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Progressive Bureaucracy: an Oxymoron? The Case of Joint Forest Management in India

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PROGRESSIVE BUREAUCRACY: AN OXYMORON? THE CASE OF JOINT FOREST MANAGEMENT IN INDIA

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SUMMARY

In 1989, the Government of West Bengal, India formalised joint forest management (JFM) in this region. Through JFM considerable progress has been made in (a) establishing joint management arrangements between communities and the Forest Department at the local level, and (b) actual forest regeneration. There are two conventional explanations for the policy shift. One focuses on the leadership of a few progressive senior forest officers; and the other on spontaneous community initiative. A third important factor has been ignored – the supportive role played by the Association of the front-line workers of the Forest Department. The paper illustrates how the Association's support helped the diffusion of JFM in Southwest Bengal as well as helping communities overcome collective action problems.

INTRODUCTION

Joint or Participatory Forest Management has in recent years become a popular institutional arrangement for the regeneration of degraded forests. Originating in small experiments in some Indian states, JFM represents an important breakthrough in relations between Forest Departments and local communities and has been widely accepted as a promising ap-proach to forest management (Campbell, 1992; Poffenberger & Singh, 1989; Sarin, 1993).

In essence, JFM involves formal partnerships between forest villagers and government forest departments through the formation of forest protection committees (FPCs) for the protection and management of the state forests. Although there are many variations of JFM, the core idea is that, in exchange for their cooperation and assistance, villagers are given free access to non-timber forest products (NTFPs) and entitled to a share of the profits from the sale of the regenerated trees when they are finally felled (SPWD, 1993). In India, JFM has been quite successful in regenerating degraded forests and has attracted substantial funding from international donors.

The success of JFM in India raises questions about the extent to which such arrangements are transferable to other regions and countries. Many countries in the region including Sri Lanka, Nepal and Bangladesh have adopted similar approaches to halting forest degradation with mixed success. Are there reasons underlying the success of JFM in one region that might be prerequisites for success elsewhere?

This paper focuses on the question posed above by looking at the emergence and evolution of JFM in West Bengal, the state where it first

originated and was implemented on a large scale. The West Bengal case caught my attention for three reasons:

- First, it is a successful attempt to tackle the serious problem of the degradation of state forests. Earlier attempts at tackling deforestation, such as increased policing and 'social forestry', met with limited success despite large investments of personnel and other resources (Shingi et al., 1986).

- Second, in contrast to prevailing stereotypes in the literature, JFM appears to be a case of the forest bureaucracy acting in a progressive, non self-interested fashion, at some cost to its own power[1]. Not only did the department innovate in implementation, it was able to successfully spread JFM informally, and subsequently pressure the state government to adopt JFM as a policy. What is especially striking about the West Bengal case is that the initiative for involving people in forest management came from the state Forest Department, before organised demands for participation from forest communities.

- Third, and remarkably, the cooperation between the Forest Department and villagers that made JFM possible emerged and spread at a time when relations between the two main parties had long been characterised by high levels of distrust and conflict.

Explanations of the origins of JFM fall broadly into two camps (Sivaramakrishnan, 1998). On the one hand, most official accounts locate the

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[1] See Thompson (1995) for a good summary of the conditions under which bureaucracies adopt participatory policies.

genesis of JFM in the efforts of some progressive divisional forest officers to form forest protection committees. The Socio-Economic Project at Arabari initiated by Dr. Banerjee is the most widely cited (Campbell, 1992; Roy, 1990). When the experiments were successful, other forest officials adopted the approach leading to the rapid spread of JFM in West Bengal. This version does not explain why it took more than ten years for JFM to spread after its initial success. Moreover, it does not explain how growing cooperation was possible in a climate of conflict and mistrust between the people and the foresters.

On the other hand, a growing body of research argues that JFM represents a spontaneous re-emergence of community forest management in the region, or is a reassertion of tribal autonomy movements which have a long history in the region (Poffenberger, 1996; Deb, 1993). The role of the forest department in this case was simply to formalise the process. This account does not provide a satisfactory explanation of bureaucratic behaviour. Why should foresters support an approach that reduces their power and agree to give the communities a share of the forest produce? Further, the question of how communities overcame collective action problems remains unaddressed.

While partially true, I will show that both these explanations are incomplete. Factually, the biggest omission from current accounts is the fact that lower-level foresters and their union supported the new approach. If we add this to the (already acknowledged) role of the pilot projects, we have a case of 'progressive bureaucracy', which is at odds with the prevalent neo-liberal views of 'rent-seeking'

bureaucracy. Understanding the conditions in which this happened is important to gauge the extent to which these arrangements are likely to be successful elsewhere and to increase our general understanding of the role of public bureaucracy in reform efforts.

The key question then is – why was the bureaucracy so progressive? There are several issues that merit consideration – the extent to which there was a general perception that the old arrangements could no longer be sustained, the increased rate of forest loss, the receptiveness to innovation and the political situation. I will focus on one issue, namely the nature of the work situation and the interface between the forest department and the community. I will show how the work situation forced front-line workers to support and even demand a new people-oriented approach to forest management. I will argue that understanding this support from the front-line workers and their union – the West Bengal Subordinate Forest Employees Association – is key to explaining issues overlooked by earlier approaches.

