes of users and uses. In Rajpipla, although both forest and revenue villagers were given *mafikat* passes for fuelwood, revenue villagers had to pay 4 annas per cartload. In Sambalpur, those engaged in occupations that used forest produce heavily (like potters and basket makers) paid a higher tax for their consumption than agriculturists, or paid according to the fuel consumed. Thus, in the 1930 and 1940s, in Phuljhar *zamindari*, blacksmiths repairing implements paid Rs 4 as *nistari* dues, while blacksmiths

smelting iron paid Rs 6 (Kamath 1941: 327–8; Orissa Forest Enquiry Committee 1959: 25). In Indore State (now in MP), different rates were fixed for different occupations, for state residents and foreigners, and for different types of wood, first class and second class fuel, leaves and fruit. A headload of teak and palas leaves was free, but a cartload was charged at 12 annas (Anon. 1912; Anon. 1981). In Paderu, older villagers remember paying tax for cutting trees and collecting fuelwood. Carpenters and others dealing with wood had to deposit a tax called *compa-sistu*. The forester visited all the villages to collect tax, as well as chickens and vegetables, which he took home. After independence, in all the states, villagers were allowed dry, dead and fallen fuelwood even from Reserved Forests free.

Grazing rules were similarly adjusted according to the category of user in the colonial period. In Rajpipla, initially, forest villagers or those with agricultural land within the boundaries of forest villages had to pay 6 annas per head of cattle grazed; those who lived in revenue villages paid 9 annas. Post-independence, general rules applicable to the entire state allowed free grazing for all villages, and for the cattle of nomads, in open forests, and within 400 metres of the village site (Reddi 1976: Appendix 2). In 1985, free grazing of cattle was abolished, though villagers could collect fodder grass except in monsoon months (Raju, Vaghela, and Raju 1993: 74–8).

Indore state charged grazing rates differentially, not only by the person, but also by the animal's age: calves under a year, kids and lambs could be grazed free. Residents of forest villages and villages on the boundaries of forests paying commutation dues could graze two bullocks per plough free within reserves (Anon. 1912). FDs sometimes initiated regulations that presaged those prescribed under JFM. In Dewas state, for example, restrictions were imposed on grazing in areas which had been felled. As with the rotational closure of grazing practised today under JFM, in the 'pasture forests which had deteriorated in the past, remedial measures such as monsoon closures, forming of pasture units and limitation of grazing incidence was prescribed. Grass enclosures were auctioned' (Anon. 1981: 130). After independence, grazing rules were relaxed considerably. Cattle are now allowed to graze free in Reserved forests (but not goats, sheep or camels, which are more destructive). Recent plantations are closed to grazing (the length of closure depends on the type of working circle it falls under). Migrant grazers from other states are given passes and required to go along demarcated routes. A similar situation prevails in Orissa.

In the Agency estates in Paderu, after 1951, different rules of grazing

were introduced, according to whether the forest was Reserved or not. In the 1950s a local movement demanded the right to browse goats on payment of a fee, to graze other animals free or at concessional rates, and to remove fuelwood and fencing material, either free or on permits at nominal rates (Rao 1979: 40). Since 1968 throughout AP, free grazing has been allowed in Reserve Forests, except for goats (limited to four per household), cattle from other states, and in areas maintained as grass reserves (Kishan 1996).

All states allow collection of some categories of NTFPs free, both for consumption and for sale. In Rajpipla, under the special privileges allowed in the working plan of 1976, villagers were allowed removal of mahua for consumption or sale, as well as honey, wild fruits, gum, karvi (*Strobilanthus callosus*), and thorns from Reserve Forests (Sharma 1994). In MP, Gujarat, and Orissa, certain nationalized products like tendu or sal seeds are harvested under departmental supervision, that is, villagers merely get wages for collection, whereas other NTFPs can be freely collected and sold to private traders or village societies. Both MP and Orissa have introduced important changes in their Acts dealing with NTFPs, giving ownership rights over NTFPs to gram sabhas in *adivasi* areas (see the section on NTFPs later in this chapter).

In Paderu, till 1957, the FD followed a system of selling traders rights to collect NTFPs. In some ranges (for example, Madugula range) these auctioned rights excluded adda leaves, an important NTFP of the area, whereas in others (Paderu range) adda leaves were included (Rao 1979: 47). Currently, although tribals in scheduled areas can collect NTFPs for personal consumption free, they can only sell to the state agency with a monopoly in NTFP marketing, the Girijan Co-operative Corporation (GCC), at rates fixed by it.

FDs also made some provision for timber. In Gujarat, general rules allow villagers to get felled wood left waste in the forest by contractors. Forest villagers could get specified quantities of timber for house building and agricultural implements at concessional rates from coupes worked by Forest Labour Co-operatives (FLCs), and fallen deadwood of unreserved species. Special privileges for Songarh and Vyara *talukas* also made provision for the grant of bamboo to specified categories of people (Reddi 1976: 95–7, Appendix II). In Orissa, villagers are allowed to fell timber selectively in village forests (under the supervision of the forest officials) for their domestic use. In MP, however, villagers are expected to buy timber from *nistari* depots that were set up for the purpose after independence, though in practice, villagers bordering good forests take what they need from there. In the AP scheduled areas, the AP Forest Act,

enacted in 1967, allows for free timber for building and agricultural purposes, thatched grass, and fuel for domestic purposes and fencing materials (Kishan 1996).

During the colonial period in all four states, then, carefully graded distinctions specified who was allowed in which forests for what purposes. With independence and the formation of new states, moves were made towards uniformity of laws across the state, but pockets of exceptionalism continued. Some of the institutional arrangements by which forests were managed earlier mirror the current JFM scheme, although the level at which power has been decentralized may vary. For example, forests were sometimes put under the supervision of local headmen or revenue collectors.

The system of exclusion from reserves that JFM is meant to reverse was also by no means as strict as is commonly assumed. In Rajpipla, for example, villagers already had the right to headloads of fodder from the forest. Thus, their right to grass has not improved since the start of JFM, but more grass has been available since protection began. Similarly, in MP, the attraction of JFM for villagers bordering good forests (in FPCs) is a peculiar one. They stand to gain only free *nistar* (apart from the 10 per cent the 2000 order gives them), a right which they enjoyed before, but which has been taken away from other villages (including those in VFCs) since 1994. The basic point is that the JFM regulations need to adapt to the rights and privileges prevailing in a given area; attempts to standardize regulations at national or even state levels are likely to result in failure or poor performance.

We now examine how the three different aspects of villagers' use of forests—FD–tolerated interference, FD–approved involvement, and FD–disapproved practices—have been affected by JFM.

FD–TOLERATED INTERFERENCE

In the following sections we deploy examples from the different states to illustrate the nodes of intervention that JFM represents in terms of the everyday needs of villagers. How were different groups of villagers in the four states or sixteen villages meeting their needs for fuel before any of the states and the GoI had passed orders regarding JFM?[6] What changes can be seen after two–three years of experience of JFM?

Fuelwood

In May, just before the monsoons, people stock up for the months ahead. Before JFM was introduced in the four Rajpipla villages, small groups

of women would collect wood from patches of forest closest to the village, at times when the guard was away or at lunch. If the guard caught them, he would confiscate their axes and the wood they had cut. But when guards faced much larger groups of women, they might be unable to do more than let them off with a scolding. In Dewas, in May the Sendho landowners (in Pardikheda and Lalakhedi) thinned the teak trees in the fields kept specially apart for trees and fodder grass, to satisfy about 50 per cent of their firewood requirement. For the remainder, their male servants collected wood from the forests by bullock carts. Women from the labouring classes—Balais, Chamars—gathered their entire supply, headload by headload from the forest, occasionally supplementing this with dung-cakes using dung dropped by cattle in the forest. The Sendho women, in contrast, made dung cakes with dung from their backyard. The Lodhi Thakur women would stealthily enter the forest to get headloads for sale. In the Mohada reserve forest, rich Barela householders would bribe forest guards to allow them to take a cartload of fuelwood; poorer villagers, unwilling to give that cut, would collect at night instead. Poor Barela women, however, made one or more daily trips to get fuelwood on their heads.

In Sambalpur, forest protection has lasted for several years, and villagers have been able to use the lops and tops of trees from the village protected forest in return for a fixed fee (for example, Re 1 per headload in Patrapali). Lower caste villagers also cooked with wood brought from reserve forests where available (for example, in Lapanga). Upper caste households had the same sources, but in their case they also bought wood from headloaders from other villages. Some villagers would use coal, which they had either procured illegally themselves or bought from people of other villages. In some villages (for example, ~~Khudamunda~~), women would supplement the brushwood from the protected patch with fuelwood collected from the trees and shrubs on their own agricultural fields. In Larasara, locals and villagers from across the Mahanadi on the Bargarh bank would take headloads from the reserve forest across the river by ferry, having paid the ferry owner Rs 8 to 10 per headload.

In Paderu, headloads of wood were collected mostly by groups of women, but sometimes men also carried shoulder loads, especially during May, part of the slack agricultural period. Some headloads were traded across the Andhra–Orissa border, with richer Paderu villagers (who collect less than they consume), those engaged in fuel-consuming businesses like boiling turmeric, and petty tea stall owners, all buying headloads from Orissa villagers. In Kilagada, rich Bhagata households

bought fuelwood from poor Parajas from the same village; no-one used dung cakes.

What differences have the JFM orders made to the lives of villagers in these sixteen villages? In Makanjhar, Rajpipla, almost the entire village (save 15 to 16 households who do not have cattle) has gobar gas plants, supplied by the FD. Kalibel has 64 biogas plants, of which half are still working. In both Makanjhar and Kalibel, the village carries out annual thinning from the protected patch. The thinnings are divided into bundles of 0.4 to 0.5 square metres, and distributed to each household. The men say that there is no more problem of fuelwood, but the women point out that in few households does one cart-load of wood suffice for more than 3 to 4 months. Despite the biogas and the annual thinning, women still need to collect fuelwood, and to supplement it with crop residues and dung cakes. Now that several villages have started protection, women face a serious danger of getting caught by the patrols of neighbouring villages, as we saw in Chapter 3.

In Dewas, following the closure of certain areas to grazing, the poor have less access to dung from the forest, and they have changed their food habits, eating less of the traditional *dal bati* (which is best cooked on a dung-cake fire) and turning to *dal* and *roti*. In Pardikheda, although the DFO introduced multiple shoot cutting, the distribution was not governed by any rules, and villagers have differing undertandings about who has access. The rich, with their bullock carts, can more easily get wood than the poor, with only their own head and two feet to rely on. But even this thinning material satisfies only half to one-third of the household requirement for the rich and middle income groups. The Sendhos can supplement this from their own trees, while the poor collect fuelwood from the forest, having to travel further towards Chobara forest. Although the Sendhos are keen to stop headloading in order to protect the forest, their dependence on their labour keeps them from enforcing this rule strictly. In Mohada, the division of labour has changed since the closure of the forests: previously the forest guard was bribed, but now there is a legal payment of Rs 150 per bullock cart of fuelwood that no one is willing to pay. Whereas earlier men got fuelwood by bullock cart, now women have to go in and get headloads. Protection has also affected residents of different hamlets differently. Those further away from the open patch that contains dry wood can no longer use bullock carts and now go into the nearest forest and cut green wood.

In the Orissa villages with well-established forest protection arrangements, JFM has made little difference. In Lapanga, the fuelwood or timber demand that was met by agricultural land submerged by the Hirakud

reservoir has been transferred to the protected area, despite the charges on timber. The collection of firewood in the protected patches faces no restriction, since this is generally mere brushwood. Sometimes, when trees are felled, the 'lops and tops' that are left after disposing of the main bole are used as fuelwood. FPCs also collectively harvest and sell fuelwood on occasion. Despite the demarcation of forests between villages for the purposes of protection, a bit of quiet pilfering and exchange still goes on. Fuelwood consumed is roughly the same for all households, since most people eat rice and vegetables. Time spent on collection, however, varies significantly: rich households buy the entire amount, middle income households buy 72 per cent of their requirements, and poor households rely mostly on their own labour, buying only 13 per cent of their needs. Although estimating collection time is difficult (since it is combined with other activities like collecting NTFPs), we calculated it as 47 days in a year (counting 2 to 3 hours a day) for poor households, and 17 days for a middle income household in Larasara (which still has good forests).

In Kilagada Paderu, the Bhagatas prevent other castes from cutting green wood in the protected patch but continue to cut some for themselves. Access to dry and fallen wood remains the same, at least for Kilagada villagers, though people from other villages are denied access to the protected plot. When thinning work is carried out, those who have been employed in it can take some wood home. In some other Paderu villages that have started forest protection, two days a week have been fixed for fuelwood collection, to prevent excess fuelwood being extracted. But in general, JFM has not yet significantly influenced availability for better or worse. Men and women alike point out that they have a constant need for fuelwood. When they have exhausted one forest patch, they are forced to move on. Women continue to collect most firewood, with some households consuming up to 10 kilograms of wood a day in winter, because the men insist on taking hot baths.

Thus, today, a few years after the introduction of JFM, most villagers still depend on neighbouring Reserve Forests for their fuelwood needs. Kerosene is available everywhere and several villages are electrified, but wood continues to be the main source of energy for all castes and classes. In some of the Gujarat and MP villages studied (as well as in other villages in Orissa and AP), demand has been partially satisfied by annual thinning in the protected patch and gobar gas plants, but women (primarily) still bear the burden of collecting the rest. Elsewhere, as in Mohada, Dewas, the consequences of protection have adversely affected some parts of the village, but not others. In Orissa, protection has benefited all groups in

terms of regeneration, and some villages have engaged in the collective provisioning of schools or festivals with funds from their protected patches. However, rich and poor villagers depend on their protected patches in different ways. In short, ten years from the start of formal state support for JFM, it is still not possible to generalize about success or failure, even in terms of the availability of fuelwood, which ought to be the most immediate tangible benefit from better forest management.

Grazing and Fodder Extraction

Grazing is perilously close to what have historically been seen as illegitimate demands. Forest manuals did contain provisions for grazing, with restrictions on the number of cattle allowed free, but colonial foresters seem to have been firmly convinced of the evils of grazing in timber forests and favoured fodder-cutting (Rangarajan 1996: 70–4; Sivaramakrishnan 1996c: chapter 6). Although there was some reconsideration of the effects of grazing and rules were relaxed, the 1952 forest policy argued that all grazing in forests, particularly uncontrolled grazing, was incompatible with scientific forestry (Singh 1994: 3).[7] This stance was modified in the 1988 forest policy to rule out merely large herds of non-essential livestock, but the difficulties in implementing this rule are obvious (Singh 1994: 5).

Much effort in JFM today (and in other FD initiatives) is directed towards reducing the goat population and persuading villagers to introduce stall-feeding. For instance, in 1996, the DFO Dewas initiated a grass and grazing plan for JFM villages. Under this plan the total cattle population, their fodder needs, grass availability in the protected patch and on farmers' fields were all to be estimated, to determine how much of the forest should be closed for grazing. Older attitudes towards pastoral groups also continue to prevail with efforts at sedentarization and closure of long-range grazing runs (see Chakravarty–Kaul 1996; Saberwal 1999; Singh 1998).

The effect of grazing on biomass has received considerable attention. In some cases, biomass on grazed plots seems to be higher than on plots protected from grazing, but this is probably usually explicable by the presence of unpalatable species on the grazed plots (Mishra and Rawat 1998; Saberwal 1998). In our ecological survey, the impact of grazing is hard to define clearly, both because of variations in the nature of protection from grazing (seasonal, during early regrowth or immediately after plantation, or complete protection, for example) and the variations in forest type (plantations vs. natural forests, and the species planted, for example). Where villagers themselves had framed rules, grazing was

generally closed in the initial years of regeneration and allowed after the trees had grown sufficiently—but grazing in these plots can be a short-term benefit, since if the tree canopy becomes too dense, grass growth suffers.

In all four states, villagers in our research areas said that livestock numbers had decreased since the early 1990s, corresponding to a decrease in availability of forest grazing and fodder. We have no quantitative means of assessing this claim (a common one throughout India), but this assessment by villagers themselves contrasts with the perception among foresters that livestock numbers are increasing. For example, the World Bank India forestry study argues that 'the rapidly increasing human and livestock population, and poverty are all responsible for the tremendous degradation pressure on the existing forest cover' (Kumar *et al.* 1999: xii; see Saberwal 1999 for a critical discussion of these impending warnings of doom). Official statistics on livestock for most parts of India show steady increases in livestock numbers (up from 292 million in 1951 to 450 million in the mid-1990s according to Kumar *et al.* 1999: 27) although the ratio to human population has decreased. These statistics do not effectively capture information on *how* the livestock are managed or which livestock are increasing,[8] so, it remains unclear what changes have been occurring in forest grazing, or whether JFM is contributing to a gradual withdrawal of livestock from forests.

In contrast with the World Bank study, a major livestock study in Uttara Kannada, Karnataka found that damage to forests caused by livestock was insignificant compared with other causes of damage such as felling and fuelwood harvesting. It concluded that most of the possible herd reductions in Uttara Kannada had already occurred before the advent of JFM; that forest grazing remained much more important to livelihoods than fodder cut from the forest; and that changes from grazing to stall-feeding would mean big increases in women's workload (Ashley 1993). Whether we choose to accept the sympathetic or critical views of forest grazing, JFM promoters will have to minimize any damage that JFM may cause to existing livestock management systems and provide strong technical support to livestock management strategies that include both grazing and stall-feeding. The revised science of forest management will have to expand to include a greatly improved science of livestock management. Some degree of this expertise may be acquired by FD staff, but they will also need to collaborate more closely, both with animal husbandry departments and with agencies (revenue departments and community organizations) responsible for non-forest lands where grazing and fodder production occurs. An inadequate policy attention to such grazing

has contributed to increased grazing pressure on forests (Kumar *et al.* 1999: 30).

In all four states we studied, grazing in the forests is combined with grazing in open fields after the harvest, though access to other sources such as agricultural residues varies by class. In Rajpipla, cattle are usually taken to graze by cowherds, as well as fed at home with crop residues[9] and fodder grass collected from the sides of fields, rather than grown especially for the purpose. Collecting fodder is usually the job of women. Exceptionally, in Kevdi, where there is a flourishing milk co-operative and specific fodder farms, villagers also buy grass bundles at approximately 50 paise each. Although villagers did not point to an appreciable increase in grazing hours or distances travelled, villagers in Kalibel did note a significant decrease from the 1950s in the number of households owning cattle, as well as the number of cattle per household (from 8 to 10 cattle per household to 2 to 3). Although only 45 hectares out of the 137 hectares protected is closed for grazing, some villagers have turned to stall-feeding. Committee members usually decide the area that is closed to grazing.

Changes in cattle populations and grazing patterns, both more generally and as a result of forest closures under JFM, are perhaps the most visible in Dewas. Malwa is cattle country, home to bullocks with gay painted horns and tassels on their foreheads. Lalakhedi used to supply milk to the market, with the Sendhos having 30 to 40 milch cattle per household. According to them, livestock numbers have decreased as fodder availability decreased, families became nuclear and agricultural land and fodder farms were divided, forest cover decreased, and other land was closed by NVDA plantations. Now average ownership per rich household is nine cattle, still well above the average poor household ownership of just one.

In Mohada, a supposedly homogenous tribal village, cattle numbers vary from an average of 11 cattle in middle-rich households to 4 cattle among the poor. Closure of the forest to grazing in Mohada has affected different parts of the village differently. Villagers close to the side which has been closed to grazing complain, while those near the side which is open are happy with the increase in grass that protection has afforded, especially since the professional grazers have been kept out. Those who have lost access to adjacent grazing patches now hire professional herders.

The decline in cattle population is not matched by a decline in goats, however. Goats are often an important asset, especially for the poor. In emergency a goat can be sold for up to Rs 1500, for example, to pay fines

for encroachment, which, in turn, act as evidence of ownership of land when it comes to regularization. One villager in Mohada, Dewas division, started off with 30–35 goats but no land and now has some (encroached) fields of his own. As he said: 'These goats have provided us a livelihood.' Several factors influence livestock ownership. Benefits include predictable income, in-kind productivity (dung, milk, and to a lesser extent, meat), and savings (livestock may be risky and labour-intensive assets but offer the important advantage of quick-sale options to meet contingencies). Costs include the opportunity cost of labour, and the risks of loss to disease and predators; and choice is often influenced by the availability or otherwise of free fodder and of government and NGO subsidies and loans. Decisions to open or close the forest to grazing may also affect goat populations. This explains why there are more goats in Lalakhedi, where the forests are open, than in Pardikheda, which is otherwise comparable in terms of income.

Sometimes, the efforts of one agency—for example, NABARD in Khudamunda, Sambalpur, aimed at increasing livestock assets of villagers—can offset the efforts of other agencies—for example, the FD—aimed at reducing pressure on the forests. Even when villagers themselves decide to regulate the number of livestock in the interests of forest protection, the effects on different groups can vary. In Kesarpur, the root village of the BOJBP (Bruksha o Jeevan Bandhu Parishad) movement in Nayagarh, Puri, villagers decided to regulate their goat population in the late 1970s.[10] The then DFO Nayagarh, asked to provide saplings to plant on the lower portion of the hill bordering the village, refused to provide saplings unless they got rid of the goats. That evening Bappa, one of the BOJBP leaders, convinced the village to sell their entire goat stock. The disappearance of the goats is celebrated as a major milestone in the history of this village's progress towards JFM, and is pictured on the walls of the office, along with other events. But the effect of this sudden stripping of a major asset on different sections of villagers is less clear.

In general, as with fuelwood, no restrictions are placed on grazing in the protected patches in the three Sambalpur villages engaged in community management, nor was scarcity of fodder or grazing significant in leading to protection. Grazing distances and times remained more or less the same through the 1980s and 1990s, though villagers here too claim that the number of cattle has decreased.

In Paderu, JFM has made little difference as yet to grazing or livestock ownership. However, one very noticeable impact has been the differential effect of the grazing bans or reduced grazing spaces on professional

grazers. In Paderu the limited availability of grazing space for village cattle at one spot means that family labour has replaced professional grazers (*gouds*). Whereas earlier *gouds* would take the entire village's cattle deep into the forest in search of good grass, now each household grazes its cattle separately, at the foot of the hills near their village or on their agricultural land. Very occasionally, during delivery and lactation, grass and agricultural residues are collected for cattle, but stall feeding or growing fodder grass is uncommon. Sometime, branches from tamarind trees are lopped and fed to the goats.

The most visible effect on professional grazers can be seen in Dewas. Gujjars from Rajasthan used to graze their cattle in the Mohada forests during the monsoon. In 1994, the first year of protection, in a pitched battle between the Gujjars and the Mohada villagers, the Gujjars were poised on a hill, raining rocks down on the villagers with catapults. One of the villagers called the Forest Ranger, who joined them in beating the Gujjars out of the protected patch with a stick. Once the Gujjars realized where the sympathies of the FD lay, they stopped visiting the Mohada forests entirely. Gujjars used to fold their sheep in the fields at night in return for grain and some cash (Rs 250 to 400). This symbiotic relationship ceased some time ago, when villagers noticed that along with the manure, the seeds of weeds also got into the soil and created a lot of weeding work during the monsoons.[11] Conflicts as a result of closure have occurred, not just with long-range pastoralists, but also with neighbouring villages. A villager from neighbouring Shyampura, whose cattle were impounded by the NVDA guard for grazing in the NVDA patch, and who had to mortgage his silver ornaments to pay the fine of Rs 3000, came back and set fire to the knee-high grass, and attempts by the Mohada villagers to extinguish it failed.

Given the complex pastoral economy of the region, closure can upset a series of customary arrangements. For instance, in Lalakhedi, till about 1994, the farmers sent their cattle to the forest of the *ghats*. They sometimes went as far as the Narmada in search of fodder, but most of the cattle were kept in the thicker forests in south Dewas itself. Each family would send a servant with the cattle, and thus, a group of fifteen or twenty people would accompany the cattle. Another practice was to pay a village cowherd Rs 20 per animal. Since 1994, with plantations coming up and more villages protecting their forests, these arrangements have been facing increasing problems.

