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TRANSITION TO PARTICIPATORY FOREST MANAGEMENT IN INDIA: PROBLEMS AND PROSPECTS FROM THE PERSPECTIVES OF FORESTERS

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ABSTRACT

TRANSITION TO PARTICIPATORY FOREST MANAGEMENT IN INDIA: PROBLEMS AND PROSPECTS FROM THE PERSPECTIVES OF FORESTERS

By

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Joint Forest Management (JFM), in which the Forest Department and local communities jointly manage certain designated forest areas, has been touted in policy circles as a successful strategy in helping both forests and people. Its efficacy in the field, however, is highly variable. The objective of this study is to gain an improved understanding of the problems and prospects entailed in implementing this participatory forest management strategy in India. The Forest Department is directly involved in initiating and implementing the policy, but the perspectives of foresters in undertaking this task is absent in the current literature on JFM. As a result, this study focuses on foresters' perspectives on three sets of challenges in implementing JFM. These are those operating in the broad policy context, those within the Forest Department organization, and those at the local community level.

In the broad policy context, while a multitude of actors significantly influence the outcomes of JFM, there are no visible means, mandates or methodologies to provide an understanding or appreciation of the efforts of JFM across these actors. Consequently, there is a severe dilution of JFM efforts.

Similarly, on the Forest Department organizational front, while opening up forest governance to public participation amounted to an enormous change to both the Forest Department and its employees, the Department's work culture and functioning are poorly aligned to its new work and task environments. As a result, the learning that is crucially needed for engaging in adaptive management to implement JFM is severely impaired.

At the community level, foresters perceive that lack of immediate and tangible benefits for villagers threatens the program's sustainability. Further, absence of a firm policy on incorporating equity in village level JFM institutions and providing legitimacy to them makes the task of foresters complex and difficult.

The study recommends a number of steps to help make JFM succeed. First, the state needs to adequately compensate local communities' costs incurred in forest protection, particularly because of its public good nature. Similarly, state action is needed in providing a firm direction on incorporating equity and legitimacy to the village level JFM institutions. Major reforms are also necessary in the broad policy context to provide a unifying and complimentary effect to the process of decentralization and local governance development under which JFM operates. Last but not least, there is need for transforming the archaic and hierarchical work culture of the Forest Department.

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Chapter I

Introduction

There has been a growing awareness of the need to improve environmental and resource management around the world (Loehman and Kilgour 1998). While the failure of highly centralized government bureaucracies in understanding the local community concerns in natural resource management is being increasingly exposed, the ability of the rural people in managing these resources (Berkes 1989, Ostrom 1992, Kolavalli and Kerr 2002) is increasingly gaining recognition. These developments led to innovative institutional approaches in natural resource governance in several countries. Especially in the developing world, where natural resource degradation has significant impact on the rural livelihoods, decentralization of state governance systems has received considerable attention (Press 1994, Baland and Platteau 1996, Davis and Richards 1999). India's joint forest management (JFM) program provides a remarkable example of this kind of institutional innovation and represents a major effort over the last few years to make this policy "work for both forests and people" (Khare et al. 2000). There is now a growing body of evidence which suggests that forests can be protected effectively through cooperative action taken by the Forest Department and rural communities (Samar Singh 1990, Poffenberger 1990, Dhar 1994, Bahuguna 1994, TERI 1998, Datta and Varalakshmi 1999, Rangachari and Mukherji 2000).

The prospect of the JFM approach to potentially satisfy a wide variety of interest groups, be they politicians, conservationists, social activists, or development practitioners, seem

to have made it India's most popular public policy in forest governance since it was introduced in 1990. JFM has strong state support and official sanction. The policy has populist appeal (Baumann 1998) and provides local movements some bargaining power in resource governance (Arora 1994). There is also growing interest among international agencies and donors such as the World Bank to promote JFM (Ghate 2000, Hildyard et al. 2001). The burgeoning literature on JFM is largely appreciative of the potential of JFM policy (Jeffery and Sundar 1999). Thus, the concept of JFM as a policy measure has been adopted in about 26 out of the 28 Indian states.

Despite its popularity as a "policy that works both for forest and people" (Khare et al. 2000), unfortunately, when put into practice in a wider scale and broader context, JFM seems to draw flak. Many authors now point out that the literature on JFM is largely celebratory and lacks critical analysis (Jeffery and Sundar 1999). Some authors also contend that JFM initiatives, when evaluated in terms of their actual performance on the ground, are not always successful nor are they widespread (Ghate 2000). There is a "wide gap between rhetoric and reality" (Lele 2000, Hildyard et al. 2001). In several instances, the JFM process is slow or did not sustain for long (Saxena et al., 1997, Lele 2000). Some authors, while arguing that the policy has succeeded in arresting forest degradation, question its performance with respect to poverty reduction (Kumar 2002). Though the official numbers on village-level forest protection committees that are often used to measure JFM's progress run into the thousands, only a few achieved their purpose (Ghate 2000). Although JFM has been adopted in almost all Indian states, it covers only about 14 mi. ha or just about 18% of the country's total forest area (WII 2002). Even in some

states that adopted JFM as a major policy, it is still confined to intensively supervised individual project based trials and programs.

It is important to stem the current degradation of forest resources not only to enhance the ecosystem health but also to address India's growing biomass needs (Kerr 1997). It is expected that these needs will increase two to three fold by 2020 (Qureshi and Kumar 1996). Hence for any real and meaningful impact in the social and ecological environment, it is necessary not only to place JFM on stable ground and make the movement sustain itself, but to scale-up these local self-governance initiatives to increased levels. And this needs to be done not by 'project replication', but through diffusive strategies influencing policy reform, whose spread becomes informal, routine, and spontaneous.

JFM is unique in the sense that it is neither a pure community management system as described in the literature of Wade (1987) and Ostrom (1990), nor a fully state controlled system. In this co-management approach (Baland and Platteau 1996), the local people and the state share forest management rights and responsibilities. Villagers' involvement is to be ensured, as per the JFM policy, by motivating them to actively identify themselves with forest management. Thus, the JFM strategy is built on the notion that local communities can regenerate and protect degraded forests if they are suitably empowered and compensated for their costs (Datta and Varalakshmi 1999). The ultimate goals envisioned are ecological sustainability of the area and socio-economic development of the local communities.

Past studies on JFM, drawing their analysis mostly from community based natural resource management (CBNRM) theories, primarily focused on the constraints and abilities of villagers' to come together and craft local collective management systems. Unlike CBNRM, where the management regimes evolve locally, the JFM systems are sponsored and supported by the state. And on behalf of the state, the Forest Department, the government agency that has reigned over forest resources for over a century, undertakes these activities. Thus, it is imperative that the attitude of foresters toward local people, the incentives and information they provide, and the institutions they establish, greatly influence the local people's ability, vision, and willingness to come together and work with the Forest Department. These enabling functions of the forest personnel, however, depend in turn upon their capacities and constraints and their motivation toward implementing JFM.

While the crucial role of government and its agencies in increasing the impact of participatory strategies has been highlighted in several past studies (Edwards and Hulme 1992, Bahuguna 1994, Agarwal and Yadama 1997, Sinha 1999, Lele 2000, Lise 2000), the research on JFM has not examined in detail the specific role of the Forest Department and how it operates and operationalizes JFM. While a few authors have emphasized the attitudes of foresters in implementing this strategy, most Indian studies pertaining to the bureaucratic interface in JFM are anecdotal, often drawn from personal experiences and beliefs (Vira 1999). Often, the perceptions of villagers are "privileged" over those of implementing agents, and as a result, the process of implementation of these kinds of policies remains a "black box" (Woodman 2001).

Further, from an organizational point of view, this colossal transition from a commanding authority to that of responsive facilitator poses a major challenge to the Forest Department, as its systems and structures that were established long ago on the lines of policing and industrial production remain largely unaltered. Regrettably, there is not much information on these organizational challenges either in the literature on JFM. This leaves us an important gap in our understanding of JFM implementation dynamics. And this lack of systematic information on the experiences gained and lessons learned in the Forest Department could be the single most important stumbling block that is preventing JFM from reaching to sizeable scales.

Similarly, the general literature on public sector organizational functioning elaborately talks of issues of the "embedded hierarchy" of public governance systems. Any given government agency cannot operate independently of other agencies, interest groups, and branches of government (Moe 1990, Rainey 1997, Brudney et al. 2000). The JFM literature, however, does not contain any such discussion regarding the broader governance context in which the Forest Department attempts to implement JFM policy. It is necessary to understand to what extent factors and processes operating beyond the control of the Forest Department influence the implementation of JFM in the field.

Hence the objective of the present study is to provide an understanding of the bureaucratic dimensions of JFM implementation dynamics. The emphasis is on the processes influencing the operationalization of the policy from the perspectives of

foresters. Specifically, the present study endeavors to address the following research questions:

1. What issues of governance exogenous to the Forest Department (beyond its control) enable or constrain its efforts to successfully undertake JFM?
2. How does the Forest Department's organizational structure and functioning influence its ability to transform itself form a policing organization to a participatory facilitator?
3. What is foresters' assessment of working with villagers to co-manage forests under the JFM program and what do they see as major challenges entailed in this process?

Three key assumptions led to the identification of these research questions. First, the JFM policy cannot operate in isolation of the broad public governance context in which the Forest Department is a part and parcel. An examination of what these contexts are and how the Forest Department is mediating these macro-level influences is essential for a broader understanding of the implementation of JFM. Second, the JFM approaches cannot succeed until and unless the Forest Department bureaucracy that is authorized to implement it has necessary enabling conditions to undertake such a mission. Hence it is imperative to study the nature and magnitude of change brought in by the JFM to the Forest Department and the conditions that are enabling or constraining the Forest Department to transition to JFM. Third, an examination of the perceptions of foresters on working with villagers in this co-management approach and the challenges being faced by them at this level is essential for a deeper understanding of the implementation dynamics. No doubt there are some researchers' views on some of the village level issues

on JFM in the literature, but this third aspect of the present study is motivated by the view that it is essential to have foresters' perspectives on these village level issues so as to have a better understanding of the gap between the policy and practice.

A brief history of the JFM and its origin, and a detailed discussion of the key features of JFM implementation that would provide further insight and justification to the study of the above research questions is given in the following chapter (chapter II).

This study examines these three research questions in the context of JFM implementation experience of Tamil Nadu state in India. JFM has been initiated in the state in 1997, almost a decade after the government of India enunciated its new forest policy (GoI 1988) emphasizing the role of local communities in forest management. A detailed qualitative investigation of the perceptions of foresters and Forest Department functioning provides the basis to address these research questions. A detailed description of the data and methods is given in Chapter III. Specific analyses of the research findings pertaining to the three research questions and the discussions and conclusions that followed them are written as three stand-alone chapters and are incorporated as chapters IV, V, and VI.

Chapter IV focuses exclusively on the factors that are perceived to be operating beyond the control of foresters and villagers, i.e., in the broader policy context but with significant impact on the outcomes of JFM. Elaborating on the role and significance of several regional, national, and global actors on various aspects of forest governance and

JFM implementation, this chapter brings forth some inconsistencies at the policy level that are hindering the progress of the decentralization and local governance development processes entailed in JFM.

Chapter V focuses exclusively on the organizational challenges that foresters face in their transition to participatory forms of forest management. Thus, the paper attempts to explore some of the structural, cultural, and learning dimensions in the Forest Department as an organization; it provides insight into the prospects of the department's alignment to its new work environment.

Chapter VI analyzes the experiences of foresters working with villagers in this JFM approach and explores some of the challenges the foresters perceive as important. The issues involved in the provision of incentives to the local people and in the design of micro-institutions for enabling local management in JFM dominate the discussion here. The analysis is crucial and specifically relevant to Tamil Nadu as JFM is introduced in degraded forests where local people get very little from forests in the initial years. Drawing on the analyses made on these two crucial aspects of JFM, the paper attempts to provide an alternative explanation for the failure of some JFM initiatives in the field and some future steps to remedy the situation.

Finally, Chapter VII at the end provides a summary of the study's overall conclusions of the study and some insights on the future course of action needed.

Chapter II

Joint Forest Management: Historical Context and Key Issues

This chapter provides a brief introduction to the nature and significance of India's forests, history of their management, and the evolution of the Joint Forest Management (JFM) policy in the context of emerging worldwide decentralization and local community management phenomena. It also describes certain key issues that are of contemporary interest in the implementation of JFM policy. These key issues, also compared and contrasted in the context of the Tamil Nadu JFM situation, will provide the background and justification to the research questions presented in chapter I.

2.1 Indian Forest Management - Historical Context

2.1.1 Extent and Type of Forests

Forests cover about a fifth of India's 328 mi. ha. geographical area; and about 96% of the forest area is state owned. About 37% of forest area is classified as tropical moist deciduous forest, 29% as tropical dry deciduous, 8% as tropical wet evergreen, and the remaining 26% consists of subtropical, temperate, alpine and other forests. About 42% of the forest area in general is however considered as degraded. Despite inconsistencies in the actual figures, there is a general agreement that the loss of forest in India is showing a reverse trend, mostly owing to large-scale plantations taken up in recent years. Many scholars however opine that these figures misrepresent as they tell very little about the quality of forests which is really the contributing characteristic of a forest.

2.1.2 Benefits of Forests

Forests form a major livelihood basis for rural India. It is estimated that approximately a fifth of India's one billion population depend on forest resources directly or indirectly (Khare et al 2000). The people that are acutely dependent on forests are particularly the rural, tribal[1], women, and other socio-economically disadvantaged sections of the Indian community. The areas that are rich in forests are also areas of high concentrations of poverty and hunger; as a result many of these impoverished people depend on forest as their major source of survival.

Apart from being a major source of survival and subsistence to the lowest stratum of Indian society, forests also play an important role in rural economy, agriculture, and energy. For example, the non-timber forest produce (NTFP), besides being a major dietary component of a vast majority of forest dwellers, provides up to 55% of these people's household income. Khare et al (2000) indicate that about 70% of the rural people use fuel wood for cooking, most of it obtained from forests. They also mention that more than 100 mi. domestic animals, about 25% of India's livestock, graze in forests.

Forests also serve a number of sawmills engaged in timber and raw wood processing and several cottage and small-scale industries involved in NTFP processing, value addition, etc. Major industries supported by the forests include government owned forest corporations that deal in a variety of commercial plantation forestry and traditional logging and timber production and also private owned pulp and paper industries. Though the contribution of forestry to India's GDP is often referred to as just 1%, 90% of the

[1] Ethnic communities with distinct racial origins, culture, and lifestyle from that of the mainstream Indian population. Tribals mostly dwell in and around forests and mountain areas.

processing, marketing, and transactions of various forest products take place in rural areas, thus significantly contributing to the rural economy and employment.

But perhaps most importantly, India's forests have a significant role in terms of the environmental services they are rendering to society. Being a predominantly agricultural economy dependent on monsoon rains, India's economic health and development is crucially dependent on the health and well being of its forests. The importance of forests in climate protection and watershed contribution gives them a very high value as a public good. The water regulation and flood control value alone of Indian forests was estimated at $72 billion per year (Rangachari and Mukherji 2000). Besides their importance in cultural, religious, and recreational aspects of Indian life, India's forests are also a rich source of biological diversity in the world. India contributes 8% of the world's known biological diversity. In addition, 26 endemic centers identified in India are home to nearly a third of all the flowering plants identified and described to date. All these roles of forests are again of public good nature which may not be so apparent to a common eye and whose value in economic terms cannot be easily measured. But they are indeed the life support systems in the Indian context.

2.1.3 History of State Forest Management

Systematic state intervention in forest management and control in India is more than two centuries old (Rangan and Lane 2001). The British, as part of the colonial policy of annexation of forests from local communities, severely exploited the country's forests for timber to satisfy the colonial interests for commercial and defense supplies. These policies not only abrogated the rights of local people over forests but in fact forced them

to stay out of forests (Gadgil and Guha 1992, 1995). Thus they also "severed the lifeline of environment from village community" (Rangachari and Mukherji 2000).

Independent India continued to pursue these policies of strict protection of state forests and use of them for commercial and industrial purposes guided by perceived national interests and narrower economic goals and completely overlooked local communities' concerns (Gadgil and Guha 1992, 1995). The focus during these initial years was however on self-reliance in the production of raw material for industrial development and natural resource conservation (Rangan and Lane 2001).

Between 1976 and 1988, some attempts were made to address the pressure of burgeoning population on forests through massive afforestation schemes such as social forestry and farm forestry, mostly with the help of external donor funding. These two programs aimed at increasing tree cover in non-forest public lands[2] and private farms respectively. The purpose in both the cases was meeting the biomass needs of local people. The social forestry approach however was criticized for lack of appropriate institutional framework to meet the biomass needs of the poor (Andersen 1995). In this program, there was no local institutional structure to ensure equitable distribution of benefits to the poor or to those affected by raising the plantations in public lands. Similarly, farm forestry, while it helped in reducing the pressure on the state forests to some extent, could not make much impact in increasing biomass, especially in terms of meeting the needs of the local villagers or poor households.

[2] Lands that are not with the Forest Department but are under the control of other local and state government departments.

The emphasis of forest management during this period however, shifted more toward preservation of natural forests through enhanced regulation and government control. Thus we see enactment of a series of laws such as Forest Conservation Act (1980)[3] by the government aimed at curbing deforestation. Restricting forest access and use by a vast number of rural people and their livestock proportionately by a minuscule number of forest staff, however, meant forest regulation through state management became an impossible task in the field (Poffenberger 1990). Further, these policies of alienation of local people not only attracted severe criticism from environmental scholars and social activists but also led to several local uprisings and struggles, resulting in an antagonistic relationship between forest agencies and local people (Corbridge and Jewitt 1997, Jeffery and Sundar 1999).

The net result of this pure protection and policing management strategy is that in the 50 years since independence, 5.3 mi. ha. of forestland or about 8% of the forest area was diverted to other uses representing a loss of $1.4 billion annual economic value in terms of lost wood alone (TERI 1998). The country lost dense forest area at a rate of 1.3 mi. ha. per year between 1972-75 and 1980-82 (Planning Commission 2001). Furthermore, the dramatic decline of forestland, both in area and quality (Kumar 2002) is associated with depletion of biodiversity, wildlife habitat, and fertile soil; and in sum, to a severe impoverishment of the over all environment.

[3] Where by the state governments were stripped of the powers to convert forest for non-forest purposes by the Government of India.

2.1.4 Role of the Forest Department

The history of the Forest Department is as old as the history of government control over forests. Established in the mid-nineteenth century under the British government, the Forest Department's role during the colonial rule mainly involved extraction of timber for commercial, industrial, and defense purposes and protection of the 'nationalized' forests from local people's interference. Their main area of activity in relation to local people was to keep them away from government forests through strict enforcement. The foresters were accordingly empowered to enforce this kind of strict protection through various state legislations such as the Madras Forest Act of 1867 and the Indian Forest Act of 1927. For example, under these Acts, even entry into a "reserved forest"[4] by a person without prior permission is a severe offence.

Since the duties of a forester amounted to strict policing, protection, and enforcement of law, recruitment and training policies of the members of the forest service were structured along these functional responsibilities. Since the profession was also meant to be run on technocratic and authoritarian lines that involved considerable movement in forest areas, only males with science, engineering, or mathematics background were made eligible to enter the service. Apart from courses on technical aspects of forestry, all the members of the forest service undergo rigorous in-service training that instills a strict disciplinary culture and a sense of *espirit de corps* among its staff (Hannam 2000) in a semi-militaristic manner. In tune with their law enforcement functions, the staff that mainly deal with this duty at the ground level wear uniform, symbolically reinforcing their responsibility to protect the forests in an objective and devout manner.

[4] Where any kind of public interference is prohibited unless specifically permitted.

Even after India's independence, the National Forest Policy of 1952 placed national priorities high over local community needs. Under this notion of 'national interest', exclusion of local communities from forest benefits was legitimized as the state's stated forest policy. Further, in the milieu that occurred during the initial years of independence and merger of several princely states[5] into the Indian Union, large-scale organized timber harvests took place to strip the forests off of all the valuable material before their owners handed them over to the government (Lal 1989). These developments made the Forest Departments to be even more rigorous in their effort to protect the forests. Further, as enshrined in the above policy, the use of the state forests as major sources of revenue for nation building meant Forest Departments worked purely on commercial lines as revenue generators for the state. In accordance with the objective of managing the forests for 'national interests', a federal service of forest professionals – Indian Forest Service – with a national character and representation was created in 1968[6]. Members of this service are recruited and trained by the government of India through a uniform recruiting and training process and are allotted to different states to serve as the lead forest professionals there and to liaise with the central government. Thus the senior foresters in India have a dual obligation to both the central and state governments.

These centralization and state interest objectives however, have more or less left the Forest Departments with little or negative relationship with the forest fringe communities. Having such a relationship has also left the foresters with hardly any opportunity to appreciate local communities' forest-based subsistence needs. As a result,

[5] The states that were outside the direct control of the British and were being administered by kings and other chieftains (maharajahs).

[6] In fact, a revival and re-christening of the Imperial Forest Service that was functioning during British.

the roles and responsibilities and functioning of the Forest Department remained more or less the same for over the last 14 decades. The same is true for the recruitment and training procedures of its members. It was only in 1980 that changes were made to recruit female candidates to the elite service of the Forest Department – the Indian Forest Service. Most rules and regulations however, remain absolutely unaltered till today.

Another development that is the result of this pure protection and policing function of the Forest Department that has become particularly prominent in recent years is the "anti-development image" it has acquired. Implementation of various laws that were promulgated especially after 1970 in the protection of forests and wildlife habitat by the Forest Department meant coming directly in the way of other developmental projects such as clearance of forestland for agriculture and hydro-electric dams that were going on more or less unchecked before this period. This responsibility of the Forest Department has put the organization squarely in odds with several other departments and local governments.

2.2 Policy Context: Decentralization and Community-based Resource Management

As will be discussed in section 2.3 below and later in detail in chapter IV, there has been an ongoing effort to manage Indian forests in a decentralized setting in the last 10 years. Decentralization and democratization of government functioning and incorporation of public participation in development decision-making has become a worldwide phenomenon now. Especially in developing countries, there has been a growing movement toward decentralization of natural resource governance systems (Kolavalli and

Kerr 2002). The poor performance of the past single, centralized, hierarchical systems that centered on technocratic and 'expert-based' management principles and that failed to understand the local context is said to be the motive behind such a devolution drive. The aim is to transfer power, resources, and responsibility to lower levels from a central authority to increase transparency and efficiency in the delivery of services and to incorporate diversity in decision making. That way, it is expected that the central agency will become more responsive and responsible to the needs and aspirations of the local stakeholders. A central feature in this process of decentralization however is the increase in the number and intensity of involvement of a variety of stakeholders in decision-making. A corollary to this development is the dwindling role of the central agency that was hitherto the dominant actor. In any case, the decentralization effort should be genuine and appropriate. It should be genuine in the sense that the policy of decentralization should be followed by the needed legislative, administrative, financial, and institutional arrangements; it should be appropriate in the sense that the decentralization, in the end, should help empower the target group and make them accountable. A mere rhetoric of decentralization without the above-mentioned requirements, in the new wide-open multi-actor decision-environment, might actually result in chaos, confusion, and non-fulfillment of its intended objectives. Thus, as rightly pointed out by Ribot (2002), transfer of power without accountability is dangerous, and establishing accountable representation without powers is empty.

Alongside the decentralization drive that has opened up the centralized bureaucracies, there existed a growing understanding of the capacities of the local communities to

manage their natural resources (Baland and Plateu 1996, Ostrom 1990). Empirical evidence that supports the feasibility of these locally crafted and locally governed systems and the theoretical bases that demonstrate their modalities of operation is expanding (Vira 1999, Kerr 2002a). A consequence of this spread of literature on community based management systems is their active promotion in various development strategies as alternatives to the state governance regimes.

While there is an overall consensus on the ability of individuals to coordinate their actions and successfully develop collective management regimes, of late, some challenges involved in making these efforts successful and sustainable are increasingly being expressed. A major concern is on the marginalization of women and other weaker (politically and economically) sections by the dominant elite in the communities (Agrawal and Gibson, 1999). This has led to a growing understanding of the need to protect the interests of these weaker sections through appropriate institutional arrangements and policy support.

Another concern is the effect of ongoing globalization and societal transformation. While in the past the emergence of colonial powers led to the demise of local management systems developed over centuries of co-evolutionary interaction between local people and their environment, current global market dynamics and associated pressures are bringing about fundamental changes in community characteristics, societal values, traditions, and livelihoods (Kapoor 1994, Jodha 1998, Grazia et al 2000). (For example, diversification of livelihoods increases the cost of collective action to manage natural resources and

reduces its benefits to individuals busy pursuing other economic activities.) These transitions greatly influence local people's need, ability, vision, and willingness to work collectively for common property resource management. Thus there appears to be a challenge to the viability of approaches that rely heavily on community involvement in natural resource management – especially where the immediate benefit to local people is small- and where the issue of public good value is significant.

2.3 Joint Forest Management

The enunciation of a new national forest policy in 1988 that underlined the need for meeting the subsistence requirements of communities living near state forests is considered a watershed in the history of forest resource governance in India. This emphasis on rural livelihoods in the new policy was operationalized through the government of India's directive (GoI 1990) in which it advised the state governments to actively involve local communities in the protection and development functions of the forests and share with them the benefits arising out of these forests. This policy is a major shift from the government's earlier stance of looking at local community involvement as irrelevant or detrimental to considering it as a valuable component in management and as a part of the solution to the problem of forest degradation. Thus the JFM is seen as a win-win situation for the local people and the environment unlike the earlier policies where the relationship between these two was considered antagonistic (Khare et al 2000).

Local involvement is to be ensured, as per the policy, by motivating the communities living in and around forest areas to identify themselves with forest protection and

development functions. Forest management strategies where forest agencies and local communities jointly manage forests on the lines of this policy are popularly referred to under the generic name of Joint Forest Management (JFM). The JFM approach, having received considerable impetus in recent years, covers around 14 mi. ha or about 18% of the total forest area in India (WII 2002) and is recognized as one of the largest such programs in the world (Kumar 2002).

Andersen (1995) attributes this radical shift in India's forest policy to the government's recognition of the poor results of the past management system as well as to the influence of various scholars, academics, and NGOs to effect changes in India's forest policies. Some authors such as Vira (1999) attribute this change to the worldwide decentralization phenomenon occurring in natural resource governance and to the burgeoning literature that brought into the limelight the abilities of local communities to manage their own forest, water, and pasture resources, as discussed in section 2.2 above.