A second question that runs through the paper is why communities were able to overcome collective action problems. People who look at JFM often use the common property resources (CPR)/collective action frameworks. My examination of the spread of community participation in JFM highlights the partial CPR nature of JFM, the importance of tenure security and the central role of trust in the process – both trust in individuals and, as JFM became commonly known, trust in JFM as an institution. I argue that a micro-perspective on the community might result in a very partial and incomplete understanding of the process

through which such partnerships around resources might be generated and diffused.

I develop the arguments outlined above by beginning with a brief introduction to JFM in India. In the next section I elaborate the two predominant narratives about the emergence of JFM in West Bengal – the official account of reformist foresters and the subaltern account of spontaneous action by forest villagers. I also supplement these two accounts with the story of supportive front-line workers and their Association. The following section forms the core of the paper and addresses two related questions – why the front-line workers were progressive, and how communities overcame collective action problems. In the final section, I comment on some of the broader implications of the case.

JOINT FOREST MANAGEMENT IN INDIA

On June 1, 1990, India adopted a national Joint Forest Management Resolution which sets guidelines for partnerships between local communities and the state Forest Departments for the protection and management of state-owned forest resources through forest protection committees (FPCs) (SPWD, 1993; Hiremath et al., 1994). In a radical departure from the previous focus on policing and protection of state-owned forests, the new approach emphasises the shared responsibility for management and sharing of profits with the local communities.

Surprisingly, this policy had its roots in innovative experiments in joint management at the local level. The experiences of West Bengal starting from the early 1970s showed that when

forest staff collaborated with rural communities, they overcame some of the problems of forest management. From being degraded through overgrazing and cutting, the forest lands began to regenerate dramatically.

The success of FPCs in West Bengal and some other states in regenerating degraded forests during the 1980s led to the adoption of the national JFM Resolution by central government. Subsequently, 16 out of 21 states have passed JFM resolutions promoting the formation of FPCs for forest regeneration. Today there are over 2,000 active FPCs in West Bengal (see Table 1), and they have managed to successfully protect and regenerate over 3,500 km^2 of the state's 4,134 km^2 of degraded lands (Arora and Khare, 1994).

That JFM represents a significant policy shift in Indian forest management is best illustrated by contrasting it with earlier practices. JFM represents a change:

- from production for commercial markets and to generate government revenue, to production to fulfil the needs of forest communities;
- from an exclusive focus on timber to attention to the NTFPs (firewood, grasses, leaves etc.) that are important to the livelihoods of forest communities;
- from monoculture (of commercially valuable species) to mixed forests that include a diversity of tree species;
- from plantations of a similar age (for ease in harvesting) to plantations of diverse ages (for a sustained supply of timber and other

Table 1 Growth of FPCs in South-West Bengal (Bankura, Midnapore and Purulia)

Year	No. of new FPCs	Cumulative no. of FPCs
Up to 1985	178	178
1986	101	279
1987	188	467
1988	375	842
1989	198	1040
1990	506	1546
1991	71	1617

Source: Adapted from information provided by the Statistical Wing, West Bengal Forest Department

products to meet community needs); and, most significantly

- from custodial management through policing, to participatory management.

Data from West Bengal indicate that these changes have produced results. Forest cover has increased, timber production has increased, conflict between foresters and communities has decreased and the yield of NTFPs has increased. According to satellite surveys, the forest cover in West Bengal increased by 4.5% between 1988 and 1991. Of this increase in forest cover, 67% has occurred in South West Bengal, the region that contains the largest number of FPCs, although it has only 37% of forest land. Although only a minor portion of the total timber production comes from the South West region (4%), the total timber extracted has increased from a low of 72,590 m^3 in 1989-90 to 84,903 m^3 in 1994-95[2]. The number of forest personnel assaulted is another broad indicator – this has decreased from a high of 60 in 1982-83 to 18 in 1994-95. Similarly the number of forest offences (cases of illegal extraction) of timber has decreased.

Although JFM undoubtedly represents a change in the state's approach to forest management, there are still two sets of issues that need to be addressed (Saighal et al., 1996; Roy, 1992; Saxena, 1992). The first set is conceptual. For instance, to what extent do communities have economic (as opposed to subsistence) rights to forest produce. The

[2]The figures for 1995-96 are not available. The increase is only indicative, since the department had stopped felling in some areas in certain years.

second set of issues relates to the practical problems of managing the JFM programme including the assigning of forest areas to communities, developing systems for conflict resolution, dealing with different administrative and forest boundaries, and increasing women's participation. In this paper, my intention is not to extol the virtues of JFM, but to recognise the extent to which change has occurred and to try and identify the conditions that enabled the change.

TWO NARRATIVES AND AN ADDITION

The official account: reformist foresters

In the early 1970s, forest officers in some districts in West Bengal independently initiated experiments in joint management to protect the forests from further degradation (Malhotra and Poffenberger, 1989). In the Arabari range, Dr. Ajit Banerjee, then District Forest Officer (DFO) for silviculture, was plagued by villagers cutting the young trees in his experimental plots (Chaterjee, 1995; Banerjee, 1995). He recognised that villagers needed economic support in order to stop the illegal felling.

In exchange for protection, he informally offered the villagers employment and the free use of NTFPs, and later a share of the profits from the sale of timber, in exchange for protecting a demarcated area of forest through the formation of FPCs. Simultaneously, the DFO lobbied within the Forest Department to get this experiment accepted as a special project under the name 'Socio-Economic Project'.

