Policy Trend Report 2002: 88-113

Participatory Forest Management in India
—An Analysis of Policy Trends amid 'Management Change'—

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Abstract: A participatory approach to forest management organized at a grassroots level by community-based institutions has been implemented in India since the 1970s and is considered, by and large, to be successful and an ideal forest management model in the present world forestry scenario. The principle of participatory forest management, popularly known as joint forest management in India, is based on 'co-management' and a 'give and take' relationship between the two major stakeholders, village communities and the Forest Department, mediated in most cases by a non-governmental organization. It is a total departure from earlier forest policies practiced in India, whereby the Forest Department managed forests primarily to generate the maximum possible revenue for the State, whilst excluding village communities from the management process. However, the 'management change' that has brought people-oriented forest policies to the fore is not a new phenomenon, nor one that has appeared suddenly. Rather, it is the outcome of several factors including the inability of the Forest Department to prevent the degradation of the forest resource or abate the decline in forest cover that has occurred throughout the country, as well as the failure of policy to accommodate and account for traditional forest use patterns and age-old relationships between local communities and forests. This paper addresses the processes and circumstances that led to the evolution of participatory forest management in India as well as the past and present forest polices that facilitated this change. Emphasis is placed on an analysis of recent forest policy directives aimed at facilitating the implementation of participatory forest management. This paper is divided into four sections. Section 1 briefly summarizes forest management in India during the period of British rule from the people's perspective. Section 2 traces the genesis of participatory forest management in India. Section 3 examines the policy directives aimed at facilitating the implementation of participatory forest management in India and analyzes the emerging policy issues and challenges confronting participatory forest management. In so doing, it describes the 'learning curve' achieved in the development of participatory forestry management, which has ushered in a 'management change' in the Indian forestry sector. This paper ends with a concluding section.

Key words: Participatory/joint forest management, forest policy, policy failures, management change, joint forest management committees, policy issues and challenges.

1 Forest Management under British Rule

Natural resources have always been an integral part of the Indian economy and culture and are held in high esteem. Ancient religious, political and literary writings are testament to the fact that people have historically been considered an integral part of nature and not superior to it. However, it is difficult to generalise about historical forest management practices in India given the diversity of culture, forest types and administrative systems found in different parts of the country ; indeed natural resources were formerly managed by princely states under different land tenure systems. However, a great deal of documentation regarding forest management regimes under the British administration is available ; in this section, discussion is confined to the colonial approach to forest management and its policies concerning people dependent on forests.

It is well known that many of the forests in India have, at different points in the nation's history, been managed under a set of rules and regulations developed by different communities. Even today, some of these so-called self-initiated forest protection groups have survived or have been re-invented in response to the need of the hour to conserve community forests[1]. Given this context, it is necessary to point out at the outset that participatory/joint forest management[2] is not new to India ; it is a re-invention of the successful forest management practices of the past.

1.1 State versus community interests

1.1.1 National Forest Policy, 1894

The British administration directed its forest policy towards commercial interests and the development of agriculture, which was a major source of revenue. These motives are explicitly documented in the National Forest Policy of 1894, the first formal forest policy in India. This policy stipulated that "forests which are the reservoirs of valuable timbers should be managed on commercial lines as a source of revenue to the States" and that "wherever an effective demand for culturable land exists that can only be supplied by a forest area,

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[1] The self-initiated forest protection groups are now being recognized and registered as joint forest management committees, giving them the necessary legal support under the ongoing participatory/joint forest management programme in the country.

[2] In this paper, 'participatory forest management' has been used interchangeably with 'joint forest management'.

the land should ordinarily be relinquished without hesitation..." (Government of India 1894). According to this policy, the sole motivation by which forests were administered under British rule was the promotion of state interests.

For management purposes, the British administration divided the forests into four classes, as described in the National Forest Policy of 1894. The first class of forests were generally situated on hill slopes and were deemed essential for the protection of cultivated plains from damage caused by landslides and hill torrents. In this sense, they served a conservation role for the benefit of agriculture in the plains. The second class of forests included the vast reserves of valuable timber trees including *Cedrus deodara, Shorea robusta* and *Tectona grandis*. Driven by commercial interests, forest management measures were developed to promote natural regeneration of these first two species and artificial regeneration of the third. In certain parts of northern and eastern India, however, techniques for the artificial regeneration of *Shorea robusta* were developed by means of the *taungya* system[3] (Government of India 1976).

Using forests to meet people's needs was not a priority consideration for the British administration. People's requirements were to be met by the third class of forests - 'minor forests' that yielded only inferior timber, fuelwood or fodder - and by the fourth class of forests - 'pastures and grazing grounds' to which certain restrictions were applied. In general, the policy dictated "the constitution and preservation of forests and, to a greater or lesser degree, the regulation of rights and the restriction of privileges of users in those forest areas which may have previously been enjoyed by the inhabitants of the immediate neighbourhood" and further suggested that "the cardinal principle to be observed is that the rights and privileges of individuals ... be limited" (Government of India 1894). To conclude, people's interests were made subservient to the State's commercial interests with regard to forests during colonial rule.

1.1.2 Indian Forest Act, 1927

Likewise, the implementation of the Indian Forest Act, 1927 by the British Administration also had an impact on those communities dependent on forests. The Indian Forest Act was drafted first in 1865, placing most forests under state ownership. It was further revised in 1878 and consolidated in 1927. Thus it is important to note that the National Forest Policy of 1894 evolved from the objectives of forest management as outlined in the (draft) Forest Act of 1865 and 1878. The Indian Forest Act, 1927 was "an Act to consolidate the law relating to forests, the transit of forest produce and the duty leviable on timber and other forest produce" (Government of India 1927). The text of this Act was divided into 13 chapters with a plethora of rules and regulations, penalties and procedures aimed at extending the Government's control over forests as well as diminishing the status of people's rights to forest use. To give an example, a clause from Chapter III 'Of Village Forests', Section 28(2) states that "the State Government may make rules for regulating the management of *village forests*[4], prescribing the conditions under which the community ... may be provided with timber or other forest produce or pasture, and the duties for the protection and improvement of such forest" (Government of India 1927). Thus, this Act facilitated the State's grip over forests and consequently communities were deprived of many of their traditional rights over forests. That is, "people's rights to use forests were extinguished and replaced by privileges" (Hobley 1996). This Act further alienated village communities from their age-old symbiotic relationship with forests.

The Indian states adopted the Forest Act of 1927 after independence in 1947. Subsequently, the Act was modified through several amendments, mostly to curtail local use of forests. Furthermore, the Indian states promulgated their own Forest Acts. For example, The Orissa (State) Forest Act, 1972 provided that no claim for shifting cultivation should be allowed in areas notified for reservation (Pathak 1994). According to Pathak (1994), in the post-independence era "forest offences as outlined in the Indian Forest Act, 1927 were recategorised and harsher punishments were provided". Attempts to curtail local forest use by affecting changes to this Act continued until the early 1980s. However, the situation changed in the early 1980s as non-governmental organizations and people's groups resisted the measures imposed by the government. Currently, a facelift of the Indian Forest Act, 1927 is underway in the context of the present forest management regime. Since the adoption of the National Forest Policy of 1988 (discussed later), it has been proposed that all state forest laws and amendments be updated and consolidated to bring about a uniform law throughout the country.

1.2 People's resistance against the State

An analysis of the National Forest Policy, 1894 and the Indian Forests Act, 1927 suggests that the rights of people to forests under erstwhile rulers in the pre-colonial era were further limited. It is also evident that many of the informal forest management institutions that operated at the grassroots level collapsed after the takeover of the forests by the British administration, leading to an erosion of social capital. However, in some cases people actively opposed the State take over and demonstrated against the curtailment of public rights. Two such cases of resistance by local communities in the

[3] Under the *taungya* system, people were granted temporary rights to raise agricultural crops for a period of a few years in return for tending forest plantations.

[4] The Indian Forest Act, 1927 included a provision for the transferal of a *reserved forest* - which was State property - to a village community ; such forests were called *village forests*.

state of West Bengal (Poffenberger 1995) and Uttaranchal (Guha 1983 ; Ballabh and Singh 1988 ; Ballabh *et al.* 2002) are summarized here. These two cases had a remarkable impact on the Indian Forestry sector in the years that followed.

In the pre-colonial period, Mughal rulers were unable to exert political authority over forest-dependent tribal communities in the Jungle Mahals of the western Midnapore District in the state of West Bengal due to the inaccessibility of the area. Tribal communities protected their forest resources based on 'warfare and withdrawal'. The forest- and subsistence-oriented lifestyle of tribal communities, however, changed with the emergence of British colonial rule in Bengal in the late 18th century as the British administration tried to impose their authority and to extract land revenues through *zamindars*. Under a land tenure system termed *zamindari,* lands were granted to revenue farmers or rent collectors called *zamindars,* who had to pay a fixed amount annually as land revenue to the state. The British administration also encouraged *zamindars* to convert open forests into agricultural land, evidently to enhance the revenue earned. It is important to note in this context that such revenue-oriented measures were advocated well before the implementation of the (draft) Indian Forest Act, 1865 and the National Forest Policy, 1894.

The tribal communities reacted violently to the British administration in a series of armed revolts. The first of these, popularly known as the Chur Rebellion, lasted from 1767 to 1800. Later on, the British administration increased its grip over this region despite the resistance put up by tribal communities from time to time. With the passage of time, the tribal communities were marginalized and their traditional usufruct rights were restricted or eliminated. These forest-dependent communities were further affected by worsening ecological conditions resulting from conversion of forest into agricultural land and mounting pressure on forests for *Sal* (*Shorea robusta*) logs to meet the demand for railway sleepers to expand the country's railway network. Even after independence, the living conditions of tribal communities and other low caste people further deteriorated in this region. They were reduced to agricultural labourers or sharecroppers and suffered the loss of income from forest-based activities as the forests were cleared. Such conditions resulted in the Naxalite uprising in the Arabari area of Midnapore, West Bengal, in the 1970s, which further hastened the depletion of forest cover due to the inability of the Forest Department (FD) to protect the forest resource. As a result of such developments as well as the eventual prudence of Forest Department personnel, this region later became the site of the first experiments in Joint Forest Management (JFM), as discussed in Section 2.2.

Similarly, in response to stark public opposition to State efforts to nationalise and exploit forests that had long been under local control, *Van Panchayats* (village forest councils) were established in the state of Uttaranchal (previously known as Uttar Pradesh Hills) during the early 20th century. Under the provisions of the Forest Act of 1878 and settlements thereafter, all land except cultivated land was brought under the control of the FD and a wide range of restrictions were imposed on grazing, lopping and collection of forest produce. However, in 1916 a group of the Indian elite organized people in Uttaranchal to challenge the State reservation of forests for the impact it was having on local livelihoods.

As a result of such protests, the Forest Grievances Committee was set up by the state to look into the matter. Realizing that further efforts to impose forest regulations were likely to be met by stiff resistance and thus strengthen calls for independence, the committee recommended reclassification of state forests. In consequence, the status of reserved forests of low commercial value but of high livelihood value to local people was rebuked and *Van Panchayats* were instituted for their management. *Van Panchayats* were instituted on the principle of participatory forest management and gained the full legislative support of the state. This is a classic illustration of how the concept of participatory forest management originated well before the independence of India in 1947 and as an outcome of popular resistance to State management regimes. Today, the state of Uttaranchal has more than 4,800 *Van Panchayats* managing 244,800 hectares of forest area spread over six districts[5].