The government of India's directive to the state governments on peoples' involvement in forest protection and development (which became popular as JFM order) is of only an advisory nature and does not mean that the states automatically effect its implementation. In fact, some forms of JFM were already in effect as early as the 1970s in some states such as Haryana and West Bengal. Some states such as Karnataka and Tamil Nadu did not adopt JFM until the late 1990s. Though the statements on JFM implementation indicate that 26 of the 28 states have adopted JFM, it is misleading as currently only

about 18% of the country's forest area is under JFM while the rest remains under traditional management.

Three reasons could be attributed to this slow adoption of JFM: 1) Effecting an advice of the GOI by a state government is intrinsically a slow process in India; 2) the JFM directive restricts the application of this policy to degraded forests[7] and hence if a state considers it has very limited area under degraded forests, it need not regard adoption of JFM; and 3) most importantly, undertaking afforestation of degraded forests needs heavy investment and that may hinder a state government from adopting JFM. These areas are characterized by very little topsoil, low nutrient availability due to frequent fires and subsequent soil erosion, and severe compaction of the soil surface due to decades of cattle movement. Hence any afforestation and soil and moisture conservation activity to improve these areas require substantial investment.

Thus, it is the cost of investment that appears to be crucial in determining the pace of JFM adoption by a state government. In fact, in many states JFM was adopted at the behest of international agency funding (Khare et al 2000). It is now well known that acceptance of the participatory principle is a precondition for foreign funding. State governments or their respective Forest Departments fall in line perhaps in the absence of alternative funding sources and possibly without a genuine interest in JFM. Strong association between donor funding and adoption of JFM clearly indicates that the state governments would not otherwise have risked investing such huge amounts that are

[7] Khare et al (2000) indicate that some states such as Haryana have not restricted application of JFM to degraded forests. GOI has recently indicated extension of JFM to better-stocked forests (GoI 2000).

required to undertake improvement of degraded forests on their own. These donor funds, as in case of JBIC[8] funding for Tamil Nadu, are however, soft loans and not outright grants. Thus, it appears that wherever such funding materialized Forest Departments introduced this new radical approach in pockets while continuing to pursue the traditional approach in other areas.

2.3.1 JFM - Key Operational Features

As per the guidelines of JFM issued by the government of India (GoI 1990), and as it has been applied in the field, the joint management approach is basically meant for the regeneration of degraded forests. Typically the Forest Department undertakes constitution of a village level organization known as the Village Forest Committee (VFC) and enters into a partnership agreement with that body. Under the agreement, the Forest Department provides conditional access to specified forest products upon their availability subject to the VFC's honoring of protection responsibilities assigned to them. Typically, the "Village Forest Committee" (VFC) cooperates with the Forest Department in protection of forests and receives in return, sustainable benefits that arise out of these restored forests. The VFC and Forest Department together develop a working scheme, commonly called a village micro-plan that details forest management, institutional, technical, and other village development operations to be undertaken in a period of 5 to 10 years. While the Forest Department meets all the costs toward afforestation and soil and water conservation, the VFCs and Forest Department can also seek funds outside the Department.

[8] Japan Bank for International Cooperation, earlier known as Overseas Economic Cooperation Fund of Japan. JBIC extended $100 mi. to Tamil Nadu. Details given in section 2.3.2.

2.3.2 The Case of Implementation of JFM in Tamil Nadu

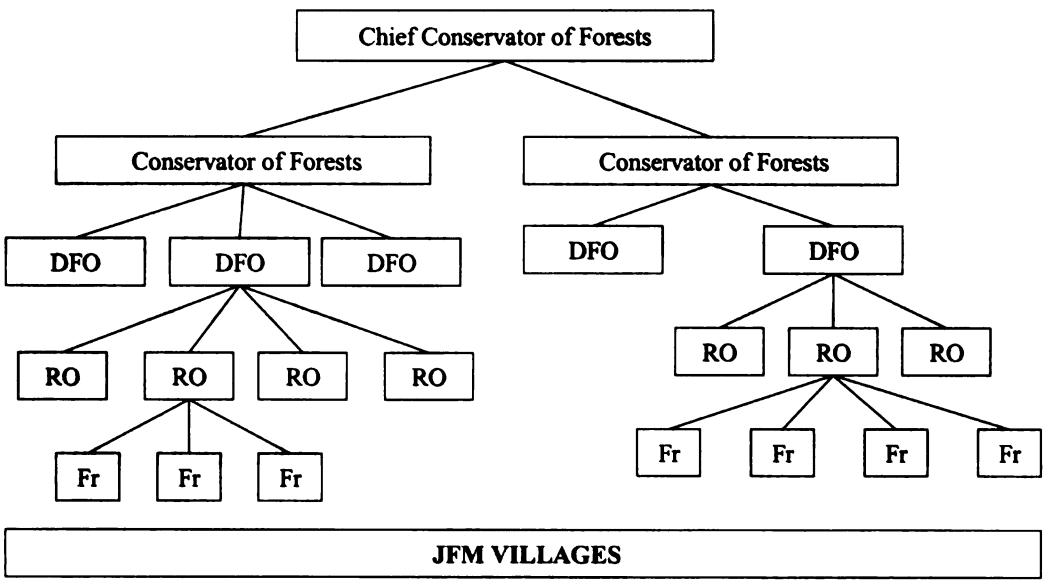
Tamil Nadu can be considered as one of the late entrants to join the JFM system in India. The program has been initiated as part of the Japan Bank for International Cooperation (JBIC) funded Tamil Nadu Afforestation Project (TAP) in 1997 (GoTN 1997). The program, launched at an estimated investment of $100 million, aims at restoring about 0.4 mi. ha of degraded forest in 5 years through the implementation of JFM in about 1000 of the 3000 villages that abut these forests (TNFD 2002b). The main objective of the project is ecological restoration and biological restoration of degraded forests and other lands abutting these 1000 villages. Like many other JFM arrangements in the country, JFM in Tamil Nadu involves establishment of a village level organization called "Village Forest Council" (VFC) that works with the Forest Department as local people's representative body. The project also envisages provision of certain non-forest benefits, called 'buffer zone incentives' or 'entry point activities', in the initial three years of JFM, to bring together the Forest Department and local villagers, to build mutual trust, and to set in the process of initiation of JFM. The details of various incentives are given in section 6.3.

In a typical JFM organizational set up in Tamil Nadu, in a district, a District Forest Officer (DFO) has about 10 JFM villages and about 5 to 7 Range Officers (RO) under his jurisdiction operating in these areas. Each RO in turn has 3 to 5 Foresters[9] to assist him. Foresters interact with villagers on a daily basis and look into the ground level implementation aspects of JFM (Figure 1). ROs are responsible for preparing and executing, in collaboration with the villagers, a micro-plan that details JFM interventions

[9] While the term 'forester' is used to represent Forest Department personnel of any rank, the term 'Forester' is used to refer exclusively to this rank of foresters in the Forest Department.

in each JFM village. Besides providing over all guidance and funding, DFOs specifically look into aspects of liaison with other departments at the district. About 5 to 8 DFOs report to the Conservator of Forests (CF). CFs function at regional level and provide over all direction and supervision to the DFOs. The Chief Conservator of Forests (CCF), functioning at the state level, deals with policy issues, coordinates with the state government and other departments at the state level, and monitors the program mainly through the CFs.

Figure 1: Illustrative JFM Hierarchical Set Up in the Tamil Nadu Forest Department



DFO: District Forest Officer RO: Range Officer Fr: Forester

It is worth a reminder however that JFM operates only in parts in the state. Even in a district all the forest areas or the villages abutting forest areas are not covered under JFM. Hence all the above-mentioned staff undertake other duties apart from those assigned

under JFM that are equally complex and time consuming. Similarly, below the Forester, in a traditional forest administrative set up, there are Forest Guards and Forest Watchers in charge of a Beat. Under the control of a Forester, there could be up to 5 Beats. The roles and responsibilities of the Forest Guard and Forest Watcher in JFM are however, unclear. These dimensions will be discussed further in chapter V.

2.4 Some Key Issues in JFM Implementation

As can be seen from the foregoing analysis of the adoption of JFM and its actual operationalization in the field, four issues seem to play an important role in putting JFM policy into practice. These are: 1) the nature and significance of the roles of various actors involved in the broad policy context of JFM; 2) the organizational context of the Forest Department in implementing of this policy in the field; 3) local communities' incentives to join JFM; and 4) the Forest Department's role in constituting a village level managing body (the VFC) that would jointly manage forests. These issues are briefly discussed below and will be the subjects of detailed analysis in chapters IV, V, and VI.

2.4.1 Broad Policy Context

Forests, foresters, and local communities form the dominant discourse of JFM. However, certain unique characteristics of forestry place the forest management in a broader policy and public governance context that has significant influence on the outcomes of JFM. But the literature on JFM has not covered these influences and this represents a big gap. As has been already been mentioned in section 2.2, decentralization of the forestry sector to include public participation has brought a multitude of actors into forest management

both at the policy formulation and implementation levels (Khare et al 2000). For example, the public good nature of forest protection (discussed in section 2.1.2 on the benefits of forests) especially links forestry to global, national, and local levels. The role of various international agencies and other donors in bringing JFM to the forefront of public administration and in providing substantial strength and support to take the concept of JFM to increasing scales since its inception as a national policy a decade ago has already been discussed in section 2.3. The role of these agencies is so decisive that in many states foresters fear that the local forest management institutions will collapse as soon as the funding from these donors is over (Kumar 2002, Ghate 2000).

Similarly, forestry's potential role to serve as an "entry point for governance reform" (Brown et al 2002) and as an instrument of economic development has been a major area of focus to various social activists and political lobbyists. The issues of tenure, territoriality, and collective rights place the forests automatically in multiple administrative jurisdictions such as national and sub-national governments. Whether it is mobilization of substantial investments required for forestry projects or internalizing the environmental services such as watershed and climate mitigation (Kadekodi and Ravindranth 1997) or taking an affirmative action to ensure equity in JFM through appropriate policies and legislation, they are all basically political and public governance functions. Thus the involvement of government and government functionaries at various levels in increasing the impact of a program is multiplicative and diffusive (Edwards and Hulme 1992). All these observations indicate that it is not just the Forest Department but

several actors that have a major role in significantly determining the outcomes of this JFM strategy.

The Tamil Nadu Forest Department's situation in relation to these broader policy and public administration contexts seems to present some challenges compared to its counterparts in other states where some JFM successes have been reported. The forest cover as well as revenue from the forest in Tamil Nadu is less than these states. Consequently, the Tamil Nadu Forest Department holds much less political support and recognition vis-à-vis the Forest Departments in other states. Further, in view of the state's fast growing economy and general development, the activities of other departments that come in conflict with that of the Forest Department are much more in number and intensity in Tamil Nadu. This has traditionally alienated the Forest Department from some of the development departments and this factor could potentially play a major role in implementing JFM. A detailed analysis of the roles and responsibilities of various actors and their influence on the implementation of JFM will be given in chapter IV.

2.4.2. Forest Department Organization

JFM is a big shift for the Forest Department both in terms of its work and task environments. But systematic studies that analyzed the implication of JFM to the Forest Department or the organizational factors that are limiting its transition to JFM are limited. This research endeavors to fill this gap. Besides playing their traditional role in helping to improve the productivity of the forests, in JFM the Forest Department needs to play a moderator role to bring the community together, to build the needed institutions, and to

generate and sustain people's interest (Bahuguna et al. 1994). Thus, in JFM, the Forest Department is responsible for not only devolving its authority over forest resources but also to successfully establish some village level institution that works with it on a long-term basis to implement JFM. These roles of foresters in JFM compared to their traditional role as policing and forest protection agents represent a colossal shift. Hence it is obvious that the "adoption of the rhetoric of participation does not guarantee the implementation of a new and decentralized form of forest management at the field level" (Vira 1999). Thus, for JFM to be real and meaningful, attention to the role, resources, and functioning of the Forest Department that governs 96 per cent of India's forest resources assumes vital significance (Sundar 2000).

The role and responsibilities, the organizational hierarchy, and the administrative culture of the Tamil Nadu Forest Department is not much different in any way than its counter parts in other states in India. However, Tamil Nadu has a much older history of traditional management of forests owing to the state being under the control of the British much earlier than some other states. While not many instances of existence of erstwhile community forest management systems from Tamil Nadu are reported in the literature, some senior forest officers claim that the experience gained over the implementation of other programs such as social forestry in the state helped them quickly adapt to JFM (Sreedharan and Sarkar 1998).

2.4.3 Villagers' Incentive to Manage Forests

As elaborated in section 2.1.2, forests provide two kinds of benefits. One, direct benefits such as fuel, fodder and NFTP and second, indirect environmental service benefits such as climate and watershed protection. The involvement of local people and sustaining their interest in managing a resource is more complicated when the benefits are not high, immediate or widely distributed (Kerr 2002a).

JFM success cases such as Arabari, Harda (Bahuguna et al 1994), Sukhomajri and other areas in Haryana (Dhar 1994), and Buldana (Ghate 2000) indicate that JFM introduced in the management of "degraded forests" has yielded enough incentives to sustain the interest of local people in JFM in these places. These studies imply that for the sustainability of JFM the ultimate interest should be linked to forest-based tangible benefits. The majority of JFM areas in Tamil Nadu compared to their counterparts where JFM successes are reported, however, represent relatively poor soil quality and species composition and will not allow the harvest of large quantities of forest-based produce in a relatively such short time. But the implications of JFM when introduced in the improvement of degraded forests that offer no immediate tangible benefit to the participating local people such as Tamil Nadu are unknown. Is JFM a viable option in such situations? This question, analyzed from the perspectives of foresters, forms the focus of discussion in the section on incentives in chapter VI.

Similarly, when the conservation efforts produce largely off-site benefits (a positive externality), there is need to compensate local people for their costs involved in

production of these benefits. While there is literature on this aspect in other natural resource management contexts (Sanders et al. 1999), developing institutional arrangements for compensating the provision of forest-based environmental services is still a new field of study (Pagiola et al. 2002). Discussion on this aspect of compensating local people for their efforts in providing off-site benefits remains absent in JFM, and this represents a major gap in the literature. The basic thrust of the JFM program, and the dominant philosophy that has guided its implementation so far is provision of forest products such as fodder and fuel wood to the local communities for their services in protecting the forests. But what if the need for protecting the forests is more for their utility in provision of environmental services rather than some direct forest benefits to local people? What if the local community is also more inclined and interested in reducing its dependency on direct use of forests such as free grazing of domestic animals in forestlands or use of fuel wood for cooking? Can JFM be introduced under that objective? If so, what incentives exist for the public to participate in JFM? These gaps in the literature will be examined from the perspectives of foresters implementing this policy in chapter VI.

Further, the case studies on JFM indicate many factors at play but there is a shortage of systematic analyses that link the processes or activities to the outcomes. For example, some studies indicate provision of certain non-forest incentives such as individual employment or socio-economic development benefits to local communities in JFM (Poffenberger 1990, Poffenberger and Sarin 1995, Bahuguna et al. 1994, Dhar 1994, Corbridge and Jewitt 1997 Sinha, 1999, Varalaxmi et al. 1999, Ghate 2000). It is not

clear, however, to what extent these non-forest incentives bring in success or otherwise to JFM. An attempt is made in this study to provide an understanding of the relation between provision of certain kinds of incentives in JFM and their influence on the program outcomes, based on an analysis of the perspectives of foresters, in chapter VI.

2.4.4 Constituting Village Level Forest Management Institutions

As indicated in 2.3.1, the Forest Department is responsible for constituting institutions at the village level in JFM. These institutions are responsible for motivating and actively engaging community members in JFM, resolving conflicts, building coalitions, and distributing JFM benefits. This task of constituting and maintaining functional resource management bodies that think of forests and that function over time is complex and difficult for the Forest Department. This is so given the low benefits of forest management, and the complex and dynamic nature of the community, and foresters' lack of training in relation to social organization. While there is literature on how and under what circumstances such local management regimes work or do not work, foresters' perspectives on constituting and working with such institutions is missing in the literature. Considering the importance of this step in the JFM implementation process, this gap in literature is significant and this study endeavors to address this gap.

Some of the areas elsewhere in India where JFM is regarded as a successful forest management strategy or as a potential approach in India are predominantly tribal areas unlike Tamil Nadu. In these tribal areas, the forests are intertwined in every aspect of these people's daily life (Jewitt 1995). Their lifestyles, literacy levels, and occupational

structures thus differ significantly from of the Tamil Nadu case. People possess relatively higher literacy and economic levels in Tamil Nadu and forests may not be the main source of livelihood for most people. This may be a predicament for JFM as past research indicated divergent views on the issue of forest dependency. Some authors observe that tribal communities and other groups with heavy forest dependence make better forest managers than the ones that are less forest dependent (Poffenberger 1990, Lise 2000). Stating that social forestry and farm forestry succeeded in areas where people have no access to forests, some authors argue that non-dependence on forests or forest produce is good in the long run for JFM to achieve its objectives (JFM News 2002).

There is also a wide variation across the country in the provisions related to the constitution of village level JFM institutions and their empowerment in managing the JFM resources (Khare et al 2000). Thus, different states adopt different approaches with reference to addressing the concerns of equity, gender, and forest dependent populations. There is however, not much analysis on the implications of incorporation or non-incorporation of these social groups or in empowering them or otherwise in the implementation of JFM. As indicated in chapter VI, while there are studies on the influence of these village level factors, there is no study that lays out the Forest Department's experiences in addressing these institutional issues in a comprehensive manner. Hence the perspectives of foresters on these institutional issues will be the focus of part of chapter VI. The challenges involved in establishing functional JFM institutions in a dynamic socio-economic village environment will be the chief area of discussion here.

Whatever may be the case, low forest productivity and low potential interest and involvement of the surrounding people seem to entail two major implications for the Forest Department in its efforts to successfully undertake JFM. One, heavy investments are needed both in forest and non-forest activities to improve the quality of the forest as well as to undertake institutional building and interest creation activities in the community. Second, in order to meet non-forest developmental needs such as health, education, and commerce, the Forest Department needs active support and cooperation of other government agencies operating in these areas. Some authors have suggested that the government input to the "jointness" of management is relatively uncomplicated whereas the village component is difficult to define (Andersen 1995). But as elaborated in the above sections, the situation of the Forest Department, especially in case of Tamil Nadu, is as complex and perplexing as that of a village, and these complexities and uncertainties present a formidable challenge for them to initiate and implement JFM.

As elaborated in the introductory chapter, despite the critical role of bureaucracy in transforming forest governance, most research on JFM has focused on village level conditions that determine local people's incentives and capabilities to collectively manage forests. Much less attention has been given to the challenges facing the Forest Department bureaucracy, thus leaving an important gap in our understanding of JFM implementation dynamics. And lack of this systematic information on the experiences gained and lessons learned in the Forest Department may be the single most important stumbling block that is preventing JFM from achieving its intended objectives.

Chapter III

Data and Methods

3.1 Research Approach

The previous chapters outlined the scope of this study and the relationship of the current investigation to the gaps in the existing research. This chapter explores the research design and the methodology implemented in the pursuit of the study objective and to address the specific research questions that were set forth for examination in chapter I.

As elaborated in the introductory chapter, systematic studies on the perspectives of foresters are currently absent in JFM literature. The usefulness of analysis of perceptions of implementing agency employees in evaluating the performance of natural resource management policies has been demonstrated by several earlier studies in other contexts (Whisnant 1980, Maxwell 1990, Kitchen-Maran 1992, Schumaker 1995, Padgett and Imani 1999). An understanding of the perceptions of employees on organizational change and their expectations in transformation is an essential component of successful organizational diagnosis and development (Pond et al. 1984, Hobbs 1999).

The present study employed a qualitative research approach inquiring into the perceptions of all the ranks of officials closely involved in implementing JFM and sought an impromptu emergence of issues from the respondents. This exploratory approach was followed for the following reasons.

Since no established body of research could be found on the perspectives foresters entailed in putting this JFM policy into practice, it was not clear in the beginning as to what issues are significant in the implementation of JFM and how foresters' opinions on these issues vary. The situation was further complicated because there was no information on the implications of implementing JFM in situations such as Tamil Nadu, where it is launched in highly degraded forests that offer no immediate incentives to local people. . Hence no detailed questions could be framed *apriori* in the beginning of the study as is normally the case with a survey approach. In this sense, this study is meant to know the problems in the first place gaining an understanding of the system in a holistic manner.

Further, Robbins (2000) observes that personal, cultural, and historical dynamics, known only to other members of the service, often influence the decision choices of the forest staff. These subtle features and other difficulties associated with studying the internal dynamics of any government agency are among the reasons that little work to date has focused on these agencies in India and elsewhere in the developing world (Kolavalli and Kerr 2002). Members within the organization also hesitate to conduct such research for fear that such academic discourse may negatively impact their career prospects (Vira 1999). These observations clearly indicate that any inquiry into the operational aspects of JFM processes has a significant "personal" nature, and cannot be easily captured by a quantitative or positivist approach. Elaborating on this point, Ott (1989), in fact, questions the usefulness of quantitative and quasi-experimental methods in learning about organizational functioning. Some other scholars have also argued in favor of qualitative

approaches to the study of organizations (Trice and Beyer 1993) and demonstrated its utility in exploring the issues of organizational culture (Schein 1993).

Moreover, the ultimate objective of this research is not just knowing the attitudes of Forest Department employees toward JFM or how they differed according to their personal characteristics per se, but to gain an understanding of the problems and prospects of implementing the JFM policy from the perspectives of foresters and to draw some conclusions on improving the performance of the policy on the ground. As demonstrated by Bowers and Becker (1992) in the context of managing nursing homes, the qualitative inquiry techniques particularly enable the researcher to enter into the practice world of the employees and thus help understand beyond just *what* the informants think or do but gain deeper insight into *why* they feel that way. Thus, it was endeavored to bring forth JFM dimensions that are crucial to its performance in the field.

In addition, unlike several previous studies that are typically project 'impact' assessments, the present study focuses on the 'processes' of implementing JFM. Qualitative approaches provide a better way of understanding these processes than other approaches. Accordingly, the data collection employed include three techniques: 1) in-depth interviews of foresters implementing JFM, 2) analysis of documents on JFM, and 3) an in-depth study of ground level JFM implementation processes in four JFM villages. The details of these techniques are given in section 3.3.

3.2 Study Design

3.2.1 Study Site

The study was carried out in the state of Tamil Nadu, India, where JFM was initiated in 1997 as part of the Tamil Nadu Afforestation Project, sponsored by the Japanese Bank for International Cooperation (JBIC). As elaborated in section 2.4.3, the study in Tamil Nadu is especially interesting in view of JFM's implementation in predominantly degraded forests which are more typical of India as a whole and so may offer widely applicable lessons as governments consider expanding JFM. Despite Tamil Nadu's distinct biophysical and socio-economic situation, and a much older history of the traditional Forest Department management compared to many other states, research on JFM in Tamil Nadu has not received much attention. Moreover, while community-forest agency partnerships were going on in several parts of the country as early as the 1970s, and the government of India advised all the state governments to adopt JFM as early as in 1990, the program was taken up in Tamil Nadu only in 1997. All these factors influenced me in taking up my study on JFM in Tamil Nadu.

3.2.2 Sampling

The organizational hierarchy of JFM in Tamil Nadu indicating the geographical jurisdiction, roles and responsibilities of various functionaries in the Forest Department, such as the Chief Conservator of Forests (CCF), Conservator of Forests (CF), District[1] Forest Officer (DFO), Range Officers (RO) and Forester (Fr), is given in chapter II, section 2.4.2.

[1] Some are referred to as Divisional Forest Officer. Although termed as District Forest Officer, the territorial jurisdiction of a DFO is not co-terminus with that of a district. Districts are like counties in the United States.

Underlining the need for research on bureaucratic interface in JFM, Vira (1999) considers the forest division and DFOs as "critical" units in the Forest Department hierarchy. The day-to-day administrative work takes place at the forest division and below and hence the role of this field bureaucracy is crucial. Vira explains that these field staff (DFOs, ROs, and Foresters) are the members of the Forest Department that interact with the public and at whose level the transition to JFM or the challenges involved in its implementation are substantial. Since the objective of this study is to understand the implications of JFM implementation, the sampling process started with the selection of forest divisions. Out of 45 forest divisions where the JFM is being implemented in the state, five divisions were selected. These five forest divisions are the sites of the greatest number of JFM villages and where the JFM program has operated for the longest period of time. The respective DFOs of all these five divisions were recruited for the study. In addition, five more DFOs who worked earlier on JFM in these divisions were also interviewed in order to have a wider representation of perspectives on JFM implementation.

After determining the knowledge and experience of the Range Officers (RO) with the help of the concerned Divisional Forest Officer (DFO) at the department's regular staff meetings in the districts, the ROs were recruited on a voluntary basis. In each case, the DFO introduced me to the prospective respondents and expressed his/her support for participation. I then explained to the group that the objective of the study was to learn more about how JFM is working in the field. While most of the staff responded to the request, two Range Officers in each of these five divisions were recruited on a 'first come first served' basis. Thus ten ROs were selected for the study. A similar process was

followed to select Foresters working under each of the selected Range Officers: the research objective was explained to them and those who volunteered to participate in the study were chosen on a first come, first served basis. Selecting one Forester functioning under each selected RO would have yielded ten Foresters as a sample for the study. However, during discussions with the selected ROs, it was noticed that three of the selected ROs had recently been promoted from the rank of Forester. So, though they were officially represented as ROs, their JFM experiences were in fact from their work as Foresters. Hence the selection of Foresters was confined to one Forester functioning under one of the two ROs selected in each division. Thus there were five Foresters selected in total for the study.

Further, in order to get the whole spectrum hierarchy functioning over these selected five forest divisions, and thus to have the representative perspectives of all the functionaries, the two Conservators of Forests supervising these five forest divisions and the Chief Conservator of Forests (CCF) in charge of the over all JFM implementation in the state were also included for the study.

Thus, in all, the sample included one CCF, two CFs, ten DFOs, ten ROs, and five Foresters (a total of 28) that represent the Forest Department hierarchy of all levels that has control over the five JFM forest divisions selected for study in the state.

The overall sampling, carried out in tandem with the organization hierarchy of the Forest Department, is given in table below.