At around the same time in Purulia, another District Forest Officer, Mr. Palit, was initiating similar co-management arrangements with the

villagers in an effort to prevent further degradation of their forests (Palit, 1989). This DFO had tried to check deforestation through increased policing, and come to the conclusion that, given the limited number of forest personnel, the policing approach was unlikely to work, especially when illegal timber loggers often had the protection of politicians. The DFO supported the villagers' efforts to form FPCs. In his efforts he neither offered the villagers full employment, nor did he promise them any share of the profits from the final harvesting because he did not have the ability to deliver on those promises. In response to his arguments, the villagers began protecting the nearby forests (Palit, 1996).

By the mid-1980s the success of these early experiments, especially Arabari, started attracting increased attention. By this time, Dr. Banerjee had left the Forest Department and joined the World Bank, and he drew the attention of people within the Bank and the Ford Foundation to Arabari's success. The World Bank funded the West Bengal Social Forestry Project which was restructured in 1987 to include a JFM component. Meanwhile, a handful of progressive senior foresters within the Department also supported the JFM approach in the areas under their jurisdiction.

By the mid-1980s, there were over a hundred FPCs working in West Bengal. These informal arrangements were formalised in 1989, when the West Bengal State Forest Department officially recognised the FPCs and agreed to share 25 percent of the profits from the sale of timber with them. Following the 1990 adoption of the national JFM Resolution, similar resolutions were passed in most Indian states. In all cases FPCs share some common

characteristics – they work in partnership with local Forest Departments, take over responsibilities for the day-to-day policing of the forests, and receive a share of the profits from the sale of the regenerated forest resources. At the same time, FPCs in the various states have different structures, membership criteria, responsibilities and legal standing.

As suggested earlier, this version seems incomplete. Firstly, it does not explain why, even after the initial success of Aribari became evident around 1977, it still took more than ten years for JFM to begin to spread. Secondly, it does not explain how growing cooperation was possible in a climate of conflict and mistrust between the people and the foresters. Finally, the puzzle of how JFM did then begin to spread rapidly even prior to the official West Bengal government order in 1989 is not answered. The following version of the emergence goes a little further in answering these questions.

The subaltern account: spontaneous community management

Another account of the emergence of JFM argues that it was a spontaneous movement (Poffenberger & McGean, 1996; Deb, 1993). This account largely draws on the history of tribals in South West Bengal to argue that the formation of forest protection committees is just another in a long line of struggles against the colonialists, the settled peasantry and more recently the state. The pre-colonial relationship between the tribal communities is cast as being idyllic, rooted in the worship of nature. When the British installed a system to tax the tribals (the *zamindari* system), the tribals resisted through a series of armed revolts, the first of which was the Chaur Rebellion in 1767. The period between the turn of the century and

Indian independence was dotted with sporadic rebellions and slow displacement of the tribal communities (Poffenberger & McGean, 1996). Post-independence tribal struggles turned to issues like rights over natural resources.

With the advent of the first United Front government in 1972, this account suggests that tribal groups were catalysed into protecting their forests. Tribal and schedule caste leaders were nurtured by the populist government to do this. The growing desire of communities to take action for environmental conservation coincided with the West Bengal Forest Department's appeal to communities to help in the protection activities.

This account draws on oral histories of the formation of FPCs. For example, an account of the emergence of an FPC in Chingra, West Midnapore begins in 1984 with the village youth becoming aware of the deteriorating state of their environment and mobilising the community to protect the forests. Similar stories have emerged in my own field research and they speak of the strong environmental concerns of the people.

The question that these accounts do not address is why these isolated instances of protection did not add up to regeneration or protection on a significant scale, or how they led to a formalised policy change. In other states in India, when communities have had an impact on policy changes, they have formed groups and done so largely through political struggles (Gadgil and Guha, 1994). In the case of JFM in West Bengal, communities did not demand participation in forest management, nor did they form political groups. While this account

is partially true, it still leaves the JFM story incomplete.

The missing piece: front-line workers and the Employees Association

Factually, what is missing from both these accounts is the significant role played by front-line workers and their union, the West Bengal Subordinate Forest Employees Association [3]. In contrast to the literature that suggests that employee unions hindered reforms, the front-line workers' union has been progressive in supporting JFM. Since the early 1970s the Association has been promoting dialogue between the Forest Department and villagers for a more collaborative style of forest management by holding annual workshops and seminars in each region and presenting summaries of these meetings to the forest minister.

Similarly, the Association also promoted the *Aranya Saptah* (Forestry Week) to create awareness among communities about the value of trees through public functions and by providing seedlings and technical support for planting trees. This is far from the Association's original mandate in 1922, of representing the subordinate employees' personnel issues to the colonial forest administration.

The role of such public sector unions does not seem to have received much attention in the literature on reform in developing countries, even though they represent a large part of the

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[3]Most of the evidence for this section comes from interviews with past and present office-holders of the association, and past and present members.

workforce in the public sector and are often stronger than they are in industrialised countries (Tendler, 1996). In his examination of the politics of land reform in West Bengal, Kohli claims that the main opposition to the land reform came from the lower level administration, especially the front-line workers (Kohli, 1987). He argues that the reason land reforms have nevertheless been successful in West Bengal is that the political party largely circumvented the bureaucracy in implementation. In areas where they have been less successful, they have been subverted by the lower level administration officers who were linked with the landed interests in the villages. What then explains the progressive stance of the front-line workers' Association?