2 Genesis of Joint Forest Management

Continuous deforestation and the degradation of forests leading to a decline in forest cover have long been sources of concern for policy makers in India. Indeed, had there not been such large-scale deforestation and forest degradation in India, it is unlikely that any policy maker would have given serious thought to the 'participatory forest management' model. The need of the hour and the backlash of policy failures have led to the emergence of a new institution and rationale for the origin of a 'participatory forest management' model within the Indian forestry sector. This section discusses why the government commenced participatory forest management in India.

2.1 Misdirected forest policies

There are conflicting views on the reasons behind deforestation and forest degradation in India. State FD personnel hold the people living in and around the forests responsible for deforestation and forest degradation. If this is the case, the question arises as to what circumstances led local people to change their attitude given the existence of traditional symbiotic systems for forest

[5] The Forest Department is formally bringing the *Van Panchayats* under the fold of the ongoing Joint Forest Management programme.

use. The likely circumstances are addressed here in an attempt to answer this question.

The Government of India enacted the first post-independence National Forest Policy in 1952. An attempt to revise rather than entirely reconstruct the preceding forest policy, the 1952 policy did not alter the fundamental principles which underpinned the Forest Policy of 1894 (FAO Staff 1953). In fact, the 1952 policy "asserted that the fundamental concepts underlying the colonial policy were sound ; they just needed to be reoriented" (Pathak 1994). In the context of post-war reconstruction, the National Forest Policy of 1952 was required to accommodate and endorse heavy demand on forests as a number of industrial expansion and river valley and communications development schemes got underway.

The National Forest Policy of 1952 proposed a functional classification of forests into *protection forests, national forests, village forests* and *tree-lands* (Government of India 1952). This new classification was in no way divergent from that of the Indian Forest Act of 1927 except for the introduction of tree-lands as a new functional category. According to 1952 policy, tree-lands were defined as "those areas which, though outside the scope of ordinary forest management, are essential for the amelioration of the physical conditions of the country". However, this functional forest classification was never implemented and, likewise, most of the other policy statements made under the auspices of this policy were not effectively implemented. One of the reasons for this ineffectiveness was that this policy was issued as a resolution by the government but was not adopted by the State Legislatures (Government of India 1976).

With regard to public involvement in forestry, the National Forest Policy of 1952 laid down that "it would be the duty of the forester to awaken the interest of the people in the development, extension and establishment of tree-lands wherever possible, and to make them tree-minded" (Government of India 1952). As with other policy proposals (such as 'balanced and complementary land-use', which sought to bring 60 per cent of the land area in mountainous regions and 20 per cent of the plains under forest cover), however, this was a general statement lacking any concrete definition for how this might be achieved. To be precise, the policy did not provide any strategic appraisal of how to bring about public participation in forest management. Rather, the government continued with the British forest policies even after independence. Thus it can be concluded that the National Forest Policy of 1952 evolved in the shadow of past policies.

The wood-based industries benefited the most from the forests in the post-independence era in the form of state subsidized raw material. This strategy was adopted to promote the wood-based industries and to boost the country's economy as a whole. One such provision is summarized here. The paper industry was procuring bamboo at a price of 1 Indian Rupee (INR) per ton during the 1950s, whereas the prevailing market price was over INR 2,000 per ton. The state subsidy induced "profitability of forest-based industries" and resulted in the "explosive growth in industrial capacity, and a non-sustainable use of forest stocks" (Gadgil & Guha 1992). This in turn had an adverse effect on forest-dependent communities. It is needless to say that such incentives also led to the further degradation of forests[6].

Such circumstances in the past led to several people's movements in protest against state policy. In one case during the 1970s and 1980s, local people protested against the logging of trees for industrial use. In what became known as the *Chipko* movement (*Chipko* meaning 'embrace'), villagers hugged the trees, interposing their bodies between the trees and the contractors' axes, to prevent them from being cut. This movement began in the Himalayan state of Uttaranchal in 1973, later spreading in an organized manner to other states in India. The people's movement achieved a major victory in 1980, when the government of Uttar Pradesh placed a 15-year ban on tree felling in Himalayan forests. This movement against state policy was well highlighted by the media and led to the increasingly conservation-oriented management and utilization of forests. In another case, local people protested against the replacement of native *Sal* (*Shorea robusta*) forests by Teak (*Tectona grandis*) plantations by the Forest Development Corporation in the Singhbhum District of Bihar state in 1977 (CSE 1982). This movement, termed 'tree war', met with stiff resistance from the state administration (for details see CSE 1982).

Misdirected policies to curb deforestation in India on the other hand led to the introduction of laws regulating the felling and marketing of trees from both public and private lands. This had the opposite effect as farmers reduced the number of trees they planted on private lands fearing that they would not be able to sell the timber (Kerr 1997). Nonetheless, demand for wood remained strong and prices for timber high. Therefore pressure on government forests, with relatively open access, increased to meet the demand. As a result, India's forests suffered further depletion. Singh (1994) defines three reasons for deforestation and the degradation of forests in India : "defective forest policy, faulty implementation of policy, and the poverty of the people".

To summarise, it could be said that, despite attempts to protect the forests, the state issued misdirected forest policies that failed to account for the fact that poor people have historically depended on forests for their needs and have few alternatives. According to Poffenberger (1995), in India "national resource management policy and development planning is based solely on an analysis of existing conditions and future need projections" without considering the "well grounded un-

[6] Subsidies for the wood-based industries have recently been removed.

derstanding of the history of environmental use patterns and the social, economic and political forces that shape them". In short, stakeholders, village communities/forest users and the Forest Department/forest owners were each respectively dealing with forests in isolation and from a different perspective. This resulted in implementation of forest policy initiatives as a means to overcome the problem, perhaps without analyzing the relationship between cause and effect. The outcome of such circumstances led to an increasingly indifferent attitude amongst local people towards the forests and the Forest Department, thus bringing about a shift in traditional symbiotic relationships between the users and the forest resource.

Thus it is true that people living in and around forests were responsible for the degradation of forests. Specifically, it was not possible for the FD, even armed with strict forest protection laws, to safeguard a large component of the forests from the large number of local users, given the small total number of forestry personnel throughout the country. According to Bahuguna (2001), there are 200,000 villages in India on the fringes of forests with a total population of 350 million people. The inference is that the State can effectively protect forests in India only if people's participation in forest management is solicited. Conversely, the village communities as forest users should also shoulder the responsibility for protection and management of their forests along with the FD. Under such an arrangement the local community could harvest various forest products from their forest in a sustainable manner and with a sense of ownership. Ideally, this forest management model should have been in place long before, bearing in mind the continued significance of forests in the village economy. However, as the country emerged as an independent nation, it was perhaps the government's pre-occupation with a development model focusing on agriculture and industry, which meant that such a forest management perspective was overlooked.

2.2 The Arabari experiments in JFM

The relevance of a 'give and take' principle between the FD and the community surfaced in the early 1970s. A group of FD personnel realized the importance of peoples' participation in regeneration of degraded *Sal* (*Shorea robusta*) forests in Arabari Range of Midnapur district in the state of West Bengal. This forest rejuvenation strategy was started as an experiment and later on replicated on a large scale first in this state followed by its adoption in different parts of country. The West Bengal Forest Department issued the first government order in 1989 to involve village communities in forest protection with provision to give the people 25 per cent of the revenue earned on timber harvested from the protected forest. This successful experiment led to the development of a new forest management strategy known as 'Joint Forest Management' (JFM). The village communities involved in the management of government forests in their vicinity under the JFM became known as forest protection committees. This is the first recorded case of 'co-management' of forests by FD and village communities in India (Yadav *et al.* 1998).

It is important to note that the forest protection committees formed in Arabari have emerged out of a persistent conflict between people and the government for control over forest resources as in the case of *Van Panchayats* in the state of Uttaranchal (discussed in Section 1.2).

Another successful experiment, which began in 1975 in Sukhomajri, a village in the state of Haryana, also helped in the conceptualization of participatory forest management. This experiment was initiated as an integrated watershed development programme by the Central Soil & Water Conservation Research & Training Institute (CSWCRTI), Research Centre, Chandigarh. The emphasis was on rainwater harvesting to enhance irrigation of cultivated land in Sukhomajri, which faced a severe soil erosion problem. Forestry became an integral part of the experiment, as the various tree species were planted to protect the watershed, along with the building of water-harvesting structures for harnessing rainwater. An unwritten agreement between the CSWCRTI team and villagers was developed for protecting the catchment of the water-harvesting structures from grazing and illicit cutting in the area (Samra *et al.* 2002). This was achieved by instituting a 'Water Users' Association' subsequently renamed as 'Hill Resource Management Society' (HRMS). The entire management of this project was handed over to HRMS, which functioned on the principles of participation. Presently, the 55 HRMSs in Haryana are an integral part of the JFM programme in this state (for details see http : // www.teriin.org/case/jfm.htm). In addition, built upon this successful participatory model, watershed management is now an integral part of the ongoing JFM programme in the country under the ambit of micro-level planning.

At present, there are 63,618 forest protection committees (joint forest management committees) in India spread over 27 states managing about 14.09 million hectares of forest[7]. This means that 22 per cent of the total forest cover of 63.73 million hectares in India is being managed under JFM. There are also a number of tree growers' cooperatives (for details see Section 2.4) and numerous self-initiated forest protection groups (SIFPGs) managing forests in India on the principle of participatory forest management. Thousands of SIFPGs, established by village communities with a "strong economic dependence on forests and where often a tradition of community resource management is still

[7] A state-wise break down of the forest protection committees in India is available at http : //www.rupfor.org/jfm—india.htm, the website of Resource Unit for Participatory Forestry, Winrock International India.

surviving", in the states of Orissa, Bihar, Gujarat, Rajasthan, Karnataka, Madhya Pradesh and Andhra Pradesh, are protecting large areas of state forests (Sarin 1998). According to Sarin (1998), SIFPGs came up "parallel to, and often preceding state initiatives" in implementation of JFM in the country.

There is no doubt that the Arabari experiment of participatory forest management, which was later implemented in the entire country, was a success. However, the rise of the JFM concept in India cannot be viewed only in the light of the success of the Arabari experiment ; the significance of the communities (SIFPGs) that have been managing their forests on their own for a number of years must not be overlooked. Neither should the rise of JFM be viewed as the outcome of a sudden change in mind-set on the part of FD personnel, once known for their autocratic management style. The factors leading to the evolution of participatory forest management are further discussed in the following two sections.

2.3 Failure to promote social forestry

To begin with, one of the first and foremost initiatives to enhance forest cover at a time when forests were declining and being degrading in the country was made by the National Commission on Agriculture (NCA) in 1976. The NCA was set up in 1970 by the government of India to examine comprehensively the progress of agriculture including forestry and to make recommendations for its improvement and modernization. In the case of forestry, the NCA investigated and reported that farm forestry should be accepted as an important factor affecting agricultural progress and as a source of raw material for industry (Government of India 1976).