Forest Department (FD) Organizational Hierarchy and Sampling Followed for the Selection of Study Respondents and JFM Villages:

Geographical Units of FD	Number of Units Covered In the Study	Corresponding Category of FD Functionary Sampled	Total Number of Employees Sampled in Each Category
State	1	Chief Conservator of Forests (CCF)	1
Circle or Regions (Total 11 in the state)	2	Conservator of Forests (CF)	2
District/Divisions (Total 45 in the state)	5	Divisional Forest Officer (DFO)	10
Ranges (5 to 7 in a Division)	10	Range Officer (RO)	10
Section (3 to 5 in Range)	5	Forester (Fr)	5
JFM Villages (1 to 2 in a Range)	4		

The sample of foresters predominantly consisted of male members. (The actual number under each category is not shown in order to prevent the identity of the individuals and thus to protect their privacy). While five officials are native to states other than Tamil Nadu, five were working in their home district. The total experience of the respondents in the forest service ranged between 9 and 32 years with an average of 20.6 years. Similarly, the experience of the respondents in JFM ranged from 3 to 5 years, the average being 3.7 years. Except two Foresters and two ROs, all other officials hold college level degrees, 12 of whom hold post graduate degrees. While 24 out of these 25 degree-holders have their main degrees in biology, math, and engineering, only three have some social science background. Eight officials belong to the Indian Forest Service (IFS), whose members are

recruited and trained by the Government of India (GOI) and are governed mostly by federal personnel rules. Four respondents belong to the State Forest Service (SFS). Members of the SFS are recruited by the state government, trained by the central government, and are governed by the state government rules. All the remaining 16 respondents belonging to other categories are recruited, trained, and are governed by the state government. The gender representation, educational background, and nativity characteristics of the sample in this study fairly represents that of the population.

As mentioned in section 3.1, the current research also gained insights from an in-depth study of four JFM villages. These four villages lie in two of the five divisions selected as detailed in section 3.2.2 on sampling. . Since the respondents selected for the current research are associated with these chosen villages, I had the opportunity to observe the ground level implementation of JFM by the respondents and the interaction between the respondents and the villagers and among various ranks of foresters. This experience helped me gain a firsthand knowledge of village level issues in JFM implementation.

3.3 Data Collection Techniques

3.3.1 Individual In-depth Interviews

In order to explore and gain insights into a sensitive subject such as perceptions of somebody's work, the inquiry environment should be fairly open and private. Hence, to overcome the problem of reticence, and to understand issues from the perspective of the informants, individual in-depth interviews have been used. They help elicit participants' attitudes, feelings, beliefs, experiences, and reactions in a way that would not be feasible

using other methods such as surveys. The volunteered respondents were individually contacted over phone/email/ in person and his/her convenient date, time, and place of interview were obtained and followed. In each instance, the respondents were informed of the confidentiality issues and consent procedures and were thoroughly assured of their privacy. Interview schedules with open-ended questions were employed to elicit the views of respondents on JFM.

The questions focused primarily on how the forest respondents perceived and valued JFM and community involvement in forest management. They were also asked questions specifically on what they considered to be important challenges in the implementation of JFM and the interventions they felt were necessary to help promote JFM. The interviews proceeded in a mixture of Tamil, the local language, and English, according to the context and to provide ease in understanding and flow of conversation. For purposes of accuracy and correct interpretation of the responses, in 20 of the 28 cases, where the respondents expressed no hesitation, the conversations were audio recorded. For the remaining 8 cases, I took notes during the interview and developed elaborate field notes immediately after. A five-month period was spent in the field conducting interviews, moving among various categories of forest personnel, noting new ideas and concepts, and accordingly updating interview questions in an iterative manner. Follow-up interviews were also held with four respondents to probe certain perceived gaps in my understanding of foresters' work and to get certain remarks of the respondents clarified. The procedure outlined in Miles and Huberman (1994a) guided the data collection and management process.

3.3.2 Village Level Study

Simultaneously, a three-month time was spent in four JFM villages intensively interacting with villagers to gain a firsthand understanding of the grassroots level functioning of JFM. Detailed discussions were held with the VFC Presidents, VFC Executive Committee members, and some general VFC members. I also held discussions with special groups such as women self-help groups and members of certain disadvantaged sections in the rural community. During all this period of my stay in the villages, I also got a firsthand opportunity to observe how the members of the Forest Department interacted with the villagers, their understanding of the implementation of JFM, and the actual processes involved.

3.3.3 Document Analysis

A six-week period was spent in the beginning of the study in various Forest Department offices to study documents and correspondence related to JFM for an increased understanding of the program and to serve as a secondary source of data on the Forest Department, as the main subject of research is bureaucratic interface in JFM. These documents include the JFM project proposal to the JBIC based on which the JFM was launched in the state, most of the Tamil Nadu government orders on JFM, a manual on JFM implementation, minutes of some of the high level meetings, and some correspondence with the Accountant General and other internal policy statements. Some documents also include those coded as 'confidential' and 'for private circulation only' type correspondence such as Forest Department staff association newsletters and internal memos. While information drawn from those classified as public documents were cited in

the study, others could not be cited to protect the privacy of the individuals who shared these documents. While drawing insights from these documents, the information was deliberately generalized and no specific instances were given so as not to disclose the identity of the individuals or the places. Similarly, at the village level, I studied the JFM documents pertaining to the JFM constitution, the JFM institutions, the minutes of various VFC meetings, and the records pertaining to JFM accounts. The study of these documents helped clarify concepts and terminology from interviews and allowed a greater understanding of the organization and the process of JFM implementation. The insights gained from the study of these documents were incorporated at appropriate places in the research findings.

3.4 Data Analysis

The responses of the respondents were transcribed and translated taking professional help wherever necessary and were developed into detailed field notes. As a first step in the analysis, these field notes were individually coded with the help of the qualitative data analysis software *NVivo* to identify as many preliminary concepts, ideas, and dimensions as possible. Coding is the "process of grouping interviewees' responses into categories that bring together similar ideas" (Rubin and Rubin 1995). The issues and processes that were most stressed by the informants (that were talked most often in an interview or were mentioned by many respondents) guided this inductive thematic coding process (Miles and Huberman 1994b). These ideas and concepts represent the issues and processes that are close to the hearts of the respondents and that are grounded in the work world of JFM.

After analyzing a few interviews in the above manner, conceptual categories examining and analyzing the relationships among the concepts identified were developed to have an over all understanding of the JFM process and to link the participant's responses to the research objectives. Comparing material across categories helped me to figure out which themes go together. Then I went through all of the interviews and gradually developed a dictionary of about 46 codes (examples given in Appendix I). *Nvivo* helped in assembling the codes as well as in the development of conceptual models (An example of a model is given in Appendix II). Coding and analysis of the remaining transcripts was continued and the conceptual models modified, as the understanding of JFM progressed, in an iterative manner. The process of development of conceptual categories and the analytical abstraction and aggregation of data as described in Carney (1990), was continued and an overarching conceptual model of JFM was developed with its broad components as it operated in the field. That is, as the analysis proceeded, the concepts were linked, looking for examples of them together and apart, as I gained a broader understanding of what is going on in my data. This model formed the basis for presenting the overall findings organized into broader themes such as incentives or institutions in JFM, and the explanatory framework that followed them, in the description of these research findings. At the end, the coded categories were organized into a "numbered outline" (Rubin and Rubin 1995) that shows the structure and the relationships from the broader themes into its subcomponents to the lowest category. This provided the outline of each analytical paper (chapters IV-VI). The analysis procedure followed in this study is explained in more detail in Rubin and Rubin (1995, page 226-256). Simultaneously, wherever found, specific ideas or issues that were observed to be unique in individual narratives such as

success stories or techniques were coded separately and incorporated into the findings at appropriate places.

3.5 Validity

Prolonged engagement, wherein the researcher becomes familiar with the context and culture of the people and surroundings by spending considerable time in the study setting, is essential to enhance the credibility of qualitative research (Lincoln & Guba 1985). Member checking and triangulation also serve similar purposes (Lincoln & Guba 1985). While I have spent a decade of my professional career working as a DFO in the state of Tamil Nadu, I spent about three years specifically in the study area, closely interacting with people and the forests there. Selecting respondents functioning under the same hierarchical setup, instead of scattering them across the state, was designed, in part, besides the need to save time, to serve as a triangulation technique to improve the validity. Member checking, where the data and findings are given back to the respondents for their feedback, was also employed in the study by sharing the preliminary findings with some participating foresters to ensure the credibility of the data and their interpretation.

As to the generalizability of the findings, since the areas where the study was conducted and the Forest Department employees that were interviewed are fairly representative of Tamil Nadu, the findings and conclusions could be generalizable to the state of Tamil Nadu. However, as with any qualitative research approach, this study provides intense descriptions of the issues, with necessary breadth and depth, to gain an overall

understanding of the situation. Thus, the findings are working hypotheses and their transferability to other contexts depends upon the similarity that exists between the two situations under comparison (Lincoln and Guba 1995).

The presentation of the research findings is organized around issues that are fundamental for an understanding of the motivations, means, and processes involved in the implementation of JFM in the field as viewed from the perspectives of foresters. As a result of this analysis, various sets of factors and processes influencing the implementation of JFM were identified. These are presented in chapters IV to VI.

Direct quotations from the interview transcripts are included in the text to provide insight and richness to the presentation and to vividly describe certain points stressed in the papers. My comments are included in round brackets wherever necessary, to improve clarity of these quotes. DFO, RO, and Fr acronyms used at the end of each quote indicates the quotation from the interview of the respective rank, e.g., Divisional Forest Officer, Range Officer, and Forester.

3.6 Limitations of the Research

As with any methodology that uses interviews, there is an assumption that the respondents are honest and true to their feelings when conveying their responses. While my in-depth study of JFM villages gave me good insight to corroborate the veracity of the information given in the interviews of foresters, a parallel detailed analysis of the villagers' perspectives can compliment this study by providing greater insight into the

incentives and institutions situation of JFM on the ground. This could also be a potential area for future research.

While drawing the sample of respondents for the study, for CCF, CFs, and DFOs, all the employees involved were sampled. In case of ROs and Foresters, however, the respondents were recruited on a first –come, first served basis after ensuring their minimum experience in JFM[2]. The ROs and Foresters were thoroughly assured of confidentiality and protection of their privacy before their selection. It was also explained in detail that the interviews would be conducted according to their choice of time and place so as to make them feel safe and confident in expressing their views. Further, they were repeatedly assured by their superiors that the data collection was purely for research purposes and would not, in any way, harm them. I consider that these measures have allowed the recruitment of people who are outspoken and capable of expressing their feelings rather than people with a particular point of view on JFM. But this could be a possible limitation if those who stepped forward did not have representative views about JFM.

[2] Allowing the participation of respondents who give consent to their participation and providing the participants with full freedom and privacy in their participation is a requirement of the University Committee on Research Involving Human Subjects (UCRIHS) of the Michigan State University.

Chapter IV

Barriers Beyond the Partners: Macro Level Factors and Processes Influencing the Implementation of Joint Forest Management (JFM) in India

4.1 Introduction

Most developing countries face severe problems of natural resource degradation that hamper rural people's livelihoods. Literature on this problem points to the role of highly centralized hierarchical governance systems that failed to understand location specific agro-ecological or socio-economic conditions (Kerr 1997). Simultaneously, there has been a growing understanding of the ability of rural people to manage their own soil, water, pasture and forest resources (Berkes 1989, Ostrom 1992, Kolavalli and Kerr 2002). As a result, several countries have embarked on efforts to decentralize the governance of natural resources (Baland and Platteau 1996) that allowed local people's participation.

India, as one of the largest and poorest developing countries in the world and home to significant biodiversity, has a particularly strong challenge in managing its forests. As elaborated in 2.3, India undertook a major reform to manage forests introducing joint forest management (JFM) whereby local communities are given a role in managing state forests in 1990. Since then, this policy of "democratization" (Corbidge and Jewitt 1997) of India's forest governance has been a major subject of interest to foresters, planners, donors, academics, and state and national governments.

As has already been elaborated in section 2.4.1, certain inherent characteristics of forestry lend itself to be subject to a host of actors besides the local communities and the Forest Department to play an active role in JFM. Especially in case of India, as has been explained earlier in 2.1.3, in the period between 1976 and 1988 a series of measures were taken by government of India that have increased its role in forestry vis-à-vis the state governments (Rangan 1997). Nevertheless, the state governments are still the owners of all forestlands and all the forest management and program implementation is carried through the state machinery. Moreover, the dual control system of senior forest officers reporting to both the center and state government, and their responsibility to enforce both the state and central laws on forest and wildlife still continues.

In the background of these complexities occurring in the forestry scenario, there is also an ongoing process of political decentralization and grass root democracy development that led to the emergence of local governments known as Panchayat Raj Institutions (PRIs). Established through an amendment of the Indian constitution in 1993, these institutions envisage decentralization of state authority and emergence of local self-governance at district, sub-district, and village levels (Crook and Manor 1998). Since then, the PRIs are playing an increasingly significant role in rural politics and socio-economic life.

Thus the transition to JFM is not only a radical shift for the Forest Department but it is also taking place in a complicated and confusing context of multiple government institutions, an increasingly complex rural economy, and degraded forests that offer low

benefits to local people. Past analyses of JFM that looked into the problems of JFM's initiation or implementation primarily looked into the issues related to villagers' collective action, with some mention of the need to reorient the Forest Department, as if these two were operating in a vacuum. Consequently, attention to other aspects of a state intervention was diluted (Lele 2000). Some authors have even said that the government input to JFM is uncomplicated (Andersen 1995). The result of this simplified notion of the Forest Department's role in JFM is that there is no study that comprehensively analyzed the influence of factors beyond the Forest Department and local villagers, though Vira (1999) noted the importance of macro-analyses of institutional reform and the role of wider political economy in implementing JFM. This leaves us an important gap in our understanding of JFM implementation dynamics. Hence the objective of this paper is to examine the implementation of JFM in the broader context of larger issues that are beyond the control of villagers and the Forest Department. Specifically, this paper endeavors to address the following research question set forth in chapter I: *What factors and processes operating in the broad policy and public governance contexts, enable or constrain the Forest Department to successfully undertake JFM?*

Thus, this chapter will endeavor to demonstrate that implementation of the Forest Department's input as a government side partner is very complicated. It is also hoped that an increased understanding of these factors and processes may help state agencies and policy makers to focus their efforts in accelerating and expanding JFM initiatives at these levels and thus address the problems of forest degradation and low biomass production pointed out in the introductory chapter.

4.2 Decentralization and Development in the Context of JFM

As principal constituents in the joint management process, the factors operating at the level of either the local villages or the Forest Department significantly influence the outcome of JFM. However, the local communities are not isolated (Lele 2000); nor are Forest Departments a "simple linear extension of the state" (Vira 1999). Hence, for the partnership of these two constituents in JFM to succeed and sustain, the role of several other factors becomes significant if one critically examines the processes that are contained in government decentralization and in the emergence of the local governance regimes in actual practice. The analytical framework for such an examination is discussed below.

The process of devolution of state regimes and the evolution of local governance systems can basically be said to contain two important components. One component is the giving up of power by a central authority for its ultimate transfer to local groups. This decentralization represents the creation of a political 'space'. The opening up of this space provides an opportunity for several factors and functionaries to influence the matters on how this space needs to be filled in - an opportunity for political access and expression (Bingen 2000). Especially, in the absence of an organization 'ready' at the receiving end or when there is an ambiguity on how to create one, there is always a possibility for various actors to look for a niche in the vacuum created or to promote the interests they represent in such political spaces. In a sense, it is a political activity and has significant impact on the outcomes of the decentralization entailed.

Several scholars have in fact described the decentralization envisaged in JFM essentially as a political process (Bahuguna 1994, Andersen 1995, Baumann 1998, Khare et al. 2000, Lele 2000). Characterizing the JFM institutions as the political spaces for the marginal groups created at the local level, Hildyard et al. (2001) further note the critical role of the relative bargaining power of different groups in swaying the decentralization agenda in their chosen directions under the current socio-economic and political conditions.

The second component in this decentralization and development process relates to the aspects related to the 'receiving side'. When decentralization is taking place, there should be a 'body' at the other end to receive it and this transition is typically a bottom up process. The ultimate aim is that the local group takes control of management of its resources. However, in several instances, there is a transition period and an enabling process that involves the coming together of the target group, their capacity building, and empowerment. This could be said to be a social mobilization and development process occurring at the community end. Especially under asymmetries of information and initial endowments, there is again a role for several actors to play in this enabling process.

While some studies on JFM note the existence of active forest citizenship among the community that facilitated a ready acceptance of resource management by them (Jewitt 1995, Sundar 2000), several studies indicate the need for creation and fostering of local management institutions and community governance (Bahuguna et al. 1994, Datta and Varalakshmi 1999). In both the existing and fostered ones, however, the concerns for promoting equity and sustainability necessitate some organizational building, and

provision of technical and financial assistance. Various authors highlight the role of external actors in these areas (Krishnaswamy 1995, Jewitt 1995, Vira 1999, Kerr 2002b).

Further, as in the case of management of degraded forests, provision of certain non-forest incentives may be necessary for local people to tide over long gestation periods involved in managing such a resource. Several studies in the past mentioned the role of these incentives in moderating some of the challenges involved in the implementation of JFM (Poffenberger 1990, Bahuguna et al. 1994, Dhar 1994, Poffenberger and Sarin 1995, Corbridge and Jewitt 1995, Sinha 1999, Varalaxmi et al. 1999, Ghate 2000). Thus, currently, in almost all JFM efforts, provision of such non-forest incentives has become an integral part of this participatory development process. The point to be noted here, however, is that the need for provision of such non-forest interventions in JFM further underlines the crucial role of the agencies and functionaries that are in command of these resources for JFM to get started.

4.3 Data and Methods

4.3.1 Study of the Forest Department and the Perceptions of Foresters

In accordance with the initial assumptions they made and the analytical framework they set forth, most researchers in the past studied the perceptions of villagers and the factors operating at the community level. As elaborated in the section 4.2 above, however, it is the Forest Department which is devolving its authority and hence has a direct role in its decentralization. The Department also plays a role in the second component of this transition, i.e., enabling and empowering the community through participatory

development processes. Thus, these twin responsibilities of the Forest Department make it an ideal subject of inquiry to understand the challenges entailed in the implementation of JFM in the field.

The details of the research approach, study area, the data, data collection procedures, and data analysis are given in chapter III. Most of the insights for this paper are drawn from the interviews and analysis of documents. In view of the inherent nature of this subject (political sensitivity and confidentiality) and as the some of the documents are of non-public nature, the sources of these documents and interviews could not be specifically quoted.

The research findings along with relevant observations made from contemporary literature on macro-level factors influencing JFM are presented and discussed in the following section.

4.4 Research Findings and Discussion

Discussions with participating foresters indicate the existence of a host of local, regional, national, and global forces that are significantly influencing the implementation of JFM. Foresters vividly describe the operation of multiple institutions, organizations, policies, and functionaries with significant impact on the political, economic, and managerial aspects of forest governance at these levels. The impacts are intricately intertwined in the decentralization and development contexts. Thus, we see the question of how to link JFM institutions with that of the existing local government (PRIs) still unresolved. The

situation with several regional institutions such as the District Collector that have significant influence over the distribution of development budgets continues unchanged. The understanding and cooperation of these agencies that is crucially required in JFM is less than satisfactory. At the state level, several policies work at cross-purposes, hampering the progress of JFM. Further, non-recognition of the public good value of forests continues to undermine the importance of forests and the Forest Department vis-à-vis other departments in the state. The Forest Department's predominantly regulatory nature and its dual obligation to both the central and state governments sometimes puts it in a political and executive quandary. There is heightened political activity in forestry after the onset of JFM that could either aid or hinder the JFM process. Foreign donors' treatment of the JFM program mainly as an afforestation project has severely restricted the Forest Department's ability to engage in any poverty alleviation and social development on its own within JFM. The Forest Department, as elaborated in Chapter VI, identifies these as necessary to address the root causes of forest degradation. NGOs and social and environmental activists have significant roles in the policy development and practice of JFM.

Overall, the actions and mandates of all these actors are disparate, uncoordinated, and show little cognizance to the spirit of promotion of local governance and capacity building entailed in JFM. Detailed influences of these factors are described in four sections. The first one deals with those operating at the local level such as project objectives/ specifications, the influence of non-JFM villages, and local village level governments. In the second section, the influences of district, regional, and state actors

and other political functionaries are discussed. In the following section, the role of national government and international donors is briefly reviewed. Finally, in the last section, the role and significance of other crosscutting factors such as NGOs and other broad societal issues are elaborated.

4.4.1 Local Influences

i) Project Objectives/ Specifications

There is an accumulated wealth of information that documents donor influences in initiating decentralized governance and imparting participatory processes in developing countries through various funded projects and programs (See Wells et al. 2002). In most cases, the funding to the Forest Department or JFM is explicitly targeted toward afforestation with the aim of arresting degradation and bringing back the greenery. The root causes of degradation, however, are the demographic pressures and the socio-economic conditions of the communities living near the forests. Unless these root causes are addressed, "the local people cannot be expected to change their treatment of forests in a manner that radically differs from the past" (Corbridge and Jewitt 1997). The ultimate result of this pure plantation and afforestation approach that does not address the root causes is that the Forest Department continues to plant faithfully in the same area in one project after another.

The current JBIC assistance through which JFM is introduced in the state is also principally oriented as an afforestation project. The project is titled "Tamil Nadu Afforestation Project" (TAP) and in this project the Forest Department's main job is

afforestation (TNFD 1997). The consequence of this emphasis on afforestation and project approach[1] rather than a holistic resource management strategy in the state is that the JFM is confined to degraded forest areas and to certain villages surrounding them. The areas are taken up on a yearly target basis. The flow of funds is contingent upon 'achieving the target' each year (TNFD 2002). Hence even all the villages around the degraded forests are not taken up simultaneously. But omitting some villages and some forests seems to have serious consequences both to the villages and forests and thus to the sustainability of JFM. Closing of vast forest areas for afforestation affects the existing customary forest access arrangements of different villages differently. Many foresters interviewed admit that in several cases, the cattle from JFM villages moved to nearby non-JFM areas, not only leading to the accelerated degradation of forests there but, sometimes, to the added conflicts between JFM and non-JFM villages.

Moreover, since the initiation of JFM entails some buffer zone benefits[2], there is a great demand in the villages around these forests that have been starved of development funding for decades. Denial of these benefits to the demanding villagers, either for want of funds, or for not falling under that year's target, or for not having degraded forests around them, brought in deep antagonism between the Forest Department and these villagers. Many officials, from CFs down to Foresters[3], emphasize this point, expressing a sense of frustration. This is how a DFO describes the situation:

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[1] Confined to a fixed time schedule and driven by physical and financial targets and achievements.
[2] Certain non-forest incentives given to JFM villagers in the first three years of the program. Details in 6.3
[3] While I use the term 'forester' to represent the Forest Department personnel of any rank, the term 'Forester' is used to refer exclusively to this rank of foresters in the Forest Department.

> "This is one TAP village [takes a paper and draws a picture]. The adjoining village, what they say- 'Sir, our village is not included, sir. Why is it not included, sir?' You say the forest area adjoining your village is thick. 'Sir, both of us are near the forest and we have (the) same kind of problems- no bus shelter, no water, no school'. Your reply, again is, no we cannot take your village under this program because the forest in your area is thick. So they started thinking. Oh! only if the adjoining forest is degraded the program is implemented'- a wrong signal" (DFO)

Another major concern expressed by many foresters that is directly relevant to this project-based approach is that there is apprehension among the JFM villagers and interested parties that the community involvement in forest management is limited just to the project period of five years (being extended to seven years, TNFD 2002). The foresters opine that this uncertainty factor is severely restricting the JFM villagers' potential interest and involvement in JFM because no one is sure as to what will happen after the project period is over. Also, the forest cannot regenerate and provide any economically significant benefit to the community by the end of this five year period.

ii) Influence of Non-JFM Villages

To complicate matters further, the project also envisages selection and management of forest areas based on a micro-watershed basis. As these areas are predominantly arid and drought prone, several soil and water conservation measures are undertaken under the project with the objective of improving the overall productivity of the area. However, the traditional boundaries of villages[4] or hamlets do not tally with those of the administrative units of forests or the areas taken up for afforestation or areas delineated for watershed improvement. In most cases, all these activities spread across different areas with differential impacts on the surrounding human habitations. Further, the productivity of

[4] The concept of a village or hamlet is often a "mirage" (Andersen 1995) in Indian sense. The boundaries are difficult to define and there is no uniformity in the application of these definitions or their usage in practice.

these areas varies widely which may eventually lead to a differential endowment of benefits across the communities under JFM at a later stage. The challenge of reconciling all these coverage dilemmas has not only left some confusion and ambiguity in the selection of villages for JFM but also to considerable variation in the area apportioned to each village. There is no incentive to the nearby non-JFM villagers to stop from infringing upon the forests under JFM either openly or clandestinely. Many officials point out these difficulties saying that they have serious consequences for the sustainability of the program. They seek some directives to address this from planners and people involved in policy development.

iii) Local Governments (Village Panchayat)

As discussed in section 4.1, the panchayats are democratically elected local government bodies. Both the village panchayats and panchayat presidents, as statutory bodies and legal representatives of local people, wield considerable power and influence and thus significantly influence the outcomes of JFM. In most instances, panchayats cover several villages and/or hamlets and hence the boundaries of a village panchayat and that of a JFM village or hamlet do not tally. This has sometimes led to difficulties in the enforcement of forest protection and in proportional allocation of panchayat resources to JFM areas (Andersen 1995, Jewitt 1995).

In view of the dominance of local elites in panchayat politics and also in view of the panchayat functionaries' affiliation to political parties, some authors in the past suggested creation of JFM institutions parallel to panchayats (Bahuguna et al. 1994). The

government of India's latest guidelines also indicate a similar position (GoI 2002). The Tamil Nadu JFM program confers Executive Committee member status to panchayat members in JFM institutions.

Most forest officials interviewed for this study favor establishment of independent institutions for JFM. They state that for most panchayats, forests and people living along forest fringes are not a priority. Most importantly, these officials emphasize that JFM benefits are now going directly to the people who are involved in JFM. The foresters point out that this is unlike the case with the erstwhile social forestry program where the sale proceeds of forest plantations were rather going to the panchayats concerned.

In many cases in the field, these officials observe that most of the Village Forest Council (VFC)[5] Presidents are either current panchayat presidents or ex-presidents[6] or at least president contestants. The consequence of panchayat functionaries holding posts in JFM institutions is that while in some cases they helped divert some funds and power to JFM and thus to its proper functioning, in many cases, there is considerable mixing of funds meant for JFM and the panchayat. Moreover, those panchayat presidents who were also holding the post of VFC presidents, after having lost panchayat elections also lost their interest in JFM. In such villages, there was a complete turnaround in the functioning of JFM, from being 'model JFM villages' to mere names in the project books. In cases where the VFC president and that of the panchayat are different and belong to different political parties, antagonistic relationships existed between the two. Highlighting all these

[5] The Village Forest Committee, the village level body that undertakes JFM activities in a village, is described in detail in Chapters II and VI.

[6] Lost panchayat elections that took place in the midst of the JFM program.

scenarios, forest officials interviewed say that these hurdles have considerably affected the performance of JFM.