The Association's foray into forest policy issues I suggest, arose out of two factors – its initial 'left' orientation and the increased danger posed by conflicts between the Forest Department and villagers. First, since the early 1950s, the Association has been predominantly left-oriented, which made it both more sympathetic to people-oriented policies, and also lent it the ear of the Left-Front government when it came to power in 1977. Second, in the early and mid-1970s, there were many confrontations between villagers and foresters throughout Bengal over the illegal felling of timber and several front line workers were physically assaulted and murdered. Naturally issues of worker safety became a central concern for the association, and it saw cooperation with the people as the only realistic way of ensuring safety. It lobbied the forest minister and proposed a participatory approach to forest management, an approach that had met with little success until the Left-Front government came to power in 1977.

To understand the unusual nature of the Association's actions, it is instructive to contrast the role of the Association in JFM in India with that of the police unions in community policing in the United States. Structurally, the problem of policing dangerous neighbourhoods is similar to that of forest protection in conflict ridden areas. Without the cooperation of communities in providing information about crimes, a small police force cannot expect to operate effectively. By training communities to patrol localities and report crimes, 'community' policing is expected to provide protection in a more locally specific way (Goldstein, 1987; Moore, 1994).

However, unlike JFM, the move to community policing in the US has not emerged from the front-line officers or their union (Kelling & Kliesmet, 1995). Rather the push has been from the top – promoted by NGO groups and heads of departments. Police unions have resisted the move to community policing.

How can we explain this difference? The difference between the position of the Association and police unions, I would argue, arises from the differences in the nature of the work situation. Unions do not like community policing because it requires policemen to go out on more foot patrols, and engage with the communities they police, activities that increase the danger they face. Unions also do not like community policing because they view it as the social science approach – as different from their more professional role of catching criminals. In contrast, the move towards participatory management led to an improvement in the work situation of front-line forestry workers. I elaborate this argument in the next section.

THE TWO FACES OF REFORM

Before presenting my arguments about the conditions supporting reform, I would like to draw attention to some characteristics of forestry that differentiate it from other sectors in policy making, or even other types of common property resources. First, forests, and *sal* forests in particular, constitute a natural resource that is highly degradable through over-extraction, but is also easily regenerated through protection and/or plantation. Second, forests in South-West Bengal (as in most parts of India) are highly dispersed, and interlaced with settlements thus linking questions of forest protection and regeneration with the question of how to meet the needs of forest communities. Third, forests have multiple users and thus generate conflicts between different groups. Thus, for example, while the forest department prefers to grow taller *sal* trees to increase their commercial value, villagers prefer shorter trees with a large spread that provide easy access to leaves and other NTFPs. Finally, unlike most other policy areas, for instance irrigation, the state has a long history of using forests under its custodianship to directly generate significant revenue.

As a consequence of these factors there is, on the one hand, enormous potential for joint gains for villagers, foresters and society if they collaborate in the protection and management of forests. On the other hand, there is simultaneously a high potential for competition, mistrust and conflict to arise leading to low returns and subsequent deforestation. The question that follows, then, is under what conditions one can change a situation of low trust, high conflict, over-extraction and consequent deforestation to a situation of high

trust, regulated use and subsequent regeneration.

The constraints, and opportunities, for converting conflict to collaboration lie in the different views of communities and the state on the causes of degradation and the extent to which past experience supports trust between them. From the state's perspective, forest policy has been historically guided by varied and often conflicting objectives. Forest resources have been made subservient to the needs of industry and state revenue in the name of development. As a result of their training, foresters view communities as the main cause of degradation and their use of forest resources is viewed as 'biotic interference'. In this view the process of degradation is gradual and the cumulative result of the actions of thousands of villagers (Dove, 1995).

On the other hand, people's experience of the development process has been fragmented. From their perspective, degradation has been caused by sporadic instances of large-scale felling of timber by contractors, either with or without official sanction.

These perspectives on the part of the state and community on the causes of deforestation shape the positions they take vis-à-vis each other and the forest resource. The rest of this section explores these issues.

Progressive Bureaucracy?
Together with the acknowledged role of the early experiments, the role of front-line workers and their Association constitutes a case of 'progressive bureaucracy'. Both front-line workers and reformist forest officers used the resources under their control (for example,

discretion over the allocation of work such as the harvesting of timber) to bring the villagers on to their side. Between around 1980 and 1989, many front-line workers (with the support of their association) motivated people into forming protection committees by saying they would get some benefit at the final felling without getting approval for such steps from higher levels of authority. They promised that they would try to get a share for the villagers, and encouraged the villagers to try as well. The consequence of these promises was a constituency that would demand profit-sharing and create a pressure for change. Simultaneously, they acted through their union to pressure the administration to change the approach to forest management.

Thus, in contrast to the predictions of the literature on both 'rent-seeking' and 'risk-averse' bureaucrats (Wilson, 1989; Grindle, 1980; Grindle & Thomas, 1991), in the JFM case both forest officers and front-line workers have innovated during implementation, and have triggered a subsequent policy change. The neo-liberal perspective promotes the view of 'rent-seeking' public officials. Such 'bureaucracy-sceptical' arguments are of two main types. One focuses on the issue of corruption (e.g. Wade, 1985), an issue that I do not deal with centrally partly because of difficulties of researching corruption and partly because I believe that it draws attention away from more structural factors that might shape bureaucratic behaviour. The other approach focuses selectively on behavioural motivations that exist within a non-corrupt formally functioning bureaucracy – promotion, budget maximisation – and argues that perverse outcomes are a result of such structural incentives (Niskansen, 1971; Tullock, 1965).