Subsequently, the government of India launched a 'social forestry' programme, including 'farm forestry' on private lands and established 'community self-help woodlots' on community lands on a large scale during the 1970s and 1980s to reduce pressure on the government owned forests and also to incorporate people in the afforestation programme. However, according to Yadav *et al.* (1998), social forestry programmes were not successful, as they did not provide sufficient benefit to the local communities. The emphasis of this programme was more on farm forestry than establishment of community woodlots, where community woodlots are aimed at meeting the requirements of rural communities. For example, whilst the World Bank assisted social forestry programme in Uttar Pradesh overshot its farm forestry targets by 3,430 per cent, establishment of community self-help woodlots achieved only 11 per cent of the target (CSE 1985). By and large the State failed to involve people in the social forestry programme (Ballabh 1996).

These circumstances also led the State to think of changing its non-participatory approach to forest management to a more participatory one, increasingly involving local people. As such, the social forestry programme provided an opportunity for FD personnel to enter dialogue with village communities, so laying the foundations for JFM in India. There were also sound economic reasons for the initiation of participatory forest management in India. As the emphasis shifted away from imposing punitive measures as a component of the State's prerogative over forest issues, costs borne of monitoring and enforcement were reduced and the role of state Forest Departments in excluding people from forests was eased (Ballabh *et al.* 2002). These are some of the reasons (amongst others) cited for the initiation of participatory forest management by the State.

2.4 Facilitative role of NGOs

While discussing the development of participatory forest management initiatives, it is important to make reference to the active involvement of non-governmental organizations (NGOs) in promoting participatory forest management at the grassroots level. In most cases, NGOs are facilitating the village communities as well as the FD in the formation of JFM Committees. In many cases, NGOs and tree growers' cooperatives have developed their own participatory forest management models for JFM based on the policy directives of the government.

For example, the Foundation for Ecological Security (until February 2001 known as the National Tree Growers' Co-operative Federation Limited, NTGCF) is involved in organizing tree growers' cooperative societies at the village level to rehabilitate degraded village commons across seven states in India. Since its formation in 1988, the Foundation for Ecological Security (FES) has played a very active role in establishing and nurturing tree growers' cooperatives. The objective of a tree growers' cooperative is to motivate people to grow trees and grasses of suitable species on their own marginal agricultural lands and degraded village common lands to meet the local needs for forest produce. In addition, FES is also supporting self-initiated forest protection groups (SIFPGs). By the end of the year 2001, FES had organized tree growers' cooperatives and supported village institutions/SIFPGs in 866 villages and had afforested 13,348 hectares of degraded village common lands. For details on the functioning of tree growers' co-operatives, see Balooni & Ballabh (2000) and Balooni & Singh (2001).

During the inception of participatory forest management in India, the FD was skeptical about the involvement of NGOs. NGOs faced non-cooperation from FD for assisting village communities in undertaking community forestry programmes (Arul 1998 ; Balooni 1998 ; Saxena 1996 ; Saxena 2000). The conflicts between FD and NGOs suggested the State's reluctance to relinquish power. Similar conflicts in other countries involved in implementing community forestry programmes have also been cited (Desloges & Gauthier 1997 ; Hobley 1996 ; MacGean 1991).

Over the last decade, however, the state of affairs has

changed in favour of NGOs, which may be mainly attributed to the 'change in mind set' of FD personnel towards forest management. Now, substantial rural developmental funds earmarked by the Government of India are routed through NGOs for the participatory forest management programmes. Besides, pressure from external aid agencies on the FD to involve NGOs in JFM programmes and to restructure the FD accordingly, as a condition for aid in India, has also resulted in overcoming the problem between NGOs and the FD (Sundar 2000). However, there is also a contrary view. According to Sarin (1998), JFM has gone through three phases since the late 1980s. The first phase was "led primarily by idealistic and democratic NGOs and a few liberal officers". In the second phase, "NGOs learnt from practical experience and exposure to ground realities". The present third phase is "dominated by donor funding with forest departments becoming the major implementors", whereas "NGO and community efforts ... have been pushed to the sidelines". Nevertheless, NGOs remain a major stakeholder in forest policy formulation in the country as revealed in the subsequent discussion.

3 Policy Trends in Joint Forest Management

3.1 Policy directives

This section begins with a discussion of the new National Forest Policy of 1988, which is the first forest policy to emphasize the role of people's participation in forest protection and management. This policy had been conceptualized in the wake of the success of the participatory forest management scheme in the country, albeit on a small and localized scale. This section draws from the government of India's orders and guidelines on JFM. The text of the government of India's resolutions, circulars and orders concerning participatory forest management referred to in this paper, are given in Annexes 1 to 7 in chronological order at the end of this paper (also available at http : //www.rupfor.org/jfm—india.htm and http : //www.rupfor.org/jfm—moef.htm).

3.1.1 Creating a people's movement

National Forest Policy, 1988, the second forest policy after India's independence, has in the last decade changed the face of the Indian Forestry sector (Resolution No. 3A/86-FP, dated 7th December 1988, Ministry of Environment and Forests, Government of India ; Annex 1). It is both conservation- and production-oriented. The basic objective of this policy is the maintenance of environmental stability through preservation of forests as a natural heritage. It also places emphasis on increasing substantially the forest/tree cover and the productivity of forests in the country to meet national needs. However, the distinctive feature of this new policy was mention of "creating a massive people's movement with the involvement of women, for achieving the above-mentioned objectives and to minimize pressure on existing forests". This is a complete departure from the previous National Forest Policy of 1952 as it envisages people's participation in the development and protection of forests. The National Forest Policy is a harbinger of 'management change', *i.e.* from government-managed to people-managed forests. As a follow up to the National Forest Policy of 1988, the government of India has issued orders and guidelines on JFM from time to time in the last ten years (as summarized in the following sections). This reflects the government's resolve succinctly outlined in the National Forest Policy to create a massive people's movement and encourage participation in the management of forests.

It is also important to mention here that central control over forest lands was strengthened by transferring forestry from the State List to the Concurrent List by the 42nd Amendment of the Indian Constitution in 1976. This was followed by the enactment of the Forest (Conservation) Act in 1980, which made the central government's approval mandatory for conversion of forest land for non-forest purposes, such as "cultivation of tea, coffee, spices, rubber, palms, oil-bearing plants, horticultural crops or medicinal plants" and for "any purpose other than reafforestation". The Forest (Conservation) Act, 1980 has to some extent helped in checking the conversion of forest land for non-forest uses. This is reflected by the fact that the rate of conversion of forest land for non-forest uses fell to around 22,665 hectares per annum during 1981–1998 (ICFRE 2000), as compared to 143,000 hectares per annum before 1980 (*Press Information Bureau,* http : //pib.myiris.com/refer/article.php3?fl=B3562&sr=8). In some ways, this Act has helped in facilitating the implementation of the JFM programme on forest land, as generally encroachment takes place on land otherwise suitable for JFM management typically at the periphery of existing forests (also see Section 3.2.3).

3.1.2 First circular on JFM

Efforts to encourage adoption of participatory forest management in the forests of India were underway even before the adoption of the National Forest Policy of 1988 as illustrated by the case of the Arabari experiment in West Bengal (discussed in Section 2.2). However, the movement gained momentum and was formally institutionalized as a participatory forest management programme once people's participation had been incorporated into the new forest policy. In this context, the first policy directive was a JFM Circular issued by the central government for the *Involvement of Village Communities and Voluntary Agencies in Regeneration of Degraded Forests* (Circular No. 6.2 1/89-F.P., dated 1st June 1990, Ministry of Environment and Forests, Government of India ; Annex 2). This Circular provided the background and the methods required for the implementation of JFM by the state FDs with the involvement of village communities. It also envisaged the participation of voluntary organizations/non-governmental organizations with a proven track record in JFM to

facilitate participation by village communities in development and protection of forests with an emphasis on regeneration of degraded forests. Furthermore, the Circular highlighted management concerns such as ownership or lease rights over forests, membership of village forest committees (also known as forest protection committees or joint forest management committees), usufruct rights of beneficiaries, and management and supervision of afforestation and protection activities. This Circular also suggested other do's and don't's for the village forest committees and voluntary agencies/NGOs and implications thereof, though only in a broad sense.

Consequently, state governments passed their own resolutions on JFM. These resolutions varied from state to state depending on the socio-economic and political scenario as well as cultural characteristics of each state. Nevertheless, the basic principle of community/people's participation as envisaged in the National Forest Policy of 1988 and the JFM Circular underlie all these state resolutions. Presently, 22 state governments have come up with their own JFM orders for implementing the JFM programme. The first JFM Circular by the government of India has been followed by other government orders and notifications from time and time, as and when required to support its policy to facilitate JFM throughout the country. Accordingly, many states have come up with revised JFM orders. For example, the state of Orissa's latest JFM resolution is the fifth since the first order was issued in 1988. Some of these orders and notifications are summarized below in chronological order.

Here it is important to highlight that the 73rd Amendment of the Indian Constitution in 1992 has also facilitated the implementation of JFM in the country. This amendment empowers village *panchayat* (village councils) to undertake village level planning for all developmental activities including those relating to forestry, irrigation and agriculture. This empowerment of the people at the grassroots level is popularly known as *Panchayati Raj*.

3.1.3 Establishment of a JFM Monitoring Cell

Realizing the importance of the ongoing JFM programme for the effective management of forests in the country, the Ministry of Environment and Forests created a 'JFM Monitoring Cell' within the Ministry in 1998. This Cell was created with the objective of monitoring the impact of JFM being carried out by state governments for the improvement and protection of forests (Office Order No. 1-13/97-FF, dated 19th August 1998, Ministry of Environment and Forests, Government of India ; Annex 3). This order also replaced the erstwhile 'Forest Fire Division' with a 'Forest Protection Division'. This new division covers all the aspects of forest protection in India and also encompasses the 'JFM Monitoring Cell'.

3.1.4 Expansion of JFM to non-forest areas

Furthermore, the government constituted a 'Standing Committee on JFM' in 1998 to review the implementation of JFM programmes as well as existing JFM arrangements in the country (Notification No. 1-13/97 -FPD, dated 6th November 1998, Ministry of Environment and Forests, Government of India ; Annex 4). This committee comprised eminent scientists, senior Indian Forest Service Officers, and officials of funding agencies and other organizations engaged in JFM activities. The main objective of the committee was to advise the government on the operational aspects of JFM including institutional arrangements. The committee was also expected to discuss the strategies to expand JFM in non-forest areas.

In India, besides the forest land owned and managed by the State Forest Departments, there is a large area (around 76 million hectares) of non-agricultural and non-forest land, such as barren and unculturable wastelands, culturable wastelands, permanent pastures and other grazing lands. Such lands are owned *de jure* by the Revenue Department and other government departments, though in some cases they are *de facto* 'common property resources'. Mostly such lands are 'open access resources'. Though these uncultivated lands are highly degraded having suffered 'the tragedy of commons', they nonetheless hold the potential for the expansion of JFM in the country.