4.4.2 Disrict, Regional, and State Level Institutions and Organizations

i) District[7] and Regional[8] Influences

Since the time of the British, the office of the District Collector is a seat of paramount power and political significance at the district level. The Collector has a strong influence on several issues that are directly related to the functioning of the Forest Department such as maintenance of land records or problems related to law and order. All the forest settlement proposals, through which the claims for rights on forestlands are settled, are processed by the Collector. In any disputes pertaining to the land or law and order, the Collector's version is the official version. Further, as the head of the district planning body[9], he monitors and reviews all the regional infrastructure and development spending in the district and thus has considerable say in these matters.

In light of the above-mentioned observations, it is needless to say that the Collector's interest and involvement in JFM can significantly make or mar its implementation. Many JFM villages are located in interior areas with little exposure to development investments and hence the villagers' demands for participation in JFM are mainly developmental

[7] An administrative unit within the state, like a county in the US. A district can contain hundreds of villages.
[8] Institutions that function within a state but have jurisdiction over more than one district.
[9] In some states, political functionaries head planning and development functions in the district.

(discussed in detail in chapter VI). They range from getting simple ration cards[10] to laying of roads. In view of this crucial nature of the Collector, the Forest Department requested the state government to declare that the Collector be officially involved in JFM. The government later issued orders providing for a review of JFM implementation in the district under the chairmanship of the Collector.

All the officials interviewed at the district level and below (DFOs, ROs and Foresters), narrate stories on how they influenced the Collector and his administration in getting several of the developmental benefits to the villagers and thus tremendously won people's confidence in implementing JFM. Calling these long pending needs as the "core issues," one DFO says that helping villagers in these matters is the key to JFM success. Another DFO narrates how, after getting land titles from the Collector for some traditional woodcutters, he changed the lifestyles of these people positively and thus the fate of the forest in that area.

But the experiences of many other foresters in this respect give a different picture. They say in several places the relationship worked mainly on a personal basis. The government order proved to be of little use in the field as the Collector's JFM review amounted to yet another review in the district among a hundred others. Many officials feel that in the absence of any specific mandate to the Collector or a review of the functioning of the government order by an authority above him, the government order resulted in conferring yet another privilege to the Collector. These officials further state that many Collectors

[10] These cards enable poor people get minimal quantities of rice and other basic necessities at subsidized rates.

did not regard the government order at all as the forests happened to be the least priority for many of them.

Apart from the Collector, there are several other government units functioning at the district level such as Irrigation, Education, Health and Transport whose role in JFM villages is crucial in view of the villagers' developmental needs. The cooperation or non-cooperation of these departments is the chief topic of discussion on the challenges that forest officers face in implementing JFM. Many officials describe how they, their staff, and often the VFC Presidents, or all of them together, approached these functionaries pleading for their active involvement and help in JFM. Many a time, the response of these functionaries, in the absence of any incentive or mandate to cooperate with the Forest Department or the villagers in JFM, is apathy, these officials say. Some officials, expressing a sense of disenchantment, say that some of these functionaries turned hostile, wondering why the Forest Department is interested in non-forest issues of the villages.

The point repeatedly stressed by almost all the respondents is that the decentralized resource management and local self-governance should cover all spheres of rural life. They point out the absence of a resource sharing mechanism that would ensure an equitable distribution of the state/district resources to its constituent villages. The officials stress that in view of the prevalence of a top-down approach in the overall planning, the villages are always left at the receiving end. Further, they complain that with every department holding the details of its programs to its chest, there is severe confusion, duplication, and malfunctioning going on at the village level. Whether it is the

District Collector or other government functionaries, in many cases, the necessity of the Forest Department or VFC Presidents to approach them has become a "venue for satisfying their egos", remarks a DFO. This is what another DFO says about interdepartmental coordination:

> This is a serious necessity- but unfortunately mobilizing the government for that kind of major policy change goes beyond the capacity of a simple and low profile department like Forest. When all the people's needs are around non-forest, why should anybody bother about forests or what forest staff say? Right now their (other departments') immediate response is "there is no fund" – "we will see it in the next budget"- "This village is not covered in our program", like that. If you keep pursuing, using all your means, then they do one or two. (DFO)

The above observations indicate that despite the introduction of the Panchayat Raj system, decision-making is still centralized and has not really devolved down the line.

Similarly, police and judiciary systems enforce and adjudicate law and order in the state following a variety of statutes. The JFM institutions, however, are plain agreements between the Forest Department and local villagers and do not have any statutory support. This impediment has severe implications in the field. A DFO vividly recounts how he had to run from pillar to post to get the release of an enthusiastic VFC President from police custody when he was arrested on charges of imposing a penalty on a fellow villager. According to the DFO, the police, fearing that this is an usurpation of their power by a villager, blew up the case out of proportion and practically brought the JFM movement to a grinding halt in that area.

Apart from these government functionaries, there are also other semi-autonomous and autonomous organizations such as cooperative societies, banks, and rural development organizations that influence the functioning of the Forest Department and local communities in JFM. For example, a DFO narrates how his orders authorizing the villagers to collect non-timber forest produce (NTFP) from forests were nullified by a regional cooperative society.

Under the existing orders of the state government, there are cooperative societies that are formed exclusively to help certain sections of the public such as members of the scheduled castes and scheduled tribes (SC & ST).[11] According to the DFO, the forest dwelling people are not involved in the collection and sale of the NTFP; nor are the profits plowed back into the areas where they are collected in an equitable manner by these cooperatives societies. The DFO informs that in order to remedy the situation, he had ordered management of NTFP by the local people themselves in true of spirit of JFM. Expressing a sense of frustration over the entire episode, he says that though the local people wanted the JFM arrangement, he was forced to quickly withdraw his orders by a powerful lobby representing the societies in the state.

ii) State Government

As mentioned in section 4.1, the state government is the owner of all the government forestland in the state. The rules and regulations that govern forest management in the state basically draw their power and procedures from state laws and statutes. The Forest

[11] Scheduled Caste and Schedule Tribes: Terms referring to certain historically disadvantaged sections of the Indian society identified in the Indian constitution.

Department's front end that comes into contact with the public is represented by its technical wing consisting of forest personnel trained in professional forestry. The actual policy decisions are taken in the Ministry headed by a politically appointed Minister. A Secretary to the Government and a large body of secretarial staff working directly under the control of the Secretary assists the Minister. The technical wing is subservient to the Ministry in all respects and the recommendations of this wing get only an advisory status in the Ministry. The Forest Ministry in turn, is a small component in the overall state government machinery. Though the recruitment systems[12] for some staff vary, a majority of the forest staff in the state work under the direct control of the state government and are governed by state rules. Thus the relationship between foresters and their ministry as well as between the forest ministry and the other state government apparatus largely determines the role, resources, and functioning of the Forest Department. The importance of foresters and the Forest Department in the state in turn has a direct bearing on the functioning of JFM in the state.

With the banning of commercial felling of natural forests as early as the 1970s, the forests are no longer a source of secure financial flow to the state government. In the absence of any mechanism that brings into account non-financial benefits of forest management such as biodiversity conservation, ecosystem regulation, and meeting subsistence needs of local people, the importance of forests or that of JFM is left mostly to the knowledge and understanding of the people who are at the helm of affairs. Consequently, currently the Forest Department has much less political leverage and

[12] Members of the Indian Forest Service are recruited and trained by the central government and allotted to states following a rotation system of allotment.

recognition vis-à-vis many other state government departments. Whatever power the Forest Department now has is mostly through its regulatory provisions available to it both under state and central laws. Especially after the enactment of the Forest Conservation Act of 1980[13], processing of permissions for clearance of forests has often put foresters squarely at odds with its own ministry as well as with other government departments and political functionaries in the state, often with serious repercussions in forest administration.

While the functioning of various state departments is at odds at the field level, the same thing extends to policies of these departments at the state level. For example, the department of Animal Husbandry has raised serious objections in the government against the Forest Department's signboards erected along forest fringes that talked about the ill effects of goat browsing in forests. The Forest Department is building up its case to counter these objections and convince the government of its policies.

Many respondents complain that as part of a government system, there are still many challenges that are hindering JFM in the state. For example, many DFOs say that the funds earmarked for JFM do not come straight to the Forest Department or to the villages in question but are first credited to the state treasury. Often, the Forest Department has to follow a series of painfully cumbersome steps to get them. These officials say that very often, they come at the most inappropriate time. The resulting delays, though they may look trivial, have serious consequences to the implementing staff in executing seasonal

[13] Under the FC Act, diversion of any forest land for non-forest purposes requires the prior permission of the central government.

operations such as afforestation or when promises of prompt payment are made to poor villagers. Whether it is banning goat browsing or granting gas connections to the people living in the forest fringe, the bottom line, many foresters stress, is that the decentralized management and the concern for conservation should come from all.

iii) Political Functionaries and Party Politics

Various political functionaries influencing JFM include the state Ministers, Members of the Legislative Assembly (MLAs)[14], and other party heavyweights functioning in the state at various levels. The discussion here is confined to those influences that are operating above the local community level, and hence do not include those within, such as that of the village elites.

Initiation of JFM in a village provides the villages with several development benefits and a secured partnership with a government department. Also this relationship enables improved access to government and other organizational information and resources. Further, the devolution process entailed in JFM confers certain rights to VFC President in the management of surrounding forests and in the distribution of the resultant benefits. In that sense, the VFC President position is indeed a powerful and prestigious endowment. In view of these factors, the launching of JFM in the state and the consequent opening up of the JFM process to the public proved to be fertile ground for play of politics and a valuable venue for politicians. Consequently, the political functionaries' influence in JFM ranged from putting pressure on forest administration in the selection of villages according to their wishes to demanding conferring of JFM benefits to the people of their

[14] Like state senators in the US political system.

choice. If some forest officials did not yield, many foresters complain that they were threatened, harassed, or transferred.

Nevertheless, some officials observe that the recognition of the populist potential of JFM also helped its quick acceptance by a party in power and thus to its smooth initiation in the state. For example, a senior officer describes how his recommendations for constitution of an 'empowered committee' at the state level to facilitate JFM implementation were quickly accepted by the then government. This committee, according to the officer, helped in overcoming several bureaucratic wrangles. Similarly, the backing of some political functionaries in the field helped both the Forest Department and community leaders to put pressure on other government functionaries and get some developmental benefits to JFM villages. A DFO recalls how he and one of his VFC Presidents, with the help of a local Member of the Legislative Assembly, managed to get a government school sanctioned in a JFM village and thus made significant impact in JFM there. Some officials also stress how the involvement of these public functionaries provided much needed visibility, legitimacy, leadership, and momentum to the program. In fact, according to the provisions of the state government, it is mandatory to inform and invite local political functionaries to all government public meetings and functions.

However, when programs are identified with parties, the biggest problem comes when there is change of party in power. Some foresters vividly describe the amount of trouble they went through in convincing the new government of the rationale of JFM when the new government was not interested in its continuation. While the rumblings on JFM after

the change of parties in power were somewhat pacified at the state level, real troubles seem to have started at the field level. Several officers recount how they were threatened in several places to change the VFC Presidents or hold fresh VFC elections. Further, some staff say that in some places, these functionaries gave party colors to the program in public meetings, leading to alienation of people belonging to other parties.

4.4.3 National and International Factors

i) National Government

Since 1970s, the government of India (GOI) has enacted several legislations and issued a number of policy directives that had a profound impact on the way the environment and natural resources are governed in the country. They include the transfer of 'forests' from state list to the concurrent list[15] by an amendment of the Indian constitution in 1976 to protection of wetlands and wildlife and to the present euphoria on JFM. For example, after the enactment of the Forest Conservation Act by the GOI in 1980, the annual rate of conversion of forestland for non-forest purposes by various state governments, which used to be a simple and recurrent phenomenon in the past, dropped from 443,000 ha to 25,000 ha (TERI 1988). The motivation for these GOI interventions could be attributed to its exposure to the broader environmental scenario around the world, or perhaps, to the vision of the people at the helm of affairs in the central government. While a discussion on GOI's interventions is beyond the scope and objective of this paper, it is however, necessary to mention that the strategies to communicate the intentions of these measures

[15] Both the central and state governments can enact legislations on the subjects included in the concurrent list. Of course, in case of any conflict between the state and central legislations, the central law prevails. Whereas on the subjects listed in the state list, such as health and education, the state governments have exclusive authority to legislate.

or the guidance and support provided to put these policies into practice down the line are very limited.

A major consequence of this development is that it has left a wide gap between rhetoric and reality. In most cases, these measures are treated as anti-development and active encroachment of the authority of other institutions such as the state governments. "If directives are coming from the 'top' on how to manage, it is also the responsibility of the top to provide the needed resources"- this is how a senior officer describes the attitude of some state government functionaries toward these measures of GOI. This is of serious consequence to the Forest Department and foresters, as the senior officers of the Forest Department are partly governed by the rules of the central government and thus have an obligation to follow its directives. Moreover, in view of foresters' training and periodic exposure to forest and environmental issues, they constantly become aware of the intentions of the GOI's measures and hence develop an intrinsic urge to implement them to the fullest. These regulatory provisions and the foresters' strict adherence to conservation and protection principles have sometimes led to the branding of the Forest Department as a department of 'NO'. This is because the Forest Department says 'no' to any activity inside a forest, be it laying a road or construction of a place of worship. Many a time, this dual obligation of the Forest Department to both the center and state governments puts the Forest Department in a political quandary. Thus, the role of the central government in natural resource governance, its relation with the state governments, and how the forest personnel mediate between these two, have a direct relevance to the forest management in the field and in turn to the JFM.

ii) Donor Influences

As has been highlighted in section 2.3 and 2.4.1, foreign donor support is the motive behind launching JFM in several states. Some authors indicate that in many instances JFM was pushed through ad hoc orders owing to pressure from donor agencies or interested individuals (Baumann 1998, Saxena 1999, Ghate 2000). However, as explained in 4.4.1, when policies are implemented in a project mode without providing much leverage to mold them to the ground level situation or when the needed antecedent conditions do not exist, the purpose for which the help extended might not be served. The purpose here is to promote participatory forest governance and improving the greenery of the area.

4.4.4 Other Crosscutting Factors

i) NGOs and Voluntary Agencies

NGOs throughout the world have been entrusted with the responsibility to deliver development programs while the state's responsibility is diminishing (Yadama 1995). In JFM too, the GOI directive on JFM envisages the role of NGOs as 'interface' between state Forest Departments and the local communities in the "revival, restoration and development of degraded forests" (GOI 1990). Contemporary literature on JFM also highlights the role played by several organizations such as the Ford Foundation, the Winrock International-India, and TERI in promoting and facilitating JFM.

Most field officers interviewed however observe that the number of localized, experienced, enthusiastic, and committed NGOs to work in remote forest villages that

demand serious hard work but provide limited publicity is very small. In areas where such dedicated agencies with established networks were available, the results are exemplary, they highlight. One DFO narrates how, pooling financial and personnel resources of the Forest Department and a local NGO helped not only in restoring the greenery and the confidence of the people in forests, but in the village's recognition as one of the model villages in the state (TERI 2002).

Some officials also observe that even if some NGOs are available, they are specialized only in a certain aspect of social development, such as micro-credit development or PRA. These officials say that though this limitation has restricted their full use in JFM, their contributions were significant. According to some officials, more than the traditional 'registered' NGOs, local trusts and religious bodies are playing a significant role in mobilizing the people and resources for JFM. Some respondents also observed that problems arose in several places when some 'official[16]' NGOs depended heavily for resources on JFM villages that already suffered from a scarcity of resources. Some officials further complained that in some cases, the NGOs played a "double game", wielding a wedge between the Forest Department and locals and exploiting the vagueness of the program in certain aspects. While there appear to be strong limitations to implementation of participatory forestry programs by the NGOs on their own (Yadama 1995, 1997), as Baumann (1998) pointed, and as indicated by the present study, the collaboration between the Forest Department and the NGOs seem to be a critical determinant of success in the Forest Department initiated JFM programs.

[16] Organizations registered as NGOs to make themselves officially eligible to receive funds/works in government/donor supported programs that mandate involvement of NGOs.

ii) Broad Societal Influences

Observing that the areas relatively rich in forests are also the most economically backward in the state, some officials opine that civil agitations in these areas are mostly directed against the government's negligence of economic development concerns. These officials observe that since forests and the Forest Department are in the forefront of government in these areas, they often bear the brunt of public anger, giving the general public a picture of a malfunctioning Forest Department. These officials state that the response of the people and their relationship with the Forest Department with the onset of development spending through JFM, though small, is very encouraging now. Some officials also call for increased development spending in these areas arguing that the people in these areas are still not adequately compensated for their services in protection of forests that benefit society at large.

Further, on the societal front, some officials also opine that currently the general public does not consider forests to be of much value to society. Citing the lackadaisical approach of the legal system and long pending forest cases in lower courts, an RO narrates how, even if a case comes to trial after decades, the offenders are let off on flimsy grounds. Stating that society in general is moving more towards formal systems of social organization and public conduct, he wonders if the situation can improve in JFM where the enforcement arrangements are mostly informal and are recognized by just the Forest Department and some villagers. For any real changes in the enforcement system, he contends that not only amendments are required to the existing statues at various

levels, but more importantly, there should be an intrinsic approval by society at large to such measures.

Several authors in the past have highlighted the influence of general societal factors such as regional imbalances (Rangan 1997), low government spending in human development (Datta and Varalakshmi 1999), economic and social inequalities, market incentives, demographic pressures and changing ethics (Bahuguna 1994, Kapoor 1994) on the management of natural resources as common property. While some authors have advised the adoption of realistic approaches (Ghate 2000), some have even called for transformations of the entire system of governance (Sundar 2000) and structural changes for participation to occur (Hildyard 2001).

Some authors trace the evolution of community management rhetoric in Indian forest policy to the movements spearheaded by some environmental and social activists under the banner of moral economy of provision and governance[17] (see Corbridge and Jewitt 1997) and return of the 'golden age[18]' of the past (Guha 1989, Gadgil and Guha 1992). Several scholars however, taking into consideration current socio-economic and political transformations going on in the country, consider these arguments as ill placed[19]. Saying that these movements have in fact contributed to the continuation of 'executive inactivism' in the country, they call for an active engagement of scholars and social

[17] Notions of practices grounded in traditional view of social norms and obligations in contrast to present day formal, contractual, state enforced and market based rights and obligations.
[18] A notion that assumes every thing pre-colonial was wonderful.
[19] Please see Rangan (1997), Kumar (2002) and the footnotes of Baumann (1998) for a discussion on these arguments.

activists in the development of approaches that bring to bear "environmental considerations" in the nation's political and economic decision-making (Rangan 1997). These observations in the literature further highlight how the natural resource management and participatory development policies and practices are influenced by the overall societal factors as well as by the discourses set by various scholars and activists from time to time.

4.5 Conclusions

Whereas past research has treated participatory natural resource management as if villagers and project implementing authorities are the only relevant actors, in fact there are numerous external factors that influence the outcomes of their efforts. The JFM situation has gained complexity in view of the multiple stakeholder interests and the multiple layers of governance over forests. The situation has become even more complex, challenging, and confusing in view of the ongoing decentralization and active creation of points of political interest and enthusiasm elsewhere in the general political and public governance context. Further, the strong demand by local people for socio-economic development schemes in lieu of their participation in the improvement of degraded forests belittles the role of the Forest Department in this entire approach and places functionaries of other departments on a high pedestal.

A major consequence of the operation of these factors in the broad policy and public governance is that they have the potential to make or mar the progress of JFM. Thus JFM, where the Forest Department and local communities come together and collectively

manage forests, can be characterized as a discontinuous step in the evolution of Indian forest policy (Vira 1999). Though the success of this transition to joint management is principally determined by how the Forest Department, on behalf of the government, and the villagers collaborate, as demonstrated in the study, there are several macro level factors and process that are significantly influencing the ability of both the foresters and villagers to engage in this joint activity. In the absence of any visible means, mandates, or mechanisms to translate the policy goals across various functionaries that exist down the line, currently, there is no common understanding of the objective of the program or on the methodologies needed to implement JFM across these actors. As a result, the responsibility of bringing the needed transformation has primarily been left to a few foresters and to a few needy and interested individuals in the communities. The involvement and cooperation of all other functionaries is left purely to the knowledge, understanding, and willingness of individuals functioning at these levels. As Baumann (1998) pointed out, in fact, structurally very little has changed on the ground.

A common theme that can be gleaned across the operation of all these actors is the role of power and influence in implementing a public policy. JFM, in accordance with its true spirit, is structured along the lines of moral economy (chapter VI). But when put into actual practice, it is deeply entrenched in politics (Kumar 2002) and asymmetrical power relations. Especially when the program tries to promote the weaker section of society, as observed by Andersen (1995), there is considerable hostility from the powerful and influential. The forester or the poor villager, under the current set up, has limited authority or power to confront such challenges. Moreover, the influence of these factors

is cumulative. Anyone can undermine the process at any stage, effectively collapsing the entire program. The influence of these forces may thus explain the variability in the performance of the policy in the field as well as to JFM's quick disappearance in some places as elaborated in the chapter I. The limitations and practical realities discussed in the study clearly demonstrate the constraints imposed by the system on what the Forest Department or foresters can do in JFM. The researchers and the agencies involved and interested in the philosophy and practice of JFM need to understand these complexities.

For real and meaningful impact of the JFM policy on the ground, there is a need to have a broader perspective and bring about policy changes in the wider socio-economic and political spheres of the country. These reforms are necessary to provide an improved understanding of the objectives of JFM among all the actors involved and to ensure a complimentary and unifying effect on the efforts going on in the forestry sector. In this context, the five-year experience of JFM in Tamil Nadu can at best be described as a first step in its adaptation and evolution. And the Government of India's recently created JFM Coordination Cell (GoI 2000) may prove useful in addressing some of these concerns. That way, the progress of the JFM policy in promoting a "substantive democratic process" in India is laudable (Rangan and Lane 2001). Nevertheless, the ultimate action should be to progress from the current emphasis on 'participation' of local communities in government programs to the promotion local citizenship and civil society involvement through some real changes in the current systems of public governance and political functioning.

Chapter V

From Forest Regulation to Participatory Facilitation: Forest Employee Perspectives on Organizational Change and Transformation

5.1 Introduction

Governments all over the world are increasingly supporting decentralization, democratization, and collaborative natural resource management in the wake of growing environmental awareness and the concern that top-down approaches failed. For successful institutionalization of these policies, however, there should be corresponding changes in the government bureaucracies to provide them with suitable enabling environments (Kolavalli and Kerr 2002). The objective of the transformation is to make these organizations capable of working in decentralized decision-making environments and to be progressively responsive to participatory management.

Forest management has witnessed a sea change in India since the inception of joint forest management (JFM) through the Government of India's historic directive on it in 1990. There is now a growing body of evidence which suggests that forests can be protected effectively through cooperative action taken by the Forest Department and rural communities (Samar Singh 1990, Poffenberger 1990, Dhar 1994, Bahuguna et al. 1994, TERI 1998, Sreedharan and Sarkar 1998, Datta and Varalakshmi 1999, Rangachari and Mukherji 2000). While several states are fast issuing orders enabling and expanding the coverage of JFM, some concerns are increasingly being expressed about the success and sustainability of these JFM efforts in the absence of responsive and responsible Forest

Departments (Saxena et al. 1997, Jeffery and Sundar 1999, Lele 2000, Ghate 2000, Hildyard et al. 2001).

Scaling up of JFM is important not only to stem degradation and enhance ecosystem health but also to address India's growing biomass needs (Kerr et al..1997). And this needs to be done not just by "project replication", but through diffusive strategies influencing policy reform and bureaucratic transformation (Bahuguna et al. 1994). The Forest Department, which reigned over forests for over a century, has been given the responsibility of not only decentralizing its authority over the forest but also to successfully implement the transition to JFM. This colossal transition from a regulatory authority to a responsive facilitator, however, is a major challenge to the Forest Department (Vira 1999) as the organization's systems and structures that were established long ago on the lines of policing and industrial production remain largely unaltered. Hence for JFM to make any significant impact, attention to the structure, and functioning of Forest Department that governs 96 % of India's forest resources is of paramount importance.

Despite the critical role of bureaucracy in transforming the forest governance, much less attention has been given to the challenges facing the Forest Department bureaucracy in transforming itself from a policing to a facilitating organization, leaving an important gap in our understanding of JFM's implementation dynamics (Vira 1999). The objective of this paper is to provide an understanding of these organizational factors and processes that influence the Forest Department's ability to operationalize and apply participatory

planning and management strategies. Specifically, the study will endeavor to address the research question set forth in chapter I: *How does the Forest Department's organizational structure and functioning influence its ability to transform itself form a policing organization to a participatory facilitator?*

A conceptual framework that forms the basis for exploration and analysis of these organizational factors is outlined below.

5.2 Organizational Change and Transformation

Organizational change and transformation can be defined as adaptation of an organization to its changed work and task environment. The phenomenon of change occurring in any organization is common and perhaps, inevitable (Hobbs 1999). However, in a dynamic and demanding society, contemporary organizations are increasingly facing severe pressures to be more effective, efficient, and responsive (NSF 2001).

As mentioned in the introductory section, government organizations are poised for major transformations in the wake of a decentralization drive: a change from hierarchical, top-down, mechanistic governance isolated from public interaction to governance that needs to take root and thrive on the principles of democratization, stakeholder input, and collaboration. The natural resource management agencies dealing with dynamic and complex ecological and social systems now need to operate in location and context specific situations in a multi-stakeholder and multi-objective environment (Rastogi 1999). When change in the environment becomes the order of the day and when changing conditions pose new problems and challenges, open and flexible systems of management

are required (Gundersen et al. 1995). Similarly, systems of authority, communication, and work organization need to be geared according to the contingencies of the situation (Morgan 1997). A focus on innovation, use and acquisition of resources, and identification of appropriate alliances should be the guiding philosophy. These conditions imply that the organization needs to be operating on the principles of continuous learning and improvement and adaptive management (Holling 1978, Lee 1993).

Adaptive management through organizational learning can be described as the processes within an organization that provide a continually modified understanding of evolving conditions and an ability to improve performance based on learning at scales appropriate to issues. Further, systems level learning and its dissemination through holographic principles represents an enhanced knowledge base, an integrated organizational vision, and an ability to engage in organizational renewal and revitalization (Nevis et al. 2001).

Although incorporating the elements of a learning system may sound essential for a natural resource management organization undergoing transformation, it does not, occur automatically. There needs to be an enabling environment that provides the antecedent conditions for the emergence of such a system. The critical dimensions that determine the capability to learn and continuously improve are principally the factors and processes that influence decision-making and the flow of information, such as organizational culture (Mahler 1997). Some of the antecedent conditions that influence learning orientation in an organization are leadership, roles and responsibilities, resources and incentive structures available to the staff. Studying these facilitating factors and enabling

conditions may help understand the extent to which the organization has aligned with its new environment and develop a strategy on the interventions needed.