However, neo-liberal theory does not offer us good explanations of why bureaucrats might support and promote 'power-reducing' policies such as JFM. Critiques of the neo-liberal view fall along the following lines. First, there is the assumption of individual maximising behaviour per se, as opposed to a vision of 'service', etc. Moreover, there is an ambiguity in the concept of individual maximising behaviour – is the aim corrupt earnings, fast promotions, an easy life or what? And what would be a rational strategy for achieving the goal? Second, the neo-liberal model neglects the different dimensions of the work situation. For example, there can be a 'peer group' effect on work motivation and behaviour that can be very powerful in some cases such as the causes of military bravery (Wilson, 1990). There is also the influence of 'client-interaction effect' on behaviour, a factor that is central to the JFM case (Tendler & Freedheim, 1994; Fox, 1992).

The reasons for reformist forest officers behaving progressively, I believe, differ somewhat from those of the front-line forestry workers. Senior reformist forest officers came to support JFM because they were motivated by a desire to protect the forests. They had either come into close contact with the forest villagers and had perceived the need for involving them in protection, or, after struggling with the policing approach had come to realise that it would not work (Palit, 1989). Similarly, some front-line workers were no doubt reformist. However, to explain the large scale support for JFM among the front-line workers, we have to look elsewhere – at what I would call the nature of the work situation. I will confine the rest of my comments to these workers.

In contrast to the reformist senior officers, I suggest that front-line workers were motivated to support any policy that would improve their work situation; in other words make their protection work easier and safer. They were facing dual pressures – on the one hand they were facing potential violence from villagers making their work increasingly dangerous; on the other hand, front-line foresters were often held responsible for rapid forest degradation by the senior officials and sometimes punished for 'negligence of duty'.

In addition, they were subject to dissonance in their work conditions; expected to police and act against people with whom they were likely to be empathetic, for many came from similar regions of poverty and forest dependency.

Finally, they were expected to live in the forested areas with their families. The nearest help they could turn to in case of emergencies were the very villagers who they policed and were distanced from. Thus they were seeking a policy approach that would deal with the issue of worker safety as well as worker performance. By making the villagers sympathetic and getting their help in protection activities, front-line workers would be safer from assaults.

The argument is that the positions front-line workers take arise out of the concrete conditions of their work – their relationships with client communities, their ability to carry out tasks, the demands for their services and the pressures under which they operate.

Such an argument is not new: the literature on public bureaucracies highlights the constraints they work under and the discretion they

exercise (Wilson, 1989; Lipsky, 1980; Goetz, 1996; Heginbotham, 1975). Lipsky argues that it is the cumulative actions of these 'street-level' bureaucrats that constitutes policy. It is not clear however, how such 'policy-in-practice' can be institutionalised into 'policy-on-paper'. The JFM case is one example of the conditions under which such institutionalisation might happen.

Cooperative communities?

The new JFM arrangements share some elements with common property management regimes. The shift to JFM has converted what were de facto 'open-access' state-owned resources into common property-like regimes. JFM is similar to common property regimes in that it involves a well defined group (the forest protection committee) with a clear set of rights (and responsibilities) to a well defined resource (demarcated forest area).

The FPC has the responsibility of mobilising members to patrol forests and inform forest officials of all illegal timber felling or extraction. How these patrols are organised is up to individual FPCs. The FPC also has the responsibility and right to participate in the micro planning of the forests, e.g. planning the location of embankments, plantations or tanks. FPCs have the right to take fallen twigs and small branches, NTFPs (except those expressly forbidden), a share of the intermediate timber yield and a right to employment in forest-related activities in their area. They also have the power to exclude other groups from using their forests.

In other respects, JFM differs from common property regimes. Unlike most CPRs, the forest land is legally under the control of the Forest

Department; the significant operational rules of use (what kind of resources can be extracted and in what volume) or the institutional rules of use (how decisions about the operational rules are changed) are not decided by collective decision-making by the members but by the state; members are not a part of the direct governance of the resource. To understand how the JFM case relates to, and can help extend the literature on CPR management, it is necessary to briefly summarise the key themes in recent debates.

In the early debates on CPRs two views predominated. One set of scholars argued that mismanagement was inherent in the nature of commonly held resources (Hardin, 1968; Olson, 1971)[4]. Another set argued that mismanagement of resources was caused by inefficient state policies (Repetto and Gillis, 1988; Blakie, 1985; Binswanger, 1991)[5].

More recent research has challenged both views on theoretical as well as empirical grounds[6]. At the theoretical level a growing number of scholars argue that collective mismanagement is not inevitable (Runge, 1986; Ostrom, 1990).

[4]Hardin argued that it was in the interest of individuals to over-extract benefits from a commonly held resource. Even if a particular individual exercised restraint – others would not, leading to the resource being degraded in any case. In this formulation of the problem, the resource can be sustainably managed only through state regulation or privatisation. As noted by many, this formulation of the problem closely parallels the prisoners dilemma game or Olson's collective action problem (Ostrom, 1990).