One major advantage of protection in both Rajpipla and Dewas is the increase in the availability of fodder grass, but the effect on different classes of different institutional arrangements for harvesting grass in the

two divisions is particularly noticeable. As with fuelwood, Bharada, Makanjhar, and Kalibel have each set aside a day, usually in the period from October to November, for men and women from member households to go and cut grass from their protected patches. Each household gets one pile of grass, but as with fuelwood, this does not meet their need. Yet, because grass is communally harvested and equitably distributed in these Rajpipla villages (with one village even deciding to give grass to a widow who hadn't turned up for harvesting), everyone benefits. The benefit of grass is short-lived, however. In Makanjhar in 1998, as the canopy cover closed over, there was no grass to harvest, and the villagers had to buy straw for their cattle to supplement grazing.

In the Dewas villages, rules on collective harvesting are completely absent. In Mohada, the lack of rules and transparency works to the advantage of the guard. Since not everyone knows that grass is available free in the JFM plot, they sometimes go elsewhere, paying the guard of the NVDA plot to harvest grass there, where it is forbidden. In Pardikheda, the lacuna has resulted in a subtle negotiation over whether the forests should be closed or not. The Sendhos benefit more in absolute terms, whether the forest is closed or not, but more is at stake for the poor households from closure. The Sendhos rely on their own fields for grazing as well as grass harvested from their fodder farms after the monsoons. Buffaloes and bullocks, which are more productive, are fed at home with crop residues (soyabean, wheat, and chickpeas), or grazed in the fodder farms during the monsoons, while the cows are sent out to the forest during the same period. With almost all the revenue grazing lands having been encroached upon, the poor must depend entirely on the forest. Those who work as agricultural labourers sometimes get crop residues (for example, soyabean) and grass from the bunds around the fields of their masters. Although the rich appear to have alternatives in terms of their own fields, if grazing pressure were to be measured in absolute terms, the Sendho cattle would qualify as causing greater problems. In Pardikheda, while the Sendhos are keen to maintain the ban on grazing for longer in the JFM patch to allow grass to come up, the poorer groups want the patch to be opened up.[12] With no system for distribution, whoever wants can cut whatever they want, as with fuelwood, unlike in the Gujarat villages. Those who can afford servants and bullock carts can obviously remove more than those who cannot. Even so, closure under JFM has made some difference: on average one person can harvest 25 dryish bundles per day, with families stocking up to 1000 bundles during the winter and using them over the summer.

In short, the effect of closure of forests to grazing is a complex one.

While some groups or hamlets within a village or some villages, or some professions (like pastoralists) may lose out, others benefit from the increase in availability of grass in the immediate term. This again may change as the canopy increases due to longer protection. Finally, livestock numbers may have declined in some areas around forests recently closed to grazing under JFM protection arrangements, but there is as yet little sign of any compensatory investment towards improving the productivity of remaining livestock. An important lesson is that systems for distributing the benefits of JFM must be negotiated early on, if the effects are not to increase inequalities and marginalization.

Timber

Unlike fuelwood and grazing, timber requirements are comparatively sporadic. Houses do not have to be built or repaired every year. In rich households, furniture is generally restricted to beds, cupboards, chairs, and sometimes a sofa in Sambalpur and Dewas; in Rajpipla one also finds an occasional swing, while in Paderu the sole item of furniture in most houses is a four-legged cot with a rope base. Although increasingly people are taking their grains to mills, most households have a pounding pole, yoke, and plough. According to villagers in Paderu, a pounding pole has to be replaced only every 10 to 12 years. As yet, since trees in JFM patches will take a long time to regenerate sufficiently to yield timber, protection has not made much of a difference to how villagers satisfy their timber requirements.

In Makanjhar and the other villages in Rajpipla division, villagers generally get their timber from the trees on their own fields, buy it from saw mills in Mandvi (who in turn get it from other parts of the state), or buy timber from contractors who dismantle old houses. Small timber has become a major issue in JFM, with all the committees in Rajpipla West asking for timber to be supplied by the FD from elsewhere, for instance, from teak thinning in Dangs division, which still has good forests.

In Dewas, as in other parts of MP, people's timber and fuelwood demands, including those of urban residents, are ostensibly met through *nistar* depots providing bamboo and small timber at concessional rates, as well as commercial depots. In practice, villagers take what they can from the forests. But as with everything else, there is a difference between the degree to which rich and poor villagers depend on the forest for timber. For example, in Lalakhedi and Pardikheda, where the availability of good timber in the forest is limited, all classes depend on nearby Sonkutch market for timber to construct houses. For agricultural implements, Sendhos use wood (babul—*Acacia arabica*—and teak) from the

trees in their own fields, and also from the forest (see story concerning the Pardikheda Patel in Chapter 3). Poor farmers sometimes buy wood from the Sendhos to make their implements, and follow up repairs with wood from the forest. The very poor, who do not have their own implements, borrow from the Sendhos. If bought in the market, a new plough can cost Rs 6000 to 7000. A government ban on cutting of teak, even on private land means that farmers have to make do with either babul or khajur for their implements, which do not last as long. But more crucially, the lack of good timber in the forest and the costs of purchasing it from depots means that the poor (Lodhis, Balais, Chamars) have to do with poor quality housing. For their houses, the Bhopas use wood discarded by the Sendhos, but mostly their houses are built with mud and have to be repaired every year. Poor housing remains a major problem, especially during the monsoons.

In Neemkheda, a formal request by the NGO to the FD to make some official provision for domestic timber needs as part of a JFM scheme was turned down as not being in accordance with procedures. However, the forest guard allows villagers to cut wood in return for bribes. Even if they have bought the wood legally from a depot, he sometimes harasses them, threatening to report it as stolen wood. In Mohada too, villagers pay the guard 5 to 25 kilograms of grain, depending on their requirements, and cut the trees during the night or in the monsoons when the rain muffles the sound of the axes. But here the new emphasis on cordial relations has meant that the FD turns a blind eye to villagers axing trees for agricultural implements and house construction, so long as it is done with the consent of the president of the committee. This informal understanding is an 'open secret', and this makes JFM possible in Mohada, but not in Neemkheda.

In Orissa too, the FD has set up departmentally managed depots to provide for subsistence firewood and bamboo requirements, in which firewood is supplied on a 'no profit, no loss' basis at concessional rates. Where villagers have access to forests of any sort, however, they are unlikely to use these depots. In villages with protection efforts, villagers rely for their timber requirements on the protected patches. Where these have not matured enough, they use neighbouring reserves. Sal, followed by karla and bija, are the popular species. In Patrapali and Lapanga, when villagers need timber for house construction or agricultural implements, they submit written applications to the committee president. In Patrapali the hamlet representative verifies genuine need before the committee as a whole decides the application. In Lapanga, the application goes from the President to the FPC secretary, who keeps the schedule of rates for

different girths. As mentioned in Chapter 3, the rates also vary for different categories of residents. After the applicant has deposited the money, the committee consults the forest guard and determines which tree is to be cut. In both villages, certain areas are demarcated for cutting every two or three years, in a system that can be called 'Selective Rotational Felling.'

The trees felled from the Dalki forest (Lapanga) are not priced at market rates, but the costs of labour and transportation from the forest to the village are very high. For example, while the tree may cost Rs 1000, the cartage by bullock cart costs Rs 200 per trip. Two trips are needed to cart the main bole of the tree, and another two trips to cart the 'lops and tops'. At least six men are required to fell the tree and saw the bole, remove branches, etc.. They have to be paid Rs 30 per day. Further costs result from sawing the timber into the right size of plank, which involves skilled carpenters. Sometimes the tree selected by the buyer turns out to be hollow, in which case the buyer still has to pay the felling and transport costs. In such cases, however, the Committee does not charge the timber rates, but instead, levies fuelwood rates per cartload. Committee members claim that the demand is not very high—just thirty to fifty trees per annum—but they also have no system of confirming whether the tree will be hollow other than 'experience' and visual checks. The uncertainty regarding this and subsequent high conversion costs are somewhat prohibitive, and even if timber is easily available in the village, people do not buy indiscriminately. In addition, when an application is made, the committee members visit the applicant's house to confirm the need and actual quantity of timber required. One of the reasons why the FPCs in Sambalpur have sustained themselves for so long is because they recognize people's needs for small timber and make some allowance for it.

In Paderu, in one of the ironies of bureaucratic working, FD attempts to have villagers protect the forests are offset by the ITDA's eagerness to supply them with affordable housing. A housing scheme, under the control of Members of the Legislative Assembly, and introduced through ITDA from 1988 onwards, gives villagers Rs 4000 to construct new houses. Half of this goes towards tiles for roofs. However, villagers cut the timber from the forest, on payment of Rs 300 as fees to the FD. Foresters complain that valuable timber worth thousands of rupees is thus lost. But even for their normal timber needs, villagers rely on the Reserve Forests. Possibly, as trees regenerate, and because the Government Order allows the villagers 100 per cent of timber and bamboo harvested, villagers may be able to meet their needs from protected patches. So, although there may be a short-term conflict between housing grants and

rules forbidding timber harvesting, such grants would certainly not be incompatible with sustainable JFM in the longer term.

Before JFM, then, timber needs were closer to being fulfilled in a legal way through depots or through the market, than were needs for fuelwood. Partly, this resulted from the lack of good timber in the forest. One of the major benefits that villagers expect to derive from protection is small timber for housing and implements. When the legal insistence of FD control of all tree-felling is strictly enforced, villagers lose interest (Kenaloi and Neemkheda); where JFM is successful, it rests upon a certain connivance in illegality between foresters and villagers (as in Mohada or Lapanga). This represents a major policy problem. While individual orders provide for sharing the final harvest, some intermediate provision for timber needs is required. Villagers should be free to manage protected plots for timber at their discretion and according to their knowledge of local needs.

FD–APPROVED INVOLVEMENT

NTFPs

NTFPs have been central to all discussions of JFM. First, with a total annual value in India estimated at more than US $1 billion, they are big business, generating 2 million person-years of employment and accounting for more than half of the income-generating employment in the forestry sector (Saigal, Agarwal, and Campbell 1996: 5). Villagers benefit from employment in NTFP collection and sale; without their work, bringing these NTFPs into the market would be impossible. Second, villagers can be offered an increase in NTFPs as a part of JFM agreements without any change in the Forest Acts. Third, timber products take a long time (40 years in the case of teak) before coming to maturity, and in the meantime, income from NTFPs is expected to sustain the interests of villagers. Fourth, the degraded lands assigned to JFM initially may never generate good marketable timber, whereas even the most degraded patch is probably capable of giving some NTFPs—including fuelwood, grasses, and so on (Sushil Saigal, pers. comm.). Thus, NTFPs represent a crucial win-win opportunity for both villagers and the FD, where 'jointness' is desirable and indeed, possible. How, if at all, has villagers' access to and income from NTFPs changed as a result of JFM?

The 1990 GoI order notes that villagers will be given usufructs like 'grasses, lops and tops of branches and minor forest produce' in return for protection (MoEF 1990: sec. V). However, this only makes sense as

an incentive in the context of the preceding clause, namely, that 'access to forest lands and usufructory benefits should be only to the beneficiaries who get organized into a village institution, specifically for forest regeneration and protection' (MoEF 1990: sec. iv). As we have seen, in almost all the states, villagers already had access to several NTFPs for domestic consumption and for sale, albeit with restrictions on the manner of sale. Thus, in practice, except for MP (which has followed the GoI order more closely than most in taking away existing rights to *nistar)*, JFM does not materially affect *access* to NTFPs, (though it may increase *availability*). More important than rights to collect NTFP are questions of price fixing and marketing.

The Panchayats (Extension to Scheduled Areas) Act of 1996 (PESA) attempted to address this by giving gram sabhas in *adivasi* areas *ownership* rights over NTFPs. Inevitably, this met with some resistance by forest staff. A committee of experts, consisting largely of foresters, set up by the MoEF to look into the contradictions between the PESA, and other Acts, reiterated in January 1998 that the ownership of (nationalized) NTFPs should vest with the state, with villagers being allowed usufructory rights, so as to ensure non-destructive harvesting. However, given the constitutional mandate PESA has, different states have had to pass acts to realize its provisions. The MP Act of 5 December 1997 provides for the gram sabha (village community) in tribal hamlets to 'manage natural resources including land, water, and forests within the area of the village in accordance with its tradition and in harmony with the provisions of the Constitution and with due regard to the spirit of other relevant laws for the time being in force.' In MP and AP, the states claim that they are following PESA by returning profits from NTFPs to the village committees (in MP according to a 2000 Order, 100 per cent of the profits are repatriated, 50 per cent going to the primary collector, 20 per cent for the development of NTFPs and regeneration of forests, and the balance for infrastructure development; in AP, by a 1999 Order, 50 per cent of the net revenue from *tendu* leaves collected in an area go to the VSS).

Orissa passed a rather revolutionary NTFP policy in March 2000. This followed a sustained struggle by NGOs against the policy of leasing out NTFPs to private agencies for collection, which led to exploitation and low rates.[13] They also demanded that the rights to purchase NTFPs be handed over to *mahila samitis*, gram sabhas and gram panchayats.[14] The new policy noted that while gram sabhas in scheduled areas had ownership rights over NTFPs found in revenue lands, gram sabhas in non-scheduled or non-*adivasi* areas would also have rights to regulate

purchase, procurement, and trading in NTFPS from such lands. *Adivasis* and members of VSSs could collect NTFPs from Reserve forest lands as well, which would then be brought under the regulation of their gram sabhas. Where a VSS had been formed, it had precedence over the gram panchayats in terms of regulatory powers. Traders or agencies like the Orissa Forest Development Corporation, the Tribal Development Corporation, mahila mandals, etc. would have to register themselves with the gram panchayat. However, the list of NTFPs that can be regulated by the gram sabha are specified, and various important NTFPs continue to be under forest department control, such as tendu leaves and sal seeds.

In all the states, the process of procurement of important NTFPs (*tendu* leaves and sal seeds, in particular) remains heavily bureaucratized, with the FD acting as a monopsonist, keeping purchasing prices low, and essentially treating villagers as wage labour.[15] The machinery of tendu collection is in no way connected to the VSS (Saigal, Agarwal, and Campbell 1996: 23–4). In Gujarat, the Gujarat Forest Development Corporation (through license holders who buy NTFPs from villagers) handles tendu marketing. In MP, the MP Marketing Federation (an apex body of primary co-operative societies, of which the DFO is the head) handles tendu, and in Orissa, *tendu* leaf divisions run adjacent to (but not quite overlapping with) territorial divisions. The remaining discussion concentrates on non-nationalized NTFPs.

In every state, some NTFPs have multiple uses, and are usually collected for both local consumption and sale. In Rajpipla, the following are sold to the FDC through agents: tendu, mahua to distil liquor, karanj seeds to make oil for medicinal purposes and soaps, kumadia seeds used as a constituent in fertilizers and cow feed, limdo seeds for soaps, fertilizers and insecticides, and gums from khair and bawal. Other NTFPs are sold in Mandvi town or to traders coming from Surat. NTFPs collected for consumption include bawal and limdo twigs used as tooth brushes and *khakra* leaves, used to make leaf cups and plates, sometimes by machines supplied by the FD. These are used only for festivals or for feeding farm labour, however, since most households have steel plates. Some of the poor households also sell khakra-leaf plates.

Common NTFPs in Dewas include tendu, mahua and achar. In Daulatpur, NTFP collection (gums, bahera, amla, kusum, timru, mahua, and honey) is the special prerogative of the Nal community, who consequently, serve as informants to the NVDA forest guards if they spy illegal felling. In Mohada, mahua is widely collected, though surprisingly, a larger percentage of rich households (80 per cent) are engaged in mahua collection compared to middle income (40 per cent) or poor households

(75 per cent). Since the rich tend to own their own mahua trees they find it easier to collect; the poor are compelled to go the forest. Unfortunately, due to encroachment, mahua trees which used to be harvested as common property by the villagers, have now become the private property of the owner of the land they stand on. Similarly the take over of village common lands for cultivation means that villagers can no longer collect kumadia seed from these open lands. As for tendu, poor families spend significantly more time than others in leaf collection, since their opportunity cost is lower and they are more dependent on the revenue it generates.

In Sambalpur, *bidi* rolling under contract to private traders is a major source of income, especially for women and older people—and a common sight on any afternoon is a group of women sitting outside their homes and chatting as they roll the leaves. This is usually a middle-income class activity, as the women do not go out to labour (unlike in poorer families). Poor women who market *sal* leaf cups and plates receive about Rs 3 to 4 per hundred plates and Rs 2 to 3 for a hundred cups. The mahila mandal in Khudamunda has earned some income by acting as a purchasing agent for mahua. NTFPs like mango, bamboo shoots, green leafy plants and mushrooms are collected primarily for subsistence.

In Paderu, about 35 items notified as NTFPs must be sold to the state-owned Girijan Co-operative Corporation (GCC), set up to eliminate exploitation by middlemen. Traditionally, sales take place at weekly markets, where villagers congregate to sell grain or NTFPs and buy finished products from traders who come up from the plains. Important NTFPs in Paderu comprise tamarind, mango, honey, jackfruit, and various types of roots and tubers for domestic consumption. Of the marketed species, *adda* is perhaps the most important. Conflicts have arisen as neighbouring villages have been excluded from protection patches under JFM. We give one such example below:

In April and May, (when no other crops are being harvested) the villagers around Paderu collect adda leaves and sell them for making leaf plates, and entire families go to the forest and collect leaves. The GCC gives Rs 2 per kilogram, but the leaves fetch more in the market, where 500 leaves sell for Rs 20 to 25, and a family may earn about Rs 150 to 200 a day. In one incident, women from Kunchapally entered the protected forest of Kothauru village (where the VSS started in 1995) to collect adda leaves and were attacked by the Kothauru patrol. At a conflict resolution meeting held in a neutral village and attended by foresters, the Kunchapally villagers argued that they had simply been exercising the collection rights in the forest on which they had been depending since 'time immemorial', along with people from several other villages. They complained of sexual harassment, but also accused a Kothauru woman of giving the DFO sexual favours in order to acquire the collection rights. The Kothauru villagers refused

to let the Kunchapally women in, even for the two-month adda season, arguing that they would cut wood too. The RO announced that the VSS members could bend the rules to allow other villagers to collect NTFPs and firewood, and advised both groups to avoid conflict. He also promised the neighbouring village a VSS of their own, and to plant the protected patches with adda.

This case study provides a clear example of the problems of identifying users and interests with reference to village of residence, rather than the product being used. Such problems are really structural: JFM agreements should take existing rights into account before apportioning forests between groups. On the positive side, the FD has taken some steps towards adding value to NTFPs within the village, as a part of its JFM scheme, although in Paderu itself most of the 'incentives' remain confined to building meeting halls. In Jamadupetta village, Narsipatnam range, benefits given by the AP Forestry Project include a community hall and 39 sewing machines with special needles that could be used to make adda plates, that would then sell at higher prices than hand-stitched ones. None of this, however, addresses the key constraint of market access—a constraint largely caused by the FD's own monopoly control of market access. This is one among many examples of how FDs have to locate problems and constraints within their own structures, procedures, and practices if they are to succeed in making JFM effective.

To summarize, since most villagers already had *access* to NTFPs in the forest, JFM provides little additional incentive in terms of access or control, though it might make a difference to the *availability* of NTFPs. However, some innovative silviculture is then required. For instance, since sal is currently managed for timber, all the coppice shoots, except the main one, are removed. If the sal patch was to be managed for fuelwood and biomass instead, coppice shoots would be retained to allow for a regular harvesting of fuelwood, small timber and leaves (Saigal, Agarwal, and Campbell 1996: 31; Sarin *et al.* 1998). The choice between timber and NTFPs is an outcome of processes by which different interest and user groups participate in the decisions, and thus, a question of distributive justice, not just one of technical management. The 2000 guidelines, which strengthen the emphasis on production of NTFPs by making NTFP management a necessary condition for JFM in good forest areas, do not address this trade-off directly.[16]

Several additional factors determine people's income from NTFPs: the existing marketing arrangements, cultural restrictions regarding which castes can collect what, and alternative sources of income and employment, both within and outside the village. Adding value (by grading NTFPs at the village level, or providing machines for making plates,

for example) is desirable, but NTFPs will still give a low financial return to the labour expended on collecting them, unless policies are adapted. Unless they receive ownership rights over certain nationalized produce like tendu, villagers' role will continue to be one of wage earners for the FD. Even then, of course, villagers will only be in a position to grasp the opportunities this might offer if changes take place in other aspects of their social marginalization—such as their seasonal indebtedness and debt bondage (often to traders or their agents)—and the political strength of those who currently market these products. Important experiments in income generation through NTFPs are being tried out in different states (see Sundar 2000a on the *Van Dhan* scheme in Bastar), but these have yet to become widespread policy.

Employment

Forestry works are an important source of income for many villagers, and have structured relations between villagers and the FD in significant ways (see Gadgil and Guha 1992: 229; Muranjan 1974; Muranjan 1980). Indira and Sujit Ghosh suggest four categories of forest labour: 'wage labour in forestry operations; taungya cultivators (temporary cultivation in young tree plantations) as a form of wage labour; artisans dependent on forests for raw material; and labour in forest based industries' (quoted in Sharma 1997: 9). Forest-based employment thus ranges from direct work opportunities provided by the FD itself (such as making nurseries, plantation, demarcating fire lines, felling and carting trees) to work for the saw mills and ancillary industries that depend on forest products, to work in the unorganized sector such as collecting firewood for sale. Forest villages in MP and Gujarat owe their existence to the FD's need for captive labour. In Gujarat, for instance, they were given land on annual leases (called *aaksali* arrangements) in return for helping the FD in its work. All development in these villages is dependent on the FD, and in 1984–5 a separate wing called the Forest Settlement Scheme was set up for such villages.

For villagers in forest and revenue villages alike, the struggle to ensure the payment of correct wages in forestry works has been as much a part of recent FD–village conflicts as exclusion from the forest. According to a World Bank review of Gujarat's Social Forestry Programme, 4.46 million person-days were created in nurseries and 9.38 million person-days in plantation work. Female employment in these works accounted for 52 per cent and 33 per cent respectively (Sharma 1997: 14). Workers are paid either on the basis of piece-rates or time rates, both of which are low. Different states have enacted provisions for forest-related

employment, and minimum wages vary, but rarely do forest workers get the other benefits due to them, such as dearness allowance (wage adjustments to take account of inflation), gratuity, or paid leave. In 1996, for the first time, forest workers held a national meeting at the initiative of the National Centre of Labour (Sharma 1997: 3, 14).

In areas with good forest, despite all the exploitation of both resources and labour, a ban on forestry work can be devastating. In 1986, when the Gujarat government imposed a ban on felling in forest reserves, the Forest Labour Co-operatives (FLCs) in the Dangs were put out of business, leading to large scale migration in search of employment outside the district (Hardiman 1996: 123). More generally, however, FLCs seem to remain powerful and to continue working, often in conflict with other forest users (Mary Hobley, pers. comm.). Following the Supreme Court ban on non-forest activities (such as the running of sawmills, or mining in forest areas), several states in the North-East have been drastically affected. Following protests by the states concerned, the 1998 order noted that given the dependence of people in the region on forest resources, 'it is neither feasible nor desirable to ban completely either the timber trade or running of the wood based industries. However, their numbers and capacities need to be regulated qua the sustainable availability of forest produce and they are also required to be relocated in specified industrial zones.'[17]

Except for Orissa (where the FD has given little support to JFM), villagers cited employment under JFM works as a major benefit they received from the scheme. Other research substantiates this. In one study, 45 of 95 VFCs engaged in protection listed an increase in employment opportunities as an economic criterion for the success of JFM, following an improvement in economic conditions and the availability of forest produce (Balakrishna *et al.* 1998: 24). Work under JFM includes nursery preparation, preparation of the area for treatment by digging pits or cattle-proof trenches, multiple shoot cutting, thinning, plantations, etc.. In AP and MP, however, much of this employment is tied to funds made available by the various donor–funded projects, and is therefore in danger of being a short-lived benefit, like the other 'development inputs' being provided. In some cases, peak times for work on JFM plots conflict with the agricultural cycle, as with other FD requirements. For instance, felling work often occurs in the winter and coincides with the harvest, while nursery work coincides with sowing in the monsoons.