3.1.5 Sharing of experience

Given that each state in India has passed its own resolution on JFM to fit local socioeconomic, political and geographical conditions, it is vital that experiences of its implementation - both successes and failures - be shared with one another. Thus it becomes essential to find ways and means for the sharing of experiences between various states. With this in view, the government established a committee comprising of senior forest officers from six states and a member of the JFM Cell in November 1999 (Notification No. 22-8/98-FPD, dated 12th November 1999, Ministry of Environment and Forests, Government of India ; Annex 5). This committee was also given the responsibility of preparing formats for monitoring JFM programmes and identifying items of the JFM programme for systematic funding, with due regard to long-term sustainability.

3.1.6 Creating a JFM Network

In order to give added impetus to JFM in India, the government instituted a 'JFM Network' at the national level in February 2000 (Notification No. 22-8/98-FPD, dated 11th February 2000, Forest Protection Division, Ministry of Environment and Forests, Government of India ; Annex 6). The JFM Network "acts as a regular mechanism for consultation between various agencies engaged in JFM work" and also "obtains constant feed back from various stakeholders on the JFM programme for proper policy formulation and suitable directions to states". This Network has representatives from the Ministry of Environment and Forests, NGOs, funding

agencies such as the World Bank, the Ford Foundation, the World Wide Fund for Nature, the Department for International Development of the United Kingdom, and the Overseas Economic Cooperation Fund of Japan. There are also representatives from Indian organizations - including the Society for Promotion of Wastelands Development, Tata Energy Research Institute and the Indian Institute of Forest Management - involved in various aspects of training and research.

Given the mammoth size of the ongoing JFM programme on a national level, promoting feedback and exchange and including the views and reactions of different stakeholders through the establishment of a 'JFM Network', is considered an appropriate step.

3.1.7 Issuing guidelines for strengthening JFM

The government has developed guidelines for strengthening the JFM programme based on past experience (Notification No. 22-8/2000-JFM (FPD), dated 21st February 2000, Ministry of Environment and Forests, Government of India ; Annex 7). Issued almost a decade after the first governmental notification of JFM in June 1990, these guidelines represent the latest JFM policy directives, and present a structured and broad framework for implementation of JFM in India.

The guidelines set forth a number of measures for strengthening JFM in India, including increased legal support for JFM Committees ; the promotion of women's participation in JFM programmes ; the extension of JFM into good forest areas ; the preparation of microplans in JFM areas ; conflict resolution ; and the official recognition of self-initiated forest protection groups (SIFPGs). The guidelines also highlight the need to plough back a minimum of 25 per cent of the revenue earned on products harvested by village communities into meeting the conservation and development needs of the forests. These suggestions have been developed on the basis of the successes and failures experienced in the implementation of JFM in various parts of the country. Some of the measures (such as the registration of all JFM Committees under the Societies Registration Act, 1860 to provide legal back up) seek to legally streamline the JFM programme across the country. Formal recognition of SIFPGs is also seen as a necessity, since, in the absence of government support, their authority is often challenged by "neighboring villages, migratory herders, commercial interests as well as FD staff" (Sarin 1998).

Guidelines to enhance the participation of women in the JFM programme and the development of a sound mechanism for conflict resolution together indicate that there remain challenges to achieving perfection of JFM in India. These policy issues and challenges are discussed in detail in Section 3.2, 'Policy issues and challenges ahead'.

3.1.8 JFM in afforestation schemes

Given the government's emphasis on participatory forest management, investments in afforestation under the Five Year Plans are being revamped in order to factor in "people's participation in project formulation and implementation". After the independence of India in 1947, the government launched a series of Five Year Plans with targeted budgetary allocations for the development of various sectors. The first Five Year Plan was implemented during 1951-1956. At present, the tenth Five Year Plan (2002-2007) is underway.

In a recent development, the Ministry of Environment and Forests has issued fresh operational guidelines for the formulation of a National Afforestation Programme under the tenth Five Year Plan. These guidelines seek to encourage a participatory approach to the development of forests under government sponsored afforestation schemes. Afforestation schemes operational during the ninth plan have been merged under the new National Afforestation Programme so as to "avoid multiplicity of schemes with similar objectives" and to ensure "uniformity in funding patterns and implementation mechanisms".

One of the major features of these guidelines is that all the new centrally sponsored afforestation schemes will be implemented via a two-tier system consisting of Forest Development Agencies (FDAs) and JFM Committees to allow greater participation of the community in planning and implementation. FDAs are new institutional organizations registered under the Societies Registration Act and operational at the territorial/wildlife forest division level ; as of July 2002, 165 FDAs had been established in 21 states in India (*Times of India* quoted in Inform (2002)). Other than JFM Committees, village institutions already in existence will act as the implementing agency at the grassroots level to cater for village needs. FDAs will work in tandem with JFM Committees under the terms of a Memorandum of Understanding. On the one hand, FDAs strengthen the role of existing JFM Committees, and on the other, they create new JFM Committees. In short, the purpose of the National Afforestation Programme is to make JFM a central and integral part of all the afforestation projects in the country.

3.2 Policy issues and challenges ahead

The emergence of new policy directives from time to time as summarized in the preceding section also implies that JFM is not bereft of problems. There are a number of policy issues and challenges which affect either the sustainability of existing JFM programmes or decelerate the pace of their implementation. The inception of the JFM programme in India was a daunting task for the FD, NGOs and other stakeholders. The state governments issued their own JFM resolutions to set the guidelines for their implementation. However, it was not possible to visualize at the outset the range of problems that would be confronted in each situation and at the different stages of JFM implementation.

In India, more than 60,000 JFM Committees have been established. This figures, however, does not give a good

impression of the success rate and, more importantly, the sustainability of these community-based organizations. These remain the major 'teething' problems for JFM programmes in India. The government has admitted that measures to sustain programmes beyond the project period have not yet been conceptualized (Government of India 2001 a). For example, out of the total 362 tree growers' cooperatives organized by the NTGCF/FES during 1988–1996, only 79 per cent were actually functional, the rest being either non-functional or defunct (NTGCF 1996).

So what are the factors that directly or indirectly hamper the progress and sustainability of JFM programmes? The following sections summarize important policy issues and challenges based on a review of the literature.

3.2.1 Equity in participation

'Equity in participation' in a JFM context refers to the participation of all stakeholders/users with an emphasis on weaker/under-privileged societal elements (such as the landless labour force, marginal and small scale farmers, scheduled castes, tribal groups and women ; as defined in the National Forest Policy of 1988). The government is specifically targeting these under-privileged sections of society inhabiting forests and adjoining areas under the JFM programmes and other afforestation schemes. As landless labourers and marginal and small scale farmers in rural India depend mostly on common property resources for their fuel supplies and fodder, they have a personal interest in the regeneration of degraded forests under the JFM programme. Furthermore, forest products from commons are an important source of employment and income for the rural poor, especially where other opportunities are non-existent (Jodha 1997).

Given this context, one of the objectives of the JFM programme is to create employment for under-privileged sections of society with around 60 per cent of the expenditure incurred in JFM being paid as wages. A substantial proportion of the financial allocation of the various rural developmental programmes in India - including, for example, *Sampoorna Gramin Rojgar Yojana*[8], the Drought Prone Area Programme and the Desert Development Programme - is kept aside for afforestation schemes. Recently, the government has proposed to link the Greening India Programme (for details see Section 3.2.4) with the 'Food for Work' scheme to enhance forest cover ; the food grains will form 50 per cent of the wages earned by workers in drought prone areas (Government of India 2001a). This programme is expected to ensure food accessibility for 100 million people and generate employment opportunities, mainly for landless labourers and women.

It is important to emphasize here that it is primarily the weaker sections of society that are involved in the plantation and protection activities in JFM. However, to what extent the weaker classes are involved in determining forest management priorities is questionable, since historically they have been kept at a distance by the more powerful elements in village politics. Here, the focus is on women, as in most cases they are the collectors and users of forest products. Moreover, women spend a great deal of time in the forests collecting forest produce and typically know more about the forest resource than men. Nonetheless, political control in forest management remains vested in men.

The government resolutions on JFM in India advocate active participation by women in the decision-making process and in determining forest management priorities. The National Forest Policy of 1988 specifically refers to the creation of "a massive people's movement with the involvement of women...." - the only non-bracketed mention of women in the document (Locke 1999). However, this policy objective is far from being accomplished, despite the fact that JFM orders issued by some state governments have made provision for the representation of women in the General Body and the Executive Committee of the JFM Committee. According to Sarin (1998), these JFM orders specify only a few institutional mechanisms for ensuring the active participation of women. Furthermore, "formal provisions or policy statements regarding women's roles or entitlements are extremely narrowly conceived within JFM at the national, state and even project level" (Locke 1999). For example, in the state of West Bengal, a woman automatically becomes a member of JFM Committee by virtue of her husband being a member, but even then the husband is regarded as the primary member (Agarwal 2001).

Agarwal (2001) has classified the participation of women in JFM into five categories : nominal participation, passive participation, consultative participation, activity-specific participation and active and interactive participation. Thus, for example, whilst women may be excluded from decision-making, they may be drawn into 'activity-specific participation', especially forest protection. In addition, there are few cases of women's participation in all-women committees in India's hill areas (Agarwal 1997), one exception being the Parwara *Van Panchayat* in the state of Uttaranchal. Here, besides a paid guard that protects the village forest, there are also three *Mahila Van Suraksha Samitis* (MVSSs) - Woman Forest Protection Committees - involved in the protection of the village forest (Ballabh *et al.* 2002). The forest has been divided into three parts, with each MVSS taking care of one part. The MVSSs patrol the forest in groups of five or six members every month to check for damage incurred and the extent of encroachment. The members of all the three MVSSs meet on the twelfth day of every month to discuss their findings and take decisions for future action. Only one woman from a house-

[8] This programme aims to provide employment for at least one person in families living below the poverty line in rural areas for 50 to 100 days in the year.

hold can become a member of MVSS. However, all women can participate in MVSS activities.

Women's participation in JFM has been high on the government's agenda for more than 10 years but still remains "incompletely addressed" (Hobley 1996). Similarly, a fundamental problem exists with women's representation in other rural developmental activities under the ambit of village *panchayat*. The government has recently issued new JFM Guidelines for ensuring meaningful participation of women in JFM. According to these guidelines, "at least 50 per cent of members of the JFM general body should be women.... and at least 33 per cent of the membership in the JFM Executive Committee/Management Committee should be filled by women members... One of the posts of office bearer, *i.e.* President/Vice-President/Secretary, should be filled by a woman member of the Committee". A recent study undertaken by the government suggested that the FD should recruit female staff at all levels and also increase the number of women extension officers to reach out to women more comprehensively. Nevertheless, it is difficult to speculate when the much needed and veritable participation of women in JFM in India will be ensured.

3.2.2 Equity in benefit sharing

Equity in the sharing of benefits derived from protected forests managed under the JFM programme is as important as equity in the participation in the JFM programme itself. This is one of the major challenges affecting the sustainability of JFM in India. In the past, prior to implementation of the JFM programme, village communities had access to forest products under different rights and regimes provided under various settlements. In most cases, village communities accessed forest products freely as an open access resource, which eventuality led to the degradation of forests in India. However, with the implementation of JFM, community access to forest products was restricted as a pre-requisite for the rejuvenation of degraded forests. Village communities waited patiently to harvest forest products from the protected areas ; clearly, 'free riding is inevitable' is not always the case. After more than a decade since the introduction of JFM in India, however, the stalled distribution of benefits from plantations has begun to spark signs of restiveness amongst users (Balooni & Ballabh 2000 ; Hobley 1996 ; Saxena 2000). Problems regarding benefit sharing have also been confronted by participatory forest management schemes in neighboring countries, such as Nepal (Shrestha 1996) and Sri Lanka (MacKenzie 1998). In the case of India, two sets of problems can be discerned : those relating to the distribution of benefits amongst the users themselves, and those relating to the distribution of benefits between users/village communities and the FD.