5.3 Review of Empirical Literature

Past literature on natural resource management organizations in other contexts indicates that the measures needed to create an enabling environment for transformation to occur in an organization include enhancing employees' knowledge and skills, bringing about some attitudinal changes, providing needed resources, and offering motivational incentives (Whisnant 1980, Maxwell, 1990, Kitchen-Maran 1992, Schumaker 1995, Padgett and Imani 1999). All changes need to suit the changed work and task environment. In the context of Indian forestry, recognizing the problems associated with managing an almost open access resource fraught with several economic disincentives in a changing society, Bowonder suggested major changes in administration as early as 1983.

While Jeffery et al. (1998) note a "lukewarm and occasionally hostile" response to JFM by foresters, Bahuguna et al. (1994), Dhar (1994) and Sinha (1999) report positive changes in foresters' attitudes with the adoption of this new forest management strategy. Poffenberger (1990) opined that the added difficulty for forest personnel, besides establishing local community management groups, is in coping with "both technical and socio-cultural changes which demand transformation in rules, procedures, and attitudes". Underlining the role of the senior officers in bringing about these changes, he further states, "given the opportunity, space, and conducive atmosphere, with assistance from

appropriate resource people, field staff have displayed flexibility, commitment, and a willingness to change, often laboring extra hours and coping with additional responsibility". Ghate (2000), concluding her study on JFM, lists devolution of authority within the Forest Department and introduction of an element of flexibility and continuous learning, as the major factors responsible for success. She further adds that the leadership, dedication and commitment of the District Conservator of Forests in charge of JFM and the sincere efforts of his staff not only made JFM a success in Buldana division but also helped its spread to nearby areas.

While Singh (1991) points out an apparent mismatch between JFM objectives and the Forest Department's existing legal and administrative framework, Khare et al. (2000) call for radical changes in the Forest Department's centralized planning for it to be able to work with a large number of diverse and scattered local institutions. They further observe that the foresters implementing the policy find their traditional roles "ill-equip" them to cope with the change. Traditional Forest Department systems involve hierarchy, elitism, and corporate structures (Rastogi 1999). Bureaucratic rigidity and administrative bottlenecks continue to hamper the efforts of those who would like to innovate radically with community organization, participatory planning, budgetary allocations and benefit sharing (Campbell, 1996).

Personal, cultural, and historical dynamics, known only to other members of the service, often influence the decisions of the forest staff (Robbins 2000). For example, failures are usually not reported, since "these are not accepted in the system" (Singh 1992).

Moreover, members of the Department often are hesitant to conduct such research for fear that such academic discourse may negatively impact their career prospects (Vira 1999). These subtle features and other difficulties associated with studying the internal structure of any government agency are among the reasons that little work to date has focused on these agencies in India and elsewhere in the developing world (Kolavalli and Kerr 2000). As a result, most observations pertaining to the bureaucratic approaches in JFM in India are anecdotal, often drawn from personal experiences and beliefs of the authors. Lack of systematic information in this regard represents an important gap in our knowledge of the dynamics of JFM at the implementation level (Vira 1999).

5.4 Data and Methods

The details of the research approach, study area, the data, data collection procedures, and data analysis are given in chapter III. This chapter addresses the findings that describe the organizational dimensions crucial to the performance of foresters in a changed work environment. Specific themes and concepts developed based on the analysis of foresters' perceptions are those related to the nature and magnitude of change, resources and incentives available to meet the changes, roles and responsibilities, rules and regulations, organizational culture including communication and information flow and leadership, and accountability in the changed situation.

While the term 'forester' is used to represent Forest Department personnel of any rank, the term 'Forester' is used to refer exclusively to this rank of foresters in the Forest Department. While referring to groups of various ranks, the term 'senior officers' is used

to represent Conservators of Forests (CF) and Chief Conservators of Forests (CCF) and 'field staff' is used to indicate the ranks of DFO, RO, Forester, Forest Guard (FG), and Forest Watcher (FW). Finally, the term 'executive staff' is used to indicate just the uniform wearing staff of the Forest Department i.e., RO, Forester, FG, and FW.

5.5 Research Findings

The discussions with forest officials revolved around the enormous changes that took place in the nature and functioning of the Forest Department after the onset of JFM and the consequences of these changes for the staff and the organization. While a majority of the discussions indicate little change in Forest Department's existing structure and functioning and thus a continued challenge to undertake the new mission, a few exceptions point out to some promising future in this direction.

Over all, the respondents were eager and enthusiastic to share their ideas on what is going on in the organization and how to bring some possible changes. Many have explicitly mentioned that the opportunity to share their JFM experience in this study as a valuable incident in their professional careers.

5.5.1 Nature and Magnitude of Change

A unanimous view expressed by the respondents in the study is that JFM amounted to a colossal change in the Forest Department both for the department as well as for the employees. Intensively interacting with the local communities that were hitherto regarded either as detrimental or irrelevant to the forests all these years meant a radical change in

thinking as well as in practice, says a DFO. Several senior officers highlight that working in a village environment and dealing with a host of social, political, economic, and developmental issues for the staff who are trained in technical aspects of forestry and who knew very little about social organization is a tremendous task.

The officials interviewed indicate that the change process has become significant and strenuous because JFM is introduced in degraded forests and in some of the most backward areas in the state. The consequence of introducing JFM in degraded forests, according to many foresters, is that the public has no immediate incentive to be enthusiastic about JFM. Hence, according to senior officers, the Forest Department has undertaken massive forest improvement work in the quickest possible time frame. But field staff point out that undertaking new, intensive work such as installing water harvesting structures and promoting afforestation on a micro-watershed basis that needed extensive technical and engineering help and required enormous work. In many places, the technical work itself has increased five to ten fold, many officials stress. This is how a DFO remarks on the increased workload:

> When I was DFO----Division, you know how much my budget was – 15 lakhs. Now you can't imagine – divisions have budgets up to a crore[1]. Same infrastructure, same mental makeup – aptitude, attitude, and same efficiency. Some Rangers don't even know what they are doing. DFOs don't have time to check. (DFO)

Beyond technical issues, the respondents observe that the foresters had difficulty establishing and maintaining cohesive resource management groups that think of forests and that function over a considerable period in a diverse and complex social, economic,

[1] One lakh is 100,000 and one crore is 10 million.

political and cultural environment. The field staff admit that very few foresters possessed the public relations skills and an understanding of the rural psychology that is needed in the task of approaching a village audience and instilling the message of JFM.

> How many DFOs and Conservators held a microphone in the public? Does any one have any idea of the repercussions of what they are saying in public? (DFO)

> Who knows PRA[2]? How many people know what PRA is in our department? A DFO cannot sit there everyday and do everything? Even before conducting PRA, how many days we need to go there? After going there, whom do you meet? Where do you meet? (DFO)

A few DFOs say that JFM was new for the villagers as well as for their own staff in the beginning. According to these officials, the people and their staff were skeptical of the activities and the approach, and they say it took considerable time and effort for these people to know and understand what is going on. A DFO described her/his first meeting with the villagers, explaining that all the nuances of the program went up to 2 o'clock in the morning and how of an much impression he/she could create in the village by building such rapport with the villagers. Similarly, another Forester recalled how his erstwhile DFO took serious efforts to remember the villagers by their names and how he used to address them with a personal touch, to the surprise and delight of several villagers. He further explains that the DFO's hard work and genuine pursuit of the cause of JFM motivated him to work for JFM. "(The) first three months is the most crucial period in the implementation of the program", said another Forester, narrating how he had to spend this period staying in the village day and night in the midst of the villagers

[2] Participatory Rural Appraisal, which is used in participatory work at the village level.

motivating them to join JFM. There is no other alternative to "mingling with the villagers if one wants to ensure success in JFM", he declared.

Launching JFM is not just new and more work but very often risky and uncertain, say some participating foresters. The officials interviewed opine that the consequence of working in areas that have acute development needs is that the objectives of JFM did not match with the immediate needs and interests of local people. They further observe that this difference in objectives is often making the task of taking the message of JFM complex and difficult. While the Forest Department made some strides to bridge this gap, these officials admit that the results are not that forthcoming. They say this is so because the alternative employment activities taken up under JFM to help the rural poor and affected forest dependents are new both to the villagers 'receiving' them as well as to the foresters 'facilitating' them. Further, many foresters highlight that the task of approaching other agencies and functionaries to get some help for villagers in their crucial infrastructure development needs is an arduous one for a hitherto isolated and low profile Forest Department staff member. They say this acute dependence of foresters on others is making their JFM work often uncertain and frustrating.

Another dimension of opening up of forestry to public participation and involvement is the need to fulfill some of the long pending demands of the villagers, say a few foresters. Fulfilling their need is crucial to win their trust and confidence and thus pave the way for JFM. Moreover, when these needs are related to the Forest Department, there is no way to escape, say some DFOs. Especially the DFOs, as the front-end staff of the Forest

Department directly interacting with the public, have to take decisions on the spot, explains a DFO narrating a situation.

> You see, all along people have been longing for certain things. Our barriers have been forest act, that act, this regulation and that. We used to think that our service gets affected and our promotion will suffer etc (by violating these regulations). But when we are in this program and start involving people, we can't do anything if we start thinking of such things. It is full of risks and challenges. [Low voice] In fact, I also faced. They said I allowed a road. But that is the priority of the people, (the) demand of the people. Only if I do that I can enter the village. I challenged, if I am doing something good for the people and the government is punishing me, I said, I am happy to accept it. (silence) but I can be sent home any day. (DFO)

5.5.2 Resources and Incentives

The resources that were stressed by many respondents as having influenced the performance of foresters in the field were mainly related to money, material, manpower, information and time. Senior officers say that insufficient funding restricted the scope and application of JFM to a few eligible villages as well as to a few selected people and activities within a JFM village. The foresters say that these limitations severely hampered the progress of JFM at several places as the program received antagonism from non-JFM villages and non-beneficiaries. Even within the JFM villages, the respondents say that the Forest Department severely lacked the resources necessary for creation of awareness about JFM that is crucial for the success and sustainability of the program. Drawing attention to the infrastructure and training facilities of a local NGO engaged in helping the Forest Department in the spread of JFM, a DFO says that in 90% of the places the Department has to do this extension work on its own and emphasizes its poor resources in this respect. Similarly, many respondents stress the importance of having good rapport with villagers and creation of awareness on a continuous basis, and express lack of even basic facilities in the department to undertake these awareness creation activities.

Further, some field officers express that they were constrained by a lack of information on several fronts. Many officials emphasize that since undertaking a multi-dimensional developmental activity such as JFM in remote and scattered forest fringe habitations is the first effort of its kind, availability of baseline information on community diversity, hierarchy, socio-economic infrastructure, forest dependence etc., played an important role in understanding and prioritizing the JFM interventions and in the development of site specific micro plans. Field level respondents highlight that since no such information was readily available, the foresters themselves had to take up that task too. They say that this work has further taken a heavy toll of their time and effort.

Another major resource the department lacked, according to many senior officers and DFOs, is manpower that is matched to the task at hand. Many DFOs highlight that JFM activities, especially the ones related to micro planning and village organization, needed new skills on the part of the staff. Narrating the troubles he/she went through in managing the "subordinates"[3] who had very little capacity to engage in this sensitive forest management strategy, a DFO says, "we need to understand the standards of our Rangers and the kind of work we are putting them to". This DFO highlights the importance of improving the capabilities of the existing staff or posting staff that are worth undertaking the program. Criticizing that the time spent on training for the field staff who had very little idea on the philosophy and practice of JFM is just a week, another DFO expresses a deep sense of frustration, saying:

[3] The term 'subordinates', used frequently by the participants refers in general to the categories of staff from RO and below.

> We cannot expect a man who is doing policing duty all these years to suddenly accept this system without any training, information, or experience, either direct or indirect. (DFO)

Almost all the field staff say that even the weeklong training of staff on JFM started only after the initiation of JFM and ran in small batches. But more importantly, these officials say that often the connection between the staff being trained and their usage in the actual execution of JFM was missing. Some respondents comment that even these training sessions concentrated mostly on technical issues and not on the much needed behavioral and social issues. Some participating DFOs however emphasize training of senior officers rather than subordinate staff to begin with, for JFM to take root and run in the state. They say that while the DFOs are aware of the JFM concept from their recent exposure in the forest academy, and are eager to experiment with the new strategy, some senior officers had very little idea of JFM and say that this factor had severely hampered the functioning of the field staff.

But most importantly, almost all the field staff complain that the project-oriented approach has provided little opportunity for interaction between foresters and villagers to learn about each other. A common view expressed by them is that the program was purely run on a project basis with explicit targets for achievement but with little emphasis on ensuring an understanding of the principles implied. The performance of the staff is judged purely on the numbers achieved, say, for example, the number of villagers recruited or self-help groups formed. Some respondents, expressing a deep sense of disenchantment, say that there was absolutely no time for giving proper information to the people or for allowing an in-depth discussion or debate in the village and to the emergence of a bottom-up institutional development process. Some respondents admit

that the sheer drive to achieve targets, sometimes at the behest of fear of disciplinary actions, led the staff to look for shortcuts and *ad hoc* arrangements in their work. Some staff, as indicated in the remarks given below, opine that lack of involvement of field staff in program planning has aggravated the situation, leading to tensions between superiors and subordinates and in the end, to severe hardship for the field staff.

> It should not be target oriented. It is from there all problems start. That pressure forces staff and others to commit mistakes. It is the main thing. (RO)

> These diversions lead to some adjustments in work which lead to some allegations, petitions and disciplinary actions. ---. People are knowingly and unknowingly doing these wrong things because several things do not work in practice. (DFO)

Senior officials however indicate that they did their best to bring about changes in the structure and functioning given the sudden onset of the program and the information and knowledge they have at their disposal on the needed changes for the people or processes.

Incentives

Further, most field staff indicate no knowledge of any reward and recognition mechanisms available in the department in recognition of their increased efforts in JFM. Some senior officers, while saying that lack of timely recognition and reward is a system-wide problem, mention existence of some merit certificates and awards available to the staff. They however explain that these are meant for general performance of the staff and not specifically targeted toward staff's efforts in JFM. As can be observed from the comments of a senior officer given below, insufficient motivational incentives are

stressed by these officials as a major negative factor contributing to the low morale of staff of any rank in the department

> But again, personally I feel that whatever effort a person is putting, it is not being recognized. If that is the dissatisfaction at my level, you can understand the situation at the lower level. There is no recognition at all. For me I don't want any reward. But I need you to recognize my contribution. That doesn't happen in this service. If that happens many things will be good.

Some field staff say that in fact after the onset of JFM, not only had the benefits and incentives that were due to the staff in the normal course become unavailable but many a time, increased disciplinary actions on staff contributed to considerable demotivation and frustration. Many respondents also complain about acute stagnation and low promotional opportunities in the department. Almost all the officials talk openly of the pathetic living conditions of some of the lower ranks in the service such as Forest Guard and Forest Watcher and wonder how they could be asked to usher in such a development thinking in the local communities when their lives are stumpy in the first place. Most field staff, however, look to the senior officers for not only an improved understanding of their plight but also for a proactive role to be played by them in improving the service. Many ROs and Foresters recall the crucial role played by their superiors in encouraging them to learn and understand the JFM processes going on and indicate this interaction as the major motivational factor in implementing the program. Many participating field staff however indicate that in most cases, loyalty to the department, an urge to do good for the department and get it a good name, and sometimes a benign competition among the colleagues to do well in the eyes of their superiors, as the principal motivational factors. Some staff, especially the ones working at the lowest levels, narrating how horrible their life was constantly fighting with locals in the past, indicate that the opportunities to come

out of the 'forest shell' and mingle with people, as well as the possibilities of earning a good name among the public, as their motivational factors.

> When I go to the village, the villagers welcome me saying that 'our Forester' is coming. It is great appreciation for me. Also, I feel very happy when superior officers shake hand with a Forester level person. (Fr)

5.5.3 Rules and Regulations, Roles and Responsibilities

Rules and regulations provide guidance and direction to the staff in the execution of their work as well as render some stability and uniformity to the organizational functioning. The existence of clear-cut rules and regulations become especially important to an organization that has functioned for over a century based on such a system. Some officials indicate that in the Forest Department, the actions or inactions of its members are judged purely on what is written in black and white. The long history of traditional management of forests that started with the British helped in the evolution of detailed codes and manuals that provided specifications down to the detail. Many respondents in the study express that in the case of JFM, however, a lack of guidelines left many of them confused, insecure, and directionless. To cite a few instances, lack of proper guidelines include policies on selection of villages or hamlets, the extent of forest area under each JFM village, and on the constitution and composition of village level JFM bodies. Also, almost all the staff highlight lack of clear cut policy on the species composition and say that this omission has caused considerable tension between senior officers and field staff. Some DFOs also point out lack of any relation between the amount of funds allotted to a village for development activities and the population size or forest dependency situation there. Further, almost all the field staff say that currently, a policy on follow up action on

un-recovered loans or on malfunctioning of VFCs is absent (Details on VFCs are given in chapter III and in section 6.3 of chapter VI).

These officials say that while JFM warranted taking decisions according to the situation, lack of proper rules to enable this decentralization meant the judgment of the action or inaction of a staff according to the understanding and interpretation of the superiors or the Principal Accountant General[4] (AG). This has put the field officers in a highly risky and vulnerable position, many officials feel. They indicate that they had to live in a constant fear, and they emphasize that this uncertainty has caused many hardworking and sincere officers to leave JFM at the slightest opportunity.

While lack of some guidelines is said to hamper the adoption of JFM, the existence of certain rules and regulations seem to have gone contrary to the letter and spirit of JFM, according to many respondents. The DFOs cite examples such as the current mandates to follow a contract and tender system for award of works, release money meant for JFM through highly centralized and bureaucratic hurdles, and monitor JFM performance purely on the basis of 'target and achievement'. Further, the field staff feel that though JFM implied joint decision making and responsibility between the villagers and local foresters, the continuation of old command and control provisions means holding forest staff solely responsible for any lapses in execution. Viewing that correct placement of people is the key to success in the short run when all other resources are in shortage, many DFOs complain that there is hardly any change in personnel management policies in the Forest Department. Many officials complain that the executive staff are shifted

[4] Principal Accountant General or AG is a semi-autonomous body that audits government expenditures.

continuously just like in the old system, severely affecting the success and stability of the program, as well as the accountability of the staff involved. Further, many DFOs demand a complete overhaul of the AG audit and inspection system, indicating that as long as these obstacles are not removed, there is no way for the department to reach the ideal situation entailed in JFM.

Roles and Responsibilities

A corollary to lack of proper policies in the department is its reflection on the roles and responsibilities of officials of different ranks in the Forest Department. The field staff point out that with the enormous changes that took place in the nature and magnitude of work consequent to the introduction of JFM, there is some confusion on the roles and responsibilities and some imbalance in the distribution of work among various ranks.

These field staff indicate that since the inception of JFM the thrust has been on local planning and execution and accordingly, the work of field officers who are in direct contact with public has increased tremendously. They cite the ranks of DFO, RO, and Forester in this respect. Some DFOs find the traditional role of CF as an inspecting and supervisory authority highly ill fitting and superfluous and suggest that they spend more time on devising guidelines and providing directions to the subordinate staff rather than on inspections and chasing subordinates to achieve targets.

Similarly, on the role of the executive staff, many respondents observe that the positions of Forest Watcher and Forest Guard in this changed management approach is unclear.

They say that these two ranks are now mostly doing public relations work assisting the Forester and RO in the implementation of JFM. But this should be made official by amending the appropriate rules and providing them with well-defined roles and responsibilities, these officials assert. They point out that being at the cutting edge of the department, these ranks have a thorough knowledge of the grass-root level situation and are crucial in the implementation of JFM. Some DFOs say that currently, the Forest Watchers and Forest Guards are puzzled as to what to do in this changed situation. They opine that this dilemma has led either to their indifference to the program or to their mis-utilization by some VFCs. Similarly, many DFOs and ROs feel that their work has increased many fold in JFM and suggest some proportional devolution down the line.

5.5.4 Department Culture

Some respondents, especially the ones considered to be outspoken in the department, point out the problems associated with the culture of the department for its slow progress in JFM. They indicate that the department's semi-militaristic nature hardly allows any bottom up approach in decision-making and functioning that is crucially needed in JFM. "Nobody had the courage to raise any issues", and "if we show even an inclination to ask any doubt, top officers stare," say several field officers. "Top is always right" and for anything they say, we have to just say, "yes sir and proceed", humbly says an RO enacting his usual response to such a situation. "When ideas are thrusted on me, I thrust them on to my staff," confesses another DFO and calls for urgent reforms in the department's culture before anything is done. Saying that the seniors have no faith in the abilities of the field staff, a DFO remarks on the situation as follows:

We still have the notion that CCF means he has 10 kilos of brain, Conservator means he has 5 kilos of brain, DFO means 1 kilo of brain, and below DFO no brain at all. That is the kind of mentality our people at the top have. (DFO)

Several field staff observe that this top-down culture in the department has left most subordinates with little creativity and independent thinking. "You talk about participation to the whole world but where is the participation within the department?" questions another DFO, underlining the importance of internal democracy in the Forest Department. Expressing a sense of frustration on the pathetic position of the lower level staff, some respondents say that this "bossing" behavior of the "superiors"[5] has actually hampered the development of self-confidence of the staff who are actually executing the work in the field.

> When DFO says something, that has to be followed. He thinks he knows everything. There is no second opinion about that. Similar thing is there at the CF level, at the CCF level. So we have not even thought of changing that attitude. (DFO)

Drawing attention to increased disciplinary actions on staff, another DFO points out that the thrust of the department is simply on achieving targets but not on solving problems. This is how he describes the situation.

> Outside the agency we have changed but within the agency there is no joint decision or joint discussion. We have meetings – they are only for review. You have not done that – you have not achieved this – you still need to do this – your target is this. You never ask why you have not done that and what the problem is. Probably that is costing very much. (DFO)

Some respondents observe that the field staff need to take quick and location-specific decisions in JFM. They complain that the current system hardly allows any such

[5] The term 'superiors', used frequently by the participants refers in general to all the categories of hierarchy functioning above the participant's rank.

flexibility. They point to centralized planning and monitoring, rigidity in the allocation of resources and poor response to problem situations by the superiors. According to many staff at the field level, the trend of the bosses in the department has been that the staff should somehow "manage". Observing that the system doesn't allow any risk taking, a DFO opines that if anyone raises problems, he is not only considered inefficient but sometimes even ridiculed and targeted:

> In the present system, even if you don't do anything it is okay (you get only a smaller punishment). But if you do 100 good things and even 10 things go wrong in the process, you will be targeted, chased, and penalized for your life. (DFO)

A few respondents however, explain how a team approach by all the staff concerned in their area brought a good name to JFM in that location. They attribute the chief reason for this change to the understanding of problems by all concerned and flexibility in functioning allowed by their CF. This is how an RO recalls his JFM experience:

> That was good. We worked like a team. All problems we used to discuss and get ideas. -- The Ranger, the DFO and the Conservator, all of us worked like a team. (RO)

Similarly a DFO describes how the multiplying effect of involvement of staff by senior officers helped him in bringing success to the implementation of the program.

> When involvement of staff (by the superiors) is good, there will be good interest within the staff, which will lead to good awareness creation among the public. When the awareness creation is more, the public participation will be more. That means it goes like a chain. (DFO)

As is evident from above, change of attitude of seniors could make a huge difference but that seems to be rare.

Communication, Information flow, and Feedback

Almost all the field staff characterize the current communication provisions in the department as typical top-down flows of command. Many respondents indicate that this is because of the hierarchical nature of the system and "elitist" (Rastogi 1999) culture of the department. The field staff further say that they are hesitant to say anything in the regular 'progress review' meetings because of the attitude of seniors toward any such representation. The following comments of the respondents illustrate the challenges involved in communicating with superiors by the lower-level staff.

> The top officers will stare at me as if I am an arrogant fellow if I raise these issues. They think that I am against it. My intention is not to thwart the project but to streamline it. I am equally concerned to make it function. (DFO)

> Though the program is (supposed to be) bottom up approach – but practically it was top to bottom,--top to bottom approach. If you go and say, 'Sir, I have this and this problem,' – no-no-no, we are not here to solve the local problems. 'No sir, this may be there in other divisions also' – they stare at us. So at the end we decided, okay we should not start asking questions. Rangers stopped asking questions to DFOs. DFOs stopped asking questions to CFs and CFs stopped asking CCF. (DFO)

> We just nod our heads and keep going. If we tell openly, many people do not like that. (Fr)

Besides the fact that senior officers don't relish saying anything bad about the program, peer pressure is ingrained in the culture against bringing up any problems, according to a DFO. One needs to have the courage to face the odds, remarks another DFO, saying that instead of trying to understand the situation and help find a solution, senior officers often consider bringing up problems as weakness and mismanagement, and sometimes even contemplate disciplinary action. Thus, many respondents indicate that the trend of the

officers is to "adjust things and not to report problems," resulting in severe filtering of actual information. This is how a DFO remarks on the repercussions of asking questions:

> When people started asking these questions, questioning the basic fabric of the whole system, they are cornered – 'Oh, oh – these are the fellows who are against the project! These are the fellows who don't want to cooperate!' Then a kind of hate campaign goes against them. (DFO)

A unanimous view expressed by the field staff is that currently the Forest Department has no feedback system from staff. They highlight that although the department has established some elaborate monitoring systems for JFM investments such as performance of plantations and water harvest structures, no such monitoring systems exist for staff. Some DFOs underline the need for opportunities for sharing of experiences in the field, drawing attention to the poor documentation provisions in the Forest Department. Thus, almost all the field staff highlight the importance of having such mechanisms for improving the performance of the program as is evident from their comments:

> The ideas of field officers are highly ignored. Without asking the field staff, officers compel the decisions on them. It is very important to contact the successful staff. (Fr)

> In the field, (the) lowest officer who is working should also be invited and be heard. Lot of people are not doing this. It is a must. We have to create a forum for this. (RO)

Some respondents express surprise over lack of such a provision in the implementation of a new and radical concept such as JFM. The respondents below the level of DFO particularly express severe frustration at lack of feedback provisions even in comparison with those available to villagers in JFM, as indicated in the following comment:

> They even conducted seminars and meetings for all VFC Presidents to (learn) their difficulties. But they never asked the subordinates. Because the higher-ups never think it is necessary to consult the subordinates. I think it is very bad. (RO)

Describing that there are several 'practical' problems in the implementation of JFM, several respondents comment that the attitude of senior officers not allowing field staff to vent their feelings has cost the program much. Some staff also recommend constituting teams comprising staff of various ranks for providing systematic feedback to improve JFM.