When village women in Bharada, Rajpipla, debated the benefits of JFM in a meeting, employment was high on the list of positive payoffs, though they also complained that their wages went to the male member

of the household.[18] They also resented the way that JFM plot supervisors from within the village failed to join in the dirty work, and instead, merely supervised. Work on the plots involves digging trenches, transplanting, cutting grass, weeding, and patrolling. Since wage rates for forestry work, whether on JFM plots or otherwise, are set by the government and disbursed under the supervision of the FD, the FPC cannot intervene.

In both Gujarat and MP, selected divisions (including Dewas) are under the World Food Programme (WFP). A proportion of the wages is paid in oil and grains supplied by the WFP, and the state government uses the money saved for development. Under the Village Resource Development Programme (VRDP) scheme that accompanies JFM under the MP World Bank–funded forestry project, employment and income generating activities have been proposed, such as plantation on pastures and common lands, small irrigation projects, income generating projects like bee-keeping, sericulture, and mushroom cultivation. Each VFC is entitled to Rs 300 per hectares protected, up to a maximum of Rs 90,000 per year, for no more than seven years.

In Paderu, work on JFM plots that are being 'treated' is a major incentive. In Gonduru, for example, according to the Ranger's figures, in 14 months (1995–6) a total of Rs 1,02,706 was spent in this VSS. No records are maintained so estimating the number of persons who worked and for how many days is difficult, but the chairperson thought that around 60 to 65 families, or approximately 95 to 100 persons, were involved in JFM work at one time or other during the 14 months.

A common complaint across Orissa and AP concerns the low wage rate for JFM work compared to wages for other operations carried out by the FD.[19] Wages for JFM work out to anywhere between Rs 12 to 20 (for women), and Rs 15 to 25 (for men), as against the government wage rate of Rs 25 for women and Rs 30 for men. Women normally remove stones, weed, dig, plant, and pile mud up around the saplings, while men clear around trees, or thin and trench. Even when they do the same work they are paid different wages, on the grounds that female labour is less efficient. In some cases women and men accept the fact that JFM rates are lower than other government rates, because they see themselves as working towards the collective good. JFM work also enables them to stay within the village rather than having to travel in search of work. Women especially seem to appreciate this, but often object to the disparity in their wages compared with those of men (a view that few men share).

In AP, since JFM work is carried out through the VSS, it is not measured in the same way as other work, and there is no strict time frame for completion. Each task is sanctioned a certain amount of money, and

within that, it is up to the VSS chair how many people are called for work and in how many days they complete it, giving the chair some degree of power and scope for patronage. In Seekari, villagers have said that the chair only calls his own relatives and friends. On the other hand, because wages are low, the VSS chair sometimes has difficulty in summoning enough people to work. Where FPCs are more broad-based, that is, not dependent solely on the performance of the chair, they can be an important means of defining a collective identity through participation in work on JFM plots. Sivaramakrishnan has shown, for example, how the Dhansol–Phulgerya FPC in Bengal negotiated to ensure employment in JFM works. By insisting that its members be listed on the FD muster rolls, the committee undermined both the power of the panchayat to allot work, and the eligibility of the Lodhas, a landless group, who might have got more employment under a poverty principle (Sivaramakrishnan 1996c: 341–2).

A difficult dilemma faces designers of incentive and compensation schemes for ensuring participation in forestry work. On the one hand, villagers being asked to forego alternative employment in order to undertake forest protection work might reasonably expect compensation for the opportunity costs they are incurring. Such payments are particularly important if the people are poor and if the benefits that will accrue to them from forest protection are uncertain and/or distant in time. Without wages, the chances are that only wealthier people can participate, and they may then argue that future benefits from forest produce should come only to them. On the other hand, wage payments by the FD are likely to mean that some people participate primarily for the immediate wages offered, rather than out of a sense of joint responsibility, and this may inhibit the longer-term development of the local people's sense of ownership and responsibility for the forest.

The key to resolving this dilemma may lie in the gradual strengthening and adaptation of the FPCs' roles in facilitating forest labour. If FDs are prepared to devolve some responsibility for managing forest employment, FPCs' current roles in negotiating wages and the right to work could be gradually adapted towards more managerial roles in recruiting labour, fixing, and paying wages, controlling the quality of forest protection work, and linking labour inputs to long-term benefits. The long-term success of forest management will depend on all of these. It remains to be seen whether this can be done without unfair domination by powerful local interest groups, and FDs will, for a long time, have to retain at least some roles as arbiters of justice.

NTFP collection and wage labour on forestry works both provide sites

where forest staff and villagers can forge new and joint relationships. However, even as the FD encourages these activities, it seeks to retain overall control, through the Acts governing NTFP collection and sale, or the funding of forestry works. New efforts towards jointness in forest management will have to involve FDs relinquishing some control over forestry employment and NTFP processing and marketing, as well substantially expanding the range of forest-based livelihood activities which they actively approve and support.

FD–DISAPPROVED PRACTICES

Historically, professional foresters in India have been particularly strongly opposed to timber smuggling, headloading, shifting cultivation, and encroachment on forest land. At the same time, critics have pointed to FD complicity in these acts—at best ignoring them or taking a small bribe to let the encroachment carry on (Baviskar 1995; Pathak 1994), at worst actively conniving with smuggler gangs. Both in terms of FD and villagers' views, a distinction must be made between these different activities. While smugglers are often from outside and pose a threat to villagers as well, 'encroachment' is usually a local and subsistence oriented activity. However, JFM has been able to make a difference only at the lower end of the scale, where small encroachers or headloaders can be pressured into stopping their activities through community imposed restrictions. FD staff and village communities are alike powerless to act against the larger organized smuggling gangs. Some forest officials therefore argue that rather than JFM they need guns and guards. But while there are some cases of foresters risking their lives against smugglers, strengthening guards with guns will also empower them vis-à-vis the relatively powerless.

'Encroachment' and Shifting Cultivation

The term 'encroachment' reflects both real processes of forest conversion for agriculture, and official classifications of land and land-use, which may be superimposed to define existing cultivation (legitimate in the eyes of practitioners) as illegitimate. In several of the more 'jungly' tracts of the country, in the absence of proper land revenue surveys, land which villagers had been cultivating for many years was notified as reserved, turning them into 'encroachers'. In Adilabad (elsewhere in AP): 'There is little doubt that the demarcation of the forest lines was done in a very haphazard way. In pursuance of the policy of forest conservancy, large-scale evacuations occurred in the 1920s, and mopping up operations

continued until 1940, creating an atmosphere of unending insecurity' (Rangachari and Mukherji 2000: 106).

Official land classification and demarcation is challenged by the various systems of shifting cultivation that have prevailed for centuries, particularly in several areas of central and eastern India. Often in conjunction with settled agriculture, shifting cultivation requires that large tracts of land be left fallow for long periods, but officials have been reluctant to recognize ownership and use of such fallow lands. Not surprisingly, given its classificatory elusiveness, there are no official statistics on areas used for shifting cultivation, and estimates range from 5 million hectares to 11.5 million hectares (MoEF 1999: Vol. 1, 30).

Whether encroachments precede or follow laws against cultivation in certain areas, in the Central Indian states, at least they are among the most important issues. A major explanation for the Bharatiya Janata Party's success in tribal areas like Bastar in 1989 was the pre-election promise it made to regularize encroachments. Most state governments have responded to public agitation for land titles by regularizing encroachments. Whether 'illegally' as encroachments or through various government schemes for resettlement or land distribution, out of 4.7 million hectares of forest land converted to non-forest uses during 1951–95, conversion for agriculture accounts for 2.8 million hectares (Tata Energy Research Institute 1998: 102). Most of this occurred before the spread of the green revolution allowed for intensification of existing cultivation. According to one estimate, the area of forest land affected by shifting cultivation amounted to 7.7 million hectares in 1991–3, with Orissa and the north-eastern states accounting for a large percentage of this (Tata Energy Research Institute 1998: 103–4). FD staff often cite JFM as an important tool in the drive to check diversion of forest land for agriculture, especially shifting cultivation.

Mohada in Dewas is an example where JFM has successfully been able to stop further forest encroachment. Encroachment by Barela tribals from Khargone began in the 1950s (see Chapter 2). By now about 310 hectares of forest land have been encroached. The first year the trees are cut down and burnt, which, in this area, means loss of valuable teak. The second year the land is ploughed and sown. One round of regularization in MP was carried out in 1990, when all illegal encroachers till 31 December 1976 were given title deeds to the land. The second round of regularization took place in 1995 for land encroached up to 24 October 1980. One curious phenomenon was the recurrence of the same names in the list of encroachers in the lists for both years. Giving the example of the head of one VFC, the draughtsman explained: 'After getting his

land registered in 1990, the Patel transferred the land to his son's and daughter's names, thereby becoming landless again and qualifying for more encroached land.' Foresters point out that although many of those who encroach do it for subsistence reasons, politicians ignore encroachment, lawyers thrive on the business from land transfers, and traders are also involved. One forest official complained bitterly that if they try to arrest someone, the women of the family tear their dresses and accuse the foresters of rape—another example of the (perceived and/or claimed) use of sexuality as a weapon of the weak.

Earlier, encroachers would have their crop burnt or cut down by labourers imported from Panigaon for the purpose. They would suffer severe beatings if they were caught and would have to pay money to the FD staff and to the local revenue officers. Before elections, politicians would come to the village and promise to grant land titles, but these promises were rarely fulfilled. Without legal title deeds to land, people cannot get bank loans, which would in turn enable investment in irrigation facilities. With the introduction of electricity in 1991, the possibilities for irrigation have opened up and the pressure on forest land has significantly decreased. Here we see how the nature of pressure on forests is a dynamic process—and not always in the direction of greater pressure—that responds to changes in other spheres of life.

The Mohada FPC was formed with the help of a local social worker from Seva Ashram, specifically to check the twin problems of encroachment and the absence of title deeds. Since then, few new encroachments have been noted, but people believe that in return the FD will regularize old encroachments. As the RFO put it: 'Now there is no way even to save our faces. We have already promised to get their land regularized and established relations with people. We sit on the same cots, we eat with them, and now that they have developed faith in us, how can we take their land back?' But elsewhere, villagers have withdrawn from encroached land on the promise that the land would be used for planting horticulture trees which would be owned by those who had encroached.

Encroachment affects a village in contradictory ways. Everyone suffers from the privatization of resources that cultivation of forest land involves, but this was land over which they lost control many generations ago. Without land, and with the minimal prices that NTFPs fetch, dependence on forest produce alone is not a viable subsistence alternative, so people in this position are forced to take up alternative livelihood strategies (such as migration). Timber takes a long time to mature and poor villagers cannot afford to wait for forty years for a teak tree to become of value. Because land has other symbolic and practical uses—as

collateral for loans or court cases, and as a marker of status—some encroachment is a desperate response by marginalized people. Not all encroachment is for subsistence, however, and richer households are also involved: after all, bribing the forest staff and ploughing freshly cut forest land is expensive. Often, while the initial encroachment takes place by subsistence seekers, bigger players then move in and appropriate the levelled land or seek new land of their own.

In Paderu, most encroachment is, nonetheless, for subsistence. Here economic differentiation is not very extreme and almost all the villagers have some *podu* land. Indeed, the presence of the *podu* patches on the hills just outside the demarcated area of the protected patch is an open secret. Blaming others for *podu* is an instrument in inter-ethnic conflicts. The Bhagatas and other dominant groups in Paderu are quick to point to the Samanthas, or migrants from Orissa as the ones primarily responsible for continuing *podu*. Many of the *podu* cultivators in the Eastern Ghats, especially in Paderu on the Orissa border, are, in a wonderfully apt phrase, not 'shifting cultivators' but 'shifted cultivators,' (Dove 1993) displaced by the Machkhund and Upper Indravati river valley projects. Poor Paraja villagers in Kilagada argue, however, that under the terms of the VFC (which is Bhagata dominated), they are stopped from *podu* while the Bhagatas continue to cultivate their *podu* patches. The Gouds of Bok-kellu, who migrated there some thirty years ago, were in despair as they said: 'No one cares about our problems because we do not belong to this land originally. What would the FD lose if we cultivated a small patch of pulses in the Iridapally forest? The native people, and moreover those who already have cultivable lands, have also taken to *podu*. We are not the only ones engaged in it.'

Despite recognizing the fundamental problems in the way forest land was demarcated, the AP government now regards its forest boundaries as sacrosanct (Rangachari and Mukherji 2000: 116) and is explicit about its intentions in using JFM to stop encroachment. For example, a memo was issued in November 1995 'to tackle encroachment problem in RF by forming VSS. On the basis of a government memo, the PCCF, AP issued clear guidelines indicating that while there would be no eviction of tribals, further encroachment would be stopped with the help of local tribals' (Mukherji 1998: 23). In accordance with this plan, in Kilagada, out of 62 households identified as '*podudars*', 22 were given 0.5 hectares of revenue land each. In Vankachinta village, the NGO Samatha brokered an agreement between villagers and the department, whereby the villagers continued with their existing encroachments on level land in return for giving up *podu* on the hill slopes and protecting the forests on them.

However, a recent report by NGOs notes that although 40 acres of *podu* land have thus been surrendered to protection under JFM in Vankachinta, at an estimated loss of Rs 2000 per family, no alternative benefits have been generated by the JFM programme (Andhra Pradesh State Secretariat 1998: 80).

The following case study illustrates how complex the negotiations on *podu* can become as a result of JFM:

In Marupally village (Vizianagaram division) landless people who were displaced by the Raivada reservoir project use about 2 to 3 acres of *podu* per family, from which they derive a modest livelihood. In every village in this area there are about 4 to 5 hectares of *podu*. Just before starting JFM, the FD had booked a case for *podu* against six people, three of them from this village. The judicial magistrate punished each person with a Rs 2000 fine plus a year's imprisonment. The FD staff, surprised by the severity of the punishment and concerned to improve relations with the villagers as they embarked on JFM, successfully negotiated bail and paid the Rs 6000 fine by adding some of its own funds to those villagers had earned for forestry work. Subsequent *podu* cases in this same court were dismissed when the offenders pleaded innocent, without protest from the FD since the accused were likewise from JFM villages.

In this example, as in the Mohada case, the FD has soft-pedalled the encroachment issue in the wider interests of maintaining good relations with the villagers. Equally, villagers have given up on their encroachments and protected the forests. According to official figures (Andhra Pradesh Forest Department 2000), 24,000 hectares of land under encroachment has been 'rejuvenated' through VSS by 'motivating' local people. In many cases, however, they have lost more than they have gained from JFM. Unless JFM proves to be a beneficial alternative in the long term, those who have advocated self-restrictions on *podu* may find some of their credibility damaged.

Smuggling

Timber and fuelwood smuggling is not a major problem in either Rajpipla or Paderu, where the forests are of little commercial value, but it is an issue in parts of Sambalpur and MP with good forests. The following examples show the differences in types of smugglers and smuggling and how FD responses are calibrated to each.

Since the 1984 ban on logging in Orissa, all the wood that comes into FD depots in Sambalpur is wood confiscated from thieves. 80 per cent of the legal wood coming into Sambalpur is babul grown on farmlands. One major source of fuelwood is the Mawlabhanja reserve near Lapanga. About 200 headloads arrive per day from the general direction of Rengali

range: Lapanga station is a key point at which they are smuggled onto trains for Sambalpur. Apart from trains, bicycle smuggling is frequent in the villages north of Sambalpur in Rengali range. Freshly sawn planks (6 to 7 feet long) of valuable timber species, such as sissoo, bijasal, and sal, are brought from nearby Bamra Forest Division and taken to Sambalpur. Thin planks sell at Rs 30 each while thicker ones go for Rs 100. The bicycle timber thieves travel in broad daylight but take irregular routes like cattle tracks. Khudamunda falls on one such smugglers' route. A local cowherd told us that the business went smoothly because the forest guard and forester took their 'cut'. Villagers do not interfere with the smugglers, as they are scared that the latter will retaliate by beating them up or destroying their crops. The DFO described this smuggling as a major headache—one that was difficult to control as the smugglers would simply abandon the bicycles and run away.

Encounters with smugglers are often quite dangerous. Our researchers in Sambalpur witnessed a man use a sword to threaten and abuse a forest ranger on the road near Sambalpur station, while another used a stick to hit the bonnet and then the headlights of the DFO's jeep. The police chased a jeep loaded with planks until it was abandoned in the middle of the road in the heart of town. Another incident that week involved a Ranger. Having confiscated wood from ten headloaders, he was later, the same day, attacked by 30 villagers using sticks and axes, resulting in heavy injuries to himself and several of his staff. Although this Ranger had received transfer orders, the DFO had not relieved him as it was difficult to get someone to handle the problematic Dhama range.

Dhama has relatively dense forests, and is ideally suited for smuggling, situated as it is on the banks of the Mahanadi, with a forest-less prosperous Bargarh district on the opposite bank, in a different forest division. FD staff in Dhama range say their wireless and patrol boat have been out of order for more than a year. It is physically impossible for them to patrol large areas. If they receive intelligence that timber is being felled at a certain place, they have to hire a jeep to get there. There is only one mobile forest protection force in the entire division, so, on any one day it may not be quickly available. When large numbers of smugglers are involved, there is a serious danger of assault, as smugglers are aware that, unlike the police, FD staff do not have permission to use their firearms. Once the smugglers cross the river, they sometimes stand and hurl abuses back at the pursuing foresters.

In practice, foresters may distinguish between richer and poorer smugglers. In one incident, a boatman and two others were caught taking timber across the river, and were fined Rs 500 each. But the boatman

was poor, so, after a couple of days (to make the boatman 'sweat' for a while) the ranger decided to take the full sum from the other two, but a smaller amount from the boatman. In about ten or twelve hamlets or small villages near the river, according to forest staff, the villagers sell wood and do no other work. They have no agricultural land, nor do they desire to possess any. Forest staff say that catching them is very difficult as they are very close knit and no information leaks out. Even if a case is filed, they simply pay the fine and start their wood thieving again. According to one forester, those who were involved were mostly people who belong to the higher castes (Kulta or Brahmin, for example) and very few were tribals.

One of our study villages, Larasara—part of this smuggling belt—consists largely of Dalits. From their point of view, in the absence of land, the frequent danger of raiding by wild elephants, the lack of employment and even bidi-making opportunities, if they don't 'go to the forest' even for a day, they don't eat. 'Going to the forest' involves collecting fuelwood, bamboo and bamboo shoots for sale. Collecting bamboo shoots is also illegal and punishable by fine. Villagers say, 'If we had work all year round, why would we go to the jungle to face the guards and the wild animals of the forest?' At the same time, they note the deterioration of the forest and the increased distances they have to travel to ply their trade. As one man said, 'This village has no school, no employment, no option but to cut the trees. When all the trees are cut, the villagers without land will also leave.'

The owner of the ferry (instrumental to this smuggling business) said that he pays the panchayat Rs 110,000 per annum for rights to run a ferry from the landing stage, and levies Rs 2 per person on the ferry. An unofficial schedule of rates for different forest produce is: people carrying logs of wood pay Rs 20 to 50, headloaders pay Rs 8 to 10 per headload, two persons carrying timber pay Rs 20; four persons pay Rs 50. The ferrymen are paid Rs 700 or 800 per month by the panchayat. Smuggling starts around noon and increases during the afternoon. Villagers allege that the ranger and forester together get a cut of Rs 3000 per month from the ferry contractor. Those who pay the forester and guard (Rs 2 to 4 per trip) get off, while others have cases registered against them. On average, a person can earn Rs 25 to 30 a day from this firewood smuggling.

Possibilities for more positive collaboration than that found in Sambalpur are illustrated by the following account from Balia village in Dewas:

In 1995 a new ranger found that one of the residents of Balia village was routinely smuggling wood by tractor and that his house itself was built entirely of smuggled

wood. Fortunately for the ranger, another faction opposed the timber trade, and they were persuaded by the ranger to form a committee. Initially, they monitored all the smuggler's movements. Then the ranger brought the two factions together by building a common culvert across the stream, to replace one for each community. Since then, the Balia people have caught six cartloads of wood stolen by local politicians. By catching such prominent public figures they have deterred other villagers, who might have otherwise engaged in illicit felling.

Success stories like this are comparatively rare, however, and while protecting villages may find it possible to put an end to violators from within their own village through fines or social pressure, they still face depredations by neighbouring villages, leading in some cases to armed clashes. The northern side of Dewas division has highly degraded forests. The forests improve as one goes south and descends the *ghats*. Panigaon and Bagli ranges are close to main roads and the Indore market, and hence, more susceptible to smuggling. In these ranges trucks carry smuggled wood away directly. In the forests below the *ghat* (Udaynagar) it is taken to the road on shoulders or bullock carts, and thence by motor vehicle to the market. Towards the south, the Narmada poses a barrier to the movement of timber. The Kheoni Wild Life Sanctuary, and the Satwas and Kannod ranges all face smuggling due to their position on the border of Sihore and Hoshangabad divisions. As in the case of Dhama range in Sambhalpur and the Orissa–AP border near Kilagada in Paderu, division or state borders play a significant role in enabling smuggling, both of timber and fuelwood.

What emerges from these accounts of smuggling, anti-smuggling, and connivance, is that there are major question marks over not only the FD's capacity to restrict smuggling, but also over its integrity. It is not simply that they are losing the battle against smugglers for technical, organizational, and numerical reasons, but that the apparent conflict masks various forms of illicit connivance and co-operation. Forest staff cannot afford to ignore illegal felling completely, and many of them do, in fact, suffer serious injuries in trying to protect the forests. Given that Forest Departments throughout India have reputations for similar levels of corruption to those found in the police service, it is not surprising that villagers and other departments do not always wholeheartedly collaborate in their fight against smugglers.

CONCLUSION

We started this chapter by arguing that foresters have traditionally viewed villagers' dependence on forests in terms of three categories:

FD–tolerated or legitimate 'interference', FD–approved 'productive' involvement and FD–disapproved or 'illegitimate' practices, depending on the degree of control which they could exercise over each, and the revenue generated. From a foresters' perspective, JFM is at least partly about converting people from 'illegitimate practices' to 'productive involvement' and satisfying legitimate needs. From the perspective of villagers and activists/NGOs, JFM is about introducing a greater degree of 'jointness' in the management of people's needs and in the nature of their involvement with the FD. Some groups have campaigned to redefine the 'science' in 'scientific forestry,' pointing out that grazing and shifting cultivation may not be as harmful as they appear, or contesting the divide between legitimate and illegitimate practices. What difference has JFM made, if any, to how foresters and villagers relate on a day-to-day basis?

In Rajpipla, neither encroachment nor smuggling is a major issue. JFM has successfully provided employment to villagers, and protection has resulted in some intermediate benefits like grass and fuelwood, but timber needs remain unfulfilled. Since harvesting and distribution of grass and fuelwood is organized on equitable lines, overall the programme could be deemed successful in terms of both regeneration and meeting most people's legitimate needs. However, silvicultural prescriptions and technical management remain firmly within FD control.

In Dewas, JFM has helped check encroachment and, to a lesser extent, smuggling, though the situation varies from range to range and is volatile.[20] Here local power structures have meshed with silvicultural prescriptions controlled by the FD to produce management plans that will lead to the FD ideal of timber stands. But the poorer sections have sometimes been able to resist. For instance, the rich Sendho farmers would like to protect the forest against headloading, but refrain from imposing a strict ban in the interests of retaining their agricultural labourers. More often, marginal groups face a losing battle. In Pardikheda, this can be seen in the way the Bhopa community has been subjected to changes of occupation. Traditionally buyers and sellers of cattle, in about 1986, the Bhopas abandoned this trade because of the large amount of capital it involved. When they came to Pardikheda, they took to headloading, inspired by the example of Chamar and Balai women. About three years ago, when the VFC was formed and put an end to headloading, almost all of the women turned to agricultural labour while some of the men have taken up stove repairing, migrating to distant towns in Gujarat and Rajasthan to ply their trade.