Saxena (1988) and Campbell (1992) expressed apprehension at the lack of procedure for allocating benefits at the time when participatory forest programmes were first established. That is, the current problems regarding benefit sharing constitute a fundamental policy failure, which, in explicit terms, tilts the flow of benefits derived from rehabilitated forests in favour of the FD, despite objections from village communities. Moreover, the arrangement for benefit sharing between village communities and the FD varies from state to state. With the passage of time, different states have passed their own resolutions to resolve this issue. For example, in Gujarat, the distribution of benefits derived from community plantations on government forest land between the FD and village communities was in the ratio of 3 : 1 before the state government issued a JFM resolution in March 1991. Subsequently, a second JFM resolution was issued in June 1994, enhancing the share of benefits from rehabilitated forests to village communities from 25 per cent to 50 per cent.

In overcoming this problem, it is important for policy makers to examine the history of past settlements during the colonial rule, wherein forest users were granted certain rights (Hobley 1996). These rights should not be abruptly extinguished by imposing new benefit sharing arrangements under participatory forest management, as that will determine the response of local people to JFM. The policies have also to ensure that poor families and women get equal entitlements in benefit sharing.

3.2.3 Acquisition of degraded lands

There are several problems faced in the acquisition of village common lands for implementation of JFM at the grassroots level. In particular, the bureaucratic hassle involved in acquisition of such land - which may last for than a year - presents a major obstacle (Balooni 1998 ; Raju 1997). Moreover, in the case of degraded non-forest lands handed over to village communities on a lease basis (for example, to a tree growers' cooperative to rehabilitate degraded village common land owned *de jure* by the revenue department), the terms and conditions as well as the period of lease vary significantly from state to state (Mishra 1992). Even the NGOs involved in implementing the JFM programmes on degraded forest areas in the vicinity of a given village, may face bureaucratic hassle from the FD in acquiring such land (Raju 1997).

Acquisition of degraded lands classed as a common property resource is further aggravated by the encroachment of local people onto such land (Balooni & Ballabh 2000 ; Jodha 1997 ; Iyengar 1989). Eviction following illegal encroachment onto forest land is typically contested by individuals and organizations in India on the grounds that many of these encroachments had taken place in the past and, in addition, that many of the encroachers are tribal people. Hence, the efforts of the national government in evicting on the basis of illegal encroachment have not been very successful. For example, even after the enactment of the Forest (Conservation) Act, 1980, 183,000 hectares of forest encroachments were regularized in the state of Madhya Pradesh in 1990

(ICFRE, 2000). The government of India has recently advised all states to "rehabilitate ineligible encroachers on non-forest land as per their policies". It has further counseled the states to "consider *in situ* economic rehabilitation by involving these ineligible encroachers in forestry activities through Joint Forest Management" ; for details see Government of India (2002).

The lack of demarcation and confusion over the boundaries of degraded lands suitable for JFM activities has also affected the programme (Balooni & Ballabh 2000). NGOs, the FD and the revenue department generally prefer to allocate resources according to the administrative boundaries determined in settlement plans concluded during the 19th century. However, since this time, the ground realities of use and management of resources have changed quite considerably and as such these changes need to be incorporated for proper management of plantation areas. In addition, a negotiated settlement between different villages and between the hamlets within a single village needs to be arrived at for effective implementation of JFM (Balooni & Ballabh 2000).

3.2.4 Institutional finance

The government of India has recently introduced the Greening India Programme, which proposes to reforest 43 million hectares of degraded forest and non-forest lands under a watershed approach within a ten year timeframe. This includes regeneration of 15 million hectares of degraded forests under JFM. The government has proposed to set up a Green India Authority and a Green India Fund to undertake this programme. The implementation of the programme requires INR 48,000 million annually, compared to the INR 16,150 million currently available through the government's budgetary resources (Government of India 2001a). Given the limitation of budgetary resources for forestry activities, the government will have to seek funding from other sources. One such source is 'institutional finance' - a source which is yet to be tapped by forestry activities in India.

The National Bank for Agricultural and Rural Development (NABARD), an apex development bank in India, supports and promotes agriculture and rural development including tree plantations on private and community lands. NABARD provides refinance facilities to certain categories of financial institutions in respect of the loans advanced by them to ultimate beneficiaries - including individuals, forest-based industries, state forest development corporations and NGOs - for undertaking tree plantations and other development activities. However, since the inception of NABARD in 1982, its contribution to tree plantation activities has been paltry (Balooni & Singh 2003). Moreover, in recent years the amount disbursed by financial institutions to afforestation programmes, mostly for farm forestry projects, has declined considerably (Government of India 2001a). In 1998–1999, the figure was INR 90 million, as compared to INR 290.5 million in 1990–91.

Furthermore, there is almost a negligible flow of institutional credit for implementing ongoing JFM programmes. Most of the funds for JFM come from government sources and donor agencies. Mostly these funds are made available for a relatively short period, typically between three to five years for a particular project area. In many cases, the discontinuity of such funds affects the sustainability of the village level institutions involved in the JFM programmes. In such cases, financial institutions can provide credit to village communities to continue the JFM activities. This is one area where institutional finance can play an important role. The government already has defined an expanded role for NABARD in implementing JFM under the Green India Programme.

Given the poor performance of NABARD in disbursing institutional credit for tree plantation programmes in the past, it would be a challenging task to now increase the flow of institutional credit for JFM throughout the country. A number of factors have been identified as major constraints in financing forestry programmes in India. They include time-consuming and complicated procedures for acquiring degraded land owned by the government, delays in the sanctioning and disbursement of bank credit, low (non-remunerative) prices for tree products, and flawed public policies and programmes (Balooni & Singh 2003). The Food and Agriculture Organization (FAO) of the United Nations and NABARD undertook a study in the state of Andhra Pradesh to assess the technical feasibility and financial viability of channeling institutional credit to JFM projects (Haque *et al.* 1998). The study revealed that the projects were all financially viable ; NABARD has already agreed to fund JFM programmes in Andhra Pradesh (Government of India 2001 a). However, a serious limitation of such joint ventures involving several stakeholders is the lack of effective coordination among them, which makes the task of replication of success stories daunting (Haque *et al.* 1998). Thus, inter-institutional cooperation is a prerequisite for the future success of this strategy. Unless these constraints are overcome, the NABARD cannot by itself play any effective role in speeding up the funding of JFM in the country.

3.2.5 Mismatch between forest management objectives and silvicultural practices

From a silvicultural point of view, a recent study on JFM sponsored by the government revealed significant mismatch between the current forest management objectives and the silvicultural methods being employed (Government of India, undated). Forest management objectives are guided by a participatory management approach focusing on natural regeneration and improvement of the forest's productivity - with particular emphasis on non-wood forest products (NWFPs). However, silvicultural practices have remained unchanged over the past century, which is inappropriate given that, as already discussed, the Indian forestry sector was driven

by commercial motives during the colonial period, basing production on a selection of relatively few commercial species. Hence, a great deal of effort is required in the coming years to change silvicultural practices, particularly in view of plans to expand JFM activities to good forests.

3.2.6 Institutional impediments

With the wide acceptance of JFM in India, the need to overcome various institutional impediments, which result in high transaction costs, is being increasingly realized. Some of the institutional impediments confronted in the JFM programme in India have already been specified in Sections 3.2.1 to 3.2.5. Here an analysis of institutional impediments in a broader sense is presented.

In many states in India, the institutional elements of JFM function under the ambit of a plethora of resolutions, laws, policies and acts, which are often "conflicting, ambiguous, contradictory and lack legal validity" (Government of India, undated). That is, the JFM programme lacks legislative support even when it is based on administrative orders (Sarin 1998). For example, the FD is vested with the responsibility of resolving conflicts within JFM Committees, disbanding a badly functioning JFM Committee, canceling membership and nominating NGOs for membership (Government of India, undated). In such circumstances, the question arises, what is the explicit role of JFM Committees? The obvious answer is 'to protect the forest only'. The fact is that JFM activities presently derive their legal legitimacy from the resolutions issued by state governments. However, these resolutions do not have a statutory basis and therefore, are easily reversible (Hobley 1996). This creates uncertainty in the rights to tenure of the village communities involved in forest protection. Hence, for the continued success of JFM, village communities need to be provided with enough flexibility to build institutional arrangements that are sustainable.

Furthermore, there remains a lot of variation between the JFM resolutions issued by different states. Also, JFM Committees in different states vary in nomenclature, structure and composition, and whereas they are registered with FDs in some states, in others they are registered as societies and cooperatives. In addition, in some states there is no legal back up for the SIFPGs. The arrangements for benefit sharing between JFM Committees and village communities, and the terms and conditions of forest land leased to JFM Committees also varies from state to state. As such, there is a pressing need to unify policy in at least the more important aspects of JFM structure across the country in order to achieve better coordination among the states and for efficient monitoring and evaluation.

Marketing of forest products is often effected by institutional impediments. For example, in several states, provisions of the Forest Law impose restrictions on felling, transportation and sale of timber ; in Andhra Pradesh, the Forest Produce Transit Rules of 1970 regulate the transit of forest produce into, from or within any area in the state. Under the JFM programme too, the JFM Committee has to get permission to fell and transport timber, which is often a time consuming process. On the other hand, the poor infrastructure and the lackadaisical approach to marketing of forest produce results in non-remunerative prices for the products. Marketing of forest produce in India is either done by state agencies such as Forest Development Corporations, marketing federations such as the Tribal Marketing Federation of India, or through the alternative markets controlled by middlemen and intermediaries. In most cases, beneficiaries do not get a remunerative price.

Lack of appropriate marketing infrastructure for forest produce has always been a serious constraint in the Indian forestry sector, in contrast to the well-developed marketing infrastructure that exists for agricultural produce in the country. The JFM programme in India is emphasizing production of NWFPs as they provide a regular income for JFM Committees. For this system to function efficiently, however, it is necessary to make JFM Committees self-sufficient for their day-to-day operations, rather than depending on government and NGOs. It is important to note that the marketing of NWFPs varies between the states in India in terms of "market structure, marketing channels, price, scope for value added processing...depending on the nature of the products and their legal status...." (Government of India, undated). Given this context, the marketing strategies for NWFPs need to be radically revamped so as to fulfill the objectives of JFM. It would be a mistake for policy makers to watch and wait rather than to resolve this important issue, as in many states JFM is still in its infancy and marketing has not emerged as a serious constraint.

4 Conclusions

The policy directives issued by the government of India from time to time since the announcement of the National Forest Policy of 1988 indicate the existence of a 'learning curve' in the process of implementation of JFM in India. This means that with the passage of time, policy makers have realized the need for new policy measures for expanding JFM programmes together with the need for overcoming the constraints in their implementation.