> The reason for failure is not asking like that. Then the department would have changed a lot and would have brought really good success. (Fr)

> I would say we could have done better if there is good integration WITHIN our department. Discussion and free and frank interaction and thinking would have definitely improved the success and better utilization of funds. (DFO)

Leadership

Leadership is quite diffused and discrete in the Forest Department as each level in the hierarchy provides supervision and guidance mostly to the level that is immediately below it. Although in some cases the head of the department's influence might be pervasive across various ranks, 'immediate boss is next to God' is the guiding philosophy in running the administration. Very rarely do people have access to a rank higher than their immediate superior. Thus, in practice, a CF is the leader to the DFOs functioning under him and a DFO in turn leads his ROs, and it goes on like that. The functions of these officials, their interest and involvement in field level issues of JFM, and the information they have with them vary. As a result, their responses on the role of leadership in JFM varied considerably. For example, one of the senior officers

functioning at the policy level interviewed is of the view that the performance of the field staff needs to be improved first. Saying that the performance of staff in bringing success to JFM matters most to him, he reacts as follows to the question of reforms in the Forest Department for better staff motivation.

> Your team should be fully motivated to perform. All members should be happy. But is my intention to make them just happy or making them happy to perform more and get something?------ To me, I am always looking at the end and if you are not performing I do not make them happy but I will whip them, I will kill them, I will do anything.

He has, however, also explained the challenging nature of undertaking major policy changes in an environment of uncertainty and poor information.

On the other hand, another senior officer, who was referred to as an understanding person and a team leader by some respondents, attributes the success of JFM in his area to the commitment and hardworking of officers worked under him. While saying that there is no substitute for hard work, he is of the view that his personal belief in JFM and intensive interactions with his DFOs has helped them plan well. Focusing the discussion on JFM mainly to behavioral and motivational aspects, another senior officer concludes that the focus of the department should be on improving human resources and relations.

Many field staff indicate lack of time, inflexible planning, and poor resources as the major factors preventing them from actively engaging their subordinates or in providing them with proper guidance. The discussions also indicate the influence of hierarchical barriers severely impinging the abilities of some genuinely interested officials from playing active leadership roles.

To summarize, most field personnel point to the need for organizational reforms and active involvement of all the personnel involved for improving the implementation of JFM as can be seen from some of their remarks below:

> So, institutional (organizational) built is not there. It is not there with a strong foundation. Cardboard structure— even (if) a small wind blows it collapses. This is where we need to concentrate. (DFO)

> We need something at the ground level, at the implementation level. Some effort (is there) but not enough – not much thrust is given at least at the division level. (DFO)

> We need the support of everyone – right from the regular goat herder to the village head on the village side and from DFO, Conservator to the NGO on the outside. Even if there is one problem at one level, things go bad. (RO)

5.5.5 Accountability

Senior officials view that the basic objective of opening up forestry to public participation is to provide increased transparency to foresters' work. They stress that the field staff need to rise to the occasion and improve their performance in view of the increased visibility of their work. Expressing a mild sense of frustration on the inability of the field staff to live up to his expectations, a senior officer remarks as follows:

> Now the system is exposed. Everybody is watching you. You are making everyone vigilant. And if you don't perform in a transparent situation, you will be laughed at. What are you trying to show them? Opening out is not a solution. Opening for what? Opening to perform better. But if you don't perform and just open, it is like becoming naked. What is the use? What is the use?

A majority of the field staff, however feel that opening up forestry to public participation has increased risk in their careers and made them vulnerable to disciplinary actions. They

say this is because of lack of proper mechanisms that provide them safety when they are undertaking new and uncertain activities entailed in JFM. Further, they observe that unlike the previous system where the senior officers alone were judging the actions or inactions of the staff, now they are exposed to several people. The consequence of this exposure, they say, is that it is easy now for anyone to blame the staff for any reason. Moreover, these staff say that since the outcomes of most forest activities are dependent on natural factors, if there is not much understanding of the subtle nuances involved, a staff member's career can be ruined at the slightest allegation. Some field staff attribute these problems to the heightened interference of politicians in JFM; they seek an immediate remedy in this regard. They complain that a "not my job" attitude of some senior officers to these forces has indeed left the plight of lower level staff to the mercy of the powerful; they say this has sometimes resulted in staffs members' victimization. This is how a DFO describes the situation:

> Everything was done transparently – but what is the result? They (bosses) simply don't stand by us. --- DFOs are put up in a defenseless position. See the number of charge sheets[6] and disciplinary cases. They started the program with an intention of easing out tension in the department, in our work, but it has increased many fold. We are simply at the mercy of superiors and other big people. Anything done by us can be questioned anytime and action taken against (us). If they want to find fault and charge sheet, literally all the officers in JFM can be charge sheeted. You opened up the system – that is good – but at the same time you also exposed (us) to risk and in fact this has increased to many fold and from several angles now. (DFO)

5.6 Discussion and Conclusion

An organization can be seen as a group of people working together in the pursuit of a common goal according to certain given and agreed upon norms and procedures. Hence it

[6] A statement calling for an explanation from an employee for certain omissions and commissions in his official conduct that entail disciplinary action against him.

is obvious that any change in the goals and objectives of an organization will have an impact on its people and processes. It also implies that changes in an organization's basic objectives or mandate need some corresponding changes in its people and functioning for the organization to be effective in the new task and work environment.

As can be seen from the observations made in the study, it is clear that the Forest Department is undergoing a major transformation: a change from a regulatory authority with the basic objective of conservation and protection of forests to a facilitating service that would ensure multiple forest use and participation in management by a host of local communities. The need for incorporating multiple objectives and decision processes in resource management necessitates the organization to adopt open and transparent styles of management. The localization of resource management, hence, requires that forest staff look beyond traditional protection and conservation into the thick realm of sustainable development. Increased involvement of stakeholders, both in number and intensity, and consequent need to cater to their requirements have required acquisition of new tools, techniques, skills, and procedures. In addition, the new situation requires that staff engage in a host of new activities such as awareness creation, wheeling and dealing, negotiation, coalition building, and conflict resolution. Thus the tasks of foresters have changed "beyond recognition" (Hannam 2000) after the onset of JFM and the government's input to JFM in the form of the Forest Department is certainly not "uncomplicated."

With the old 'guards and guns' or 'fines and fences' approaches becoming no more relevant to forest management, the century old tradition of a single line of command, authority, definite structure and function of staff, and command and control style of administration also seems to have become obsolete. As observed from the perceptions of foresters, now the work environment is neither routine nor stable, nor are foresters' tasks straightforward. The research findings indicate that the programs and products need to be customized to meet varied community needs and preferences, with a greater emphasis on the processes than the outcomes. The perceptions of foresters also imply the need for considerable flexibility in this process in contrast to the past fixed approaches. The findings also indicate a need for undertaking holistic and integrative approaches that lead to more interaction among the staff and between the staff and the public for the emergence of a team spirit necessary for better planning and prioritization of needs and resources.

5.6.1 Impaired Learning Abilities

A diagnostic analysis of the case indicates principally the following issues and concerns as influencing the transformation of the Forest Department to participatory styles of forest management.

There is an urge for undertaking JFM and an interest to improve its implementation by all the staff concerned. The approaches adopted by the staff in this endeavor, however, vary significantly. This appears to be due to the differences in an employee's personal abilities, the resources available at his/her disposal, the limitations imposed by the system

on the functioning of the individual, and more importantly, the understanding one has of the grassroots level intricacies in the implementation of JFM. Thus, apparently, while all the organizational factors seem to enable or constrain foresters' effort to implement JFM, a critical analysis indicates that those factors that influence the understanding of JFM by an employee such as communication and information flow as the most significant of all.

This is because when there is information on what is going on, it is easy to think of what is needed. When the problems are specifically known, solutions can be thought of. If it is known that the resources are scarce or not utilized properly, they can be appropriately planned and prioritized. If it is known that the employees are lacking in certain capacities, their knowledge and skill levels can accordingly be enhanced. But what is happening in the Forest Department's case is that there is no bottom up or horizontal communication going on. This absence of communication severely affects the information available on the actual situation of JFM. Problems are not brought up nor are the potential solutions discussed. Needs are not known and accordingly the resources, human or otherwise, are not properly utilized. Ironically, the top-down information that is built and bred on wrong or poor information is exacerbating the situation further, leading to the operation of a vicious misinformation cycle.

Thus at the end of the five year project period, there is lack of information on what efforts need to be made and where they need to be made to transform the Forest Department. While some efforts made in this direction seem to be scattered and invisible (for example, recognition and reward), some seem to have worked counter productive to the purpose at

hand (e.g. disciplinary actions for not achieving targets). Systemic relationships between people and processes appear to be lacking. Ambiguities and uncertainties continue to sway the situation.

The main drawback of having ineffective communication and information flow is that it impairs the ability to learn – to acquire, disseminate, and utilize knowledge in an organization. Integrated information webs for sharing information, knowledge, and intelligence are necessary for the development of strategies appropriate for the action at hand and for progressive refinement of performance. A strong network of information, with each organizational component knowing what is going on in the whole and the whole aware of the actions and consequences of its parts, is essential for the emergence of an organizational 'intelligence'. This intelligence is necessary to scan opportunities and to think of long-term strategies. But that function seems to be lacking in the Forest Department. Further, the diffusion principles ingrained in learning help in dissemination of program ideas, objectives, and methodologies across organizational barriers for the development of a shared vision that is crucial for the performance of an organization.

5.6.2 Cultural Conundrum

However, as is evident from the findings, it is the existing culture of the Forest Department that is squarely in odds with its learning abilities. The department continues to function in an elitist and feudalistic manner. The relationships among different ranks of employees that are defined and dominated by a culture of fear and punishment continue to thrive. In fact, such an authoritarian and hierarchical culture is even instilled from the

initial days of training in professional forestry (Hannam 2000). Communications are contained under the curtain of 'respect for seniors.' Messages are muted by the power of mentorship. Distinct rituals to create and nurture the feeling of JFM as a distinct entity, to be mutually shared and understood by all members are nonexistent. Even the regular meetings where staff come together are not conducted in a congenial cultural environment, thus missing an opportunity for members to come out of their 'cultural shell' and to share their ideas openly. Lack of opportunities to challenge the basic paradigms and operating norms of the Forest Department, owing to these cultural barriers, also severely impairs the organization's ability to engage in double-loop learning[7] (Argyris and Schon 1978). Thus, the Department's culture could be said to be the single most important factor standing between success and failure in its transformation from a policing body to a participatory facilitator. It is however, worth noting that the cultural inertia is a not a problem with the Forest Department or its people *per se*, but for any organization undergoing transformation, changing culture is a difficult process (Rago 1996, Sims 2000).

5.6.3 Reshaping the Culture

Of course, in any nascent transformation effort, there will be different and competing value systems that create a mosaic of organizational reality rather than a uniform corporate culture. The mosaic becomes more apparent especially when there are certain imminent challenges. As more and more challenges are forthcoming, understanding the culture and its influence on organizational transformation, and learning how to reshape

[7] Double-loop learning is a process in which error is detected and corrected in ways that involve the modification of an organization's underlying norms, policies and objectives.

the culture will be critical requirements to the functioning of the Forest Department. Thus, effecting new ways to reshape the culture could be said to be the crux of effecting transformation of an organization like the Forest Department. And here lies the role of leadership (Sims 2000). There is a need for the agency's senior managers "to personally transform the way they go about their work" (Rago 1996). In an organization like the Forest Department where the leadership commands considerable power and influence, and where loyalty to the department forms the core philosophy of employees, transforming culture should not be a challenge to an effective and engaged leader. Ways have to be provided to enable people to set aside their fears and come out openly without any inhibition. The ways in which individuals interact, the language that is used in conversations, and the various rituals of the daily routine are some of the areas to effect subtle changes in the culture of an organization (Morgan 1997). It is amply evident from some of the experiences presented in the study that when the members broke the cultural barriers and worked together as a team, the JFM implementation made considerable progress. There was satisfaction at all levels and as one respondent commented, it had a "multiplier effect" among the staff and villagers. Thus, the need of the hour appears to be to bring about a change in culture that promotes free and frequent communication and multiple ways of information flow through a proactive leadership. Despite several challenges faced in the recent years, the "elite" wing of Forest Department, the Indian Forest Service, has remained "remarkably resilient" over the years (Hannam 1999). This indicates considerable potential for change in the organization. The leadership should place its people first in its organizational priorities and set an example by incorporating participatory processes first within the Forest Department before experimenting in

communities. Without first incorporating a shared system of meaning and mutual understanding within the Forest Department, it is too unrealistic to expect the development of such a participatory philosophy between the Forest Department and forest-dwelling people in the field. This is a challenge as well as an opportunity for the Forest Department leadership.

Chapter VI

Co-managing the Commons: Foresters' Perspectives on Working with Villagers in Joint Forest Management

6.1 Introduction

Deforestation, leading to the loss of India's valuable natural resources and consequent harm to the livelihoods of millions of people, has been a major national and international concern. The Indian state's major response to this unprecedented environmental degradation has been a greater willingness to consider local participation as an alternative to centralized state control. Forest management in India in particular witnessed a sea change since the inception of Joint Forest Management (JFM) in 1990 (GoI 1990). The JFM approach envisages a cooperative partnership between the local communities and the Forest Department. The Department provides conditional access to certain forest benefits in return for local communities' cooperation in protection of state forests.

While several states are fast issuing orders enabling and expanding the coverage of JFM, some concerns on the success and sustainability of these JFM efforts are increasingly being expressed (Saxena et al. 1997, Jeffery and Sundar 1999, Lele 2000, Ghate 2000, Hildyard et al. 2001). Most literature on the problems and prospects of JFM is oriented toward villagers' collective action, mostly drawn from community based natural resource management theory and analysis. A few comments on foresters' attitudes toward this joint management approach do appear in the literature but systematic studies on the Forest Department's role are lacking (Vira 1999). Initiating and implementing JFM is a

colossal task for the Forest Department as it involves working in a close relationship with villagers who were earlier treated as either irrelevant or detrimental to forest management.

Hence the major objective of this chapter is to examine in detail foresters' perspectives on implementing this new strategy: their perceptions of the challenges in making co-management work. In other words, this paper will specifically address the following research question: *How do foresters assess working with villagers to co-manage forests under JFM and what do they see as major challenges entailed in this process?*

This question is especially relevant in the context of Tamil Nadu, where JFM is introduced in highly degraded forests that offer very few direct benefits to local people in the immediate future. Also, compared to some states that are home to JFM success stories, in Tamil Nadu village economies are diversified and people are less forest dependent. Hence foresters' responses with respect to their interaction with villagers in initiating and implementing JFM revolved around two major themes: 1) a concern that degraded forests offer insufficient incentives to make people interested in managing them, and 2) the challenges involved in establishing and maintaining village-level JFM institutions under these circumstances.

This chapter begins with a brief review of literature on co-management of natural resources before introducing foresters' perceptions of their interaction with villagers in JFM. Foresters' concerns revolve around the key problems of incentives and institutions

as mentioned in the previous paragraph, so most of the chapter focuses on those two issues.

6.2 Empirical Literature on Joint Management

While Hardin's (1968) tragedy of the commons suggested either privatization or complete state intervention to manage common pool resources, a third possibility of their management through collective action of communities (community based natural resource management) gained prominence later (Wade 1987, 1988, Ostrom 1990, Ostrom et al. 1994). However, some scholars, in view of certain historic, cultural, socio-economic, and political reasons, believed that a strong cooperative relationship between government and local communities would be a better management option (see Bahuguna 1994, Vira 1999, Yadama 1995). Thus, there emerged a fourth system of "co-management" (Baland and Platteau 1996) where the government and local people share management rights and responsibilities. The concept of such a joint strategy implies that the strengths of communities can be combined with those of the state for the collective benefit of both. The ultimate goals described are ecological sustainability of the area and socio-economic development of the local communities. Thus, the JFM strategy in India is built on the notion that local communities can regenerate and protect degraded forests if they are empowered and suitably compensated for their costs (Datta and Varalakshmi 1999). Accordingly, we see two basic components in the operationalization of the JFM. The first is provision of certain incentives to local people for their involvement in JFM, and the second is assigning of certain rights over forest management to a specifically constituted village level body known as Village Forest Committee (VFC). The incentives

and institutions are in turn interdependent, as who gets what determines who is in the management and the management system determines who gets what.

6.2.1 Incentives

Cohesiveness of a group in collective management is significantly determined by the benefit each member perceives to gain. "Few organizations, committees, or cooperatives will evolve in a voluntary manner before it is known what will be gained by joining," argues Andersen (1995). Especially in JFM, Sinha (1999) observes villagers' anticipation of high economic returns to justify their investment of time and labor. Similarly, Lise (2000) and Varughese (2000) observe significant positive association between local collective action and good forest condition. On the other hand, low tangible forest benefit flow to the community owing to poor productivity of the forests was identified as one of the reasons for past failures in collaborative forest management (Sreedharan and Sarakar 1998). These studies highlight the positive relationship among the biophysical condition of a forest area, the incentives available to villagers, and the success and sustainability of collective action.

As argued in section 2.4.3, even though JFM is meant to be implemented in "degraded forests," the successful cases reported in the literature came from locations where forests offered some tangible benefits to those villagers involved. It is however, not exactly clear as to what extent these forests are degraded in the first place. Another point to be noted is that in many JFM cases, the successes were measured mostly on the basis of overall ecological benefit but not on the issue of community share in forest produce and the benefit accrued to them (Kant and Nautiyal 1994). These cases further complicate proper

understanding of the factors behind the success as they also describe provision of several non-forest incentives to the communities involved in JFM (See Bahuguna et al. 1994, Dhar 1994, Sinha, 1999, Ghate 2001).

As a result, the potential for success if JFM is introduced in a truly degraded forest as enshrined in government orders is not clear. Further, the relative role of forest and non-forest incentives in bringing JFM to success or otherwise is little understood. Also, as elaborated in the same section, JFM strategy provides a positive externality to the society. These are the benefits such as climate regulation and watershed protection entailed in forest protection and conservation. There is not much discussion however, on the role and significance of this benefit provision and the potential to compensate local communities for their service rendered in this respect. The present study endeavors to address these dimensions through a systematic analysis of the perceptions of foresters undertaking JFM in Tamil Nadu.

6.2.2 Village-Level Management Institutions

Unlike pure community based natural resource management (CBNRM), where collective action emerges spontaneously among local people, group formation and institutional development in JFM is an induced activity (Martin and Lemon 2001), mostly carried out by the Forest Department. In the process of forming the village-level decision-making body known as the Village Forest Council (VFC) and in enabling its functioning, the JFM institutions are in fact conferring a certain bundle of rights to this body vis-à-vis others in the village. Confering rights to this body to manage common pool resources and make decisions that may affect others thus has profound social, economic, and political

implications. And it is in this context that the question of how to constitute such a body that would address not only ecological sustainability but also socio-economic equity receives high significance.

The role of some stakeholder groups at the village level in JFM has been highlighted in a number of studies. Especially, the marginalization of rural women, leading to their increased hardship and suffering under JFM was highlighted in a number of studies (Sarin 1995, Armitage and Hyma 1997, Locke 1999, Jewitt 2000, Martine and Lemon 2001). Some studies have also underlined the role of charismatic leaders (Jewitt 1995) and local leadership (Baker 1998), tribals and people with heavy forest dependencies (Poffenberger 1990, Jewitt 1995, Lise 2000) in improving the performance of JFM. Simultaneously, some authors have also noted several other village level factors influencing villagers' collective action in JFM. For example, while caste and class differences (Ballabh and Singh 1988, Hill 2001) and demographic and market pressures (Kapoor 1994) were found to dilute villagers' cohesiveness in managing village commons, Hildyard et al. (2001) particularly note severe neglect of the poor and other marginalized groups in JFM. Observing that protection systems are particularly vulnerable to breakdown in times of scarcity or when surrounded by extremely poor and dependent populations with no other survival alternatives, Hill (2001) highlights the poverty dimension in JFM.

While the importance of several village level stakeholders and issues were described by many authors in the past, it was Andersen (1995) who pointed out some of the challenges

involved in exactly delineating the 'community' partner in JFM and in devising appropriate institutional structures in a diverse biophysical and multi-stakeholder environment. Although literature exists on this problem of identifying and defining community in the general context of CBNRM (Leach et al. 1999, Agrawal and Gibson 1999) and in other specific contexts such as watershed development (Kerr 2002b), discussions on these challenges in the case of JFM from a policy and public administration context are relatively limited (Rangachari and Mukherji 2000). Further, as elaborated in section 2.4.4, implementing JFM in a predominantly non-tribal and less forest dependent socio-economic context involves dynamics much different than in many of the cases studies on JFM reported earlier.

6.2.3 Government Agencies' Perspectives on Policy Implementation

The usefulness of analyzing perceptions of implementing agency employees in evaluating the performance of natural resource management policies has been demonstrated in several earlier studies (Whisnant 1980, Maxwell 1990, Kitchen-Maran 1992, Schumaker 1995, Padgett and Imani 1999). Such studies in the context of foresters and JFM however are limited. In some instances, the policy's failure to perform in practice is attributed to the attitudes of foresters implementing JFM. For example, Jeffery et al. (1998) say that foresters' interest in JFM is "lukewarm," and Lele (2000) observes that this is because of foresters' upbringing in a "strong technocratic tradition". Further, Jeffery and Sundar (1999) comment that foresters are reluctant to "part with their power." Some writers even suggest that the Forest Department should work with the community more "actively" and "progressively" (Sudha et al. 1998). Contending that the practice of JFM

in its "true spirit" is dismally low, Ghate (2000) quickly attributes the reason for this failure to the shortage of foresters with "faith in people's capacity to manage forests." Most of the observations on interactions between the Forest Department and villagers in the literature however are anecdotal (Vira 1999), and hence there is a need for a more thorough investigation of Forest Department officials' response to this new policy (Jeffery et al. 1998).

6.3 Incentives and Institutional Provisions in Tamil Nadu JFM

Tamil Nadu JFM documents (GoTN 1997, TNFD 2002b) basically indicate provision of two kinds of incentives for villagers to create, revive, or harness their interest in forests and to compensate them for their involvement in forest management. The first kind are the ones related to forests such as forest produce and associated employment benefits that derive from forest regeneration, conservation, and water augmentation. The second kind, which are generally called 'buffer zone activities', are the ones that are available through the activities taken up in JFM villages either for the whole village or to certain small groups or individuals. These non-forest, short-term project benefits are provided to build rapport between the Forest Department and villagers and to compensate for costs incurred by certain sections of local communities while waiting for forests to become more productive. Hence, currently, this short-term benefit provision by the project is restricted just to the first three years of JFM, provided in a decreasing magnitude. The Forest Department gives Rs 300,000, 200,000, and 100,000 ($2000 approx) each year successively in the first 3 years of the program to all JFM villages under the buffer zone component.

The main objective of the buffer zone component is to compensate certain individuals who previously were dependent on forests lost access due to restrictions on grazing and goat herding after the initiation of JFM. Similar incentives are provided to community members who are interested and inclined to join JFM to compensate their time and effort, even if they were not previously forest-dependent. While village-level benefits include things like provision of drinking water or transport facilities or construction of community halls, individual benefits include provision of loans, training in alternate vocations, promoting micro-credit programs, establishing self-help groups, etc. About 70 percent of the money under buffer zone activities is set apart for this 'individual benefit' component. Most importantly, the money available in this component is constituted as a revolving fund, i.e., the funds that the VFC gives to individuals or small groups must be rotated among the identified individuals or groups. Interestingly, the amount available under JFM for each JFM village is fixed, irrespective of poverty or forest dependency or even forest condition.

The unit of management in JFM is a village and an abutting government forest area delineated on a watershed basis. In each identified village, the VFC, consisting of a male and a female member of all willing households, functions as the people's representative body for management of the JFM area (GoTN 1997). The membership from each household is limited to a maximum of one male and one female. For the purpose of running day-to-day management activities, the VFC elects an Executive Committee (EC) consisting of 5 to 15 members. The president of the EC has the responsibility to inform its decisions to the VFC once in three months and seek a general consensus. The EC has

authority in determining what forest management practices are needed, regulating access to forests, distributing forest and buffer zone benefits. The EC is expected to resolve inter and intra-village conflicts, build coalitions, and engage in community resource management. While the establishment of this grassroots level institution and assignment of certain rights to it is done in the first year of JFM, the VFC and EC are expected to run the system in a sustainable manner in the ensuing years.

On the representation of women in the EC, the government document says that "each VFC will elect an Executive Committee in such a manner that one hamlet[1] elects at least two members, one of whom is a woman" (GoTN 1997). The order is silent on the representation in the EC of the poor or other sections of the community besides women. However, the order does stipulate that the EC must ensure the flow of certain benefits to the poor. In case of fuel wood, it says that it should be given free of cost to the poor and landless for their own use. Similarly, in case of fodder, the order says "fodder and green leaf manure (are to be given) free of cost to all VFC members except big farmers." Regarding non timber forest produce (NTFP), the produce is to be given to all the VFC members free of cost with any surplus quantity to be sold by the EC. The order also says that the EC can also sell any other produce harvested on a sustainable yield. All the sale proceeds thus obtained are to be distributed equally among the VFC members by the EC after remitting 25% of it to the Village Development Fund, which is specially constituted to meet the management costs of the VFC and EC or to undertake any village developmental activities at the discretion of EC.

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[1] Small villages or out skirts of big villages or colonies of certain homogeneous communities located along the periphery of a big village. Very often it is difficult to define the boundaries of a hamlet.

6.4 Data and Methods

The study sample consisted of one Chief Conservator of Forests (CCF), two Conservator of Forests (CF), 10 District Forest Officers (DFOs), 10 Range Officer (ROs), and 5 Foresters from among the Forest Department staff who are involved in the implementation of JFM in the state. Employing in depth individual interviews, these foresters were asked questions on how they perceived and valued JFM and community involvement in forest management and what they considered as important challenges in JFM. Considerable insight was also gained from an in-depth study of four JFM villages conducted as part of another research program that included collection of village level-data from the villagers. During this period, the ground level implementation of JFM by the respondents and the interaction between the respondents and the villagers was observed to gain firsthand knowledge of village level issues in JFM implementation. The details of the research approach, study area, the data, data collection procedures, and data analysis are given in chapter III.

6.5 Research Findings

DFOs, ROs, and Foresters are the Forest Department staff who interact with the villagers and actually implement the program at the ground level; hence the discussions on foresters' village level interactions mainly focus on what these field staff say. Senior foresters (CCF and CFs) are involved in planning and supervisory functions and have much less interaction with the villagers. Though the senior foresters have some useful things to say about interaction with the villagers from a policy perspective, the focus of my fieldwork was field staff at the implementation level.