In Orissa, management has remained largely in the hands of village committees, with little involvement of the FD. Even here, however, the

pressure is often to conserve the forests for timber and not NTFPs. For example in Lapanga, the protected forest is managed for sal trees and not for tendu, which is of immediate cash benefit to poorer villagers; in Khudamunda the growth of the sal trees has made it more difficult for women to get sal leaves to make into plates. With the growth of tall trees, the forest also becomes a place where some women say they are scared to venture alone. Although the FPC/VSS allows timber felling for house building or agricultural implements, strictly speaking, according to departmental rules, this is illegal unless supervised by FD staff. Although smuggling has been stopped in those patches protected by FPCs, it continues in other well-stocked ranges. In other words, male (and some female) villagers themselves often internalize the FD attitude towards different uses of the forest. More attention is now paid to satisfying legitimate needs, but overall the basic timber orientation continues, especially in the more hierarchical villages.

In Paderu, JFM has succeeded in ending *podu*, at least notionally. If the policy were to be strictly enforced, however, it would inevitably lead to migration, as the only alternative employment locally is work on coffee plantations. As yet, JFM has made little difference to the availability of fuel, fodder or timber. Villagers continue to rely on neighbouring Reserve Forests for the bulk of their demands. Employment is seen as the major benefit that JFM brings.

Though NTFPs are regarded as the key to the success of JFM, in none of the field sites have NTFP collection and JFM have had any appreciable impact on each other. JFM appears to be just one more scheme in which villagers interact with the FD, along with employment on the FD's regular operations, and tendu and sal seed collection through purchasing agents. In every case, the burden of self-regulation has fallen disproportionately on the poor. JFM was meant to put an end to conflict between villagers and FDs and to stop problematic practices like smuggling and encroachments on forest land. But it has generated new arenas for conflict—as neighbouring villagers clash with each other over access to grazing grounds (Dewas, MP) or NTFPs (Paderu, AP).

The current silvicultural model is not so different from those prevailing in the colonial period. Both allowed interstices where local demands could be articulated. FD staff have always had to negotiate their way through conflicting demands, in different ways (depending on their positions in the official hierarchy, for example). In some cases, they come down on the side of the richer and more articulate sections in determining the composition of the forest, while in other cases, all actors are constrained by the availability of saplings in the nursery, etc.. The FD has

had some success in its efforts to turn villagers from what it sees as illegitimate and illegal practices to productive activities, especially wage work on plantations in JFM patches. It is itself hampered by inflexible rules, however, and in the meantime, villagers are bound by their subsistence and cash requirements to continue to use the forest in ways that transgress the boundaries laid upon it by the FD.

One message comes through very clearly: 'the forest' is not a given entity, but one that reflects—in the height of grasses, the shape of the branches, or the species growing—the outcome of the conflicting demands placed upon particular plots. The important question is, who makes the decision about what the forest should look like? Thus far, JFM has introduced little jointness in actual forest management, which continues to be informed mainly by foresters' views on what is legitimate and what is the proper object of management. Yet, to the extent that JFM network meetings, activists demand, and the outpouring of material on forestry has served to wrest this question out of the domain of FD expertise, the whole process has laid open the possibilities of truly creating more people-friendly forests.

NOTES

1. A third issue—how JFM has affected the forest itself, and any visible impact in terms of regeneration or change in species composition—is too complex an issue to be dealt with here.

2. For a discussion of what degradation means in ecological terms, see Ravindranath (1996: 289–90).

3. See also a study of a different village in Rajpipla East, where the only conflicts mentioned are those with the 'five or six unemployed people who headload for sale' (Hill and Shields 1998).

4. For colonial FD attitudes towards shifting cultivation see Gadgil and Guha (1992); Prasad (1994); Rangarajan (1996); Sivaramakrishnan (1996c); Skaria (1999); and Sundar (1997).

5. Conversely, villagers in neighbouring Harda are training foresters in the proper method of multiple shoot cutting, pointing to the need for different pruning methods for different species (Ravindranath, Gadgil, and Campbell 1996).

6. Fuelwood accounts for 90 per cent of the wood extracted from India's forests and of this less than one-sixth is from managed or monitored sources. It contributes 66 per cent to household energy requirements in rural areas, and only 23 per cent fuelwood in rural areas is purchased compared to 75 per cent in urban areas (Poffenberger 1996) .

7. In Bhandara division of the Central Provinces, grazing actually assisted teak regeneration by protecting seedlings from suppression by other species (Rangarajan 1996; Sivaramakrishnan 1996c).

8. From 1951 to 1987 the cattle population increased by 31 per cent and sheep and goat populations by 200 per cent (*Down To Earth* 1999: 24–31; Poffenberger 1996)

9. In Bharada, this includes both cotton and *tuar* residues.

10. See Chapter 5 for further details on this remarkable federation.

11. See Wade (1988) for a different picture.

12. Pardikheda villagers (both rich and poor) think it would be a good idea to divide the forest on caste lines to manage it according to their different interests.

13. For instance, Utkal Forest Products Ltd., Sambalpur, received a ten-year lease on 29 items in 1990.

14. *Indian Express*, 3.4.96; 4.4.1996, *Telegraph*, 5.4.96; see also Saxena (1997b)

15. The tendu collection cycle is similar in all the states. In April, the FD hires villagers to prune the bushes, and collection starts in May, continuing for about a month. The leaves are tied in bundles of fifty or one hundred and sold to an agent. The leaves are then sun-dried till they turn reddish brown, and are bagged at night to retain moisture and avoid breaking. The agents get commission from the forest department.

16. Deviations in working plans in such areas are permitted only insofar as they promote NTFP development and harvesting.

17. T.N. Godavarman Thirumulkpad versus Union of India, Supreme Court Orders of 12.2.1996, 4.3.97, 15.1.98.

18. Wages from schemes funded by AKRSP were earlier channelled through the Gram Vikas Mandal with Rs 5 kept aside as savings in the Mandal. Women's wages would go into their husband's names, but this has since started changing with the formation of Mahila Vikas Mandals.

19. Shabbeer, pers com; interviews with villages in Narsipatnam, Vizianagarm, and Srikakulam, February 1997.

20. Even as we go to press, severe state repression in Bagli tahsil has revealed how far the administration is from any real JFM. On April 2, 2001, the police and forest department fired upon villagers in Mehndikheda village of Bagli tahsil, killing 4. They have demolished houses in some 15 villages, poisoned grain and water sources, and forced people to flee to the forests, all in an apparent effort to confiscate wood cut by villagers for house construction, even as the forest department has continued coupe cutting in the adjoining range.

5

Beyond the Protection of Forest Patches

JFM strategies are not just a set of reforms introduced in some villages: they also exist as the outcome of agendas being driven forward in state capitals, in New Delhi and in the offices of donor agencies and NGOs operating on a world stage. In a sectoral sense too, JFM is broader than local protection of forest patches—as we have seen in previous chapters, it must involve an expansion of FDs' concerns and capabilities beyond what was traditionally regarded as 'forestry.' To achieve this expansion, FDs must increase and intensify their range of partnerships with other agencies, such as government developmental departments, NGOs, and people resident in and around forests. This requires considerable shifts in the existing patterns of FD working. These shifts have been supported by donor agencies, which have placed large sums of money in the hands of some Indian FDs, conditional on their implementation of JFM and the involvement of NGOs. Beyond the village, then, three sets of actors are involved: FD managerial staff (range, divisional, state and national); NGOs and activists (village or district level, state, national and international); and donor agencies (bilateral and multilateral). Each set of actors has multiple interests, with disagreements over what is to be done. The key issues for the longer-term success of JFM can thus be seen as the outcomes of three-way sets of relationships among these institutional actors—relationships likely to be fraught with tension.

In attempting to introduce participation into forest management, the three sets of stakeholders have very different strengths and weaknesses. The FDs are centrally concerned with forestry, and have a presence throughout forest land, but JFM is a relatively small part of their work,

and involves very different skills and organizational structures from those demanded in the past (Hobley 1996: 214). NGOs are very varied in size, orientation and focus, mostly working in only one district. For some of them, forest work is their main activity, but the more common pattern is for forest affairs (including JFM) to be only one of a number of linked issues they address. For international donor agencies too, forestry—only one among many sectors they support—will have to play its part in the agencies' wider agenda.

Structural tensions between the orientations of the three sets of actors are obvious. For example, among donors, in particular following the World Bank report on a crisis of governance in sub-Saharan Africa (World Bank 1989), many donor agencies have been concerned to promote radical rethinking of the social and economic roles of governments, which have been accused of a lack of accountability, transparency and responsiveness, and of encouraging inefficiency (MacIntosh 1992; Ostrom 1990; Williams and Young 1994). NGOs have been promoted not only as cost-efficient suppliers of services (particularly to the poor), but also as an essential element in civil society (Edwards and Hulme 1996). As we shall show later in this chapter, since 1993 the World Bank, in a series of workshops on forest policy, has explicitly raised the desirability of the state shedding some of its functions to civil society institutions (private companies as well as NGOs) and abandoning its ownership of forests (D'Silva 1995b). At present, however, very few Indian NGOs are economically self-sufficient so as to be plausible candidates for major roles in helping to manage forests: most depend heavily on government and national or international donor agencies (official and voluntary) for financial support. In their search for funding opportunities, NGOs may end up doing things for which they have no comparative advantage, lose their freedom and legitimacy to act as advocates for weaker groups, and distort their accountability to grassroots and internal constituencies in favour of meeting short-term quantitative outputs (Edwards and Hulme 1996; Kothari 1988; Wignaraja 1993).

In this chapter, out of many possibilities, we focus on three sets of questions:

(a) What evidence is there that the FD staff are willing to make the necessary changes in structures, procedures, attitudes, capabilities, in their relationships with other agencies—particularly with villagers?

(b) What kinds of relationships have developed between NGOs and FD staff? To what extent are NGOs capable of contributing to the implementation of JFM?

(c) What are the policies (explicit and implicit) of international donor agencies (mainly the World Bank in AP and MP, since Gujarat and Orissa had very little donor involvement in JFM when we carried out our research)? What have their staff actually been prioritizing, and how influential have they been?

FOREST DEPARTMENTS

Those people living in forests are innocent and ignorant. If those living in urban flats in Delhi and Bombay have no civic responsibility, how can you expect these villagers to have any? Wherever protection has succeeded—in Arabari, Sukhomajri etc.—it has been because of a single dedicated person. Leadership is essential (MoEF/7, March 1997)[1].

We have to remember that the FD has been working over the years in a certain way and if we ask them to change overnight, they are bound to resist, especially when things go wrong. ... Forest departments become defensive and this is considered to be resistance (G/S/1).

Advocates of change in Indian forestry must confront the question of how far the centralization of Indian bureaucracy derives from the colonial legacy (and may, therefore, be remediable), and how much is an inevitable feature of a 'modern' state system and 'modern' bureaucracy. In either case, however, reform is likely to be tortuous and slow. Certainly, forest administration in post-colonial India shows more continuities than transformations from the situation at the end of colonial rule, and 1947 saw little immediate change in the personnel or tasks carried out by state FDs. In the post-independence period, more land came under the control of the FDs, as *zamindari* forests were nationalized (Gold 1999; Sivaramakrishnan 1999). Major changes in orientation and activity had to wait until the 1970s, however (Saxena n.d.: 7), when Forest Development Corporations were established, charged with operating in a commercial fashion to market forest products. They introduced new perspectives: the previous emphasis on foresters' expertise in botany, silviculture, soil analysis, entomology, and enforcement was supplemented in the corporations by new expertise in logistics, engineering, management, and marketing (Anderson and Huber 1988: 61).

Social Forestry, with the goal of increasing the number of trees growing on private and village lands, was also introduced in the mid-1970s. These two changes undoubtedly altered how the FD worked, increasing its range and the frequency of its relationships with commercial interests, as well as with other development agencies and village-level institutions. But since 1988, when the new Forest Policy was announced, and

particularly since June 1990, when 'village communities and voluntary agencies' were specifically mentioned as appropriate partners in regenerating degraded forest land, more concerted efforts have been made to change the organizational culture of the FDs. JFM has been seen as requiring changes in that culture, and as bringing about changes. Some of these discussions, however, beg the question of what was that organizational culture, how might it be changed, and what evidence there is of such changes.

Organizational Culture and Potentials for Change in FDs

As Sue Wright points out, although 'culture' is claimed by anthropologists as 'their' concept, its use in organizational studies is often 'disconcertingly unrecognizable' to anthropologists (Wright 1994: 2). Organizational theorists may use culture to refer to the informal norms and values of the workforce, but more often perceive it as the formal values and practices that managers attempt to impose on the workers. Anthropologists, by contrast, use culture in rather different ways: we prefer an interpretative approach to culture, seeing it as meanings that are collectively constructed, reworked and contested. Most accounts of Indian FDs, however, assume consensus about a stable and legitimate organizational culture. But in describing a culture of formal Weberian bureaucratic norms, we must not forget that these norms are not inevitable or unchallenged; they depend on work done by people with different access to resources to make their versions stick and to get the benefits from doing so. The existence of some common patterns and expectations does not, of course, mean that there are not variations within any particular organization. In some units, scrutiny is detailed and failures to meet expectations may be rapidly and clearly punished, whereas in others, deviations from the normal are tolerated, and even encouraged.

Indian FDs, like many other state agencies, have a reputation as 'centralized, authoritarian, formalistic, inefficient bureaucracies incapable of experimentation, self-critical learning or imaginative change' (Thompson 1995: 1521). But this is not to say that there are no patterned variations among the different state FDs. Some of these differences flow from historical contingencies. For example, in the Madras Presidency (including Paderu, now in AP), administration was more centralized, based on the constitution of large territorial divisions, compared to that of Bihar (including Sambalpur) (Nicholson 1937). Other differences flow from the external pressures on the FD, which vary from state to state (see Chapter 2 for more details).

In many ways, the MP FD is probably the most formalistic. As one

senior official put it, 'the forest department has isolated itself due to its single-track objective of timber extraction. It has become a frog in a well (MP/S/8). MP's FD is also under most pressure from industrial interests, and had shown the least interest in engaging with the local populations until the innovations of B. M. S. Rathore in the late 1980s (Rathore and Campbell 1996). In Orissa, as we have already suggested, the FD was able to ignore community forest initiatives (mostly on revenue, not FD land), and yet to claim their contribution when the national mood shifted towards participatory approaches. In practice, it has had little experience of responding to local needs. The AP FD also found the notions of participatory forestry unfamiliar: 'There was some thinking already going on since 1990 in the forest department to change management outlook and include people's perspective in forest management. We were struggling with the concept till 1994, and it was only in 1995 that we made a beginning. Thus, JFM in AP is only 2 to 3 years old' (AP/S/2). By contrast, in Gujarat FD staff could see direct links between JFM and the strong co-operative movement in the state, the roles played by the Forest Labour Co-operatives, the powerful NGOs, the innovations caused by Social Forestry and the attempts made to involve the local people through camps of various kinds throughout the 1980s.

How can such organizations become fully supportive of participatory approaches? Clearly, evidence of experimentation and change (such as the introduction of Social Forestry in the 1970s) suggests that FDs are more flexible than they are often given credit for. The apparently strong hierarchical structure of the FD masks considerable areas of freedom for some officials (particularly at the level of Divisional Forest Officer) to take innovative action (Vira 1999: 267). Indeed, the introduction of JFM can itself be seen as a case of such change. Empowering local groups, to whatever limited extent, requires a strong commitment to give up some powers (Poffenberger 1990: 102) and this is currently being attempted by other departments—such as irrigation, education, and health—as well as forestry (Vasavada *et al.* 1999). Not all of the problems that reduce the possibilities of major changes within FDs can be resolved within the FD itself. In common with the public sectors in many developing countries, such problems include

> low salary levels in the public service as a whole, lack of effective performance standards, inability to fire people, too few rewards for good performance, recruitment procedures that did not attract appropriately trained people, and promotion patterns based too much on seniority or patronage and too little on performance
>
> (Grindle & Hildebrand 1995)

Nonetheless, it could be argued that policy change towards more participatory approaches within Indian FDs does not require major structural changes at the level of the society at large. Decision-makers can make a difference; they can have some 'space for defining the content, timing and sequencing of reform initiatives' (Grindle and Thomas 1991: 19). Even field-level bureaucrats 'are not just linear extensions of a hierarchical chain of command, and ... their acceptance of the participatory agenda is an important determinant of its potential success' (Vira 1999: 256). This middle ground position is favoured by donor agencies and management specialists charged with introducing administrative change. As two consultants on FD reforms for the AP World Bank project put it: FDs can become more flexible and transparent, and move from a 'culture of control to a culture of commitment' through processes of institutional development (Maheshwari and Moosvi n.d.: 5, 25).

Donors have supported new methods of management in FDs—despite the lack of evidence for the long-term effectiveness of such innovations (Ostrom, Feeny, and Picht 1988). The World Bank has been particularly keen on objective–oriented planning workshops, for example in the preparation of the AP Forestry Project, and in suggesting alternative ways of organizing forestry in India (D'Silva 1995a). A SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis, carried out by senior forest officers at a World Bank–sponsored workshop in Hyderabad in December 1994, provides an insight into their thinking at the time about the FD, in the context of donor programmes and the debates over forest policy in India and the Draft Forest Bill (Table 5.1).

This picture of FD discourses in the middle of the period when JFM was being pushed with its greatest momentum is particularly noteworthy on two counts. First, the strengths are not well designed to cope with the threats. The strengths are oriented towards custodialism and a hierarchical, authoritarian mode of operation, while the threats all require FDs to develop political and interpersonal skills. Second, the weaknesses are in many cases the obverse of the strengths: the problems of transfers and inadequate incentives are integral to hierarchical forms of administration (but these senior FD staff presented them as matters over which they had no control). Furthermore, the weaknesses can only partly be addressed by the opportunities. Reforming transfers, discipline and incentives require either root and branch changes to the whole Indian administrative set-up (since governments are unlikely to allow FDs to apply principles different from those of other departments), or the removal of forest management from state governments altogether. How, then, can the structure of FDs be reformed?

TABLE 5.1
SWOT ANALYSIS OF FDs

STRENGTHS	*WEAKNESSES*
1. Disciplined, organized, staff	1. Short tenure, lack of continuity of staff
2. Long history, tradition and culture	2. Poor motivation, no incentives for doing good work
3. Technically sound, well trained personnel	3. Use of obsolete technology, poor application of research to field
4. Operational even in remote, isolated areas	4. Work in isolation, poor communication skills, lack of publicity
5. Well laid out forest policy, legislative support, rules and regulations	5. Inadequate funds, investment
OPPORTUNITIES	*THREATS*
1. Increased public involvement in forestry and environment	1. Increasing human, livestock, biotic pressure on forests
2. Funding by international, national agencies	2. Encroachment on forest, regularization of encroachers
3. Access to modern technologies to better manage the resource	3. Low government priority to forestry
4. Growth of agro forestry, farm forestry	4. Political interference
5. Work with other agencies, sectors	5. Conflicting policies of other sectors

Source: (D'Silva 1995a: 4)

Hierarchy and Authoritarianism: Strategies for Reform

Although hierarchy is seen as a strength by some senior FD staff, in practice, perceptions within the department vary. In a survey conducted by Maheshwari and Moosvi as part of the preparation for the AP Forestry Project, nearly 35 per cent of the 670 senior, middle and lower managerial respondents described the main strengths of the APFD as including the existence of a 'disciplined and committed workforce', whereas less than 10 per cent of the 700 field staff (forest guards, foresters, and deputy range officers) agreed. 'Bossism' was the weakness of the internal culture of the forest service most frequently mentioned by the field staff (over 15 per cent) and by 14 per cent of the senior and middle managers.

Insightful observers have also noted that the hierarchical and authoritarian internal culture of the Indian Forest Service is contrary to the

requirements of a flexible organization that is needed for undertaking forestry work in collaboration with people (Saxena n.d.: 11). Elsewhere, Saxena has noted that 'bureaucratic regulations regarding budget release, physical targets, and the development of working plans, all act against the more flexible adaptive process needed for the successful implementation of a JFM programme' (Saxena 1992: 25).

Our interviews revealed that field staff shared many of the critical perceptions of the FD discussed by Saxena, though their attitudes towards these varied. Almost all field staff described the FD as hierarchical (though this was not necessarily always seen as a weakness). Paradoxically, perhaps, discipline, the technical knowledge held by its staff, and its ability to work in adverse circumstances to achieve its goals in remote areas were seen as the strengths of the FD. In many cases, staff reported with pride, the FD staff were the only government employees who regularly visited villages far from the main centres of population. Nonetheless, almost two-thirds of middle managers would not choose a career in the FD if they started out again. Promotion, status, and recognition were the issues that concerned these staff, as can be seen through considering their perceptions of good postings, self-assessments of the successes and failures of their careers, as well as their desired future ideal form of the FD.

For many foresters a 'good' posting was in the Territorial Division, though not always for the same reasons. Some were drawn by the discretionary power, resources, and authority that come from posts there—as one Forester described it, 'thousands of people bow to them'. For others, it was the challenge that the posts provided: the 'scope to do work'. Others pointed to the possibility of giving out contracts, hinting at illegal sources of additional income. Commonly, staff argued (rightly, in our view) that their long-term career prospects were to be found through the territorial divisions, which still include most of the posts.

Similar issues emerged when they assessed the strengths and weaknesses of the FD for a career, picking out shortages of finances, and inadequately trained staff, in need of up dating.[2] More specific complaints about personal dissatisfaction, especially by middle managers considering their own careers, focused on the poor infrastructural facilities and living conditions available. Staff were often expected to live in isolated areas, something that might be acceptable in the early stages of a career, but was hard to accept with school-going children. More generally, field staff and middle and lower managers picked out for negative comment some of the key aspects of the management structure of the FDs (the confidential record system, and the punishment and transfer policies),

which exemplify for many people the hierarchical and authoritarian aspects of the FD. Middle and lower managers and field staff seemed relatively satisfied with their own achievements: what upset them was a perceived lack of promotion opportunities and a feeling that senior staff did not recognize their achievements. As one Range Forest Officer in Paderu put it, 'if something goes wrong the foresters are blamed, and if something good comes then the senior staff claims the credit. So, there is no reward and no promotion for the lower cadre, but only command and instructions.' Thus the management system seemed to reward risk–averse career strategies rather than initiative and achievement; promotion seemed to be almost entirely via length of service, and some said the system of confidential annual reports by superiors encouraged an authoritarian hierarchical management style.

Not surprisingly, middle managerial staff generally accepted the need for change within the FD. Improvements in staff pay, conditions, and promotion prospects were mentioned most, but administrative structures that would allow for better relationships between FD staff and forest dwellers were also mentioned. Middle managers did not complain about the recent shift in the FD towards 'person-oriented' rather than technical work, despite the scientific training of most middle and senior managers. In all four states, foresters accepted that local people should be more involved in forest management. Do these views of 'people's participation' represent a shift towards a more co-operative approach to forest dwellers on the part of the FD?

Participation and Co-operation

Attitudes towards community participation fall along a continuum (Midgley 1986; Vira 1999). A participatory mode supports more community involvement (at least for some people to be more involved in some ways); an incremental mode has official but ineffective support, leading to ambivalence; support in a manipulative mode is designed solely to meet ulterior motives of the state; and an anti-participatory mode is uninterested or hostile to community involvement. Since 'participation' means different things to different people, these modes are not mutually exclusive: views may also change rapidly in response to rewards and penalties, or the responses of other actors. Actors may also hold several different positions simultaneously, concerning different aspects of any initiative.

Recent discussions of participation have been concerned almost completely with JFM, ignoring moves towards participation in other aspects of the work of the FD (such as Social Forestry, now often seen as a dead-end). In commenting on participation, FD staff discussed how JFM

was being introduced and implemented. In providing a snapshot of attitudes and practices of FD staff in these four states we asked how far the staff charged with implementing the participatory approaches support them, and for what reasons. How do they see the current and future emphasis in their work? How far do current social structures support or discourage changes in attitudes and practice towards a more participatory mode? What is their experience of JFM so far, and what predictions can be made about the medium-term chances of success in achieving its goals?