In the case of common property management, they show that whether free-riding dominates individual strategies or not is related to other factors such as the ability to cooperate and to form acceptable rules, and the levels of monitoring and enforcement. Resource management involves an *unknown* number of interactions, and people *learn* from their past experience of interaction, learning that guides their future actions (Runge, 1986; Axelrod, 1984).

Moreover, members are aware that their decisions are interdependent; in a small community, people tend to know what other people are doing and there are mutual expectations of behaviour. In fact, the nature of resource management in developing countries characterised by poverty and high transaction costs of private property can often

[5]Their prescriptions for the problem are oriented towards pricing policies that internalise the high social costs of deforestation (Binswanger, 1991; Repetto and Gillis,1988). Others have similarly shown that market infiltration has resulted in the breakdown of traditional institutions that were capable of efficient management (Jodha, 1992).

[6]Those opposed to this explanation of 'collective mismanagement' of common resources began questioning whether CPRs get degraded because they are managed by community institutions or because these institutions break down. They pointed out that Hardin's formulation of the commons' tragedy confused open-access resources with commonly-managed resources (Bromley, 1992)

make common property an efficient institutional arrangement (Runge, 1986). Thus theoretically collective action problems can be overcome.

Empirical evidence supports this contention. Numerous studies of efficient common property regimes in a variety of contexts and resources show that common property can be managed successfully in collectivity (Wade, 1988a; Ostrom, 1990; Bromley, 1992). And, countering the assertion that state policies result in inefficient management, in some regions that share similar geography and state policies, researchers have found robust common property management systems existing side by side with inefficient ones (Agrawal, 1995). The question then is: what conditions support collective action in the management of resources?

One focus of interest has been the *institutions* that govern collective action – the rules that govern appropriation, monitoring and enforcement and the mechanisms through which they are formulated and changed (Ostrom, 1990; Agrawal, 1995). Others have focused on the issue of *trust* that is central to the problem of collective action (Runge, 1986; Wade 1988b).

The latter scholars argue that the rules defining appropriation, provision, monitoring and enforcement can be useful only to the extent that people are likely to abide by them, and trust others to abide by them (Wade, 1988b). They suggest that cooperation can occur and be sustained when an individual is *assured* that a minimum number of others will also cooperate leading to a higher level of benefits for the group as a whole *despite* the fact that there may be a few free-riders. The key

question that is raised by this stream of literature is under what circumstances will this *core group* of people cooperate? What are the factors that trigger cooperation and overcome the assurance problem?

It is primarily in the light of this latter question that the case of JFM is significant. The rules that govern FPCs are common to all FPCs and members do not have the power to change them. More importantly, the degree to which members perceive the rules as being fair does not seem to determine their willingness to protect. How then did trust develop between the foresters and the villagers especially in a situation characterised by high levels of conflict? Why did a core group of villagers find it beneficial to participate in the joint management of forests? These questions are key to understanding how successful new CPRs might be catalysed.

The villagers faced three kinds of problems. One is the problem of cooperation among themselves; the second is that of inter-village cooperation; and the third problem is one of trust between the Forest Department and the villagers.

From my research I would argue that these three problems were linked because of the fact that the legal property rights to the forest lay in the hands of the state. Cooperation amongst the villagers themselves was difficult because even if they cooperated, there was nothing to stop other communities (who had not agreed to cooperate) to over-extract the resource. Some villagers did succeed in cooperation among themselves, but when they attempted to stop outsiders from extracting from the protected areas, their authority to do so was

challenged. Thus an intra-village cooperation strategy could be undermined by external threats. Inter-village cooperation was made difficult partly because of geographical distance, and partly because of the generic problems of collective action in large groups. Finally, cooperation between forest officials and villagers was precluded by the atmosphere of fear and mistrust that prevailed at the time; a mistrust that was a product of their past relations with the state. However, the increasing cooperation with forest officials gave them authority to exclude other communities. In turn this helped alleviate the collective action problem among themselves by providing assurance that their collective protection efforts would not be wasted.

The social forestry programme started in 1980 contributed significantly to this increasing cooperation, by creating a receptive environment within the communities (Poffenberger, 1991; Shingi et al., 1986). Just as the social forestry programme changed the attitude of the foresters towards villagers, it also changed the attitude of villagers towards foresters.

I suggest that this happened through two separate mechanisms. Earlier, villagers had been reluctant to plant trees on their own land under the social forestry programme because they were afraid that the government would subsequently appropriate their land as forest land (the way the *zamindari* forests had been taken over by the government two decades earlier). However, they realised that social forestry was not a trick to appropriate land and came to trust the forest department a little. Simultaneously it made villagers realise the monetary value of trees (Shah, 1989). Second, the panchayats (elected village level bodies for local governance) supported the social forestry programme, which in its second phase had an expanded part for JFM-like arrangements. The panchayat had the trust of the villagers when it promoted the collective protection efforts; furthermore, it could resolve disputes in the case of inter- and intra-village conflict.

At the same time, as mentioned earlier, forest officers and front line workers demonstrated their commitment by using their official powers and resources in a discretionary fashion to help villagers overcome difficulties created by initial protection, at some risk to themselves. They promised the villagers some ultimate benefit from the protection activities and were willing to provide it at their own risk.