Three sets of findings are presented: those regarding foresters'[2] attitudes toward working with villagers and their perceptions of the prospects for JFM, incentives for villagers to participate in JFM, and the development of village-level co-management institutions.

6.5.1 Foresters' Attitudes Toward Jointly Managing Forests with Villagers

Contrary to popular belief, the foresters interviewed seemed keenly interested in the idea of co-management of forests with the villagers. Almost all the foresters interviewed expressed considerable appreciation of the opportunity provided in JFM to interact with the villagers and to have a positive relationship with them. Some feel satisfied for having played a direct and positive role in the development of JFM villages. Some conspicuously talk of the 'good' relations they now have with the villagers and say that the villagers are becoming aware of the role and responsibilities of Forest Department and appreciate its efforts in this changed management situation. Many respondents conspicuously talked of the improved relationship between foresters and local people and expressed a strong sense of personal satisfaction and a desire for continued involvement in JFM. Some of their responses to the question on what they think of the JFM approach are as follows.

> This scheme is like a God's gift. (Fr)[3]
>
> It is great I tell you. The self-satisfaction I got is really great, unbelievable. (CF)
>
> There is a special respect if I go there (to the JFM village). (Fr)
>
> This will be the last chance to save the forest. (RO)

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[2] While I use the term 'forester' to represent Forest Department personnel of any rank, the term 'Forester' is used to refer exclusively to this rank of foresters in the Forest Department.

[3] CF, DFO, RO, Fr acronym used at the end of each quote indicates the quotation from the interview of the respective CF, DFO, RO, or Forester.

> This is the only program where we can really create an impression in the minds of the people and leave a landmark. (DFO)

Performance to Date

The perceptions of foresters on the overall performance of JFM can be characterized as a kind of 'guarded enthusiasm'. Many respondents suggest that JFM has initially shown good results, but they express concerns about its future performance for reasons discussed below. They say that the massive afforestation and water harvest activities have resulted in significant impact in the form of increased vegetative cover and moisture levels despite harsh agro-climatic conditions prevailing in the project areas. Forest Department staff attribute the success in these areas to heavy investments made in forestry and to the cooperation of villagers harnessed through JFM in the protection of plantations. The plantations have, according to these foresters, established well with little protection problems from public. More than the plantation, they say, the native vegetation, in the absence of any biotic interference and in the aid of water augmented, sprung up well to the surprise of all. Almost all the officials interviewed talked about large-scale reduction in goat population and cattle grazing effected by villagers in these areas. Moreover, these officials affirm, that the water augmentation activities in JFM produced quick and discernable results in improving the moisture levels and thus the local agriculture and economy.

While some respondents recount how the villagers came by the hundreds to put out forest fires and in some other emergencies in several places after the onset of JFM, some others praise how the local leaders braved the odds and sided with the Forest Department in

forest protection. A realization among the general public that the forests are no longer open access seems to have made some foresters happy about JFM. They say that after taking forest management to the people and after bringing in some regulations on the use of forest resources through peoples' institutions, there is a general feeling in the villages that forests are of some 'value' now.

Prospects for the Future

When the discussions broached the subject of the challenges facing JFM, almost all the staff expressed a serious concern about the continuity of this forest regeneration for a considerable period of time; they feel that the Forest Department is in a "critical" stage at the end of the 5-year project period. The foresters are particularly concerned about the gradual decline in villagers' support in forest protection as can be seen from their remarks below.

> We completely left them (forest areas) to the villagers – simply handed over to them as per the guidelines – but we are concerned things have come to the original situation. This I am particularly worried about after doing all the work. (DFO)

> By the third year, the villagers' interest is lost completely. The department staff are arranging meetings just for formality sake but the attendance is coming down. (Fr)

On the reasons why the villagers' interest in JFM is declining after about three years of JFM, some field staff sympathize with the villagers for their inability to come and cooperate with Forest Department in forest management in view the abject poverty and poor infrastructure prevailing in the villages. They say that the priority for people is rural development rather than forest improvement. Most importantly, the respondents stress

that the villagers see very little benefit flowing out of the partnership after three years. "Why should he spend his time if he sees no benefit for himself or his interested people?" questions a DFO, quickly taking the discussion to the subject of incentives for villagers to actively participate in JFM. Many other respondents expressed the same concern. This is how the field staff respond to the current situation of JFM on the ground:

> But by third year they feel that sending their cattle back to the forest is cheaper and easier. (RO)
>
> Because they are not getting the benefits in the later years, automatically, they go back to the same practices if you leave the project here. (DFO)

The point respondents stressed over and over again is that the benefits available to the villagers in JFM are barely enough to earn their goodwill. They assert that for JFM to sustain for long, the Forest Department needs to move from depending on villagers' goodwill to providing villagers with some real incentives. They worry that otherwise JFM, especially when it comes to its application in the improvement of degraded forests is amounting to forcing forestry on people. Some respondents further argue that since forest services provide benefits throughout society, the support for forest conservation and enhancement should come from all segments of society. Hence the need of the hour, some foresters urge, is not to stop JFM abruptly at the end of the project period but to continue it further to consolidate the gains made in this process. Otherwise, one DFO says, the Forest Department is going to be a "double loser", having lost the erstwhile fear complex in the minds of public and now prone to lose the goodwill of the villagers earned through JFM.

6.5.2 Incentives in JFM

As detailed in 6.3, JFM in Tamil Nadu envisages two kinds of benefits – forest based and non-forest based or buffer zone activities. This section first introduces forest-based benefits followed by non-forest benefits.

There are two kinds of forest-based benefits: forest produce and enhanced water availability. While the forest produce goes to the Village Forest Committee (VFC) members who are actively involved in forest protection and improvement for distribution among them, the water benefit goes to the downstream users. This water benefit is an off-site benefit from the forest.

Forest-Based Incentives: Forest Produce

JFM's main objective, as per both the GoI directive on villagers' involvement in forest management (GoI 1990) and the Tamil Nadu government's (GoTN 1997) guidelines on JFM implementation, is regeneration of degraded forests. Senior Forest Department officials (CCF and CFs) interviewed for this research also concur with this objective and observe that it "is imperative at this juncture to improve the degraded forests that are on the verge of becoming deserts to save the livelihoods of millions of rural people dependent on them". They admit without any hesitation, however, that the areas under the program cannot produce any substantial tangible benefits to the community in the next 10 years.

It is worth mentioning here that the literature has always talked about the psychological and material benefits of autonomy in managing natural resources. On the material side, autonomy means keeping the benefits. On the psychological side, it is the sense of

belonging and emotional attachment to something that you want to look after (Gadgil and Berkes 1991). Interestingly, in the present study, senior officials at the CCF and CF level emphasize the psychological benefits as the major incentives for villagers to involve in JFM. Stating that since the forest areas are completely transferred to villagers under a written agreement, they emphasize the "sense of belonging to the forests" and "having a stake in the management of resources" as the motivational factors for villagers in JFM. Field staff (DFOs, ROs and Foresters), however, suggest that their experiences interacting with villagers led them to discount the importance of these factors. A DFO said that for JFM to work purely on the basis of psychological factors is "too tall a claim," and summarized the importance of economics in JFM as follows:

> unless we produce economically viable solutions, we fail. That means as soon as we withdraw, things will be back to normal. (DFO)

Thus, the thrust on involving local people in the improvement of degraded forests that offer no immediate benefits to villagers seems to have serious implications to the field staff in implementing this policy. There is a unanimous opinion at this level that it is impossible to sell the message of JFM to local people and seek their participation in forest management when the condition of the forest is so poor. Many field level foresters question the concept saying how they can go to the villagers and ask their involvement in JFM when they do not have any forest benefit to offer. This is how a DFO remarked on the predicament being faced by the field staff in this respect.

> When will the plants we planted grow and give benefits? Even if you say that to people, they (villagers) are laughing at us. (DFO)

Some DFOs, discussing the economics of JFM, assert that the direct forest benefits such as fuel, fodder, and non-timber forest produce that would be available at the end of the project do not adequately compensate the villagers'opportunity cost incurred by joining JFM. Besides the problem with the long-term gestation and low benefit provision involved in this forestry venture, many respondents feel that the villagers hesistate to come and collaborate with the Forest Department because they are not sure of getting the benefits even if they are available somewhere down the line. According to these foresters, some interested villagers, while sure that the benefit would come to their village, are uncertain about the benefits coming to them individually under this community management approach. The field staff further indicate that besides these uncertainties, the people are unable to perceive the management system or visualize the benefits because of two reasons. First, the local people lost touch with any forest management activity as these forests were nationalized almost a century ago; hence the villagers find it difficult to conceptualize a system that would help organize all protection and development mechanisms and give them benefits over such a long duration. The foresters feel that this lack of visualization of a sound management system also emanates from the fact that villages treated pre-JFM forests as a free-for-all. Second, foresters also say that the villagers find it difficult to visualize the benefits as these areas became degraded a long time ago and no one has ever seen them in a productive state.

A Conservator of Forests vividly describes how he could bring significant change in the perceptions of some village leaders by taking them on a field trip to some thickly forested areas in the state. No other respondent however indicated having tried this kind of

extension or awareness-building approach, though many officials expressed lack of such facilities as a major bottleneck in spreading the JFM message.

Some DFOs emphasize that for the sustainability of JFM, though the initial incentive for people could be a non-forest benefit, the ultimate benefit should come from the forest. They say that this is necessary because the forest has the best potential to provide something in perpetuity compared to any other community resource and also, in view of the need to ultimately link people's interest to the forest. Accordingly, these foresters stress that getting good income from the forest in the shortest possible period is the crux of JFM. They contend that this factor in JFM makes all the difference between Tamil Nadu and successful places elsewhere in the country. Hence they assert that the need of the hour for JFM to work in low productive areas like Tamil Nadu, they assert, is to concentrate on creation of high yielding short duration biological assets and introduction of appropriate silvicultural techniques and species. Similarly, the staff at the lower rungs of the Forest Department hierarchy such as ROs and Foresters, noting villagers' desire to go for quick growing commercial non-forest species in JFM[4], wonder how this demand could be reconciled with the project's biodiversity conservation and native species regeneration objectives.

Although the JFM program document (GoTN 1997) elaborately talks of estimating and distributing forest benefits, none of the respondents mentioned any forest benefits coming out of forests in significant quantities anywhere in the state or the complexities involved

[4] The species choice is decided by the senior and middle level officials and not ROs and Foresters though these lower ranks are supposed to execute afforestation activities in collaboration with the JFM villagers.

in distributing such benefits. A recent report of the Forest Department on the performance of the program also confirms the low generation of forest produce from JFM project areas (TNForest Department 2002b).

Forest Based Incentives: Water Augmentation

Another important intervention on forestland that could potentially benefit villagers under JFM is the water augmentation activity taken up in and around forest areas. Foresters interviewed expressed the unanimous view that water augmentation could be a major benefit of improved forest management even if benefits from forest products are low. They perceive that this aspect of JFM has produced a significant impact in improving local agriculture and thus the village economy. Many foresters observe that JFM's water harvesting aspect is of paramount importance in view of the water scarcity prevailing in almost all villages. Independent scientific studies and publications (TNFD 2002a) on how this particular JFM component augmented local water supplies abound in local literature, supporting foresters' claims. Despite the potential of this activity to provide some opportunities for foresters to involve the public in JFM, there seem to be some challenges in harnessing it in the field.

Firstly, foresters perceive that villagers do not really make the connection between forest improvement and water augmentation. They say this is especially so under the current approach where they do not have any extension facility to explicitly link improved land cover and moisture conservation. Secondly, the water harvesting structures are placed in and around forest areas according to the terrain of the area and not according to the needs

or interests of individuals who might benefit from them. So, for the people farming nearby, this increased water availability is construed just as an accidental benefit rather than something born out of JFM. Some DFOs observe that even if these beneficiaries know that they are benefiting from these structures, they are not actively participating in JFM as there is nothing to prevent them from benefiting even if they don't participate.

Moreover, the initiation of water harvesting activities, while entailing sure benefits to some villagers, impose some costs on certain other sections of the people, This is especially the case for cattle herders who lose access to the forest catchment once access is restricted (Kerr 2002b). This necessitates certain measures to compensate those adversely affected and tax those benefiting. Such a taxation structure was thought of for two purposes according to some DFOs. One is to fund VFCs to meet their management costs, and a second is to ensure that there is no ill feeling in the village that some people are getting benefits from JFM and some are not. But unlike surface water, since the increased moisture is mostly in ground water augmentation, the foresters say it became difficult to apportion the use and introduce a tax rate. (Currently, there are no systems to monitor or control ground water access and use). Thus there seems to be a predicament in making this intervention benefit all stakeholders.

Short-Term Project Based Incentives

Short-term project based benefits include some employments benefits and most importantly, as mentioned in 6.3, some non-forest incentives known as 'buffer zone' activities provided for the whole village and to certain individuals or small groups. Employment benefits made available through large-scale afforestation and watershed

development taken up in these areas include jobs such as pitting, planting, digging trenches and tending saplings. Some ROs and Foresters interviewed observe that this activity has definitely provided employment to a large number of people at their doorstep and at a better remuneration than they would get otherwise. Many respondents, however, discount this factor as a major incentive to attract the public to JFM, as this provision is a one-time activity and limited in its influence to just a few laborers living in the village.

Buffer zone benefits, on the other hand, seem to a much bigger attraction to villagers. As detailed in section 6.3 above on incentives, some buffer zone benefits are provided to the whole village in the beginning of JFM to bring the Forest Department and villagers closer and are commonly referred to as entry point activities or confidence building measures. They include activities such as laying of roads and construction of school buildings or community halls etc. Some benefits such as alternate employment are also extended under this component to individuals or small groups that are affected by forest closure.

i) Incentives that benefit the whole village

Foresters stress that buffer zone benefits are particularly popular because many JFM villages are backward with respect to several basic necessities. This is how an RO describes on what is happening when he enters a village with JFM message:

> The moment we go to the village, their immediate concern is water. Their condition is poor. There will be a school without walls or a roof. The children are sitting in the sun and rain. (RO)

Another reason for these activities' popularity among the public is their ability to satisfy the general interests of many villagers rather than just a few as in the case of forest

improvement. Accordingly there are fewer problems with benefit distribution. Some officials say that catering to people's general and long pending concerns helps in attracting the most influential people in the village, thus rendering the needed visibility and functional stability to the program. Emphasizing that fulfilling these critical demands is very crucial in winning people's confidence, a DFO describes his experience with one such issue as follows:

> This is a one-issue agenda (Referring about the villagers' demand for laying a road). You have to do that. That is where the success lies. They say only if I do that they will cooperate. (Villagers say) "we don't want anything- you do this and only this".....[gap]. I have to decide and I have to decide on the spot. What will you do? (DFO)

Taking the example of providing electricity to some traditional woodcutters, the DFO further questions the current conservation talk in the absence of certain basic needs:

> How can we expect a person living in total darkness to listen to us about conservation and the ill effects of tree cutting? (DFO)

Several other respondents also express similar views about village development activities and narrate how some of their interventions such as helping the villagers get a high school built or a drinking water tank fixed significantly contributed to peoples' involvement in forest protection.

Many respondents observe that some village development demands (like building a high school) are not in the hands of Forest Department or VFC. Further, sometimes the public seeks investments such as laying roads and power lines in forest areas that may come in direct conflict with the existing Forest Department rules or may jeopardize the interests of forest conservation. Some DFOs observe that though these activities contribute to the

public's general welfare and help earn their goodwill, they are hardly likely to sustain their interest in JFM for a long time.

Most important of all these challenges in this general village development approach, as pointed out by a DFO, is the lack of an apparent connection between the buffer zone activities and the Forest Department's ultimate objective of forest improvement. Since all these development interventions are unrelated to forestry and are perceived by the public to be outside the purview of Forest Department, the credit for bringing them is mostly attributed to the individuals who made them possible rather than to the Forest Department or to the forests. Thus, the moment the concerned people are transferred, there is a possibility of the obligatory reciprocity ethic eroding from people's minds. Field staff stress that in the absence of a continuous awareness creation campaign that links benefit provision and forest protection, villagers' involvement stops as soon as the buffer zone activity is over or very soon after that. This is how a DFO comments on the situation:

> One has to continuously hammer the people's minds to bring in the interest (in forests). We have to keep on telling that these are the advantages if you do this. For that they are telling us to give the 'candies' – the activities under the buffer zone component – to gain the confidence. Confidence is gained, but there it stops. But that needs to be converted and reflected into forest protection and management. Otherwise how long can we keep on giving these 'candies'? (DFO)

ii) Incentives that target individuals or small groups

As elaborated in section 6.3, Tamil Nadu JFM provides another kind of non-forest or buffer zone incentive to local people for their involvement in JFM. This is the 'individual component' for which 70% of the buffer zone activities budget is reserved. The main objective of this component is to establish the link between provision of benefits and

forest protection. Accordingly, the benefits under this category are provided to individuals to compensate them for their lost access to forests due to their closure to cattle grazing, goat herding etc. Benefits include promotion of self-help groups and alternative employment, provision of micro-credit, training in alternate vocations etc. It is to be noted, however, that the money available under this component is provided as a loan to the VFC members or groups by the EC and need to be rotated among the needy VFC members. This money particularly assumes significance in view of the absence of any income from forests. Thus, this individual loan component forms the crux of the program, and the rotation of money is the basis for sustainability of the whole scheme. But leaving aside the assumption that the people thus provided incentives would wean away from forests, making the individual benefit provision work in the field seems to face some difficulties. These are discussed briefly below.

a) Conflicts in Providing Benefits Exclusively to the Existing Forest Users

Almost all the respondents stress that the customs and privileges of the traditional and low profile forest users such as honey collectors and herb and medicinal plant gatherers were never opposed by the general public or Forest Department even after the initiation of JFM and hence there was no clash with them in any respect. All these officials however consider uncontrolled cattle grazing and goat herding as the major threats to forest health. And as indicated by some respondents, these two major users oppose the introduction of JFM in many places. Foresters say that they were able to overcome this opposition in several instances by offering them some individual benefits, and through a lot of explanation about the benefits that the program would bring to the village and to

society as a whole. They also say that in several instances, the program got substantial help from other villagers in convincing these users to refrain temporarily from entering the forest. Some respondents say that in some places the villagers who do not use the forest were even opposed to the provision of individual benefits exclusively to these forest users as, in the eyes of the public, it amounted to rewarding the offenders.

> In fact, there are a lot of people in the village who are cursing the Forest Department for being blind, negligent, and lenient all these years to these people (cattle and goat herders). (DFO)

These foresters argue that in view of the changing socio-economic situation, cattle and goat owners need to find other sources of fodder. They consider inappropriate use of the term 'forest dependents' and provision of benefits exclusively to them. Saying that in most cases the cattle are owned by wealthy people but grazed by hired labor such as small children and old people who keep switching their work, some ROs and foresters expressed difficulties in selecting these groups. Some officials affirm that the concerns of cattle owners were not forgotten at all in JFM as some VFCs made ample provisions to cut and collect grass freely from forests. These officials contend that such people are finding it difficult to follow the new practice as previously they freely sent cattle into forests.

The issue of dealing with forest users seems to be paradoxical in Tamil Nadu as the Forest Department is primarily interested in reducing forest dependency, unlike in other states where the emphasis may be on establishing forest user groups and promoting forest use.

b) Incorporating equity concerns:

The incentive provision work becomes further complicated in view of the concerns to meet equity in JFM. Poverty alleviation is implied in JFM in Tamil Nadu. While there are guidelines on how the forest benefits need to be distributed to the poor, there are no such instructions with respect to non-forest benefits. Consequently, there are divergent views among foresters on how to incorporate this equity dimension. Some officials believe that if the Forest Department takes an active role in selecting people from these weaker sections of the community, the Department will be accused of taking a top-down approach and there will be a risk of failure. Some officials, on the other hand, express the view that if the equity issue is left exclusively to the EC, village elites dominate and consequently the poor and other disadvantaged sections are left out. This predicament seems to have caused considerable confusion among various officials leading to varied approaches.

c) Ensuring that loans are properly used:

As mentioned in the introduction on the 'individual component', some money is given as soft loans to existing forest users such as goat herders to take up alternative employment and reduce dependency on forests. Almost all the officials interviewed point out that the alternate employment provisions collapsed at the slightest hurdle despite good intentions. This is because, in most cases, the activities are new and the capacities of the people to make them work are low. Moreover, the success of these interventions also depends on other institutional and infrastructure facilities already existing in the village. There is also a concern that the money available in the program is not sufficient to help an individual

to really change his livelihood. More importantly, many respondents consider that the budget provision under this component is inadequate to cover all the needy individuals in a village.

The final situation on the ground is that recovery of these loans is very low. Besides the above-mentioned problems, poor institutional enforcement, a partisan attitude of some powerful elements in the village and VFC, and the apathetic attitude toward government money are blamed for the poor recovery. Whatever may be the reason, it is clear from discussions with foresters that at the end of the five-year period, JFM's individual benefit component did not work. According to some DFOs, this component consumed a lot of foresters' time, attention, and effort.

Incentives: Discussion

The overall analysis of foresters' perceptions indicates that the degraded forests on their own are of insufficiently attractive to local people to make them be enthusiastic partners in JFM. People are skeptical of uncertain benefits that might come in an uncertain future. Hence the assumption implied in the government directives on JFM that improvement of degraded forests can generate enough incentives to attract and sustain the interest of local communities in JFM does not seem to be working in the field.

Watershed benefits in JFM, however, seem to show some potential to attract local people's interest and involvement in some drought prone areas. As Kerr (2002a) pointed out, however, the increased water supply must be attributable to the watershed protection

for the program to sustain in the long run. Hence, there seems to be a need for extensive awareness creation that explicitly links the activities of VFCs in forests to the increased moisture levels in these areas.

In other areas, JFM has indeed halted degradation of forests as can be observed from the perceptions of foresters as well as from a review of available literature on JFM's ecological impact (TNFD 2002a). The problem, however, seems to be in ensuring the sustainability of the program in the absence of some immediate and perceived benefits to the local people involved. Hence for JFM to work in the overall interest of the society, there seems to be no alternative but to employ some non-forest incentives during this intervening period, say 7 to 10 years. Besides the need to compensate the villagers for the insufficient forest benefits, such complementary non-forest incentives seem to be necessary as the local people actually in need them and also to help them through the long gestation period entailed in this venture. More over, as indicated by some respondents in the present study as well as by some other authors (Corbridge and Jewitt 1997), the forests are degrading because of the current pattern of their usage and hence the solution lies in changing this pattern, at least temporarily. Hence the guiding principle for long-term planning seems to be to concentrate on supplying long-term environmental services to the state rather than on providing some immediate forest usufructs to the participating communities. The experiences of some eco-development projects in India (Pandey and Wells 1997, Chopra 1998, Mishra 1999), and others elsewhere (see Brown et al. 2002) indicate that it is possible to conserve forests through such social development interventions and not necessarily through provision of direct forest benefits.

These observations further underline the need for provision of certain viable and tangible non-forest incentives to the villagers and to the existing forest users until the resource in question is recouped. It is imperative that villagers are compensated for the costs they incur in protecting forests because of the public good it provides. In fact, the public good aspect of forest protection would justify compensation on a permanent basis.

However, as discussed in the section on buffer zone activities, there are some serious drawbacks in the way these non-forest incentives are currently employed in initiating and implementing JFM that may not promote sustainable forest protection. These are particularly: i) the scattered and scanty nature of provision of these incentives, ii) the restriction on their provision to just the initial three years of JFM, which is too short compared to the long gestation involved, iii) heavy dependence of Forest Department and VFCs on other agencies for some of these interventions leading to considerable uncertainty and delay, and iv) absence of any explicit linkage between provision of any of these incentives and people's participation in forest management. The latter requires not only that people perceive that benefits are received in exchange for their participation in JFM but also their actual involvement in the process of obtaining these benefits. By involvement, I mean not only identifying the benefit needed but contributing some time, money, and effort toward getting it. My direct observation of the commitment of the villagers in JFM after they were closely involved in getting a high school sanctioned for the village through JFM strongly attests this belief.

While the Forest Department should be to able manage all the challenges listed in the previous paragraph on its own except item iii), dealing with item i) is directly related the performance of village-level institutional arrangements in the villages. Issues related to village level JFM institutions are discussed in the following section.

6.5.3. Village Level JFM Institutions

Section 6.3 introduced the Forest Department's role in constituting the VFC. While the intention behind the establishment of local management bodies is clear in the minds of several respondents, the problems seem to come in establishing such a body in a diverse and complex village environment. Questions arise in particular about who should be members of the VFC and who should be in its Executive Committee (EC), and how to address equity and the interests of forest users vis-à-vis other villagers who do not use forest lands. There is considerable variation in the understanding of these issues among various forest staff leading to varying approaches in trying to address them. These issues in the constitution of the VFC/EC are briefly discussed below. Later, foresters' perceptions of VFCs' management of forests and the challenges involved in maintaining these bodies under low financial flow are discussed.

Constitution of VFC/EC

Membership

Admitting that deciding on who should be VFC members is complicated, some respondents feel that initially the membership should be open to all. This is how a DFO describes the situation:

> It is here that there are lot of questions. One thing is that we are looking for the involvement of the whole village for protection and all are given an equal chance for participation. There is no discrimination in the beginning and the cooperation of all is required in this as the forest linkage is a complicated thing. Also in the beginning it is difficult to delineate the dependency structure. It is also possible that sometimes the whole village acts as a pressure group against these people who are woodcutters and illicit harvesters to control. Also it is difficult to evaluate participation and performance of each member in the village in the JFM. This may lead to complexities at the time of benefit sharing, I presume. Over the years the uninterested members will drop out, but I think initially we need to open the membership for all. And whenever ready, the benefits from the forest would be going through the VFC to those who are there until the end. (DFO)

A majority of officers take the view that since traditionally all village issues go through the existing leadership and the village elders, membership should be open to all initially. A preponderance of non-forest issues in JFM has also led some to consider the active involvement of people from all sections of the community. Some ROs and Foresters, however, strongly critique this approach saying that some poor forest dependents are sidelined in this process. A village's size seems to make this issue significant. In big villages, the division among different groups is blurred making it difficult to exactly delineate the target group, thus leading to domination by the village elite. Making such a distinction, some officials strongly favor confinement of JFM to small hamlets.[5]

Respondents state that the major consequence of opening up the VFC to all villagers is that JFM becomes exposed to other socio-economic, political, and local concerns and issues rather than strictly to forest management as can be seen from the comment below.