Furthermore, the present analysis of forest policies on participatory forest management in India reveals the government of India's determination for the successful implementation and expansion of JFM throughout the country. Nonetheless, such a resolve is insufficient on its own without the collective effort of all stakeholders, encompassing governmental and non-governmental organizations. Here it is important to note that some visionary bureaucrats in India, in conjunction with strong political support, have played a positive role in

the policy formulation and implementation stages of the JFM programme.

Persistent review of the National Forest Policy of 1988 is evidence of maturity in the forest policy-making process in India. Policy directives for JFM have been developed on the principle of 'analysis for policy' and are based on thorough and continuous research of relevant subject matter. This is indicative of the role played by social scientists in the development of a participatory forest management model. Their efforts have allowed the programme to mature significantly by injecting a better understanding of the sociology of participatory forest management, in turn influencing the thinking of forestry professionals (Gilmour & Fisher 1998).

Development of any successful doctrine is likely to be beset with failures also. The analysis presented in this paper has revealed that the JFM programme in India currently confronts several teething problems inherited from the past. It is also facing the range of challenges that normally crop up when an institution begins to take root. A sound forest policy is necessary in order to overcome these issues and challenges. Ensuring equity in representation and participation of the marginalized classes (such as the poor and women), equitable benefit sharing between the Forest Department and village communities and within the communities themselves, are issues which, if not addressed now, could jeopardize the future progress of participatory forest management. Now the time has also come to streamline the plethora of forest policies, rules and regulations inherited from the colonial period as well as those formulated since independence, in view of JFM as a major forest management model. On the technical side, emphasis needs to be placed on the formulation of new and effective silvicultural practices to increase the productivity of forests managed by village communities for the enhanced harvest of NWFPs. These corrective measures will synchronize the practices with the basic philosophy and objectives of participatory forest management. To sum up, these issues and challenges to the JFM programme in India require in-depth study and analysis for their expeditious resolution.

The government also must not dilute its focus on farm forestry projects on private lands, as has been reported in a recent study (Government of India 2001 b). This is important for the development of the forestry sector in India, as JFM and farm forestry programmes are complementary to each other.

In conclusion, it seems reasonable to predict that all forests in India will eventually be managed under the principles of JFM, given the government's resolve to expand the programme to good forests, rather than keeping it confined to degraded forests only. The recent policy initiatives on participatory forest management by the government of India have set an example to be emulated by other countries in South Asia as well as other parts of the World.

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Annex 1

National Forest Policy, 1988

(Source : http : //www.rupfor.org/jfm—india.htm)

No. 3A/86-FP

Ministry of Environment and Forests

(Department of Environment, Forests & Wildlife)
Paryavaran Bhavan, CGO Complex
Lodi Road, New Delhi - 110 003
7th December 1988

RESOLUTION

National Forest Policy, 1988

1. PREAMBLE

1.1. In Resolution No. 13/52-F, dated the 12th May 1952, the Government of India via the erstwhile Ministry of Food and Agriculture enunciated a Forest Policy to be followed in the management of State Forests in the country. However, over the years, forests in the country have suffered serious depletion. This is attributable to relentless pressures arising from ever-increasing demand for fuelwood, fodder and timber ; inadequacy of protection measures ; conversion of forest lands to non-forest uses without ensuring compensatory afforestation and essential environmental safeguards ; and the tendency to look upon forests as a revenue-earning resource. The need to review the situation and to evolve, for the future, a new strategy of forest conservation has become imperative. Conservation includes preservation, maintenance, sustainable utilisation, restoration, and enhancement of the natural environment. It has thus become necessary to review and revise the National Forest Policy.

2. BASIC OBJECTIVES

2.1 The basic objectives that should govern the National Forest Policy are the following :

- Maintenance of environmental stability through preservation and, where necessary, restoration of the ecological balance that has been adversely disturbed by serious depletion of the forests of the country.
- Conserving the natural heritage of the country by preserving the remaining natural forests with the vast variety of flora and fauna, which represent the remarkable biological diversity and genetic resources of the country.
- Checking soil erosion and denudation in the catchment areas of rivers, lakes and reservoirs in the interest of soil and water conservation, for mitigating floods and droughts and for the retardation of siltation of reservoirs.
- Checking the extension of sand dunes in the desert areas of Rajasthan and along the coastal tracts.
- Increasing substantially the forest/tree cover in the country through massive afforestation and social forestry programmes, especially on all denuded, degraded and unproductive lands.
- Meeting the requirements of fuelwood, fodder, minor forest produce and small timber of the rural and tribal populations.
- Increasing the productivity of forests to meet essential national needs.
- Encouraging efficient utilisation of forest produce and maximising substitution of wood.
- Creating a massive people's movement with the involvement of women, for achieving these objectives and to minimise pressure on existing forests.

2.2 The principal aim of Forest Policy must be to ensure environmental stability and maintenance of ecological balance including atmospheric equilibrium which are vital for sustenance of all lifeforms, human, animal and plant. The derivation of direct economic benefit must be subordinated to this principal aim.

3. ESSENTIALS OF FOREST MANAGEMENT

3.1 Existing forests and forest lands should be fully protected and their productivity improved. Forest and vegetal cover should be increased rapidly on hill slopes, in catchment areas of rivers, lakes and reservoirs and ocean shores and on semi-arid, and desert tracts.

3.2 Diversion of good and productive agricultural lands to forestry should be discouraged in view of the need for increased food production.

3.3 For the conservation of total biological diversity, the network of national parks, sanctuaries, biosphere reserves and other protected areas should be strengthened and extended adequately.

3.4 Provision of sufficient fodder, fuel and pasture, especially in areas adjoining forest, is necessary in order to prevent depletion of forests beyond the sustainable limit. Since fuelwood continues to be the predominant source of energy in rural areas, the programme of afforestation should be intensified with special emphasis on augmenting fuelwood production to meet the requirement of the rural people.

3.5 Minor forest products provide sustenance to tribal populations and to other communities residing in and around forests. Such produce should be protected, improved and their production enhanced with due regard to generation of employment and income.

4. STRATEGY

4.1 Area under forest

The national goal should be to have a minimum of one-third of the total land area of the country under forest or tree cover. In the hills and in mountainous regions, the aim should be to maintain two-thirds of the area under such cover in order to prevent erosion and land degradation and to ensure the stability of the fragile eco-system.

4.2 Afforestation, Social Forestry & Farm Forestry

4.2.1 A massive need-based and timebound programme of afforestation and tree planting, with particular emphasis on fuelwood and fodder development, on all degraded and denuded lands in the country, whether forest or non-forest land, is a national imperative.

4.2.2 It is necessary to encourage the planting of trees alongside roads, railway lines, rivers and streams and canals, and on other unutilised lands under State/corporate, institutional or private ownership. Green belts should be raised in urban/industrial areas as well as in arid tracts. Such a programme will help to check erosion and desertification as well as improve the microclimate.

4.2.3 Village and community lands, including those on foreshores and the environs of reservoirs, not required for other productive uses, should be taken up for the development of tree crops and fodder resources. Technical assistance and other input necessary for initiating such programmes should be provided by the Government. The revenue generated through such programmes belongs to the panchayats where the land is vested in them ; in all other cases, such revenue should be shared with the local communities in order to provide an incentive for them. The vesting in individuals of certain ownership rights over trees, particularly in the weaker sections of society (such as landless labour, small and marginal farmers, scheduled castes, tribal groups and women), could be considered, subject to appropriate regulations ; beneficiaries would be entitled to usufruct and would in turn be responsible for their security and maintenance.

4.2.4 Land laws should be so modified wherever necessary so as to facilitate and motivate individuals and institutions to undertake tree-planting and grow fodder plants, grasses and legumes on their own land. Wherever possible, degraded lands should be made available for this purpose either on lease or on the basis of a tree-patta scheme. Such leasing of the land should be subject to the land grant rules and land ceiling laws. Steps necessary to encourage them to do so must be taken. Appropriate regulations should govern the felling of trees on private holdings.

4.3 Management of State Forests

4.3.1 Schemes and projects which interfere with forests that clothe steep slopes, catchments of rivers, lakes and reservoirs, geologically unstable terrain and such other ecologically sensitive areas should be severely restricted. Tropical rain/moist forests, particularly in areas like Arunachal Pradesh, Kerala, Andaman & Nicobar Islands, should be totally safeguarded.

4.3.2 No forest shall be worked without the Government having approved the management plan, which should be in a prescribed format and in keeping with the National Forest Policy. The Central Government should issue necessary guidelines to the State Government in this regard and monitor compliance.

4.3.3 In order to meet the growing needs for essential goods and services which the forests provide, it is necessary to enhance forest cover and productivity of the forests through the application of scientific and technical inputs. Production forestry programmes, while aiming at enhancing the forest cover in the country and meeting national needs, should also be oriented to narrowing, by the turn of the century, the increasing gap between demand and supply of fuelwood. No such programme, however, should entail clear-felling of adequately stocked natural forests. Nor should exotic species be introduced, through public or private sources, unless long-term scientific trials undertaken by specialists in ecology, forestry and agriculture have established that they are suitable and have no adverse impact on the native vegetation and environment.

4.3.4 Rights and Concessions

4.3.4.1 The rights and concessions, including those regarding grazing, should always remain related to the carrying capacity of forests. The capacity itself should be optimised by increased investment, silvicultural research and development of the area. Stall-feeding of cattle should be encouraged. The requirements of the community which cannot be met by the rights and concessions so determined, should be met by development of social forestry outside of reserved forests.

4.3.4.2 The holders of customary rights and concessions in forest areas should be motivated to identify themselves with the protection and development of forests from which they derive benefits. The rights and concessions from forests should primarily be for the bonafide use of the communities living within and around forest areas, especially tribal groups.

4.3.4.3 The livelihoods of tribal and other subsistence groups living within and near forests are dependent upon forest products. The rights and concessions enjoyed by them should be fully protected. Their domestic requirements of fuelwood, fodder, minor forest produce and construction timber should be the first charge on forest produce. These and substitute materials should be made available through conveniently located depots at reasonable prices.

4.3.4.4 Similar consideration should be given to scheduled castes and the rural poor living near forests. However, the area which such consideration should cover shall be determined by the carrying capacity of the forests.

4.3.4.5 Wood is in short supply. The long-term solution for meeting the existing gap lies in increasing the productivity of forests, whilst relieving some of the existing pressures on forests in the form of demand for railway sleepers, furniture and panelling, pit props for mines, paper and paperboard and in the construction industry (particularly in the public sector), through sourcing alternative materials and utilizing wood substitutes. Similarly, in the case of domestic energy, fuelwood needs should be substituted as far as practica-

ble by alternate sources such as bio-gas, LPG and solar energy. Fuel-efficient 'Chulhas' as a measure of conservation of fuelwood need to be popularised in rural areas.

4.4 Conversion of Forest Lands to Non-Forest Uses

4.4.1 Forest land or land with tree cover should not be treated merely as a resource readily available to be utilised for various projects and programmes, but as a national asset which demands to be properly safeguarded for providing sustained benefit to the entire community. Conversion of forest land for any non-forest purpose should be subject to the most careful examination by specialists from the standpoint of social and environmental costs and benefits. Construction of dams and reservoirs, mining and industrial development and expansion of agriculture should be consistent with the needs for conservation of trees and forests. Projects which involve such conversion should provide in their investment budget funds for regeneration/compensatory afforestation.