A major difficulty in understanding how FDs are responding to the new initiatives is that virtually no forest official will admit publicly to opposition to the introduction of more participation (Thompson 1995). Furthermore, JFM has different implications for different levels of staff. Senior managers are charged with implementing the new policies, but may hardly have had to revise their everyday work patterns. Middle-level managers and field staff have had little say over changing their work patterns (and may have responded through foot-dragging, gossip, etc.—the 'weapons of the weak' that Scott 1985 has so tellingly analysed). Nonetheless, senior managers foresee problems with JFM. Senior and field staff alike often say that JFM must lead to changes in the organization of the FD; they note that JFM generates conflict within and between villages; and they are sceptical about the roles expected of NGOs. Middle managers and field staff alike may also give verbal support to participatory approaches in general, and JFM in particular, expecting that villagers will not in practice actually play a significant role in planning and managing forest resources, and so, the effects on FD staff will be minimal. We address these issues with interview material as well as data from our observations of how JFM has been introduced.

Formal Acceptance of the Participatory Rhetoric

Criticism of JFM was muted, at best, and our interviews with senior managers were punctuated by comments about JFM as the best or only solution to the downward spiral in forest quality. They foresaw 'a bright future' for JFM as a sustainable approach (G/S/1) or said that JFM was 'one of the most important methodologies to protect the forest.' 'There is no alternative' (MP/S/1) to the involvement of villagers for the long-term maintenance of the areas which have become degraded, partly because JFM improved the behaviour of FD staff: 'In JFM areas there is no manipulation by the FD staff as there is transparency in dealings' (O/S/1).

Thinking about their current roles and the future ideal for the FD,

middle and lower level managerial staff (DFOs and ACFs) foresaw, and apparently welcomed, an expansion in their work, interacting with forest dwellers, and liasing with other departments to introduce various kinds of rural development activities. They expected to spend more time in the future on protecting and monitoring the forests, and less time as administrators or grievance handlers. Their version of the current functions and the importance these functions should have in the future shows how far they accepted a need for change. Middle managers expected that revenue generation would be much less significant in the future, and the development of tribals and educating forest dwellers to build awareness would take more of their time and effort. Middle managerial staff showed no overt hostility towards an increasing involvement of local people in planning and forest management. They also accepted a greater role for the private sector in degraded areas, in the promotion of agro-forestry, and in increased interaction with other departments and development agencies.[3] Field-level staff were perhaps the most enthusiastic about JFM: while acknowledging that it involved a loss of power, often they were also appreciative of the benefits it brought in the form of less stressful relationships with forest dwellers.[4]

Senior FD managers are ambivalent about the extent to which JFM will transform their work. Some senior staff try to limit the implications of JFM for FD working practices by seeing JFM as merely a natural extension of FD activities in the (relatively small) patches of land that the FD has been unable to protect adequately. Other senior managers argue that JFM is a vehicle for introducing necessary changes in departmental structure and administrative process. Given the scale of transformation required, they commend progress so far, and perceive that junior staff have welcomed (or at least tolerated) JFM and the changes it has made to their working practices. Thus, in Gujarat a senior IFS officer argued that 'There has been a mixed reaction amongst the FD staff towards JFM. Some are not convinced about it, but their number is reducing gradually. ... JFM demands attitudinal changes. Staff should be trained repeatedly. Our training has been more oriented towards the higher staff than towards lower functionaries. We need to emphasize the training of lower staff also' (G/S/1). Some senior staff acknowledged that, as one put it, 'the FD also behaved as a paramilitary force. Some FD staff misused their powers to coerce people for illegal gratification during their visits to the villages, which gave FD a bad name' (AP/S/1). They recognize that not all staff have changed: 'Disparity in the working style of the officers is pronounced and it is an uphill task to bring them to a common platform. Some people are corrupt, and this is also a

disadvantage as people are finding it difficult to believe the sudden change in the FD' (MP/S/4).

While JFM is new and fashionable, ambitious staff may be attracted to the work: 'In JFM areas action and chance of coming to the limelight is immense' (MP/S/7). Some officers are keen to stay on in postings that allow JFM, since this offers support from villagers (MP/S/1). Implicitly, this may not last.

Criticisms of Aspects of the JFM Policies

Some FD staff recognize that the 'real' policy-makers may not have made sufficient effort to ensure that middle management and FD field staff have a sense of 'ownership' of the new policies: 'Unfortunately no specialists make decisions: it is just the IAS or politicians. Policy decisions are not participatory, and the FD has no sense of participation because it didn't make the decisions' (DFO, MP/April 1995). This view provided the opportunity for a small number of those interviewed to make specific criticisms of JFM, in terms of the problems it raises for them or for villagers. They listed the possibility of increased conflict between villages; the lack of clarity in the relationship between FPCs and panchayats; the lack of immediate benefits that can sustain villagers in their protection efforts; and the absence of detailed rules to govern benefit sharing.

Local vested interests that want to amass wealth and party politics are blamed for conflict in inter-village or intra-village relations. One officer admitted that the FD also had responsibility for wrongly allotting areas for protection. On the other hand some argue, at the very least, conflicts between the FD and the villagers have reduced.

Panchayats are another important cause for worry. The creation of autonomous forest protection committees at village level is potentially in conflict with the national pressure to revitalize the panchayat. Like other government departments, the FD prefers to create its own committees, and regards the panchayat as too politicized, potentially corrupt, and maybe the wrong size of unit. As one senior officer in MP said: 'The FPC is at the village level while the panchayat may be for a group of villages ... The panchayat is a bigger entity with a larger sphere to look after, which may lead to neglect of the purpose of VFP or FPC, which has a smaller sphere of attention and so is more desirable and is likely to be more effective and efficient' (MP/S/7). In the longer-term, however, some senior managers said that stronger relationships between JFM committees and panchayats will be necessary, which may pose problems: 'It will be difficult to take back the things [from panchayats] which are in their hands in case a conflict arises' (MP/S/1).

For several senior staff, a major problem for JFM is that it depends on the FD being able to marshal enough resources to meet the subsistence needs of those protecting forests. Unfortunately, several say, the resources, rules and arrangements that have been made so far are inadequate for this task. What, they ask, will happen when donor funds run out? 'In policy formulation a lot of things have been left unsaid and ambiguities remain in issues like benefit sharing, distribution, selling, marketing, and even funds procurement. If the income generating schemes that have been undertaken do not yield the desired results, then what?' (MP/S/4). In Orissa, because of the perceived likelihood that the benefits being offered under JFM (limiting the community share to 50 per cent) may be less than the benefits offered under similar land under the Social Forestry Programme, 'the constant demand of everyone (politicians, activists, NGOs) is 100 per cent benefits for the people without giving due consideration to the scientific management of the forest. I am apprehensive that if in the FD we also stop believing in scientific management of the forest, then how can the forest survive?' (O/S/2).

Some staff also argued that the likely benefits from JFM are too small to lead to substantial changes in the economic position of forest–dependent people, and indeed, might deepen their dependence and lead to an intensification of their poverty. Despite JFM, the long-term interests of poor forest dwellers might still be to migrate away to urban or industrial wage labour: 'JFM is of no use to tribals, except to get better grass because of protection. For cleaning and thinning operation they have to wait for long periods of time, and the economic benefits come very late. For cleaning, it takes a minimum period of 5 years and for harvesting, it takes a minimum period of 20 years. Tribals can only benefit from agriculture and industrialization. ... The landless tribals should migrate: go to the industrial sector and work as labour' (DFO, Gujarat: field notes, 9/6/95).

To make up, in part, for the lack of economic incentives for the poor, FD staff are drawing on other resources, either those under the control of the FD itself (especially in the AP and MP World Bank-funded projects) or from those under the development departments (Tribal Welfare, or Rural Development). But some field staff recognize that 'the JFM policy is somewhat wrong, because it involves us giving development inputs' (AP, Range Officer, fieldnotes). Some villagers, tempted by the development benefits (for example, work on constructing check dams, access roads, or cattle–proof trenches) rather than the intrinsic benefits from protecting the forest, will lose interest, once the development benefits dry up. Furthermore, even in the World Bank-assisted states, the FD cannot grant the same level of support to all JFM villages, and 'people

in other villages get jealous of all the development inputs. In the JFM villages we are friends but in the other villages, we remain the policemen' (AP, Range Officer, fieldnotes).

Practical/Departmental Constraints in the Introduction of JFM

Despite some specific reservations about some aspects of the JFM policy, most staff proclaim their support of the policy, but we are sceptical whether this support will be maintained through the changes that might be necessary to implement the new approach fully in practice. Senior FD staff continue to portray themselves as much maligned but valiant defenders of the forest, functioning under severe limitations of person–power and resources (Maheshwari and Moosvi n.d.; Shyamsunder and Parameswarappa, 1987). Our observations from the field suggest that participation is rarely being introduced into policy in ways that have major impacts on the everyday work practices of field–level and middle-management staff, for three main kinds of reasons. First, few staff go beyond the call of duty to infuse new procedures with a spirit different from that which underlies traditional practice within the FD. Second, departmental structures—for example what Hobley (1996: 225) calls 'the target culture'—have not changed sufficiently to take account of the new emphases. Third, surrounding norms and values, for example, for staff in most of the other government departments or in the rest of Indian society, leave the participatory schemes somewhat exposed—and it is still not clear that they will be trend setters.

Nevertheless, in each state we observed some staff displaying exemplary commitment to making the new policy succeed. Some foresters raised funds to get bail for members of villages in prison when a JFM agreement was being negotiated; others placed themselves in personal danger between warring villages or in front of hostile villagers who were threatening FD staff. These are, however, still exceptions: one or two cases in a forest division are not enough to make a new policy replace the old one. Furthermore, (as noted above) police work continued, and many field staff felt conflicting pressures on how they should relate to villagers.

For those who wish to implement changes, a major source of frustration is the absence of supportive change within the FD itself. For most of the staff, JFM responsibilities (for selecting villages, conducting PRAs, drawing up micro-plans, convening FPC meetings, writing minutes of meetings and implementing decisions in terms of delivering seedlings or other materials) is merely added onto their other tasks. 'In fact, DFOs have no time for JFM—they have files to look at' (DFO, MP/April 1995).

JFM can easily increase very time-consuming court cases, and the administrative work associated with personnel management. No extra travel allowances had been sanctioned, yet JFM involves more visits for field staff: staff are pressured to meet the extra costs from their own pockets, or to find ways to use funds sanctioned for different purposes.

One area where workloads may decrease is patrolling the forests now being protected by FPCs. Some middle managers and field staff said they are now able to relax more at home, but others noted that illegal cutting and smuggling may just be transferred to other parts of the Reserved Forests, making little overall difference to the amount of patrolling to be done. If smugglers acquired better guns, cutting equipment and trucks more rapidly than did FD staff, they suggested, JFM might make little difference to the security of FD staff.

Middle managers and field staff often bemoan the slowness of the existing FD bureaucratic styles. In all four states, staff felt they were expected to change their ways of working after a few short training courses. They found these courses useful, but they saw the contradictions involved in hierarchical and non-participatory FD structures being used to implement participatory strategies with respect to villagers without essential supportive changes in those structures. In practice, they often felt that existing managerial rules and norms of operation made them unable to implement the new methods to any great extent. Thus, staff go through the ritual of PRA activities without linking these to the micro-plans they develop (usually following a set format) in the office. Staff are often unable to make more than verbal promises about the sharing of final harvests, or to implement other changes requested by villagers, because of a lack of support from higher officers, who in their turn feel constrained by the need to follow the rules. Furthermore, FD staff are aware that the staff of other departments—Police, Revenue, Rural or Tribal Development, for example—are not under similar pressures to treat villagers as equals. This sense of relative deprivation emerged in a number of comments, particularly when they mentioned the 'unfairness' of external criticism of their efforts.

AP provides a good example of the problems of introducing new styles of work. When a member of a World Bank review team asked how the tribal development funds were spent in Paderu, the DFO answered as follows:

> Of course, we are spending according to the guidelines. The money passes through a complicated process. There are 42 territorial divisions in the state. Per division, it works out to Rs 700,000. In our division we have calculated that we have to spend Rs 70,000 per VSS in a year. This is too little to meet the

requirements of the VSSs. The process of getting funds and allocating them goes like this. I ask the Project Officer for the Integrated Tribal Development Agency to meet whatever expenditure is required. Then I write to the PCCF about the expenditure incurred by ITDA on tribal development, and ask for reimbursement. Then only the funds will be released from the AP Forestry Project. In this way, for initial expenditure we depend on ITDA. Looking at this manner of expenditure, I can say that FD plays the role of simply co-ordinating all the activities. See, for example, in the Kilagada VSS big expenditure was required and we could not meet it because of the complications.

Thus, FD staff can reasonably complain that they are the butt of criticism for failures that are outside their ability to change. But the best-developed sense of relative deprivation and unfair criticism came when FD staff talked about NGOs, and we will now consider how FD staff and NGOs interact.

THE ROLES OF NGOs IN JFM

The early history of the shift to a more participatory approach to forest management suggests a considerable degree of caution on the part of the Government of India (GoI) as to whether the dangers of involving NGOs would be outweighed by the benefits. NGOs such as AKRSP from Gujarat lobbied hard before the GoI would acknowledge in the June 1990 letter that NGOs could have a legitimate role in forestry (Shah 1995). The GoI documents state the following potential roles for NGOs (MoEF 1988; MoEF 1990). First, there is a need for 'committed' intermediaries to bridge the gap and promote trust and understanding between public administration and people's organizations. Further, NGOs are expected to 'motivate and organize' the villagers (not the FD staff) and NGO roles are envisaged at the local and pragmatic level, rather than at higher levels, affecting policy and structural relations. Finally, there is a concern that NGOs may be hastily created in order to take advantage of new opportunities offered by the policy, or that NGOs without appropriate expertise may try to play a part.

Following these policy statements, each state has outlined the roles of NGOs, along with those of the FD, and the village forest protection committees. The state resolutions obviously share many common themes, but also display some significant differences. AP, strongly influenced by major World Bank funding for JFM before the state resolution was published, has outlined NGO roles in JFM in much more detail than is the case in the other three states. The Gujarat Resolution notes the possible roles for NGOs, and encourages NGO participation in the JFM

programme in the state in this way. The Orissa Resolution does not mention an NGO role in any detail, and keeps NGO participation very much in its control: in Orissa the FD staff decide upon NGO participation in the state-level Steering Committee and in the village committees. The MP Resolution and World Bank reports are even more vague.

AP's substantial funding (Rs 354 crore) for JFM from the World Bank required them to 'seek the assistance of NGOs to resolve problems and strengthen informed participation of beneficiaries, particularly women and tribals, in JFM, as well as in community forestry' (World Bank 1993). A section in the Staff Appraisal Report listed the main tasks NGOs would be expected to fulfil, and named 42 NGOs as possible partners in the project (World Bank 1993: Appendix 29). Following this, the AP JFM Resolution (1993) provided a role for NGO involvement in JFM under three broad headings:

(a) *Support role to the FD and to other NGOs*: organizing orientation programmes; co-ordinating training for FD, other NGOs, and members of the FPCs; preparing communication packages on JFM for the FD, other NGOs, and FPCs.

(b) *Village-level activities*: disseminating information on government programmes; liasing with government and communities for approval of the VSS to get access to land and funds and to facilitate implementation; arranging funds for JFM implementation from sources other than the FD; strengthening people's involvement through capacity–building of VSS committees for democratic functioning and conflict management; organizing events and activities such as women's camps, tree nurseries, peripheral tree and fodder plantations, and promotion of bio-gas and fuel-saving stoves to reduce extraction from forest lands; and documenting field experience to identify emerging issues.

(c) Research and networking with FD and NGOs on institutional, economic and ecological aspects of JFM.

The Gujarat JFM Resolution (1991) acknowledges the role of NGOs and assigns them special responsibilities to help people to form village groups for forest conservation and enrichment activities and to provide financial assistance where possible. As a result of intense NGO lobbying, particularly by the AKRSP, the very first paragraph of the Resolution mentions NGOs and recognizes the role played by those like AKRSP, VIKSAT, and Sadguru in the state. The State Working Group on JFM includes representatives of four NGOs. Further evidence of NGO influence is the inclusion of the name 'Mandal' or 'Gram Vikas Mandal,' which is a typical village organization constituted by AKRSP in its

operational areas. This strategic move by AKRSP pre-empted confusion that might have arisen if separate village committees were formed for forest protection, as in its operational areas the Gram Vikas Mandal committee normally supervises forest protection.

Orissa's FD has no direct foreign funding for its JFM programme, and since foreign donors are often keener to promote NGO involvement than are recipient governments, it is not surprising that Orissa's JFM Resolution envisages relatively restricted roles for NGOs. NGO involvement is anticipated at two levels: at the state level the JFM Steering Committee appoints two NGO members selected by the FD, and at the village level the executive committee of the VSS may include an NGO representative selected by the Divisional Forest Officer.

Some NGOs in Orissa have been supported with external funds to play more significant roles in JFM. Vasundhara (supported by the Ford Foundation) brings out a newsletter on JFM in Oriya, has trained forest staff in several districts in the state and is helping the formation of federations in one district. Similar efforts have been made by Regional Centre for Development Co-operation (RCDC) in Bolangir district. Oxfam has provided support for a long time to village-level groups to facilitate and advocate forest protection, including large federations like BOJBP in Nayagarh. Such work is, however, perceived as different from the state JFM programme and it has proceeded independently from the FD. Other NGOs like Agragamee, though not directly involved in JFM, have been involved in mobilizing rural/tribal communities on NTFP collection and marketing issues.

In MP, where the World Bank MP Forest Project was not signed until 1995, the involvement of NGOs is mentioned only cursorily, and no space is given to NGOs in the state JFM Resolution of 1995. The 1995 strategy paper of the MP FD (which, unlike the Resolution, has no official standing and is not an administrative order) mentions 'that efforts will also be given to elicit the co-operation of the NGOs working in the area'.[5] The Staff Appraisal Report of February 1995 visualizes a role for NGOs in the VRDP, defined as a combination of JFM and activities or investments designed to create alternative incomes or resources in village areas immediately peripheral to forest land (World Bank 1995). Not only does it provide incentives for communities to participate in JFM, but also a mechanism for reducing pressure on forest resources. The VRDP team, to be formed at the division level, should include women recruited through NGOs or other institutions to provide introductory courses and practical on-the-job training in the principles and practice of participatory village planning and programme implementation to rangers, foresters,

and forest guards of the division (World Bank 1995: Section A, 44). The report also mentions that 'such institutions would be encouraged to work in partnerships between the communities and the FD in formulating and implementing VRDP plans. In addition to the implementation of JFM, NGOs would have a role in training, monitoring, and evaluation' (World Bank, 1995: Annex 5, 4). The World Bank wants a woman candidate external to the FD to be involved in the VRDP as a facilitator.

Thus, none of the state resolutions offers clear guidance on distinguishing different kinds of NGO and NGO roles that would help FDs understand potential pitfalls and advantages in forming new partnerships with NGOs. On the one hand, government seems to understand only a few defined and limited roles for NGOs in JFM; on the other hand, NGOs working on environmental issues in rural areas and available for involvement in JFM show a vast diversity in terms of ideology, structure and actual roles. Table 5.2 clearly displays the range of sizes and orientation of the key NGOs working on JFM in our study areas. Tensions are, therefore, inevitable between the FD and NGOs. In many cases, the FD was willing to go ahead without NGO representation if no suitable NGO was available or willing to be involved. When we asked FD staff in the four states to predict the likely sources of increased pressure on them in the future, the issue that most concerned many was the effect of the increased activities of NGOs. At the other extreme, in some cases NGOs have organized forest protection activities with no involvement of the FD. The more common pattern is for the relationships between NGOs and FDs to be contingent on the kind of NGO involved, the personal relationships established with individual officers, and the nature of the pressures on and opportunities for the FD staff.

In Dewas, only one of the four villages—Neemkheda—has an active NGO taking an interest in forest protection. Samaj Pragati Sahyog (SPS) consists of a group of graduates, mostly from Delhi universities. Their relationships with the FD are variable. FD staff accuse them of all being 'very sceptical about the Government system and keep on criticising the system … . Just by working in one village they argue that if we can do this, even the government can do it, but it is a totally different case and just not comparable. The government has to work in so many villages and that too, within certain constraints' (Interview with DFO, 11.2.96). For their part, the SPS staff feel their philosophy and methodology do not fit easily into official ways of proceeding, and that the FD may undermine their work in the interests of having some successful work to report. A good example of this emerged during a visit paid by the DFO to Neemkheda:

TABLE 5.2
THE INVOLVEMENT OF NGOs IN THE FOUR RESEARCH SITES

Name	*Location*	*Level*	*Date of Founding*	*Total Number of Employees (1997)*	*Total Number of Programme Staff*	*Activities*	*Funding*
AKRSP	Gujarat, Bharuch District	State, Village	1984	128	95	Implementation, Action Research Influencing Policy	CEC, AKF, CAPART, State and Central Govt.
SPS	MP, Dewas District.	Village	1992	13	12	Implementation, Soil & Water Conservation Policy Research, Advocacy, Legal Aid	State Govt., Dept. of Science & Technology
VASUNDHARA	Orissa, Nayagarh–Puri District	State, Village cluster	1993	6	3	Training, Research, Facilitation, Networking	Ford Foundation
MASS	Orissa, Sambalpur District	Village	1988	12	10	JFM, Thrift Society, Youth Clubs, Women's Health, Environmental Education	IGSS, SPWD
Samatha	AP, Vizag district, Paderu	State, Village	1991	22	20	Legal Aid, Village Institutional Development, Facilitation	Actionaid, Oxfam, IGSS, State Govt.
TERDS	AP, Paderu	Village	1993	1	1	JFM, Conflict Management	Samatha, Actionaid

The DFO wanted to know why the RFO had not yet officially registered a VFC in Neemkheda, where informal forest protection work was being supported by a local NGO. The local NGO representative explained that the existing committee was to remain informal and unregistered until it was clear that it functioned well and had some social acceptance from the village. 'Presently protection is being done by those who are with our organization, but because the whole village has worked on the watershed programme, others too have some feeling for the plantation and the patch of land, and that is how the plot has been well maintained', he said. The DFO said 'if the villagers are already protecting with such good results, what is there to registering a committee? By registering, the committee will also get a legal standing which will be good for them since they have worked on the forest patch. The FD will also be able to show that they have worked in collaboration with the NGO.' The RFO mentioned that the NGO had already collected the basic data regarding the village, so the DFO told the RFO to get the registration papers (with people's signatures) on the 20th when a meeting would be held.

Not surprisingly, perhaps, the members of SPS were unhappy working with this particular DFO, and would often go directly to a Conservator of Forests with whom they were on friendly terms. Other contacts were also made: the Inspector–General, Forests (the highest Government of India forest official) visited Neemkheda on one occasion, and SPS called a meeting at which senior forest officers encouraged the DFO to help SPS as much as he could. Some middle managers in the FD expressed considerable resentment at the ability of SPS members to use their contacts in New Delhi or in Bhopal to overcome hostility or foot-dragging by local officials. Local field-staff (and others disadvantaged by the general development work carried out by SPS) have formed links with some hostile Neemkheda villagers in attempts to undermine their work, including forest protection.

One other NGO (Sewa Kendra, a state-wide Catholic social work organization) in Mohada helped to promote the initial dialogue between the villagers and the FD. Sewa Kendra has also actively been involved with the FD in creating awareness about JFM in a number of villages in Panigaon range. They helped the FD construct biogas plants in JFM villages of Satwas range, and were approached by the FD to carry out micro planning in Kheda, of Bagli range. Because Sewa Kendra has a much less independent approach, it has been able to work more closely with the FD, for example, providing a platform for all the VFC chairpersons to come together in workshops. It has also provided primary education and health activities in JFM villages on request from the FD, receiving funds from other state level departments. Its dependence on

government funding, and its lack of an independent local base, gives it little chance of influencing policy.

In MP as a whole, several senior FD staff claim that NGOs, though necessary, are non-existent. As one put it, 'NGOs are of no help. FD faces problems when dealing with women, but there are no NGOs to help them. NGOs would be a great help in monitoring and co-ordinating, but till date they have given us no support' (MP/S/4). With no NGOs working on forest issues, and no women available, our own research colleague was invited to be a 'Lady NGO' in some training sessions in Dewas Division.