Furthermore, they tried to foment trust incrementally through talking, creating shared understandings of problems much as the new literature on trust in relation to firms has argued (Sabel, 1985). For example, one common argument front-line workers used was to show that they had no personal interest in the regeneration of the forests – they would get their salaries even if there was no forest. When they got transferred, they were not going to be able to take the regenerated forests with them. Rather it was in the interests of the villagers to regenerate these forests. These words resonated with the communities and contributed to the creation of trust and overcoming the problems of collective action.

CONCLUSIONS

In this paper, I have focused on some institutional factors that influenced the emergence, spread and subsequent adoption of JFM in West Bengal. The main argument was that the support of front-line workers seems key to understanding the success of JFM in this region. The reasons why progressive foresters pushed for participatory management rest in the rapid degradation of the forests and the increasing conflicts around forest resources. Similarly, many communities had realised the importance of forests and needed the authority of the state to support them in their efforts. A constellation of factors came together in the mid to late 1980s leading to a change in the approach to forest management.

While it is difficult to generalise from a single case, several interesting issues are raised. Starting with the minor issues, we firstly need to be alert to unexpected mechanisms through which policy reform might be pursued, in this instance the role of the subordinate staff and their union. Blueprint solutions to environmental problems often make us overlook alternative sources of support for reforms (Roe, 1991). There is a strong case to be made for further research on the role of such unions in policy reform, and especially to gain an understanding of the conditions under which unions support reform.

Second, the case contributes to the literature on CPRs and collective action by focusing on the issue of trust. As the case illustrates, trust is a constantly evolving entity shaped again by the concrete interactions within communities and between communities and the state. To understand why collective action is possible at some times and not at others we need to look more carefully at the history of interactions within areas and how this history is perceived by the various parties. An ongoing analysis of this sort is also more likely to tell us whether such collective action is sustainable or not.

The case also underscores the importance of tenure in understanding whether or not communities will engage in collective management of resources. In this case, the partial CPR nature of the resources forced communities to seek security of tenure through a partnership with the state forest department.

Third, neo-liberal perspectives on the motivations of public officers have already been widely criticised for being misleading. To develop a better understanding of the difficult issue of bureaucratic motivations, we need detailed cases of good performance. The case of JFM presented here adds to the small number of such cases. The most significant point that the case illustrates is the importance of understanding the actual work situation of public officials rather than abstract notions of what behaviour would result from individual maximising strategies, if one is to grasp what actually motivates public officials. Relationships with client-communities form an important feature of the work situation. Demands from communities can lead to improved performance of public agencies; simultaneously, progressive foresters can mobilise communities to push for policy changes.

Finally, of more practical significance, understanding the causes of policy reform sheds some light on some of the issues pertaining to the sustainability of these reforms. Even within West Bengal, as JFM matures, forests regenerate and the years of conflict become a thing of the past, foresters are likely to be less forthcoming in including communities in the active management of forests. Without the internalisation of the JFM concept within state bureaucracies, the situation might revert back

to the previous one. Moreover, it is slowly becoming evident that the regenerated forests themselves have created valuable assets that are sources of conflicts among communities, conflicts that threaten the long term sustainability of JFM.

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REFERENCES

Agrawal, A. (1995) Population pressure = forest degradation: an over simplistic equation? Unasylva 181 (46).

Arora, H. & Khare, A. (1994) *Experience with the recent Joint Forest Management approach*. Paper prepared for the international workshop on India's forest management and ecological revival. New Delhi, 10-12 Feb, 1994. SPWD, Delhi.

Axelrod, R. (1984) *The evolution of cooperation*. Basic Books, New York.

Banerjee, A. (1995) *Rehabilitation of degraded forests in Asia*. World Bank Technical paper no. 270. The World Bank, Washington, D.C.

Binswanger, H. (1991) Brazilian policies that encourage deforestation in the Amazon, pp 821-829 in: *World Development* 19 (7).

Blakie, P. (1985) *The political economy of soil degradation in developing countries*. Longman, London.

Bromley, D. (1992) *Making the commons work*. ICS Press, California.

Campbell, J. (1992) Joint Forest Management in India. *Social Change* 22 (1).

Chaterjee, A. (1995) *The socio-economic project at Arabari, West Bengal*. Society for Protection and Wastelands Development, New Delhi.

Deb, D. (1993) Evolution of Joint Forest Management in South West Bengal: A subaltern detail. *Social Action* 43 (July/Sept).

Dove, M.R. (1995) The theory of social forestry intervention: The state of the art in Asia, pp 315-340 in: *Agroforestry Systems* 30 (3).

Fox, J. (1992*) The politics of food in Mexico: state power and social mobilization*. Cornell University Press, Ithaca.

Gadgil, M. & Guha, R. (1994) Ecological conflicts and the environmental movement in India. *Development and Change* 25.

Goetz, A-M. (1996) *Local heroes: patterns of field worker discretion in implementing GAD policy in Bangladesh*. IDS Discussion Paper No. 358, IDS, Sussex.

Goldstein, H. (1987) Toward community oriented policing: Potential basic requirements and threshold questions. *Crime and deliquency* 33 (1).

Grindle, M.S. (Ed.) (1980) *Politics and policy implementation in the third world*. Princeton University Press, Princeton.

Grindle, M.S. & Thomas, J.W. (1991) *Public choices and policy change: the political economy of reform in developing countries*. Johns Hopkins University Press, Baltimore.

Hardin, G. (1968) The tragedy of the commons, pp 1243-1248 in: *Science* 162.

Heginbotham, S. (1975) *Cultures in conflict*. Columbia University Press, New York.