4.4.2 Beneficiaries who are allowed to carry out mining and quarrying in forest land and in land covered by trees should be required to repair and re-vegetate the area in accordance with established forestry practices. No mining lease should be granted to any party, private or public, without a proper mine management plan appraised from an environmental angle and enforced by adequate machinery.

4.5 Wildlife Conservation

Forest Management should take special care of the needs of wildlife conservation, and forest management plans should include prescriptions for this purpose. It is particularly essential to provide for 'corridors' linking protected areas in order to maintain genetic continuity between artificially separated sub-sections of migrant wildlife.

4.6 Tribal People and Forests

With regard to the symbiotic relationship between tribal people and forests, a primary task of all agencies responsible for forest management including forest development corporations, should be to associate the tribal people closely in the protection, regeneration and development of forests as well as to provide gainful employment to people living in and around the forest. In addition, special attention shall be given to the following :

- One of the major causes for degradation of forests is illegal cutting and removal by contractors and their labour force. In order to put an end to this practice, contractors should be replaced by institutions such as tribal cooperatives, labour cooperatives and government corporations, as early as possible.
- The protection, regeneration and optimum collection of minor forest produce along with institutional arrangements for the marketing of such produce.
- The development of forest villages on a par with revenue villages*.
- The promotion of family-oriented schemes for improving the status of the tribal beneficiaries.
- The implementation of integrated area development programmes to meet the needs of the tribal economy in and around the forest areas, including the provision of alternative sources of domestic energy on a subsidised basis, to reduce pressure on existing forest areas.

4.7 Shifting Cultivation

Shifting cultivation is affecting the environment as well as the productivity of the land adversely. Alternative avenues of income, suitably harmonised with the right landuse practices, should be devised to discourage shifting cultivation. Efforts should be made to contain such cultivation within the area already affected, by propagating improved agricultural practices. Areas already damaged by such cultivation should be rehabilitated through social forestry and energy plantations.

4.8 Damage to Forests through Encroachment, Fire and Grazing

4.8.1 Encroachment on forest land has increased. This trend has to be arrested and effective action taken to prevent the continuation of existing encroachment.

4.8.2 The incidence of forest fire in the country is high. Standing trees and fodder are destroyed on a large scale and natural regeneration annihilated by such fire. Special precautions should be taken during the fire season. Improved and modern management practices should be adopted to deal with forest fires.

4.8.3 Grazing in forest areas should be regulated with the involvement of the community. Special conservation areas, young plantations and regeneration areas should be fully protected. Grazing and browsing in forest areas need to be controlled. Adequate grazing fees should be levied to discourage people in forest areas from maintaining large herds of non-essential livestock.

4.9 Forest-based Industries

The main considerations governing the establishment of forest-based industries and supply of raw material to them should be as follows :

- As far as possible, a forest-based industry should raise the raw material needed for meeting its own requirements, preferably by establishment of a direct relationship between the factory and the individuals who can grow the raw material by supporting the individuals with inputs including credit, constant technical advice and harvesting and transport services.
- No forest-based enterprise, except that at the village or cottage level, should be endorsed in the future unless it has been first cleared after careful scrutiny with regard to assured availability of raw material. In any

* The revenue village is a unit of administration in India.

case, the fuel, fodder and timber requirements of the local population should not be sacrificed for this purpose.

- Forest based industries must not only provide employment to local people on a priority basis, but also involve them fully in raising trees and raw-material.
- Natural forests serve as a gene pool resource and help to maintain ecological balance. Such forests will not, therefore, be made available to industries for undertaking plantation development or any other activities.
- Farmers, particularly small and marginal farmers shall be encouraged to grow, on the marginal/degraded land available to them, wood species required by industry. These may also be grown along with fuel and fodder species on community lands not required for pasture purposes, and by the Forest Department and corporations on degraded forests, not earmarked for natural regeneration.
- The practice of supply of forest produce to industry at concessional prices should cease. Industry should be encouraged to use alternative raw materials. Import of wood and wood products should be liberalised.
- The above considerations will however, be subject to the current policy relating to land ceiling and land-laws.

4.10 Forest Extension

Forest conservation programmes cannot succeed without the willing support and cooperation of the people. It is essential, therefore, to inculcate in the people, a direct interest in forests, their development and conservation, and to make them conscious of the value of trees, wildlife and nature in general. This can be achieved through the involvement of educational institutions, right from the primary stage. Farmers and interested people should be provided opportunities through institutions like Krishi Vigyan Kendras Trainers' Training Centres to learn agrosilvicultural and silvicultural techniques to ensure optimum use of their land and water resources. Short-term extension courses and lectures should be organised in order to educate farmers. For this purpose, it is essential that suitable programmes are propagated through the mass media, audio-visual aids and the extension machinery.

4.11 Forestry Education

Forestry should be recognised both as a scientific discipline as well as a profession. Agriculture universities and institutions dedicated to the development of forestry education should formulate curricula and courses for imparting academic education and promoting post-graduate research and professional excellence, keeping in view the manpower needs of the country. Academic and professional qualifications in forestry should be kept in view for recruitment to the Indian Forest Service and the State Forest Service. Specialised and orientation courses for developing better management skills by in service training need to be encouraged, taking into account the latest developments in forestry and related disciplines.

4.12 Forestry Research

With the increasing recognition of the importance of forests for environmental health, energy and employment, emphasis must be laid on scientific forestry research, necessitating adequate strengthening of the research base as well as new priorities for action. Some broad priority areas of research and development needing special attention are :

i. Increasing the productivity of wood and other forest produce per unit area per unit time by the application of modern scientific and technological methods.
ii. Revegetation of barren/marginal/waste/mined lands and watershed areas.
iii. Effective conservation and management of existing forest resources (mainly natural forest ecosystems).
iv. Research related to social forestry for rural/tribal development.
v. Development of substitutes to replace wood and wood products.
vi. Research related to wildlife and management of national parks and sanctuaries.

4.13 Personnel Management

Government policies in personnel management for professional foresters and forest scientists should aim at enhancing their professional competence and status, as well as attracting and retaining qualified and motivated personnel, given the arduous nature of the duties they have to perform, often in remote and inhospitable places.

4.14 Forest Surveys and Data

Inadequacy of data regarding the forest resources is a matter of concern because it creates a false sense of complacency. Priority needs to be given to completing the survey of forest resources in the country along scientific lines and to updating existing information. For this purpose, the periodical collection, collation and publication of reliable data on relevant aspects of forest management need to be improved with recourse to modem technology and equipment.

4.15 Legal Support and Infrastructure Development

Appropriate legislation should be enforced, supported by adequate infrastructure, at the Centre and State levels in order to implement the Policy effectively.

4.16 Financial Support for Forestry

The objectives of this revised Policy cannot be achieved without the investment of financial and other resources on a substantial scale. Such investment is indeed fully justified considering the contribution of

forests in maintaining essential ecological processes and life-support systems and in preserving genetic diversity. Forests should not be looked upon as a source of revenue. Forests are a renewable natural resource. They are a national asset to be protected and enhanced for the well-being of the people and the Nation.

(**K.P. Geethakrishnan**)
Secretary to the Government of India

Annex 2
The Circular
Concerning Joint Forest Management

(Source : http : //www.rupfor.org/ nat-scenario/CircularOnJFM1990.rtf)

No. 6.2 1/89-F.P.

Government of India
Ministry of Environment and Forests
Department of Environment, Forests and Wildlife
Paryavaran Bhavan, C.G.O. Complex, B-Block
Lodi Road, New Delhi
1st June 1990

The Forest Secretaries
(All States/UTs)

Subject : Involving of village communities and voluntary agencies in the regeneration of degraded forest lands.

Sir,

1. The National Forest Policy, 1988, envisages people's involvement in the development and protection of forests. The requirements of fuel-wood, fodder and small timber such as house building material, of tribal groups and other villagers living in and near the forests, are to be treated as first charge on forest produce. The policy document envisages it as one of the essentials of forest management that the forest communities should be motivated to identify themselves with the development and protection of forests from which they derive benefits.

2. In D.O. letter No. 1/188-TMA dated 13th January 1989 to the Chief Secretary of your State, the need for working out the modalities for giving to village communities living close to forests and defining usufructuary benefits to ensure their participation in the afforestation programme, was emphasized by Shri. K.P. Geethakrishnan, the then Secretary Environment and Forests.

3. Committed Voluntary Agencies/NGOs, with a proven track record, may prove particularly well suited for motivating and organizing village communities for protection, afforesation, and development of degraded forest land, especially in the vicinity of habitations. The State Forest Department's Social Forestry Organization ought to take full advantage of their expertise and experience in this respect to encourage the meaningful participation of the people in protection and development of degraded forest lands. The Voluntary Agencies/NGOs may be associated as an interface between State Forest Departments and the local village communities for revival, restoration and development of degraded forests in the manner suggested below :

- The programme should be implemented under an arrangement between the Voluntary Agency/ NGO, the village community (beneficiaries) and the State Forest Department.
- No ownership or lease right over the forest land should be given to the beneficiaries or to the Voluntary Agency/NGO. Nor should the forest land be assigned in contravention of the provisions contained in the Forest (Conservation) Act, 1980.
- The beneficiaries should be entitled to a share in usufruct to the extent and subject to the conditions prescribed by the State Government in this behalf. The Voluntary Agency/NGO should not be entitled to usufructuary benefits.
- Access to forest land and usufructuary benefits shall be granted only to beneficiaries organized into a village institution specifically for forest regeneration and protection. This could be the panchayat or the village co-operative of the village with no restriction on membership, or it could be a Village Forest Committee. In no case should any access or tree pattas be given to individuals.
- Beneficiaries should be given user rights over minor forest products such as grasses and 'lop and top'. If they successfully protect the forests, they may be given a portion of the proceeds from the sale of trees when they mature. The Government of West Bengal has issued orders to give 25% of the sale proceeds to the Village Forest Protection Committees. Similar approaches may be adopted by other States.
- Areas to be selected for the programme should be free from the claims (including existing rights, privileges, concessions) of any person who is not a beneficiary under the scheme. Alternatively, for a given site the selection of beneficiaries should be done in such a way that any one who has a claim to any forest produce from the selected site is not excluded without being given full opportunity to join.
- The selected site should be worked in accordance with a Working Scheme, duly approved by the State Government. Such a scheme may remain in operation for a period of 10 years and revised/ renewed after that. The Working Scheme should be prepared in consultation with the beneficiaries. Apart from protection of the site, the scheme may also prescribe requisite operations such as the inducement of natural regeneration of existing

root stock ; seedling gap filling ; and wherever necessary, intensive planting, soil-moisture conservation measures etc. The Working Scheme should also prescribe other operations including fire-protection, maintenance of boundaries, weeding, tending, cleaning, thinning etc.