One member of the MP FD suggested that some local NGOs 'felt left-out or neglected when the project was being made. We have been asking them to join us but they are not willing to join unless the current project is scrapped. They feel that we have sold out to the World Bank. We have been requesting them to point out the loopholes in the project so that solutions can be found, but they do not want to be involved unless the project is scrapped. NGOs are not co-operating' (MP/S/3).

In 1999 the World Bank's Operations Evaluation Department reviewed its Forest Projects in India and noted that Bank interaction with NGOs had improved in the later projects (including MP) as compared to earlier ones (West Bengal and Maharashtra). It noted that these organizations were providing 'social intermediation services' and helping to 'build capacity'. However, it also said that 'NGOs are not always the panacea... and in many situations where NGOs are associated with political parties or lack integrity, their involvement may not be constructive, but may generate conflict' (Kumar *et al.* 1999: 40). Revealingly, the Review nowhere mentions the strong protests against the MP Forest Project by people's organizations.

Several mass tribal organizations in MP oppose the World Bank project, because it gives greater powers and facilities to the FD, and the Bank's other eco-development projects have caused massive displacement. They deny the Bank's claims to have consulted stakeholders, saying that they were not consulted during project preparation, nor at any stage in its implementation and evaluation. Although they managed to get the MP FD and the Bank to agree to a joint mission to evaluate the MP forestry project, the Bank and MP government reneged on their promise, refusing to put their names on a document which cited damning evidence (Joint Mission 1999).

In Andhra, although the FD has taken an unusual step in earmarking funds for NGO networks to promote JFM, and has also constituted state and district level co-ordination committees to work with NGOs, several

FD officials are ambivalent towards NGOs (Van Sahyog 1999). As one put it, 'very few NGOs have conviction and expertise on JFM' (AP/S/1). Some see the village committee as the real NGO: 'NGOs should work as a facilitator till the FPC itself takes up the role of an NGO' (AP/S/2). Others see the long-term role for NGOs as the organizers of networks of Forest Protection Committees: 'NGOs are a third party, and are thus, welcome as a feedback mechanism. They are also very vocal and outside any rigid set-up, so they will bring various issues to the forefront. We have tried to build up a network of NGOs, but how it will function and be useful only time can say' (AP/S/5).

NGO roles may breed resentment among those who would rather not see NGOs having privileged access to government. Lower cadre FD staff n AP have complained that big NGOs usually have direct access to the higher-ups in the official circle, and say that they have been humiliated and harassed by their officers as a result of complaints lodged by the NGOs against them. They are better disposed towards small NGOs with whom they have close and personal interaction. For example, they applauded the work of the tribal youth who heads the NGO TERDS, which has initiated eight FPCs.

As in MP, some of the more mass-based organizations and radical parties like the People's War Group have opposed JFM. Even those NGOs who work with the FD, however, often feel they get little support. Samatha claimed to have helped to organize fifteen VSS in Paderu and the surrounding area, but their work floundered without departmental help. For example, in June 1995 the Samatha worker told us that he had arranged three meetings to 'motivate' people for JFM in Kodelu village, some 11 kilometres from Paderu, but each time they had to wait for the forester. The third time he did not turn up at all. The people were irritated by the forester, and wanted the DFO to visit. As the Samatha worker said: 'One authority must be there, otherwise the people treat it very casually.' Very little then happened in Kodelu until February 1996, when the Kodelu VSS was suddenly inaugurated with a great show by the local Member of the AP Legislative Assembly. The DFO, in his speech, announced the new thrust given to the JFM programme by the chief minister's new policy of distributing degraded lands among the tribals for planting and protecting forest. He mentioned that this programme was under the AP Forestry project assisted by World Bank, and explained the working of a VSS. No mention was made of the role of Samatha, and no representative of Samatha was present: 16 FD staff were there, along with a video camera crew and other local politicians.

In Gujarat, large and successful NGOs with forestry interests exist.

Many foresters seem to feel threatened by the implied or actual challenges they pose to the authority of the FD. These NGOs are usually better funded than the FD, with more access to transport, computers, and foreign travel. The professionals are often better educated, paid more, and are more fluent in English and in the jargon of participation. One NGO staff acknowledged that AKRSP staff have 'more publicity, recognition, incentives, and researched skills' but countered that: 'It's actually healthy —this competition acts as a catalyst' (interview, Shankar Narayan, Aga Khan Foundation, 16/10/96).

The problem of overlapping jurisdictions remains a sensitive one, however. In Gujarat, some foresters accepted the utility of NGOs in training and motivation, but they remained critical of 'competition which may lead to conflict also', and argued for distinct roles, with NGOs supplementing the work of the FD as members of the protection committees and in the training programmes (G/S/3). Another praised 'NGOs' criticism' in 'opening our eyes to our defects ... NGOs are doing well in training, preparation of case studies, publicizing the process and in certain places involving themselves directly in the villages. But one thing to be borne in mind about the forest area is that we cannot do away with the forest policy' (G/S/1). In Gujarat, a senior member of one NGO felt that there should be no FD and forest land should be handed over for management entirely by the people, because 'all the Forest staff are corrupt and ruin the forests instead of doing good work.' Staff of the major NGO (AKRSP) also experienced problems through the different ways the government and NGOs work. Because the Working Plan for Surat Circle was under preparation till 1995, whenever a village institution proposed a scheme to protect and plant in the forest land and the FD was approached for permission, the permission was granted after scrutiny and necessary changes in the plan as felt by the deputy CF. But in 1996, once the Working Plan was complete, permission for that year's list of villages was refused, because the area did not fall into the prescribed coup according to the Working Plan. Meetings were conducted with the deputy CF and the CF, but both expressed their difficulty in sanctioning permission for deviations from the Working Plan. AKRSP had meanwhile started nurseries and had also motivated villagers about afforestation. Until the issue was eventually resolved by exceptional permission to vary the procedures of the Working Plan, they had to divert the saplings to other areas, and could not provide the work they had promised villagers.

In Orissa, some areas have well developed NGOs and others have very few. Opinions on NGO involvement are mixed, with some commending

their contributions to motivation but demanding that they 'not try their hands on [forest] management' (O/S/2). Another senior IFS officer in Orissa said that 'NGOs are over enthusiastic. They are claiming certain rights on behalf of the villagers, but have forgotten their responsibilities' (O/S/4).

In Orissa, Vasundhara and Agragamee are represented in the state level Steering Committee, and can provide feedback to the FD and lobby for changes in the JFM Resolution. Some amendments are clearly attributable to their work. The two NGO members may, therefore, have an important role in articulating both villagers' and junior FD staff's experience of local-level JFM to higher levels—a role that is not always welcomed by FD staff—because (as Vasundhara noted in an interview in 1996) neither the two tribal women members (who come from remote interior villages) nor junior FD officers on the Steering Committee were at that point able to speak up in the presence of senior officers.

In Sambalpur, MASS is a member of the SPWD national network of NGOs active in JFM. Its work has been primarily in forming thrift societies amongst village women, but with the involvement of the National Bank for Agriculture and Rural Development (NABARD) it started to form farmer's clubs in which both sexes are members. With respect to JFM, their target group is mostly the members of forest protection committees that were self-initiated (that is, had no external facilitation). MASS has three basic objectives: socio-economic development of the district; creating an information base on existing resources; and development with protection of natural resources. MASS was not set up specifically to address forest-related issues, but after receiving funds from SPWD it also attempted to network between self-initiated forest protection committees, and has published a newsletter in the local language, Oriya. MASS has not been involved in any VSS formation, even though they are working in the area. They have very little contact with the FD, except to invite them to meetings or workshops; few FD staff are aware of the presence of MASS in the field.

This brief survey suggests several reasons why it is hard for FDs and NGOs to work together:

(a) The term NGO is itself used so loosely that it encompasses a wide range of formal and informal associations: almost all FD staff are likely to be able to think of some NGO or other that it would be difficult or impossible for them to work with, ranging from militant people's movements to 'small, opportunistic "brief-case" NGOs formed by members of an urban middle class to seek funding' (Fisher 1997: 447).

(b) NGOs involved in JFM are rarely focused only on forest issues, nor do they work only in forest areas. Their concerns are usually multiple: literacy, savings and credit or agricultural development such as watershed management and irrigation schemes. These concerns may occasionally conflict with JFM (for example, if they campaign for the regularization of encroachments on forest land) and in such cases they may prioritize their non-JFM work. More commonly, the NGO may give only a small part of its attention to forest issues in general and JFM in particular. This is also a function of their precarious financial positions. Since most of these NGOs have only small numbers of full-time employees or volunteers, they have to take advantage of any government development schemes that offer them a chance of funding. They may thus be seen as unreliable by FD staff.

(c) Some rural development NGOs work in very different ways from the government agencies (although of course, other larger NGOs are quite bureaucratic in their functioning). Those NGOs whose concerns are with strengthening democratic processes need to be seen to be independent and close to poor people, and have long time horizons for capacity building, as well as a willingness to confront those in power. Some of the NGOs, for example, are willing to hold rallies, marches and demonstrations, to raise petitions and to take other forms of direct (usually non-violent) action to further their goals, some of which (like raising prices paid to collectors of NTFPs in Orissa) involve criticism of the FD.

(d) A further distinguishing feature of many NGOs is 'voluntarism—the fact that they can only invite involvement in their activities and must therefore use discussion, bargaining, accommodation and persuasion rather than bureaucratic control' (Edwards and Hulme 1996: 965, 969). In other cases, NGOs place meaningful participation as the purpose of their activities. These characteristics make them uneasy bed-fellows with the output target-oriented hierarchical FDs we have described earlier in this chapter. Thus in Orissa, NGOs prefer to work with self-initiated forest committees rather than with the formal FD JFM programme. A network—Sanhati—has been set up to press for the recognition of community forest management, instead of JFM.

(e) NGOs and FDs often have very different agendas. For many in the FD, JFM is successful if more trees grow; for many NGOs JFM must change the form of control over the forest. For the FD, JFM is a cost-effective method of forest management, since it transfers

costs to village communities; for many NGOs the transfer of responsibility is only the first step in a transfer of power.

(f) Finally, as NGO staff will themselves acknowledge, jealousy is generated by the financial and symbolic support that is granted to NGOs, often on the back of foreign funding, yet, is rarely available to the FD. (On the other hand, of course, funding can lead to better relations through the selection of only those NGOs that share the ideology of donors and the FD, or are similar to the FD in being target oriented, hierarchical and only upwardly accountable.)

Networking at the National and State Level

'Networking' has emerged as a major phenomenon in JFM, among villages, among NGOs and even among forest staff. Forest staff sympathetic to JFM (at the level of DFOs and above) have been organized into a foresters' network by the World Wild-life Fund (WWF), funded by the Ford Foundation. From the point of view of NGOs, 'networking' seems to be a potentially fruitful way of redressing the imbalances in power and influence between them and the FD. Two levels can be distinguished: national networking amongst pressure groups, and local networking and the creation of federations of village committees with NGO collaboration. Networking includes relations among peer agencies and individuals, inter-agency and inter-level networking, information networks, and exchange visits.

In Chapter 1 we discussed the setting up of SPWD and its role in bringing about JFM. Here we concentrate on the activities of the National Support Group (NSG) for JFM. The NSG consists of a core team in Delhi and acts as a nodal agency for JFM. They fund some field projects, but largely their mandate is to collect information and disseminate it (which they do through *Wasteland News*, booklets, guidelines, for example, for study of community institutions, bibliography of work done, updates on JFM orders, etc.). The NSG established three sub-groups: institutional, ecological and economic, and training. A gender and equity sub-group was established later. These sub-groups generated their own papers, which SPWD started bringing out as separate items and in *Wasteland News*. In 1999 a *JFM Newsletter* was also started. From 1996 onwards the NSG began to try to influence policy on right regimes and tenurial issues, looking again at the concept of Working Plans (and not just in relation to micro-plans), redesigning beat boundaries to make them smaller, etc., and looking at the problems faced by DFOs in working with JFM, as they have to follow both the Forest Acts and the JFM resolutions.

NGOs involved in JFM in AP have networked at the state as well as

district level. Aranyika is an older existing network, which became a member of the National Support Group with the initiation of the JFM programme, though not all members of the Aranyika network belong to the JFM network. The Aranyika network started functioning in 1988: in 1999 there were 16 active voluntary organizations as members and another 10 NGOs as participants and proposed members. Their network was limited to the Eastern Ghats in AP and Orissa. The main objective is the development of 'tribal' society in the Integrated Tribal Development areas by reviving 'traditional' systems and strengthening the people's platform. The Aranyika members decided to take up JFM as a common action programme pooling all the resources available from among the tribals, NGOs and researchers, and the network has arranged several meetings and training camps. AP has several other networks (see Chapter 2).

Federations

One of the most interesting aspects of forest protection efforts that have been generated by villagers themselves are the alliances formed to check instances of conflict (see Chapter 4). In other cases, federations have spread as one village inspired others to follow suit. In Nayagarh district of Orissa, one village started protecting its forests in 1970, and in order to be effective, tried to involve the other eight villages located around the hill. In 1982, representatives of 22 villages came together to form an organization and in 1984 BOJBP (Bruksha o Jeevan Bandhu Parishad) was registered. Between 1982 and 1990, the movement spread enormously, the organizational structure adapting to the changing circumstances. When we visited them in 1996 they had 15 'sister organizations' and 16 individual committees, covering an estimated minimum of 85,000 hectares over 347 villages. By 1999, this figure had risen to 29 sister organizations and 26 individual committees. Every sister organization comprises of several villages situated contiguously to a forest patch, and the resource determines the shape of a sister organization, not the usual boundaries of blocks or panchayats. An executive committee, elected at the annual general body, has three sub-committees: legal affairs (dealing with FD resolutions), conflict resolution committee (dealing with inter village conflicts), and publications (spreading awareness).

In Orissa, several NGOs are promoting federations of protection committees. Vasundhara has worked with 15 clusters (totalling 80 villages) protecting forests in the Tangi/Ranpur area of Puri/Nayagarh districts, though this work is not yet clearly documented. They have identified villages protecting forests, mapped protected sites and villages and then

promoted networking between these villages by holding meetings at village, cluster, block, and district levels. The ultimate expected outcome of this activity is the formation of a *mahasangha* (regional level federation of villages) protecting forests. RCDC has already succeeded in forming a *mahasangha* in Bolangir district, though as with Vasundhara's work it is not documented.

In Gujarat, following a model that has been popularized by VIKSAT in Sabarkantha, north Gujarat, AKRSP is trying to facilitate a federation of *gram vikas manchs* (village councils). Thus far, three such local level federations (called Pilvo, Mayur and Ankur) cover 10 to 20 villages each, dealing with matters of common concern, including conflicts. In 1995, a state level federation was set up, with representation from eight regional federations within the state and six NGOs. This federation, known as Saksham (Sanghatna Kshamta Manch) has enabled FPCs and NGOs to negotiate with the FD from a position of collective strength, when it comes to rules, etc.. In one case in 1995, the federation went to court to demand rights for village level institutions to contract for the collection and onward sale of tendu leaves, which had hitherto been a monopoly of the Gujarat State Forest Development Corporation. It has also reduced dependence on NGOs for helping registering societies, liasing with the FD, etc. (see Raju 1999: 13–16; Raju, Vaghela, and Raju 1993). Apart from federation meetings, villagers are being drawn into cross-district and even cross-state 'visiting' patterns, to learn from each other's FPCs. These visits, commonly called 'exposure' trips, had hitherto been thought necessary only for consultants, researchers and, of late, FD staff.

The Gujarat federations are thus involved in more adventurous experiments than the National Support Group is prepared to organize. The NSG and the Ford Foundation (which fund the national meetings) resist having conferences attended by villagers from diverse states, because they would lack a common language. Once within the mind-set of a government programme, bureaucrats and others seem to forget that villagers had a life of their own prior to their programme, that migrants, pilgrims, traders and wanderers have routinely criss-crossed this continent and found ways to pass on tales and traditions despite the lack of a common language.

INTERNATIONAL DONORS: INTERESTS AND ACTIONS

Donor agencies are often accused of dictating terms to the FD, as in the case of AP mentioned earlier, but some FD staff are keen to emphasize that their priorities are not unduly influenced by foreign donors: 'It is the

state's programme, and we have designed it. Of course, with the coming of the World Bank there have been policy changes, but they have been on our own initiative. ... The World Bank helped hasten the process of change' (MP/S/7, 6/5/97). In AP, 'World Bank ... have influenced us but not on issues which we do not accept. We changed what we wanted to according to our requirements and not according to their requirements. They were trying to impose the pricing of seedlings on us, but we did not accept this, as then, not even one tree would be planted. They were keen on JFM and they made the unfelt need a felt need for the department' (AP/S/1, 19/5/97).

Nonetheless, international donors have agendas—implicit as well as very clearly stated explicit ones—and limits to the assistance they are prepared to offer the Indian forestry sector. Recipient governments are wary of being pressured into doing things they cannot defend: internal critics can raise the issue of national interests being subverted by the financial inducements available to donors.[6] These issues become additionally sensitive when the donor is, as in this case, the agency that carries the heaviest ideological load, the largest and most severely criticized multilateral agency—the World Bank.

Examining the World Bank's involvement in Indian forestry is instructive, since the Bank has exerted substantial influence and made major investments. Its loans in forestry began in 1949, with an emphasis on industrial forestry: India received no loans in this category (World Bank 1991a: 3).[7] This focus changed in 1978, after the first Bank Forestry Policy Paper was issued. The first Social Forestry projects were very small, but from 1979–90, social forestry loans were the dominant pattern of lending, and the largest loan was one of $165 million to India in 1985: altogether, India received a total of $345.80 million. Environmental lending started in 1980, to watershed development schemes, and India received a total of $107.20 million in such schemes from 1980–90 (World Bank 1991: 3–4). With its total loans of $453 million in this period, India was the largest recipient, at 18.2 per cent of total forestry and environment lending by the Bank. The Bank review of forest loans in 1991 highlighted many problems with these kinds of loans. It called for new sector-wide programme loans, more emphasis on forest management, 'a favorable macroeconomic package of policies', a major infusion of training and a 'clear recognition of the interplay between forest, people and culture' (World Bank 1991a: xii). In its 1991 Forest Sector Policy Paper, the Bank also set out terms for the kinds of activities it was prepared to finance, excluding projects that involved commercial logging, but including ones with a participatory approach to forest

management (World Bank 1991). This framework has influenced Bank forestry lending since then, and it seems inconceivable that the large loans of the 1990s would have been made had India not embarked on macro-economic reforms, including liberalization. The 1990s loans are much bigger than the earlier loans, and are concerned with reforming the forest sector generally, not just with specific projects; whereas total World Bank lending to India dropped by 25 per cent in 1991–9 (compared to 1984–91), forestry lending commitments rose by 106 per cent to $460 million (Lele *et al.* 2000: Annex E).

Organizations as complex as the World Bank or even departments within it do not have single motives that can be deduced from published sources. In combination with other data, however, such as the addresses given by World Bank personnel at workshops held in India to launch its projects and gather support for its approach, a fairly consistent picture emerges. The Bank has apparently been guided by two sets of policy objectives—which are quite contradictory—on the one hand privatization and dismantling of state influence, and on the other hand, promotion of environmental sustainability, equity, and participation. The most plausible conclusion is that the Bank's concern for sustainable, equitable development is only skin-deep, responding only when and where activist campaigns force it to do so.

Emmanuel D'Silva, a representative of the Bank's Economic Development Institute and a key speaker at many of the forest workshops organized by the Bank in India, made clear the Bank's priorities in the mid-1990s. The two options for 'sustainable and equitable' forestry in India he has given most attention are: 'decentralization: or devolution of some of the responsibilities from the centre to the state, province, district or village administrations'; and 'shedding some of the functions to the private sector, NGOs, local communities, or other groups' (D'Silva 1995a: 3). He cited as arguments in favour of decentralization, increased local influence, quicker response times, improved transparency and accountability, better opportunities for partnership, effective targeting of the poor and ability to raise local revenue (D'Silva 1995b). Although he noted several problems (most obviously of elite domination, where local government is inadequately democratic, and of a lack of skilled personnel at local level), he presented decentralization as a way of coping with the fiscal crises faced by many states and demands for better governance, in a context of rising demands on forest resources by growing populations and increased industrialization. D'Silva foresaw FDs in Asia generally, including India, 'reducing staff, giving up power and territory, and accepting smaller budgets' (D'Silva 1995b: 2).

Significantly, 'shedding functions to the private sector' is mentioned in the same category as involving NGOs and local groups. New Zealand's privatization of forests is commended to be followed by India (D'Silva 1995a: 11; D'Silva 1995b: 5). The main benefits said to flow from such a shift included freedom to reduce the numbers of staff employed in order to reduce overheads and make profits instead of receiving state subsidies. No mention is made of who received the profits. The social downsides—employment dropping from 7000 to 2700, and many ex-employees who became consultants or contractors for the privatized forest service in New Zealand accepting poorer conditions—receive little attention. The UK, Department for International Development (DFID) has supported the Bank's approach. As the Delhi-based co-ordinator for the DFID, Karnataka and Himachal Pradesh projects put it in an interview: 'Traditional management methods don't work. A new style would involve people, researchers, NGOs, and consultants. The FD would simply co-ordinate them all, thus becoming a nodal agency. ODA projects will facilitate this transition. But India has to work it out for itself' (Interview, December 1994).

All of this, of course, is in line with the structural adjustment policies introduced by former finance minister Manmohan Singh and supported by the World Bank and other donors. The emphasis on 'good governance,' signalled in the World Bank's 1989 report on Sub-Saharan Africa, is being applied by D'Silva and others to India, despite India's very different record on the management of industrialization. The stress on privatization represented an attempt to shift public policy to the right, to increase the role of the market, to increase inequality in the interest of rewarding 'risk–taking' and scarce skills, at the cost of those who are not in a position to take risks or have no scarce skills. All of these, it would seem, are in direct conflict with the espoused aims of 'sustainable and equitable development'.[8]

The Bank's current focus on governance may be an important shift from its earlier, more narrowly technical and managerial approaches (Williams and Young 1994), but its position remains ambivalent and confusing at best. No doubt, it is possible to discern within the new emphasis on civil society, a concern with participation—a participation that is, in part, claimed as empowering poor and marginalized groups. But the Bank's preferred means are also part of a strategy to produce a new middle class, in a reassertion of modernization theories (see Harris 1997). The Bank's notion of the state as an institution that should be restricted, down-sized and reformed, clearly helps to explain its eagerness to include new social actors—particularly NGOs and the private

sector—in the projects it has adopted since 1990 in the forestry sector in India.

The first Indian West Bengal World Bank forestry project starting in 1981 took no cognizance of the Arabari project (Clark 1995). By the time the second West Bengal project was prepared in 1989, the support of forest protection committees was a central element, and the forester responsible for Arabari joined the Bank as an adviser. The participatory element has now become *de rigueur* in Bank projects, at least in name. The contrast between the Maharashtra Forestry Project (approved in 1992) and the two big projects in AP (approved 1994) and MP (approved 1995) is considerable. Although the Maharashtra Project mentions enhancing the roles of NGOs, village panchayat and co-operatives, the AP and MP Projects are cast in the new language, concerned with biodiversity, sustainability, and with the 'participation and sharing of benefits by village communities' (Anon. 1997–8).[9] The role for NGOs in the MP Forestry Project, however, is partly explained by the fact that SPWD were involved in the preparation for the project along with Dutch consultants, and N.C. Saxena (well known as a member of the Indian Administrative Service, who is sympathetic to ordinary villagers).

Parallel processes were at work with some other donors; the UK Government helped to fund Karnataka's Forestry Project (Saxena and Sarin 1999). The UK and the World Bank have worked very closely together, with the UK providing expertise (and a desk officer in Washington) to help the Bank with its policies on 'participation' (in general and world-wide, not just relating to India or forestry). The UK policy document of December 1993 gave 'support to state Forestry Departments to facilitate the implementation of a more participatory approach to the management of forest resources' as the first of its 'key areas of activity' (South Asia Department 1993).