> What happens you see, the local level politics enter- it may not be who is good and who is bad but into religion, party, community-caste based. (DFO)

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[5] Small villages or out skirts of big villages or colonies of certain homogeneous communities located along the periphery of a big village.

Moreover, since EC members are elected based upon open nomination following the general tradition in rural areas, some respondents point out that the chances affected forest dependents are represented in the EC become further limited. These low profile forest users cannot openly oppose the nomination of village elites who become interested in JFM due to its non-forest benefits.

Equity considerations in the VFC and EC

As mentioned above, though there is provision for the poor and landless to receive forest benefits once they are available, the state government order on JFM (GoTN 1997) is silent on their proportional representation in the VFC or EC. A senior official indicates that the Forest Department needs to tell the villagers very clearly in the beginning that JFM and its benefits are meant exclusively for the poorest of the poor. Some DFOs however question this approach in the absence of a specific rule to confine the JFM just to the poor, as can be seen from the comments of a DFO:

> How do you ensure that only the poor are made your members of the VFC?---You are calling all interested parties, then can you restrict the membership? (DFO)

Some foresters working at the lowest rungs of the Forest Department sympathize with the poor for their exclusion from VFCs and ECs. They strongly support a proactive role in ensuring that the poor and disadvantaged sections of the community are represented. Some even say that membership should in fact be confined to the poor and call for specific provisions in this regard. The discussions however also indicate that from a pragmatic point of view, the rich are able to get things done, whether by obtaining services from local politicians or government departments or convincing other villagers

to protect forests, owing to their greater power, influence, networking, knowledge, and understanding of the issues. In general, there is considerable perplexity among the foresters on how to reconcile this predicament about whether everyone or just poor people should be represented in JFM. Some of their comments illustrate this point.

> The VFC is open to all now. In most cases only the rich or politically influential people propose the VFC President. So when these people are there as VFC Presidents and EC members, mostly the poor people are without voice and stand in the distance. But the thing is, the success in terms of protection is also brought through rich people. They see that things are done. But that is against the guidelines of JFM, strictly speaking – JFM is for poor people. (RO)

> The VFC President is giving good help in protection. But poor people cannot do that much. It is a tough thing. I don't know how to solve this. In the beginning itself we need to identify only the poor and forest dependents to be made members, not the whole village, I think. (Fr)

Establishing a direct link between the rich and their use of forest resources, some foresters say that it is the rich who consume the most forest resources (e.g. grazing cattle, large-scale collection of green manure) while the poor act as the means toward this end. But in a village situation, they say that the poor cannot suddenly do away with their relationship with the rich and side with the Forest Department in establishing an organization that is entirely of the poor. Echoing these sentiments, an RO says that though he wishes to organize the poor and work for them, that task would be way beyond his means in view of the existing socio-political situation and limited capacities of Forest Department.

Some DFOs said they had developed sophisticated indices and models to systematically select beneficiaries from marginal sections while keeping the VFC governance open to all villagers. However, they quickly admit that village elders opposed this kind of

prioritization of people as it amounted to encroaching upon their privilege. Pointing out the successes in water augmentation activities in JFM, some DFOs stressed the need for promoting the role of this new stakeholder group in VFCs. They argue that since the VFCs also need be financially viable, structuring them purely on the basis of equity and existing forest use is an unsustainable option. There are also some foresters who prefer a low profile for the Forest Department in the equity arena, taking a stand that it is beyond the scope and means of a poorly resourced Forest Department to bring in drastic changes in the existing power structure in the villages. This is how a DFO describes his observation on the equity issue:

> Forcibly we cannot say he should be there or this section only should be represented. --- We can give them an opportunity but we cannot dictate terms. the village is there for several things, not just for the management of forests. We cannot start new equations because they (equations) are dependent on various other factors including some historic issues. They may give negative impact. --. All of a sudden we cannot bring changes in the village situation. Sure, empowerment of SC/STs and all that is there at the government level, but we can have it as a different program. Clubbing all these objectives may complicate the program and we may lose sight of our main objective of forest development. It will take further time. (DFO)

There seems to be however, one aspect where there is a overwhelming consensus among the respondents in respect of the constitution of VFC and EC. That is, on the need, role, and responsibilities of women in JFM. They especially talk of women's interest in the cause of JFM and their organization of self-help groups with increasing regularity and success. Some foresters even go to the extent of saying that JFM should be entirely reserved for women. Under the current cultural set up, they assert that Forest Department had to play a pro-active role in bringing women close to the JFM process by actively identifying spokespersons for women, providing proper environment for their participation in meetings, and ensuring a fair deal in JFM benefits.

Other than increasing the role of women, on the whole there seems to be some uncertainty prevailing in regard to the structure and constitution of VFC and ECs. Some respondents express that these challenges and uncertainties are making JFM institutions highly unstable and vulnerable to collapse as soon as the Forest Department moves out of the area. They seek some policy guidance on addressing this problem.

VFCs' Involvement in Forest Management

Discussions with forest officials indicate that the absence of any immediate or perceivable benefit from forests and the consequent emphasis on individual, project-based benefits has made most VFCs focus on issues other than forests. The respondents indicate that consequently the Forest Department often had to intervene to make sure that the forest issues were included in the VFCs' agendas.

Many foresters feel that the institutional mechanism in JFM, compared to what they expect, is still weak in respect of forest protection. They say that this is because VFCs are not used to forest enforcement in the first place and are also unable to judge the severity of the forest violations, since forests were previously open access. These officials further say that due to this institutional weakness, the open access mentality still prevails and Forest Department has to constantly intervene and see people obey the rules set by VFC. Some respondents also point out that the VFC enforces rules based on the principles of mutual trust among villagers with slender provision for sanctions on the offenders. Further, they say that the EC members, unable to enforce such social fencing on their own due to this moral obligation factor, in fact, want the Forest Department to enforce it on their behalf.

> They (EC/VFC members) don't want to spoil their name in the village. They couldn't be strict or impartial. They say "we will tell them in the meeting and you (Forest Department) see they don't do it. But if you ask us to do it ourselves, people don't listen to us". (RO)

Financial Flow and Functional Stability of VFCs

Establishing the VFC is not the end of JFM but just the beginning. As explained in section 6.5.1, most of the efforts of the EC or Forest Department are concentrated on ensuring financial flow for the continuity of VFCs. The sources of money for the VFC are: VFC membership fees, the initial money given by Forest Department under buffer zone activities, the proceeds of forest produce sales wherever available, fines and penalties imposed, taxes if levied, and any other borrowings or general contributions of the villagers (monetary or labor). The money thus obtained and kept at the VFC's disposal is called the VFC fund. While the Forest Department carries out all the afforestation and water harvesting activities with its own money, the VFC fund is wholly at its own disposal and is meant for buffer zone activities and meeting its management costs. Thus, the VFC fund determines the continuity of the VFC and in turn that of JFM. Unfortunately the VFC funds began to run dry after three years. This is because project funds for buffer zone activities are restricted to the first three years, and money distributed as individual loans had not been repaid. The forest directly generates no funds that the VFC can tap, so VFCs looked vulnerable to disappearance after three years.

However, since sustaining JFM has become the Forest Department's primary responsibility, some respondents said they had tried some ideas to augment VFCs' resources in order to sustain people's interest. These ideas include levying a tax on the

farms near the water harvesting structures constructed under JFM for their use of enhanced water supply, a tariff on fodder collected from forest areas, and selling of silt obtained from the water tanks in forest areas. However, respondents report that all these measures to make money from forests met with little success. They say this is due to problems associated with devising proper pricing mechanisms, people's general reluctance to pay for anything from the forest, poor institutional enforcement, and sometimes, due to poor demand for these products and services. Some foresters said some innovative VFCs took up activities such as construction of buildings or shopping complexes with JFM money to rent them to the public to ensure a steady supply of income in the overall interest of running JFM and making the program sustainable.

Village Level JFM Institutions - Discussion

The first and foremost predicament in JFM's institutional dimension is in constituting a body that will have the mandate to manage forests. Having taken a stand to eliminate goat browsing and reduce cattle pressure on the forests, Forest Department seems to be having difficulty in defining and identifying the role and representation of 'forest users' and 'forest dependents' in JFM. Currently, with no direct forest based benefit coming out of forests or being anticipated in the immediate future, the emphasis of the program has been on provision of non-forest benefits and undertaking development activities in the village. But in this process, while the local leaders and village elites who are already engaged in these activities are gaining relevance; the existing forest users are losing their importance.

The institutional provision is further complicated in light of the concomitant objective to ensure equity, i.e., incorporating the concerns of the poor and marginalized sections of the community. While there is an overall agreement on the importance of ensuring equity, there is a dilemma in the minds of foresters on how to incorporate this concern in the absence of specific policy provisions.

The recourse taken by the program in addressing equity or the concerns of existing forest users is through provision of some alternate employment and micro-credit. But here again, lack of clear understanding among the implementers on who should be given priority in management seems to have resulted in enrolling a large number of people into the program, often attracted by non-forest project benefits. A direct consequence of this initial recruitment of hundreds of VFC members in a village is a severe dilution of the efforts of JFM and scanty and scattered distribution of these benefits among villagers.

Further, the enforcement of forest protection in the current JFM model is through the concept of social fencing, i.e., convincing people to stay out of the forest through social pressure rather than an actual fence. Hence the JFM institutions rely heavily on existing informal institutions (community, custom, or convention enforced) that normally govern the social relationships in a village and that are mainly mediated by village elites and local leaders. In the absence of any regulatory provision that confers *de jure* rights[6] to the VFC/EC, foresters or members of such a body seem to have little authority or legitimacy to confront the existing power relations. In a way, this seems paradoxical as the foresters

[6] Such an authorization may require an act of legislature and may not be within the administrative domain of Forest Department.

or the members of disadvantaged sections are asked to fight against inequity and ill treatment by taking the help of the same forces that produced or perpetuated them in the first place.

6.6 Conclusions

As discussed in the Introduction to this chapter, the JFM policy, when put into practice, is fraught with several uncertainties and uneven outcomes, especially when it comes to the question of incentives available to the local communities or in empowering marginalized people. The reason for this quandary seems to be more related to the introduction of JFM in degraded forests rather than to the attitudes of foresters implementing it as has been perceived by some authors in the literature. There are however, some issues in Forest Department that are impinging JFM's progress. Significant support for the program among Forest Department staff arises from awareness that the previous system failed, but foresters lack a shared understanding of the methods needed to operationalize JFM. Proper planning on the strategies to be followed or in prioritizing the needs and resources is clearly absent. An example is the lack of an extension system in place before the program was launched. These omissions reflect on the skills and abilities of the Forest Department system in undertaking this participatory resource management approach.

The problem, however, seems to be exacerbated by two issues that are directly related to the JFM policy itself rather than to the conditions entailed in Forest Department. The first is application of JFM purely as a project with fixed targets and tenure rather than a demand driven policy prompted by long-term commitment to the philosophy of decentralized management. A key assumption is that such a policy discourse will set off

dynamics and result in an increased recognition of the public good value of forests at the state level and in ensuring a sustained flow of funds to the forest-fringe communities for their services in forest protection. The second is the absence of affirmative action on incorporating equity or in establishing the legitimacy of village-level JFM institutions. In the absence of these two measures at the policy level, it will be unrealistic to expect a few foresters or the Forest Department to bring in phenomenal changes in the way the forests are currently governed or in ensuring an equitable distribution of power and resources that surround them.

Chapter VII

Overall Conclusions

The objective of the study is to gain an improved understanding of the problems and prospects entailed in implementing India's new joint forest management (JFM) policy, a strategy in which the Forest Department and the local communities jointly manage certain designated forest areas. While the JFM policy has been hailed as a successful approach in helping both the forests and people among the policy circles, its effectiveness in the field varies. Since the Forest Department is directly involved in initiating and implementing the policy, the perspectives of foresters on certain challenges involved in this task, which were observed to be absent in the current literature on JFM, were analyzed and discussed in the present study.

A systematic study of the forests' perspectives indicated three sets of challenges in implementing JFM. These are, those operating in the broad policy context, those within the Forest Department organization, and those involved at the village level. These three dimensions were presented and discussed individually in chapters IV, V, and VI and conclusions pertaining to each of them were presented in the respective chapters. An attempt is made in this chapter to provide an overview of these conclusions. At the end, a synthesis of these observations and some insights on possible course of action for the forest management is given.

Summary of macro level factors or issues operating in the broad policy context of JFM implementation:

- A multitude of institutions, organizations, and functionaries, operating at local, regional, national, and global levels significantly influence the political, economic, and managerial aspects of forest resource governance in the country. These forces range from local government at the panchayat level to the flow funding from donor agencies. They show considerable potential to enable or constrain the decentralization and development processes entailed in JFM. Moreover, their role becomes acute as villagers' needs and aspirations are mostly developmental; whereas Forest Department has little say in them.
- In the absence of any visible means, mandates or methodologies that provide an understanding and appreciation of the efforts of JFM across these actors, currently their actions and efforts are disparate, uncoordinated, and sometimes work at cross purposes. More importantly, there is little cognizance of the spirit of promotion of local governance and capacity building entailed in JFM elsewhere in the public administration. This broader and integrated recognition is crucially needed to provide a unifying and complimentary effect on the effort going on in the forestry sector.
- The need of the hour is to have a broad perspective and bring about major structural reforms in public governance and political functioning of the country to allow the emergence of local citizenship and decentralized democracy.

Summary of organizational issues influencing the Forest Department's transformation into a participatory facilitator to undertake JFM:

- Opening up of forest governance to the public and facilitating people's participation in JFM amount to an enormous change both to the Forest Department and its employees. However, corresponding changes made in the Forest Department's work environment are hardly commensurate with the task at hand.
- Lack of immediate and tangible incentives for people managing degraded forests severely curtails the ability of foresters in undertaking JFM. The Forest Department's acute dependence on other agencies for provision of project-based, non-forest incentives needed in JFM has left many foresters in the field functionless and frustrated.
- Though improved protection of forests serves as the major motivation to most staff in JFM, they have limited knowledge, skills, and capabilities required to undertake such a mission. But whether it is insufficient incentives to locals or difficulties in establishing JFM institutions or challenges in its own organization, problems are rarely brought into light in Forest Department. This lack of open communication severely impairs the Forest Department's learning abilities, thus restricting the emergence of a common understanding and collective effort among foresters on the action needed.
- The root cause of this lack of communication and impaired learning in the Forest Department is its century old hierarchical and authoritarian culture. Unless the

Forest Department leadership takes a proactive role in inculcating a participatory culture first in its own organization, it is unrealistic to expect the emergence of such a participatory philosophy of functioning between the Forest Department and villagers in the field as entailed in JFM.

The highlights of foresters' perceptions on issues influencing JFM implementation at the village level:

- Forest-based incentives available to local people to actively engage in management of degraded forests are very low. It would take at least a decade for villagers to see substantial benefits out of JFM. Indirect benefits such as watershed improvement are scattered, and are not widely perceived as the result of JFM. These situations hamper foresters in taking the message of JFM to villages.
- Foresters, however, perceive villagers' support as crucial for forest improvement. Non-forest, project-based incentives employed by foresters in lieu of villagers' involvement in JFM show mixed results. These benefits, no doubt, help in recruiting a large number of villagers into the program and in earning their goodwill, but they fail to establish a strong linkage between their provision and JFM. This omission is threatening the sustainability of JFM.
- Lack of immediate and tangible incentives in JFM is limiting the emergence of locally crafted institutions. Institutions induced by foresters are driven more by administrative convenience rather than with any sensitivity to local

situations. Foresters lack common understanding on approaches to engendering equity in JFM.

- ❖ The state needs to act to adequately compensate the cost of locals incurred in forest protection and to provide legitimacy to JFM institutions. In the short run, increased attention to planning and promotion of awareness in villages to help establish a linkage between the Forest Department's efforts and JFM could help remedy the situation.

A synthesis of these issues and some insights on the possible future course of action needed is presented below.

Natural resource management (NRM) is a challenging task (Agee and Crocker 1998). The characteristics of a resource, the management group, and the socio-economic and political environment in which it needs to be managed, can make this task complex and difficult. The process becomes further challenging when we also have the objectives of equity and sustainability incorporated in our goal. The case of JFM in Tamil Nadu is no different.

As observed in the present study, the problems in adopting this policy at the ground level, that is, at the village level, are mainly economic (chapter VI). The needs and aspirations of the people living in and around forests are mainly economic and developmental. While the direct benefits of the forests in JFM, at least as of now, are nil, the indirect benefits of forests are too low and too invisible to provide the locals the needed motivation to

involve in JFM. This seems to be the case when JFM is introduced in degraded forests as in the case of Tamil Nadu. The non-forest benefits and services rendered by Forest Department are also too insufficient and scattered to inspire the needed change. Further, the provision of these benefits is not linked with any mechanisms that are needed to bring in these changes. Additionally, insufficient benefit availability is resulting in low institutional demand at the village level, though opportunities for the evolution of such locally crafted micro-institutions exist. Ambiguity on how to deal with existing forest users and equity, and lack of alternatives to alleviate the effects of forest closure is aggravating the situation further, severely undermining the sustainability of the whole approach.

The approaches needed to address these problems, however, are primarily political. That is, whether negotiating with the donor to increase the foreign funding or the project period, or collaborating with the district Collector and other state level functionaries to get the needed resources, or even mobilizing the legislature to get the legal backing to JFM institutions or the budget provision for the public good services of forests, is basically a political process. The analysis made in chapter IV attests to these observations. Similarly, at the community level, approaches to enhancing gender equity or coalition building and conflict resolution among different villagers or within a village are again political. Dealing with institutional complexity, multi-stakeholder interest and involvement is evidently a political undertaking (Lee 1993). The role of science and information at both these levels (village and beyond village) is crucial but only complimentary to the required social interaction.

As demonstrated in chapter V, however, the Forest Department continues to approach the problems at the village level mainly through technical interventions, such as massive afforestation and plantation. But unless and until these activities are 'visible' to the public and are perceived as 'valuable' to them, the efforts are not going to yield any fruitful results. Similarly, the Forest Department's interventions in decentralization of forest governance and village development are typically 'rural development' or 'social welfare' type top-down delivery approaches. In both forest and non-forest incentives, the people's role in planning, design, and execution is low. This omission is not because foresters lack a positive attitude toward villagers' development, but because this is all they know of and have experience of. Likewise, the Forest Department's is playing too small a role in initiating and engaging in the needed political processes at the policy level to bring in an increased understanding and recognition of the forests and people's role in forest management. This is again due to the lack of a comprehensive understanding of what is going on in the system, lack of an idea on what is needed and, perhaps, lack of knowledge on how to go about it in the Forest Department leadership. The Forest Department currently has no capacity to undertake such a political mission.

The role of functional bureaucracies in promoting participatory management strategies, however, is crucial. This is especially so in case of an organization such as Forest Department, in view of its better access to policy development and political processes, as the organization has strong linkages to several actors that have a significant role in these domains. Moreover, the organization has a significant staff presence in the field compared to any other agency engaged in such a process. Foresters recognize the

importance of public involvement in improving the forests and thus have a strong incentive in promoting such activity. There is *esprit-de-corps* running through the organization and a strong commitment to undertake any activity that the Forest Department leadership identifies as important. Moreover, "tropical forestry provides a useful entry point for governance reform" (Brown et al. 2002). Hence pragmatic strategies to improve or scale up JFM must seek to improve conditions in the Forest Department. These include conditions that promote a learning environment in Forest Department, conditions that help the Department promote "meaningful participation" (Kolavalli and Kerr 2002) of local communities in JFM, and conditions that enable foresters to know and understand the significance of politics and public sentiment in their profession. New and challenging tasks lie ahead for the Forest Department leadership.

APPENDIX-I

Codes Developed During the Data Analysis Process

These codes are provided here as an illustration to indicate the process of analysis. The codes are developed for my own guidance and understanding of the various aspects of implementation of JFM. The names of the codes changed and some of them got merged and some got separated into sub-codes as I progressed in my analysis and as I finally developed my analyzed material into individual chapters dealing with distinct research questions.

NVivo revision 1.2.142 Licensee: administrator

Project: JFM Implementation User: Administrator Date: 10/4/2002 - 10:31:03 AM

NODE LISTING

Nodes in Set: All Free Nodes
Created: 10/3/2002 - 11:29:07 AM
Modified: 10/3/2002 - 11:29:07 AM
Number of Nodes: 46

1 **Allegations against staff**

The accusations or fear of accusations against staff by other staff members or the public in the general course of implementation of JFM expressed by the participants in the interviews

2 **Attitude to JFM**

The general or over all attitude of the participant toward the JFM policy, of his own or of the others he feels he knows-expressed in the interview-such as good, bad etc

3 **Challenges for villagers**

Challenges for the villagers to participate in JFM, to take the advice of foresters, as expressed by the forest participants

4 **Challenges in JFM implementation: Staff**

The problems or difficulties encountered by the staff directly or indirectly, in the implementation of JFM their circumstances, nature, etc.

5 **Compare with other Depts and Schemes**

The remarks of the participants on their experience in implementing JFM in comparison with other departments and other schemes

6 **Components in JFM-forest**

All the references in the process of implementing JFM that are related to forestry, plantation, nursery, direct forest products

7 **Components in JFM-Hydrological**

All the references in the process of implementing JFM that are related to water harvesting such as construction of check dams, percolation ponds, etc

8 **Components in JFM-sociological**

All the references in the process of implementing JFM made by the participants that are related to the sociological and economic aspects such as buffer zone activities, distribution of cost benefits, institutions, awareness, education, social hierarchy, socio-economic diversity.

9 **Conditions for JFM implementation**

The conditions that the respondents feel have a bearing on the implementation of JFM.

10 **Conflict with conservation**

The references that are made directly by the participants or that indicate the implementation of JFM in conflict with conservation objectives.

11 **Continuity in JFM-staff**

The references made by the participants on aspects of staff continuity in the implementation of JFM

12 **Economics**

Any reference made by the forest participants to any economic activity or economic implication in the implementation of JFM.

13 **Factors influencing JFM**

The forces or the causes that are influencing the implementation of JFM as observed by the participants. (situations? conditions?}

14 **Feedback from staff**

All aspects related to obtaining the opinions of staff by the superiors

15 **Forest benefits in JFM**

Any reference made to the benefits from forest, direct or indirect. present or future, individual or common.

16 **Grazing**

Any references made by the participants to aspects related to grazing by the cattle, fodder collection, goat browsing.

17 **Implications of JFM**

What is that that is involved in implementing JFM to the staff, to the organization, to the people?

18 **Implications of JFM- Hydrological**

The outcomes or the implications of the hydrological aspects of JFM.

19 **Incentive in JFM to People**

The issues and provisions that encourage or discourage people to participate in JFM

20 **Individual loan-implications**

The issues involved in giving loans to individuals. The economics, complications.

21 **Information challenges in JFM**

The references in the discussions of the participants where some difficulty in implementing JFM is expressed for want of some information

22 **Internal democracy**

The references related to the provision for or lack of free and fair discussions in the forest department.

23 **JFM in thick forests-implications**

The issues related to implementing or extending JFM in thick forest areas

24 **learning in JFM**

The ideas or discussions that indicate learning while implementing JFM by the department personnel.

25 **Limiting factors-money**

The issues or the items that restrict the implementation of JFM- here the monetary aspects

26 **Local planning**

All the references that indicate or discuss local planning, decentralization, both in the organization or at the local community level.

27 **New stuff for the staff in JFM**

The items that participants indicate or that appear as new in the implementation of JFM compared to their past training and experience.

28 **Participant's attitude toward people**

The references participants talk about people (local community) and their general nature.

29 **Peoples' needs and our interest-link**

The references made by the participants on the link between the peoples' needs or interests and the department's interest.

30 **Performance of JFM**

The perceptions of the participants on the performance of the JFM- the outcomes or the success

31 **Personnel requirements for JFM**

The things that are needed from the point of human resource management for the implementation of JFM

32 **Planning for JFM**

The items that participants refer to or indicate as needed before actually launching JFM

33 **problems in a govt set up**

The difficulties that are inherent in or specific to a government organization that are affecting JFM implementation, as expressed by the participants.

34 **Problems in afforestation**

The difficulties associated with afforestation-regeneration activities in JFM areas.

35 **Public attitude to JFM**

What people think of JFM, as informed by the participants of FD.

36 **Reasons for failure**

The reasons for failure of JFM, as perceived by the participants.

37 **Reasons for performance**

Reasons for an outcome in JFM

38 **Requirements for JFM**

The resources that are needed for implementing the JFM, as informed by the participants.

39 **Species selection**

The issues related to species selection in afforestation taken up as part of JFM

40 **subordinate attitudes**

What the subordinates are thinking about the JFM as indicated by their superiors. Subordinate staff here are all the uniformed staff.

41 **Successful techniques**

The ideas or strategies the participants feel have helped bring success in the implementation of JFM

42 **Suggestions for improvement**

The suggestions provided by the participants as useful in improving the implementation of JFM

43 **Sustainability of JFM**

The issues related to the continuation of the JFM system

44 **Top have no faith**

A term indicating references where the participants feel that their superiors have no faith in their ability

45 **Unofficial adjustment to get things**

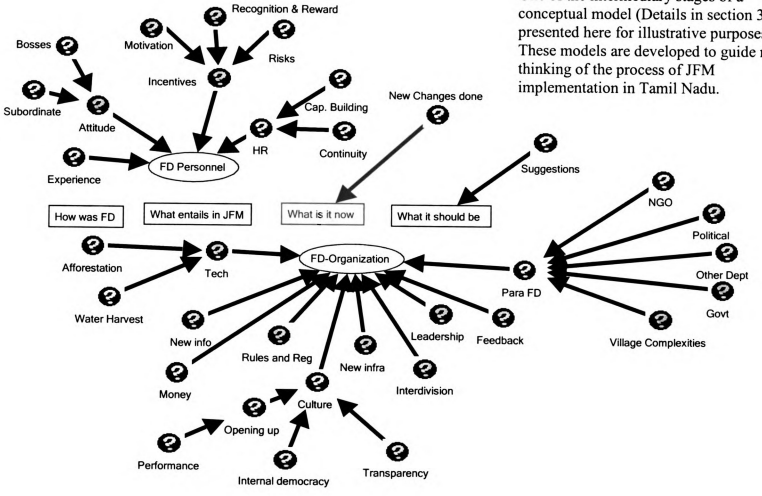
Some practices that are not allowed by the rules and procedures in vogue but are done to get the things done as per the requirements of superiors or as per JFM guidelines.

46 **VFC Institution- Sustainability**

The issues related to the continuation of VFC institution

APPENDIX-II **Forest Department Organizational Aspects**

One of the intermediary stages of a conceptual model (Details in section 3.4) presented here for illustrative purposes. These models are developed to guide my thinking of the process of JFM implementation in Tamil Nadu.



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