Hiremath, S.R., Kanwalli, S. & Kulkarni, S. (1994) *All about draft forest bill and forest lands*. Center for Tribal Conscientisation, Pune, India.

Jodha, N.S. (1992) Common Property Resources: A mission dimension of development strategies. World Bank Discussion Papers No. 169, World Bank, Washington, D.C.

Kelling, G.L. & Kliesmet, R.B. (1995) Police unions, police culture, the Friday Crab Club and police abuse of force, in: Geller, W. & Toch, H. (Eds.) *And justice for all: Understanding and controlling police abuse of force*. Police Executive Research Forum.

Kohli, A. (1987) *The state and poverty in India*. Cambridge University Press, Cambridge.

Lipsky, M. (1980) *Street level bureaucracy*. Russel Sage Foundation, New York.

Malhotra, K.C. and Mark Poffenberger (Eds.) (1989) Forest regeneration through community protection: The West Bengal Experience. Proceedings of the working group meeting on Forest Protection Committees, Calcutta June 21-22. West Bengal Forest Department, Calcutta.

Moore, M. (1994) Policing: deregulating or redefining responsibility, in: Dilulio, J.J. (Ed.) *Deregulating the public service: can government be improved?* The Brookings Institution, Washington, D.C.

Niskanen, W.A. (1971) *Bureaucracy and Representative Government*. Aldine, Chicago.

Olson, M. (1971) *The logic of collective action: Public goods and the theory of groups*. Cambridge University Press, Cambridge.

Ostrom, E. (1990) *Governing the commons*. Cambridge University Press, Cambridge.

Palit, S. (1989) Present status of Forest Protection Committees: Forest regeneration through community protection. Working group meeting on Forest Committees, 21-22 June, Calcutta.

Palit, S. (1996) JFM genesis pre-dated Arabari scheme, pp 15-16 in: *Wastelands News,* Aug-Sept, 1996.

Poffenberger, M. (1991) *Joint Forest Management in West Bengal: the process of agency change*. Working Paper No. 9, The Ford Foundation, New Delhi.

Poffenberger, M. & McGean, B. (1996) *Village voices, forest choices*. Oxford University Press, New Delhi.

Poffenberger, M. & Singh, S. (1989) *Community management for India's forests – emerging experiences*. The Ford Foundation, New Delhi.

Reppetto, R. & Gillis, M. (Eds.) (1988) *Public policies and the misuse of forest resources*. Cambridge University Press, Cambridge.

Roe, E. (1991) Development narratives, or making the best of blueprint development, pp 287-300 in: *World Development* 19 (4).

Roy, B.K. (1990) *Wasteland to wealth*. Department of Forests, Government of West Bengal, Calcutta.

Roy, S. B. (1992) Forest Protection Committees in West Bengal, pp 1528-1530 in: *Economic and Political Weekly* 27 (July 18).

Runge, C.F. (1986) Common property and collective action in economic development, pp 623-635 in: *World Development* 14 (5).

Sabel, C. (1985) Learning by monitoring. *Handbook of Development Economics.*

Saighal, S., Agarwal, C. & Campbell, J. (1996) Sustaining Joint Forest Management: The role of Non Timber Forest Products. Draft paper. SPWD, New Delhi.

Sarin, M. (1993) *From conflict to collaboration: Local institutions in Joint Forest Management*. JFM Working paper 14, NGSJFM, SPWD & Ford Foundation, New Delhi.

Saxena, N.C. (1992) Joint Forest Management: A new development bandwagon in India? *Rural Development Forestry Network Paper* 14d. ODI, London.

Shah, T. (1989) *Gains from social forestry: Lessons from West Bengal*. IDS Discussion Paper No. 243, IDS, Sussex.

Shingi, P.M., Patel, M.S. & Wadwalkar, S. (1986) *Development of social forestry in India*. Oxford and IBH Publishing Company, New Delhi.

Sivaramakrishnan, K. (1998) Modern forestry: Trees and development spaces in Southwest Bengal, India, in: Rival, L. (Ed.) *The social life of trees*. Oxford, New Delhi.

SPWD (1993) *Joint Forest Management, Regulations Update, 1993*. SPWD, New

Delhi.

Tendler, J. & Freedheim, S. (1994) Trust in a rent seeking world: Health and government transformed in Northeast Brazil, pp 1771-91 in: *World Devleopment* 22 (12).

Tendler, J. (1997) *Good government in the tropics*. The Johns Hopkins University Press, Baltimore.

Thompson, J. (1995) Participatory approaches in government bureaucracies: Facilitating the process of institutional change, pp 1521-1554 in: *World Development* 23 (9).

Tullock, G. (1965) *The politics of bureaucracy*. Public Affairs Press, Washington, D.C.

Wade, R. (1985) The market for public office: Why the Indian state is not better at development, pp 467-497 in: *World Development* 13 (4).

Wade, R. (1988a) *Village Republics*. Cambridge University Press, Cambridge.

Wade, R. (1988b) The management of irrigation systems: How to evoke trust and avoid the prisoner's dilemma, pp 489-500 in: *World Development* 16 (4).

Wilson, J.Q. (1989) *Bureaucracy: What government agencies do and why they do it*. Basic Books, New York.

ACRONYMS

CPR   Common property resource
FPC   Forest protection committee
JFM   Joint forest management
NTFP   Non-timber forest product