But donors do not all work in the same direction. In early 1996, at the same time that the World Bank and DFID were supporting moves to decentralize and transform the FD, the Japanese Government approved a large five year loan (Rs 6080 million) to the Gujarat Integrated Forestry Development Programme. Some FD staff in Gujarat welcomed the money: none mentioned to us any feelings that the Japanese had imposed policy changes. Rather, they focused on the soil and moisture conservation and afforestation work that could have been done had the loan come earlier. Significantly, perhaps, the Japanese Government apparently imposed no conditions for participatory methods to be used. A comparable Japanese project in Karnataka covered 17 out of 20 districts. Although they wanted their project to mirror the DFID project, they paid for no

comparable technical input on the social side: twelve similar projects are managed by one accountant in Delhi, and the teams from Tokyo only have economists and technical foresters (Interview with ODA Project Manager, 15 January 1997).

How likely is the World Bank to achieve its stated goals? A major conclusion of the review of World Bank lending in Forestry up to 1990 (World Bank 1991a) was that it had generally failed to reach its targets. Given the increasing complexity of Forest Project lending since then, and the greater significance of administrative and structural changes in potential success, the chances of failure are now presumably significantly higher. Indeed, the follow-up review of 2000 pointed out that the World Bank had made little difference to the extent of deforestation, and that 'decentralization of power from central or provincial governments also leads to deforestation when local objectives conflict with national and international policy goals' (Lele *et al.* 2000: 4). Of course, failure is selective: money does get spent, after all, and often physical capital is created, training courses are run, equipment arrives, even if costs are higher and quality is lower than claimed, and benefits are retained by contractors, politicians, bureaucrats and foreign consultants, rather than reaching the intended beneficiaries. Sometimes these divergences from the project proposals are relatively trivial; sometimes they undermine the whole project. Sometimes they seem to be in accordance with malign hidden agendas of donors or recipient governments; sometimes they seem to occur despite the best efforts of both sets of actors. A major implicit agenda of donors—rarely spelt out—is that budgets must be spent: and as Chambers notes, 'false positive feedback ... misperceptions and misinformation' allow projects to continue despite failing to achieve their goals (Chambers 1992: 35).

Apart from formal reports, donors try to gain some insight into local-level processes through review missions. Donors rarely control the schedules for these: as one World Bank manager put it, 'we usually tell the FD to fix up the field programme. Oh yes, I know that means they can show us whatever they like, but that's the way it is' (Interview, November 1996).

By chance, two of our researchers were present when a member of a World Bank review team visited two JFM villages in October 1995.[10] This visit matched, in many respects, Chambers' descriptions of 'islands of salvation' and 'rural development tourism' (Chambers 1992). The World Bank representative, accompanied by a photographer and journalist, was taken to pre-selected 'success stories'; the villagers knew she was coming and had garlands ready for her, and banners of welcome

(probably supplied by the FD). The visitor held court that evening in a government guest house, and tried to get behind the official stories by questioning our research fellows and the head of Samatha. But the trip planners seemed to have succeeded: the mask rarely slipped. The visits consisted of photo-opportunities at nurseries and public meetings when FD staff addressed assembled villagers. They responded by asking for additional benefits—a leaf–plate making machine, fruit bearing plants, an improved road to the village, the high school to be upgraded and a night school built for the older people, repairs to the temple, tiles for roofs, a cooking pot for marriage and other festival purposes. Forest officials became embarrassed at these requests for help, and the CF admonished the villagers: 'We should not be dependent on others for everything. It's like begging. So for small things like this pot you can collect money from each household and buy them.'

Many officials in donor agencies do, of course, understand the issues very well: field trips like that described above are only one source of data they have at their disposal. Nonetheless, a crucial problem of such visits is that they reinforce a supplicatory model of the appropriate relationships between donors and recipients, as well as the notion that the JFM programme is top-down and donor–driven. Once again, the implicit meanings conveyed by such visits run directly counter to the explicit messages that donors attempt to put across. As pointed out with respect to the failed Joint Mission in MP, moreover, even where donors are confronted with alternative perspectives, they are often unwilling to take criticism on board if it might endanger their own operations.

CONCLUSION

We started this chapter by asking three sets of questions: are FD staff willing to make the necessary changes to allow JFM to get off the ground? How are relationships with NGOs developing? What roles have been played by international donor agencies? Our answers are inevitably provisional, but our data suggest that the levels of commitment, and what forest managers, environmentalists and donors understand by community involvement, vary considerably.

In the four FDs studied, the current situation with respect to the support of participatory initiatives can best be described as ambivalence. In each case, some staff at each level within the FD are supportive of participation in its own right, and the sources of support (leadership from politicians, administrators, senior FD professionals, and middle management) are sufficient for the introduction of participatory approaches to continue in

the foreseeable future. The extent of this commitment varies considerably: substantial minorities of staff at all levels are being dragged unwillingly towards the new models. At present, most such opposition is restricted to the use of the 'weapons of the weak' (Scott 1985). Their influence can be seen in the restricted meanings often attached to participation. Thus, in the development of micro-plans, PRA methods are participatory only in name. Excessive effort to involve people in the new approaches is being avoided by 'buying' their agreement, using developmental funds (for example, the provision of wage–labour opportunities in building check-dams, access roads, cattle–proof trenches or walls). Some members of the FD are thus using participatory approaches in a manipulative way—as a tool to meet their own goals of reducing overt conflict with villagers, involving villagers in protection activities, and reducing biotic pressure on 'core' FD forests.

Movement from the hostile or manipulative views of participatory approaches towards more supportive positions is not inevitable (Vira 1999). The FDs remain hierarchical in structure. The central elements of this hierarchy (such as confidential reports, transfers as a mode of punishment and reward, promotion usually on the basis of length of service and a bias against specialization) militate against the possibility of ensuring committed, experienced leadership and trained supportive staff to manage the participatory approaches in the medium term. Pressures to move in the other direction, to become less participatory, might arise from commercial users of forest products. Despite the NFPR of 1988 (assigning first priority to the ecological and environmental roles of forests, not to financial goals), political pressure may still push for increases in the financial returns of FD operations. In addition, FD staff may still need to find unofficial means of supplementing their official salaries. As the incomes of forest users rise, we can also expect that there will be changing popular pressures and changing patterns of forest resource use. Currently, FD staff are sufficiently committed to the new approaches that outright hostility and the manipulative use of JFM is likely to remain no more than a minority position, but the major requirement of a shift to full support, and all that this implies, is still some way from achievement.

NGOs play a substantial role in helping to ensure that JFM is more firmly rooted in the FDs, but not necessarily in the ways originally envisaged by forest managers. In our study areas, NGOs are rarely important at the village level, because the FDs are better organized and hold the purse-strings. Only in a few states (Gujarat being one) can NGOs provide long-term support to individual forest committees, implement

JFM themselves, or take over roles and responsibilities from the FD—all possibilities that FDs tend to resist, more or less strenuously. NGOs are most active in supporting federations of villagers, and acting as co-ordinators to push for reforms in how JFM is being implemented at the state or national level.

The common thread linking NGO activities is their attempt to move towards greater control by 'the people' (variously described) or institutions of civil society, rather than the state. But such moves are inevitably compromised. The boundaries between the state and civil society are not as neat as these terms suggest, and as NGOs (and, indeed, forest protection committees) become more involved in managing JFM, so they are themselves also at risk of being slowly transformed into arms of the state. While the Indian state has attempted to repress a section of Indian activists (the People's Movements, for example), it has co-opted others, and 'divided and ruled' by supporting some at the expense of others (Tropp 1999: 119). Examples of all three tactics can be seen in our four case studies. Co-option and 'divide and rule' will undoubtedly continue. The pressures on NGOs from below—to maintain their own transparency, accountability and responsiveness to local people rather than to the state—may not be strong enough to counter the attractions of more secure career paths, recognition and the other rewards that might come from allowing themselves to be incorporated into mainstream governmental activities.

Donor support, while ostensibly promoting participation, seems to be also designed to further a particular strategy of encouraging capitalist penetration and the extension of market forces, which in turn are disempowering for many ordinary people. When their policies are internally contradictory—such as when they promote both, the liberalization of the economy and the creation of equitable participatory contracts between villagers and state officials—the participatory ones are most likely to go to the wall. Nor has the relationship between donor organizations and local states, or even between donors and their new partners—NGOs and consultants—improved greatly in the direction of equity.

This chapter has been concerned with describing the external environment within which local village agreements are framed. The overall picture is one of tangled and contradictory forces impinging upon JFM; in any individual state, division or range these will combine in different ways, making it difficult to provide an overall assessment of the success of the strategy. Nonetheless, we attempt this in the conclusion.

NOTES

1. In the extracts from the interviews carried out with FD staff by Pradeep Khanna (assisted by Abha Mishra), the following shorthand is used to identify the location of interviewees: MoEF = Ministry of Environment and Forests; AP = Andhra Pradesh; G = Gujarat; MP = Madhya Pradesh; O = Orissa. Position within the state FD is indicated by S = senior staff (Principal Chief Conservator of Forest (PCCF), Chief Conservator of Forests (CCF)); M = middle management (Conservator of Forests (CF), DFO). Each interviewee also has an identifying number. Thus G/S/1 identifies an interview with a senior member of the Gujarat FD. Extracts from field-notes identify the state and the rank of the respondent, with the date of the field-note. Of the ranks below DFO, Assistant Conservators of Forests (ACF) are sometimes considered lower management, with Range Forest Officers (RFOs) and beat guards forming the field staff.

2. The levels of dissatisfaction, and the kinds of complaints they reported were not exceptional, compared to other public sector employees, and were similar to those reported by Maheshwari and Moosvi (n.d.)

3. They are less happy with an expanded future role for NGOs, which we discuss further below. They are opposed to the involvement of the private sector in good reserved forests, but not necessarily in degraded forest.

4. Similarly Joshi (1997) notes that in West Bengal, field–level staff are supportive of JFM because it reduces the physical attacks they were otherwise facing.

5. Translated from the Hindi *Madhya Pradesh mein vaniki vikas ki nai ranniti avum MP vaniki pariyojana.*

6. For example, the 'World Bank funded Forestry Project for Uttar Pradesh ... does mean more logging ... more monocultures. It also means NGOs and "experts" being subverted through dollar consultancies (perhaps over 25 per cent of the total loan of $53 million); bureaucrats being offered post–retirement assignments as a way of getting them to alter national forest conservation policies to make them more 'market-friendly'; and the 'orientation' of hundreds of forest officers away from conservation to exploitation values through junkets to Washington' (Bittu Sahgal, Editor, *Sanctuary* magazine, e-mail to Natural History of South Asia discussion list, 12 December 1997).

7. On the other hand, the FAO vigorously promoted industrial forestry in India from the late 1950s.

8. The impact of changes in UK policy (as a result of the election of New Labour under Tony Blair in 1997) on its forest sector aid in India, or its aid to India more generally, are beyond the scope of this book.

9. Since 1995, two new forest projects have been approved, for Kerala (in which participation is not highlighted) and for Uttar Pradesh (which does cite participatory processes as key to increasing forest cover and productivity).

10. The source for the following paragraphs is Prafulla Gorada's field-diary.

6

Conclusion

Patterns of Change

JFM is too diverse to allow generalized conclusions about whether it (however construed) is successful or replicable. It consists of a set of debates, policies, and practices, all of which are recent in ecological and institutional terms, and are continually evolving. Most notably, the major changes announced by the MoEF in March 2000 should lead both towards expansion of JFM to good forest areas and towards legal consolidation of the micro–level institutions that are the key to its implementation. State-level rules change regularly—in some states faster than in others. The NSG picks up ideas and criticisms and moves the debate forward. Donor fashions change and new project managers give a different spin to the programme. Not all those involved will recognize the scenario that we have painted: different actors will have experienced JFM very differently, depending on where they are located. To some forest officials, the changes in relations between themselves and villagers may seem far-reaching, whereas to activists, the difference may be negligible.

Diverse and unstable though JFM may be, it is based on a core set of ideas which are being applied, not only throughout India but also in many other parts of the world, particularly in tropical, but also in temperate forest areas. Though not coherent enough to be called a universal 'model', these ideas do constitute a global paradigm shift towards what is commonly called participatory forest management, but which might more comprehensibly be termed *socially responsible forestry*. The key elements can be summarized under four broad categories:

Objectives: Forestry policy-makers and planners are now expected to identify various objectives of diverse stakeholders, and to prioritize

among these in relation to needs and opportunities in different areas, and particularly to the livelihood objectives of poor people living in and around forests. The definitions of problems and challenges are similarly acknowledged as diverse. Forestry objectives are increasingly recognized to be ultimately 'social' objectives concerned with designing and maintaining a just society with a good standard of living for all, rather than just the intermediate objectives of managing good forests and increasing economic growth.

Participatory processes and partnerships: In order to fulfil those diverse objectives and adapt prioritization in a fair way, state forest agencies increasingly acknowledge that they must diversify and intensify their partnerships with, at least, civil society institutions (particularly community-based organizations in forest areas), but also private sector and other kinds of state agencies. New kinds of partnerships and communication are being institutionalized in policies (as in the various JFM-related MoEF guidance documents and state government resolutions[1]) and operationalized through strategies and resourcing.

Micro-enterprise: Less commonly discussed is the 'model' element in the new socially responsible forestry paradigm, whereby both policymakers and implementers are replicating remarkably similar forms and scales of forestry micro-enterprise in diverse contexts around the world. In India, as elsewhere, this involves ostensibly simple partnerships between villagers and external (usually state and/or NGO) facilitators for management of small local forest patches.

Identity of forestry: Still less explicitly acknowledged are the implications that the radical rethinking of forestry objectives and responsibilities has for the identity of forestry as a discipline and as an administrative sector. If forestry is intrinsically and ultimately 'social', then the basic assumptions of 'scientific forestry' (focused as it was on technical knowledge about a fairly restricted set of mainly timber-related biophysical processes and products) must henceforth be rejected, and the whole business of forestry needs to be reconceptualized, along with its associated administrative structures, expertise, and knowledge management.

In this concluding chapter, we briefly examine the Indian experience and prospects for further change in each of these broad ways in which forestry is being rethought and redefined. We interweave these topics with analysis of the domains of influence on forest policy that we identified in Chapter 1. As for the 'biophysical' domain, we incorporate analysis within the other sections, particularly those relating to objectives

and economics. With reference first to the 'ethical' domain, we assess the ways in which the rethinking of problems and objectives offers opportunities for strengthening the socially responsible forestry paradigm. We analyse the 'governance' domain in relation to the new partnerships paradigm, and the 'economics' domain in relation to the 'micro-enterprise' model, in both of these cases showing the severe limitations and marginalization which JFM has so far entailed by confining rethinking. We ask whether such limitation is part of a deliberate institutional strategy to contain and marginalize the potentially radical rethinking of governance and economics in the forestry sector. And finally, we discuss the fundamental ways in which forestry is being reconceptualized, shaking 'scientific forestry' to its roots and, we hope, ensuring that the twenty first century will see the emergence of a radically new approach to forestry which is socially responsible in much more fundamental ways than has so far been attempted through JFM.

RETHINKING PROBLEMS, OBJECTIVES, AND ETHICS

In the new world-wide paradigm for socially responsible forestry, forest management is nowadays expected to be based on identification of the diverse objectives of diverse stakeholders, and on prioritizing among these in relation to needs and opportunities in different areas. Central to the global paradigm shift (Chambers *et al.* 1989), and to JFM in India (Jeffery and Sundar 1999; Poffenberger and McGean 1996), is the idea that the livelihood objectives of poor people living in and around forests must be given much greater priority and state support than has hitherto been the case. Although the emphasis is still on rethinking and debating objectives, when participatory forest management and the forests and forest-based enterprises associated with it come to maturity, we can expect much greater emphasis on rethinking the performance assessment and evaluation criteria to match the new objectives.

As we showed in Chapter 1, JFM was perceived by a variety of actors—international agencies, FDs, NGOs and activists, academics, and villagers—as some sort of solution, however partial, to 'forest problems' as they defined them. Much of the burden of this book has been to show that both the 'problems' JFM set out to address and the 'objectives' it was meant to fulfil have been deeply contested. Since forests have multiple uses—as carbon sinks, as sources of biodiversity, as cultural and recreational environments, as suppliers of vital everyday subsistence needs like fuelwood and fodder, as sources of input for commercial processes—there are multiple views on what they should be managed

for. Even if forests are considered sources of income and subsistence for neighbouring villages, one can discern conflicts over objectives, as we shown in Chapter 4. The poor are not homogeneous. They own different amounts of land or cattle (or none at all) and have different interests in the forests as men and women, with different occupations, of different castes, or from different villages.

From the official point of view, the most explicit and common objective of JFM has been the afforestation of degraded lands, in the process providing subsistence to those living in or near forests. In practice, governments have had other implicit agendas, such as regaining control over forests in situations of conflict or ensuring an adequate flow of funds to the department for modernization and upgrading of equipment.

One of the more peculiar features of Indian forest policy and practice is that in a country where there are almost no unpeopled forest areas, foresters nevertheless adopted a broad-brushed classification of forest management objectives and then assigned large forest areas exclusively to meeting one of those objectives. In India, the compartmentalizing mentality of map-making bureaucrats has held extraordinary influence over the lives of many millions of forest-dependent people, condemning them to the sinful status of being in the wrong category. In its simplest form, the classification scheme that maps purposes and places onto one another makes a threefold distinction:

(a) Conservation Forestry (associated with Reserve Forests, parks and sanctuaries)
(b) Production Forestry (associated with production of commercial timber for large-scale exploitation)
(c) Social Forestry (associated, at least in principle, with meeting subsistence needs of the poor from common revenue wastelands or degraded state-owned forests).

If strictly applied, this attempt to match objectives with areas would mean that no forest area would simultaneously be used to meet more than one of these objectives. Such a doctrine is unlikely to be a practical guide for action in India (given the overall density of human population), but it also suffers from a basic logical flaw: it assumes that different objectives are necessarily incompatible within any given area. Competing objectives can, of course, cause conflicts, but diverse objectives are not *necessarily* antagonistic to each other, and can even be mutually supportive. Thus, well regulated extraction for subsistence or commerce or both, even on a large scale, is by no means necessarily antagonistic to biodiversity and ecosystem conservation. It is logically important to distinguish the definition of objectives from the classification of space. What

ultimately matters is that direct clashes between objectives and between competing uses of the same resources (rather than areas) are avoided.

Until now, villagers have been confined to degraded forests alone, with the better forests allocated to conservation or large-scale industrial uses. But there is a good case for allocating non-degraded, and even high forests to villagers to protect. As we go to press, the MoEF has finally lent its support to this expansion of the remit of JFM, and despite the apparent good sense and fairness of the change, there is no doubt that it will be contentious. Its implementation will throw up administrative challenges for which FDs and partner agencies are ill-prepared.

The inclusion of good forest areas in the JFM remit will enable FDs to support not only villages that have degraded land in their vicinity, but also those that do not, thus avoiding one of the major sources of inter-village conflict. It will generate more immediate resources for villagers, and thus, increase the incentive to protect. It may stem the further destruction of these non-degraded areas and serve the other objectives of the 1988 forest policy, such as enhancing environmental stability and biodiversity conservation. Currently, as Saxena and Sarin argue, with so much donor and government funding directed to JFM and degraded lands, the remaining non-degraded forests suffer (Saxena and Sarin 1999: 191–3). But since JFM has, in the past decade, generated complex conflicts while still confined to relatively unproductive forest areas, we can be sure that conflicts over the management of productive forest areas will be much more complex and severe. FD and partner organizations' capacity to foresee, manage, minimize, and arbitrate over such conflicts will be the key to the success of this new and more ambitious form of JFM.

The other important aspect that several environmentalists and some innovative foresters are emphasizing is the need to combine silvicultural strategies to cater to the needs of different stakeholders. Managing for NTFPs has become the new slogan among NGOs, but there are also instances where villagers might want timber. Some of the silvicultural proposals put forward include: managing for multiple products, multiple time horizons, site specific prescriptions, encouraging natural regeneration, mimicking natural forests in plantations, more individual plant manipulations—all of this conducted, of course, within a more participatory framework than is currently available (Rathore and Campbell 1996).

Few would question the need for forest management in India to become more socially responsible—specifically the need to prioritize outcomes that tend to reduce poverty. Our research suggests that it is too early to tell whether JFM outcomes will be better—for anyone, let

alone for the poor—than alternative management regimes. In a worrying number of local examples, the short-term processes and outcomes involve various forms of social exclusion and inequality that may well tend to increase rather than reduce both inequality and poverty. In particular, the history of JFM so far shows clear patterns whereby men are being empowered and potentially enriched at the expense of women, local elites at the expense of local poor, and settled villagers at the expense of migrants and poor forest-distant users. To counteract such tendencies, JFM strategies need to be much more strongly informed by analysis of conflicts and inequalities within villages and between them and outsiders. Furthermore, anti-poverty strategies in forestry must include not only direct efforts to improve poor people's livelihoods (primarily through the micro-enterprise model), but also long-term poverty prevention strategies which enhance the role of forests as safety nets, preventing people from falling into poverty and destitution by providing employment, business opportunities and/or goods in lean periods.

PARTICIPATORY PROCESSES AND PARTNERSHIPS: RETHINKING GOVERNANCE

JFM practices have certainly brought FD staff into much more frequent consultation with a variety of civil society organizations, primarily the village-level committees they help to establish, but also some higher level organizations such as development NGOs who support local institutional development, and a variety of research institutions. In Chapter 3 we noted the very limited follow-up to the NFPR's declared instrumental objective of 'creating a massive people's movement'. The state has certainly succeeded in kick-starting a JFM industry, with many donors, academics, NGOs and forest staff themselves thinking and writing about JFM, but whether this translates into a genuine social movement is debatable.

The history of forestry in the colonial and post-colonial period has been one of growing power of the forest administration, with FDs attempting to extend their territories, usually at the expense of the Revenue Department. Even where the rights of forest-dependent villagers were acknowledged or village-level management systems allowed, they were predicated on continued recognition by the state. By the 1980s, the growing strength of environmental movements, public interest in forestry and protests by village users had brought this custodialism into doubt. Apart from the economic and ecological objective of afforesting degraded land, governments wanted JFM to serve the political objective of ending or limiting this growing conflict.[2] From the activist viewpoint, JFM was a

step towards gaining political control for communities. Decentralization, or devolution, of which JFM is one form, thus has both conservative and progressive ancestry—it can be seen as part of rolling back the Welfare State in the name of efficiency and freedom (usually consumer freedom) or reducing conflict, or it can be traced to its roots in the new social movements, which emphasize participatory democracy and are anti-market (Handler 1996: 8–9).

In Chapter 3 we looked at the difference JFM has made to these custodial relations in terms of three parameters: community, power and choice. We argued that the conceptions of 'community' with which the forest departments operate are flawed in several ways, in that they are village–based rather than user–based; exclude migrants; and are male centred. Hierarchies within these existing 'communities' need to be addressed if they are to succeed in a poverty–focused task of forest management.

Several NGOs working to promote JFM today have eschewed a romantic model of the community and are attempting to define the particular institutional arrangements that will give meaning to community in terms of greater gender equity or democratic functioning (see Raju 1999; Sarin *et al.* 1998). In other words, not everyone must agree on one objective to manage their forests; what is important is that the process by which they negotiate their competing claims is democratic. Many of the problems we have highlighted with JFM in the four states we have studied—gender inequity, inter-village conflict, domination of village committees by the FD, unclear legal status—have been taken up as issues in JFM network meetings.

At the same time, there is a reluctance to go beyond the village in trying to envisage new forms of community, for example, such as those that draw on class identities. We have attempted to bring out the manner in which JFM has restructured power, both within and between villages. In many cases, it has strengthened existing power structures, since the JFM committees tend to be managed by the same elites who manage other committees. In other cases, JFM committees have succumbed to party politics. Party politics is often naïvely viewed by the bureaucracy and some NGOs as an alien force that may 'enter' villages and 'corrupt' their innocence, and both share a vision of multiple apolitical micro-organizations. This is best brought out in the writings of B. D. Sharma (for example, Sharma 1995; Sharma 1998) who was mainly responsible for the PESA Act. There is little attempt here to link village level committees to wider political processes and ask how they may both be transformed to provide greater transparency and accountability.

While JFM has led to FDs parting with some power, at another level, the formal forest bureaucracy has re-legitimized itself by getting villagers themselves to end smuggling and encroachment, and reinforced its authority as a provider of employment. The growing evidence of conflicts between villages points to the dangers of letting state agendas divide people. Federations of villages to resolve disputes strengthen the opportunities for local agencies and act as a countervailing pressure on the state, but a more fully democratic agenda would involve transforming the FD in several ways. In many matters, FDs continue to hold the deciding cards.

We pointed in Chapter 5 to evidence of changes in the attitudes of forest staff, with several moving towards more participatory positions. Yet, even these agents are limited by the overall hierarchical structure of the department, and other problems (such as frequent transfers and lack of specialization) continue to bedevil the bureaucracy at large. Reformed FDs would have some of the following features:

- They would employ significant numbers of women and social scientists and put some of them in positions of influence.
- They would offer career development opportunities at all levels, based on radically new performance criteria.
- They would base forest Working Plans on participatory assessment of priorities, which would incorporate JFM micro-plans, and be supported by appropriate financial allocations with devolved financial decision-making and accountability.
- They would set in train a rethinking of several of the basic premises of 'Scientific Forestry' and conduct significant participatory research on how to do this.
- They would formulate new roles for FD staff, to develop utterly different perceptions of their 'business', and to see themselves as facilitators, partners, and regulators rather than as technical masters with policing roles over discrete territories.

In addition, as Lele argues, the complex functions which forest areas serve cannot be performed only by the FD or by village level committees. Different kinds of institutions will be needed for different functions—such as co-operatives of forest product collectors to market NTFPs, village level committees to manage forests, regulatory boards to ensure off-site benefits, etc.. Clubbing all these functions together in one body is not just inefficient, but leads to too much concentration of power (Lele 1999).

Some of the needed changes may come from within the FD itself. The pro-JFM foresters' network (under the aegis of WWF and the Ford

Foundation) discussion of issues of common concern is a positive sign. Yet changes in the Department (or even in the wider bureaucracy), creating different agencies to perform different functions, and granting powers to village level bodies, is not sufficient without an overall democratization in society. For this, all actors—including NGOs and donors—need to rethink their roles. Were donors like the World Bank to devote as much attention to democratizing world systems of governance as they do to the betterment of third world village institutions, many of the power imbalances that are the cause of poverty in the first place might be minimized. The concerns of forestry cannot be divorced from struggles for the right to livelihood (whether through encroachment on forest lands or through some better means), the right to manage and control one's own lands and forests, the right to information, the right to democratic representative structures, and ultimately, the right to an equal say in world bodies.

MICRO-ENTERPRISE AND BROADER ECONOMIC PROCESSES

The common practical element in JFM has been state support for small-scale forestry businesses, run co-operatively by small groups of villagers. There are understandable reasons why JFM should take this form in its early years. Policy makers, planners, and implementers need to show short-term and tangible manifestations of change, otherwise the momentum for change may be lost. In this regard, India does offer a basic 'model' of participatory forest management that has been applied in many other parts of the world, often in explicit emulation of Indian experience (Jeffery and Vira 2001; Vira and Jeffery 2001). This model is that of the basic localized unit of participation and management, the patch of forest (or more usually degraded scrubland) being managed as a micro-enterprise by a small 'community' organization with technical and administrative/juridical support from a state agency and/or external NGO.

Our research used information and analysis of a set of specific micro-enterprises to draw some conclusions concerning equity, efficiency and organizational capability at micro-levels, while accepting that such enterprises and their investments are as yet too immature to assess their long-term viability and profitability. Although assessment of micro-level social and ecological processes is needed, our book has emphasized the importance of assessing broader, longer-term, and more organizationally and politically challenging changes. Just as the evaluation of development has hitherto focused far too much on discrete projects, so also, there

is a danger that excessive attention to micro-level forestry enterprises distracts attention from what is really happening overall to broader social, political, and ecological processes.[3]

Since the early nineteenth century, Indian forest administration has prioritized the needs of capital, first in the form of an imperial industrializing state, and then in the form of indigenous industries (Gadgil and Guha 1992). Major industrial houses—including the Birlas and Thapars—built their fortunes on the pulp or paper business, for which they were supplied with wood at subsidized rates (Anon. 1999: 45). But by the mid-1980s, the consistent surpluses turned in by FDs had declined and even turned to loss in some years (see tables in Chapter 1). The short-term perspective adopted by forest-based industry had exhausted resources, so that they were forced to go further in search of forest resources and utilize a greater number of species (Gadgil and Guha 1992: 197–207).

The forest policy of 1988 and the JFM resolution—with their emphasis on meeting the needs of local people—appear to mark a break in this trajectory. Similarly, new moves by paper industries like AP Paper Mills or WIMCO to source the bulk of their raw material through farm forestry rather than state–owned forests, and more recently to subject themselves to a 'green audit' would suggest that industry is awakening to a new sense of environmental responsibility (Anon. 1999).

However, the optimism on this front needs to be tempered by other factors. Even AP Paper Mills, which was ranked second by the *Down to Earth* green survey, sources about 20 per cent of its fibre consumption from bamboo in the North-East, having exhausted its proximate reserves and generated local protest (Anon. 1999: 42). Major industries using forest products have increased their pressure to remove more land from the control of state FDs in order to get their hands on secure and reliable supplies of raw materials—something FDs were clearly failing to provide for them. In AP, for example, whereas wood production in 1979 was 280,000 cubic metres, in 1985 it was 94,000 cubic metres, and it dropped further to 45,000 cubic metres in 1991; the figures for fuelwood were 952,000 tonnes in 1979, 250,000 tonnes in 1985 and 102,500 tonnes in 1991 (Maheshwari and Moosvi n.d.: 3). In 1991–6, when Congress was in power at the centre, industries were encouraged to bid for plots of degraded land to be regenerated by them and turned over to the supply of their raw materials—wood-pulp, bamboo, etc.—from so-called 'captive' plantations. Although this initiative stalled, industry sources have used the import–saving possibilities of expanded timber output to argue for them being given a major role (Singhvi 1995). Close to one of the villages in our study, representatives of a Birla company had recently

attempted to gain access to good forest (not the degraded land that was specified in the policy documents), and only concerted action by the villagers prevented their exclusion from a sizeable local forest (Sundar *et al.* 1996). Although NGOs, environmentalists and others have been successful in stalling the MoE's attempt to give industries captive forest lands, and have emphasized the need to encourage farm forestry (CSE 1999; Khare *et al.* 2000: 74–9; Saxena 1997), there is always the risk of the proposal being resuscitated.

The 'greening of capital', however, does not amount to the end of capitalist principles—rather, it represents an attempt by capitalists to appropriate crises to their own ends. If the market is asked to deal with environmental regulation concerns—using devices such as marketable pollution limits, for example—arenas of struggle are resolved and simultaneously concealed. The legitimacy of the market remains unchallenged (O'Connor 1994a; O'Connor 1994b: 203). Similarly, sourcing raw materials from farm forestry appears to represent a win-win situation in terms of ensuring a market for farmers and a source of raw material that leaves natural forests intact. But this solution may have other consequences, for example, reducing food security and farm employment.

Insofar as it involves collective action in order to protect the forest and generates collective income in the form of a final harvest, JFM appears to stand against the individualizing thrust of the capitalist market. In practice, JFM combines different forms of formalized and *de facto* ownership, control, and access. Some benefits from JFM will accrue individually (such as non-timber forest products collected for sale). Other benefits are expected to accrue collectively (such as the income from any sale of mature timber, or the auctioning of fodder collection or rights to other products), and may then be re-invested in a collective good or distributed individually. If income from resources generated through protection is distributed individually (to households or individual members), as is currently envisaged in the JFM resolution, the richer and dominant sections are increasingly likely to manage the forest for timber as against subsistence uses.

The collective basis of action in JFM also creates another set of problems: who is entitled to a share in a distribution of benefits? The members of the FPC at the time of distribution? Those who have ever been members? On an equal basis, or in proportion to length of membership, or in proportion to contributions to protection? Collective distribution of resources in the form of a new well or improving a road would reduce these risks, but also reduce incentives, and once again, the 'consensus' on what the income should be used for may not reflect the views of

vulnerable sections. Equally, powerful outside interests may bid, not just for the incremental growth from protection, but for the rights to harvest itself. Assigning ownership and management rights over their natural resources to gram sabhas in tribal areas, as is mandated by Act 40 of 1996 (Extension of Panchayats to Scheduled Areas Act) is no protection if the gram sabha itself decides to sell its rights over its local forest to industry. In that case, not even the flimsy bulwark provided by governmental environmental protection clearances will stand in the way of clear felling or the transformation of natural forests into plantations. Collective benefits may also create incentive problems; there is probably a need to find a mix of collective and individual benefits in order to resolve this dilemma.

More fundamentally, by vesting small plots of land under the control of villagers as a productive asset or as community 'capital', JFM may change mentalities. When micro-plans emphasize small plots and the harvesting of a few species, villagers may be tempted to demand commercial species to be planted in JFM plots, encouraging people to look upon their forests merely (or largely) as a resource to be exploited, rather than as a source of cultural expression, or ecological benefit.

The same trend is evident in other spheres. For instance, one of the key recommendations of the World Commission on Forests and Sustainable Development is that prices of forests and forest products should be made to reflect the range of ecological and social values better than they currently do (Salim and Ullsten 1999: 157). While forest products may thus move out of the reach of individual capitalist firms or encourage prudence in their management, by pricing nature, capitalist forms of social relations are reproduced. This conundrum has been most starkly expressed in the debate over patents. Some people argue that the profits from patented knowledge will lead to increased conservation. Others argue that the patent form does not reflect the cultural context in which knowledge has been developed (and widely shared among communities), that it involves one system of knowledge prospecting off another, and that it will not really lead to conservation as the market uses only some of the biological resources known to communities (Shankar 1998: 296–7). To quote Martin O'Connor on how capitalism saves itself even when it is ostensibly giving power to local communities by vesting rights in them:

> The overriding *political* task faced by capital is to stave off its latent bankruptcy as a modality of social organization, of rationality. The keynote in this task is that the populace be put to work articulating the "values" that capitalism itself is placing at risk. Political legitimation of capital depends on getting people to believe in the capitalization process as a defense against the predations of capital!
> (O'Connor 1994b: 144–5)

Finally, to the extent that JFM involves shifting costs of protection onto villagers, it is in-keeping with long-established trends. For example, in fixing wages, the full cost of labour expended by the household in reproducing human labour is ignored. Insofar as forests have been degraded, thanks to the actions (and inactions) of the state and industry, expecting people to afforest them is a classic externalization of costs. Since the domain of participation is limited, while certain questions may be made available for joint decision-making, other questions of more far–reaching importance are ignored. The major threats to forest land in at least three of our four research sites are commercial interests or large-scale development projects: tourism and bauxite mining in Borra in Paderu division of Vizagapatnam, AP; proposed power plants in Sambalpur, Orissa; and the paper mill near Kevdi village in Rajpipla, Gujarat. Obviously, the presence of coal and other geographical factors constrain the number of places in which one can site power projects. Nonetheless, displaced villagers could be given participation in the management of or shares in industries as compensation—but no such initiative has ever been mooted by the government. Starting with jointness in forest management may indeed be a step that needs to be applauded in itself without waiting for jointness in coal sector management or tourism, but people's lives are not divided thus into different compartments. What happens in one sphere affects their ability to participate effectively in others.

If we look at JFM in the light of overall patterns of capitalist development, then, we might see it as a means of finally dissolving the ways of life of forest–dependent communities. But such a pessimistic conclusion does less than justice to the possible countervailing role of people's struggles, their ability to make demands on the state and to redefine the agenda of JFM itself.

IDENTITY OF FORESTRY

The above changes in definition of objectives and partnerships imply the need for a fundamental rethink of what forestry is. A considerable part of the *raison d'être* of the FD in India has been its claim to practice scientific forestry, a claim that came under considerable attack by the 1980s, as levels of forest cover declined. The basic assumption of 'scientific forestry', that forestry knowledge is primarily technical knowledge about biophysical processes and a limited range of high-value products, has been shown in this book to be untenable. Forest administrations are increasingly conscious that their work is as much about managing people and social processes as it is about managing biophysical

processes. In India, as elsewhere, of course, the inertia of outmoded recruitment and training patterns relating to 'scientific forestry' means that it will be a long time before the administration is rationally designed for this broader approach to forestry.

Another dimension to this identity crisis is the challenge to the traditional view that forests are discrete entities, separate in space and function from areas under other kinds of land use. Without such spatial distinctiveness, it is difficult to rationalize and maintain a forest administration such as India's, which is mainly focused on administration of discrete forest areas. Yet Indian foresters are having to come to terms with two awkward facts. Not only is much of the area under their jurisdiction not 'forest' at all in any common sense of the term, but also, an increasing proportion of forestry (and particularly wood production) now takes place on non-'forest' lands.

Village-level protection and management for NTFPs based on micro-plans was meant to be an alternative to state level management for timber based on Working Plans, at least in the official literature surrounding JFM (see articles by foresters in Kurup 1996). This is not necessarily reflected in the resolutions themselves, which state that no research work will be carried out in the protected plot (Gujarat), or insist that FPC members 'assist' forest officials in carrying out silvicultural operations according to the JFM plan (AP, MP, Orissa). In all four states, however, JFM involves adding on another institutionalized level at which stakeholders can be involved in management decisions. Nowhere has the FD given up its basic ideology of scientific management: rather, it hopes that JFM will provide a forum within which scientific forestry can be achieved in plots where it had previously failed.

Village-level protection has had some success in regenerating forests. In most of our sites, except for Orissa, it is still too early to talk about final harvests, but in Gujarat and in MP, fodder and fuelwood were important intermediate benefits. In Paderu (AP) fuel and fodder resources had not appreciably increased and people were still dependent on their neighbouring Reserve Forests, but some villages had been able to harvest bamboo. In Gujarat, MP, and AP, the JFM patch had not satisfied villagers' need for timber for house-building or agricultural implements. In Orissa the committees have been functioning longer and have informal rules to regulate timber access. This scenario will probably change over time as protected patches regenerate further. Under current trends, however, what looks increasingly set to happen is a trade-off between grasses and NTFPs on the one hand, and tall trees or timber on the other. Silvicultural interventions by the FD—plantations on the degraded patches (in

some cases), closure of protected areas to grazing at least for a few years, multiple shoot cutting—all seem designed to continue the timber orientation embedded in 'scientific forestry'. Micro-plans almost never have radically different or innovative silvicultural prescriptions.

In the meantime, it is not clear whether the forest products from the protected patches are sufficient to sustain villager interest, and often wages from raising nurseries and plantation work are seen as the major benefit of JFM. How long can such benefits be provided? Unless new plots of land are continually brought under JFM in each village (which would strain management capabilities, even if so much land were available) such work must inevitably fall off. But more fundamentally, wage work like this for the FD is unlikely to be the basis of a longer-term reorientation of attitudes towards forest plots.

CONCLUDING REMARKS

It is still too early to say whether JFM has succeeded in arresting the crises in Indian forestry. While there have been individual achievements, nothing has succeeded in challenging the overall trajectory in terms of capitalism, governance or the basic framework of scientific forestry. In Gujarat, the presence of strong NGOs engaged both in ground level implementation and in advocacy through the state level steering group, the relative success of Social Forestry, and the co-operative tradition have ensured a somewhat more egalitarian relationship between villagers and foresters, compared to, say, Madhya Pradesh. In MP, the initiation of JFM under the impetus of a World Bank funded project has involved a more top-down approach, with a corresponding lack of clarity among villagers and lower staff as to what JFM is really meant to achieve. Concerted protest by mass tribal organizations succeeded in stalling the second phase of the World Bank project. The forest department's response has been to organize 'stakeholder consultations', but these are limited to a group of foresters, 'experts', and some leaders of tribal organizations, with almost nothing being done to consult the mass of affected villagers themselves. The atmosphere at one such meeting in Bhopal (6 July 2000) was confrontational, with the activists pointing to the lack of participation that underlay the very conception of the project, and the forest department willing to accept only those 'constructive criticisms' that fitted their plans.

Andhra Pradesh, like Madhya Pradesh, has implemented its JFM programme under the aegis of a World Bank funded project, and in both states there are fears about the sustainability of the scheme beyond the

funded project. In AP, however, the active interest of Chief Minister Chandrababu Naidu and the formation of NGO networks in the forestry sector, give reason to believe that the programme will become more widely entrenched than in MP. On the other hand, given Naidu's desire to do away with direct elections to two levels of the panchayat system (*Indian Express*, 23 July 2000), the continuing use of violence and fake encounters against 'Naxalites' and his role as member of the anti-minority National Democratic Alliance government, the democratic intent or jointness behind any such forest programme must remain suspect.

In Orissa, the situation is markedly different from the other states, with comparatively little action by the FD, the bulk of the initiation of protection being from village level groups. In terms of long-term sustainability of village-level protection, Orissa seems the most promising, but then again, much depends on changes in government rules to make them more flexible.

These examples demonstrate two interlinked fallacies of the current approach: that a single approach can be adopted across the country; and that this is a model that can be applied widely throughout the world, with only minor modifications. A single term—JFM—misleadingly suggests a framework that is, in its essentials, in operation throughout India. In practice, key elements (such as the form of participation, the areas under management, and the chances of success) vary from village to village, division to division, state to state. This is as it should be: the Indian Government is too rarely willing to acknowledge such variations, and it is fruitless to attempt to establish uniformity when local initiative is central to success. A major contribution of JFM to governance in India will come if those involved—the NSG, NGOs and activists more generally, as well as insightful foresters—manage to prize forestry out of the target-driven, top-down planning approach that dominates Indian developmental activities.

Equally, too much should not be claimed for JFM. The criteria that should guide forest policy—such as the maintenance of the livelihoods of the local forest–dependent populations through their participation in decision–making over natural resource management—can be implemented in other ways. Dense forests with scattered populations (such as some regions of Reserved Forests) may need alternative mechanisms by which these goals can be met. Where issues of biodiversity are crucial, more groups (such as environmental scientists and wildlife NGOs) may have a legitimate claim to be consulted in decision-making fora. Current attempts to protect wildlife with a veneer of concern for local populations, such as the 'eco-development' paradigm, are clearly unsatisfactory

(Kothari *et al.* 1996). On the other hand, those activists who look to JFM as providing a blueprint for popular participation in the management of wildlife reserves should pause to consider what kinds of JFM can really be applicable, given the range of experiences we describe here.

The key to socially responsible forestry lies in democratic institutions and processes informed by an acknowledgement of the diversity of interests and by a common agreement that the ultimate point of forestry is to contribute towards equitable access to a good standard of living based on sustainable livelihood strategies. Market forces and state roles will play their part, but the state must dispense with its narrow commercialism, its biased favouritism towards large-scale forest-based industry, its arrogant custodialism, and the pseudo-scientism of 'scientific forestry'.

Perhaps the real achievement of the JFM programme has been that it has opened up spaces to ask questions like these. Rather than oscillating between the simplistic poles of state and village community, we are now able to conceive of more complex arrangements in which forest areas are protected for multiple objectives, under the working of multiple institutions. The question of alternative silviculture has now been posed strongly, as has the issue of an overall democratization of society, in which new forest arrangements are simply one part. One hopes that this will mean branching out into a new world.

NOTES

1. A JFM network with representatives from all the major donors, Tata Energy Research Institute (TERI), SPWD, WWF, two representatives of grass roots NGOs, one national NGO working in forestry and one international NGO, in addition to forest officers, was constituted in 2000 (MoEF 2000). A JFM cell has been established in MoEF and JFM nodal officers appointed in all states. A national workshop held on 19th and 20th June 2000, organized by the ICFRE with large-scale attendance by forest department staff and political figures further demonstrated the forest department's official commitment to JFM.

2. Arguably, decentralization to lower levels of government is a major technique for managing conflict all over the world (see Handler 1996).

3. For instance, we argued in Chapter 3 that giving villagers increased 'choice' is not simply a matter of asking them to list species in order of preference, but also depends on wider forces such as the market, which shape ideology.

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Glossary

aaksali	**Annual leases in Gujarat**
achar	***Buchanania lanzan***
adda	***Bauhinia vahlii***
adivasi	**Scheduled Tribes**
akashmoni	***Acacia auriculiformis***
amla	***Emblica officinalis***
anna	**One-sixteenth of a rupee**
ardhaani	**Rights to free forest produce in parts of MP**
asan	***Terminalia tomentosa***
babul	***Acacia arabica***
bahera	***Terminalia bellerica***
bawal	***Acacia nilotica***
bidi	**Hand-made leaf cigarettes**
bigha	**Land unit, usually between 1/3 and 1/5 of an acre.**
bija	***Pterocarpus marsupium***
charoli	***Buchanania latifolia***
char seeds	**Seeds of *Buchanania lanzan***
chowkidar	**Watchman**
combretum	***Combretum decandrum***
compa-sistu	**Tax on wood in Paderu**
dalit	**Recent term for 'oppressed' people, particularly Scheduled Castes**

dhaora	*Anogeissus latifolia*
dhoti	Sarong
gaontia	Village official in Sambalpur
goud	Professional grazers of cattle in Paderu
ghat	Hilly area
gram panchayat	Village/village cluster, the lowest level of formal local government
gram sabha	Village assembly in which all adults have equal voting rights
gram sangha	Rural community
gram vikas mandal	Village development committee
haldu/chakalta	*Adina cordifolia*
hurra	*Terminallia chebula*
jhorepala	multiple shoot cutting
karanja	*Pongamia pinnata*
karla	*Cleistanthus collinus*
karvi	*Strobilanthus callosus*
kendu	*Diospyros melanoxylon*
khakra	Leaves, that are used to make leaf cups and plates
Khajur	*Phoenix sylvestris*
khair	*Acacia catechu*
khalsa	In British India, land held directly from the Government, not via a *zamindar*
khesra	Term for Protected Forests in Orissa
kumadia	Seeds used as a constituent in fertilizers and cow feed (also called *puad*)
kurchi	*Hollarrhena antidysentrica*
kusum	*Schleichera oleosa*
lac	The dark red resinous incrustation produced on certain trees by the puncture of an insect, *Laccifer lacca*
limdo	*Murraya koenigii*
mafikat	Rights to free forest produce in Gujarat
mahasanga	Regional-level federation of villages protecting forests
mahila mandal	Women's Committee
mahua	*Bassia latifolia*

mandal	Village organization (in Gujarat); in AP, sub-division (see *taluka)*
muttadar	Village official (Paderu) and system (*Muttadari)*
myrobalan	Fruits of *Terminalia chebula, T. bellerica*, and *Emblica officinalis*
nakedar	Forest guard
Narmada Bachao Andolan	Save the Narmada (anti-dam) campaign
neem	*Azadarichta indica*
nistar	customary rights over forest products in Madhya Pradesh
palas	*Butea monosperma*
panchayat	Governing council of village elders, now elected
panos	A people placed low in the caste hierarchy, Orissa
pargana	Administrative division, Mughals
patnidar	Subordinate rent collecting tenure-holders
pattas	Rights of ownership
peasal	*Pterocarpus marsupium*
pial	*Buchanania latifolia*
podasi	*Cleistanthus collinus*
podu	Shifting cultivation (Andhra Pradesh)
ragi	*Eleusine coracana*
raiyat, ryot	Agricultural tenant, peasant
raiyatwari, ryotwari	Type of land tenure system
sabai grass	*Eulaliopsis binata*
sahaj	*Terminalia tomentosa*
sal	*Shorea robusta*
sarpanch	Chair of *panchayat*
satyagraha	Gandhian non-violent protest
siali leaves	*Bauhinia vahlii*
sidha	*Lagerstroemia parviflora*
simul	*Salmalia malabaricum*
sissoo	*Dalbergia latifolia*
taluk(a)	Sub-division of a district

tamarind	*Tamarind indica*
tendu	*Diospyrros melanoxylon*
thengapalli	System of rotational patrolling
timru	Same as *tendu*
tuar	*Cajanus cajan*
tukadis	System for forest patrols
upsarpanch	Deputy Chair of the panchayat
wajib-ul-arz	Record of rights, e.g. in settlement reports
zamindar	Landlord
zamindari	Type of land tenure system
crore	10 million
lakh	100,000

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