- For raising nurseries, preparing land for planting and protecting the trees after planting, beneficiaries should be paid by the Forest Department from the funds made available under the Social Forestry Programme. However, the village community may obtain funds from other Government agencies and sources for undertaking these activities.
- It should be ensured that there is no grazing at all on the forest land protected by the village community. Permission to cut and carry grass free of cost should be given so that stall feeding is promoted.
- No agriculture should be permitted on the forest land.
- Along with trees for fuel, fodder and timber, the village community may be permitted to plant such fruit trees as would fit in with the overall scheme of afforestation, such as aonla, Imli, mango, mahua, etc. as well as shrubs, legumes and grasses which would meet local needs, help soil and water conservation, and enrich degraded soils/land. Even indigenous medicinal plants may be grown according to the requirements and preferences of beneficiaries.
- Cutting of trees should not be permitted before they are ready for harvesting. The Forest Department also should not cut the tress on the forest land being protected by the village communities except in the manner prescribed in the Working Scheme. In case of emergency needs, the village communities should be taken into confidence.
- The benefit of people's participation should go to the village communities and not to commercial or other interests which may try to derive benefit in their names. The selection of beneficiaries should, therefore, be done from only those families which are willing to participate through their personal efforts.
- The Forest Department should closely supervise the works. If the beneficiaries and/or the Voluntary Agency/NGO fail or neglect to protect the area from grazing, encroachment or do not perform the operations prescribed in the Working Scheme in a satisfactory manner, the usufructuary benefits should be withdrawn without paying compensation to anyone for any work that might have been done prior to it. Suitable provisions in the Memorandum of Understanding (MOU) of this purpose should be incorporated.

Yours faithfully.

Sd/-
(Mahesh Prasad)
Secretary to Government of India.

Copy for information and necessary action to :
1. Principal Chief Conservator of Forests/Chief Conservator of Forests All States/UTs.
2. Additional Secretary, National Wasteland Development Board, Ministry of Environment and Forests, New Delhi.
3. Chief Conservator of Forests (Central) of all Regional Offices located at : Bhubaneshwar, Bangalore, Bhopal, Shillong, Luchknow, Chandigarh.
4. All DIGFs including N.W.D.B., New Delhi.
5. All Officers of the Ministry of Environment and Forests.

Sd/-
(K.M. Chadha)
Joint Secretary to Govt. of India.

Copy for information to the :
1. Secretary (co-ordination), Cabinet Secretariat, Rashtrapati Bhavan, New Delhi.
2. Secretary, Department of Rural Development, New Delhi.

Sd/-
(K.M. Chadha)
Joint Secretary to Govt. of India.

Annex 3
JFM Cell Creation Notification
(Source : http : //www.rupfor.org/jfm—india.htm)

No. 1-13/97-FF
Government of India
Ministry of Environment & Forests
Paryavaran Bhavan
CGO Complex
New Delhi - 110 003
19th August 1998

OFFICE ORDER

1. With the protection of forests having become a priority concern, the Ministry has decided to extend the scope of the Forest Fire Division in the Ministry to cover all aspects of protection of forests. Henceforth, this division would be called the 'Forest Protection Division'.

2. Further, in view of the growing realization that public participation through Joint Forest Management Programme is crucial for effective protection of forests in the country, it has been decided to create a Joint Forest Management Monitoring Cell within the Ministry, to monitor the impact of JFM Programmes being carried out by the State Governments for the improvement and protection of forests. The work of this Cell will

be looked after by the Forest Protection Division.

Issued with the approval of MEF.

(Sarweshwar Jha)
Joint Secretary to the Government of India

Copy to :
1. PS to MEF PS to MOS PPS to Secretary (E&F)/IGF & SS.
2. SS(VV), all Addl. Secry's, Addl. IGF (WL), all Jt. Secry's/all Directors.
3. All DIG's of forests and all divisions including NRCD and CCU in the Ministry of Environment and Forests.

Annex 4
Standing Committee Notification
(Source : http : //www.rupfor.org/jfm—india.htm)

No. 1-13/97-FPD

Government of India
Ministry of Environment & Forests
Paryavaran Bhavan
CGO Complex, Lodi Road
New Delhi - 110 003
6th November 1998

NOTIFICATION

1. The Ministry of Environment & Forests hereby constitutes a 'Standing Committee on Joint Forest Management' to advise on JFM matters and appoint the following persons as its members.

2. Constitution of the Committee :

1	Dr. T.N. Khossoo, Eminent Scientist	Chairman
2	Shri A.K. Mukherji, IGF (Retd.)	Co-Chairman
3	Shri C.S. Chadda, Principal Secretary, Govt. Of M. P.	Member
4	Jt. Secretary NAEB, MoEF	Member
5	Shri G.B. Thapliyal, CCF (Dev. JFM), West Bengal	Member
6	Dr. R.K. Pachauri, Director, TERI, New Delhi	Member
7	Prof. Kanchan Chopra, Institute of Economic Growth, Delhi University, Delhi	Member
8	Shri S.S. Rizvi, WWF India New Delhi	Member
9	Dr. Parvez Ahmed, Dy. IGF. MoEF	Member
10	Dr. V.K. Bahuguna, Dy IGF, MoEF	Member
11	Shri D.K. Sharma, Sr. AIGF, MoEF	Joint Member Secretary

3. The terms and conditions of the references of the Committee are :

(i) To review the implementation of JFM programmes in the country, advise on its operational aspects including institutional mechanism and advise the Government.

(ii) To review the existing JFM arrangements and suggest appropriate changes in their implementation to achieve the essence of the programme and submit annual recommendations.

(iii) To suggest an approach and a mechanism to be adopted for the expansion of JFM on other wastelands from time to time.

(iv) To go through the reports prepared by various international and national agencies on JFM and advice on their applicability to the system.

4. Other matters relating to JFM may be referred to the committee from time to time.

5. The Committee will meet in Delhi.

6. The tenure of this committee shall be for a period of 2 years from the date of its notification.

7. A sitting fee of Rs.300/- per day will be paid on the meeting day to the non-official members and local transport charges for the return journey shall be reimbursed as per rules.

This issues with the approval of the Minister for Environment & Forests, Government of India.

Sd/-
(Dr. V.K. Bahuguna)
Deputy Inspector General of Forests

Copy to :
1. All members of the Committee
2. Copy also to :
3. PS to MEF/PS to MOS/PPS to Secretary/IGF & SS/ PS to SS(VV)JS & FA

(Dr. V.K. Bahuguna)
Deputy Inspector General of Forests

Annex 5
Terms of Reference Notification
(Source : http : //www.rupfor.org/jfm—india.htm)

No. 22-8/98-FPD

Government of India
Ministry of Environment and Forests
Forest Protection Division
Paryavaran Bhawan,
CGO Complex, Lodi road,
New Delhi - 110 003
12th November 1999

NOTIFICATION

1. As per the decision taken in the meeting of Nodal Officers of Joint Forest Management held in Delhi on 27.10.99, the following committee is constituted to submit its report to the JFM cell on the Terms of Reference outlined below.

1	Shri R.M. Das, CCF, West Bengal	Chairman
2	Shri I.D. Pandey CCF, U.P.	Member

3 Shri Venugopal, CF, Karnataka Member
4 Shri S.K. Srivastava, CF, Rajasthan Member
5 Shri R.S. Pathan, JFM Cell, GEER Foundation, Gujarat Member
6 Shri Munindra, DCF, Andhra Pradesh Member
7 Shri Anil Oberai, Cf, Madhya Pradesh Co-ordinator

2. Terms of Reference

(a) To prepare formats for Monitoring of JFM programme at all levels (Division, State and National) with respect to its impact on protection and development of forests.

(b) To suggest Ways and Means for sharing of experiences between various states.

(c) To identify items for systematic funding of JFM programme giving due regard to its long-term sustainability.

3. The Committee can co-opt any other official member.

4. The Committee will submit its report by 31st December 1999.

Issued with the approval of IGF & SS.

(Dr. V.K. Bahuguna)
Dy. Inspector General of Forests

Copy to :
i) All concerned
ii) PPS to IGF&SS/PPS to Addl.IGF (MK)

Annex 6
Notification for JFM Network

(Source : http : //www.rupfor.org/jfm—india.htm)

No. 22-8/98-FPD
Government of India
Ministry of Environment and Forests
Forest Protection Division
Paryavaran Bhawan,
CGO Complex,
Lodi Road, New Delhi -110003
11th February 2000
NOTIFICATION

1. The Constitution of the Network. The Ministry of Environment and Forests hereby constitutes a 'JFM Network' with the following members.

1 Inspector General of Forests & Special Secretary Chairman
2 Addl. IGF (MK) Vice Chairman
3 A representative of NAEB Member
4 Five PCCFs (one from each zone) by rotation for a period of one year Member
5 A representative of World Bank, India Member
6 A representative of Ford Foundation, New Delhi Member
7 A representative of DFID, New Delhi Member
8 A representative of SPWD Member
9 A representative of WWF Member
10 A representative of OECF, Japan Member
11 A representative of Tata Energy Research Institute Member
12 Two young field officers (one women) implementing JFM in the field by rotation Member
13 Two representative of grass root level NGOs (one women) by rotation Member
14 A representative of National NGO Working in Forestry & Rural Development Member
15 One international NGO active in the field of JFM Member
16 DG, ICFRE, Dehra Dun Member
17 Director, IIFM, Bhopal Member
18 Director, IGNFA, Dehra Dun Member
19 Director, FSI, Dehra DunMember
20 DIG, Forest Policy Member
21 DIG, Forest Protection Member Secretary
22 AIG, JFM Cell Joint Member Secretary

2. The Network will have the following terms of reference.

i) To act as a regular mechanism of consultation between various agencies engaged in JFM work in the country.

ii) To obtain constant feed back from various stakeholders on the JFM programme for proper policy formulation and suitable direction to States.

3. The Network will meet as and when felt necessary but at least twice a year.

4. The Chairman can co-opt any organization in the Network. Serial No. 12, 13, 14 and 15 to be nominated for two years on rotation by IGF & SS.

Issued with the approval of the Minister for Environment and Forests, Government of India.

(Dr. V.K. Bahuguna)
Dy. Inspector General of Forests

To :
1. All concerned.
2. Secretary Forests (All States/UTs)
3. Principal Chief Conservator of Forests (All States / UTs)

Copy to :
1. PS to MEF
2. PS to MOS
3. PPS to Secretary (E&F)/IGF&IGF&SS/SS (VV) Addl. IGF (MK)

Annex 7
Guidelines for Strengthening JFM

(Source : http : //www.rupfor.org/jfm—india.htm)

No. 22–8/2000-JFM (FPD)

Government of India
Ministry of Environment and Forests
(Forest Protection Division)

Paryavaran Bhawan, CGO Complex,
Lodi Road, New Delhi.
21st February 2000

To
The Secretaries
Forest Departments
(All States/UTs)

Subject : Guidelines for strengthening of Joint Forest Management (JFM) Programme.

Sir,

1. As per the provisions of National Forest Policy 1988, the Government of India, vide letter No. 6.21/89-PP dated 1st June, 1990, outlined and conveyed to State Governments a framework for creating a massive people's movement through involvement of village committees for the protection, regeneration and development of degraded forest lands. This gave impetus to the participation of stakeholders in the management of degraded forests situated in the vicinity of villages. The joint forest management programme in the country is structured on the broad framework provided by the guidelines issued by the Ministry. So far, during the last ten years, 22 States Governments have adopted resolutions for implementing the JFM programme in their respective states. As on 1.1.2000, 10.24 million ha of forests lands are being managed under JFM programme through 36075 committees.

2. The JFM programme in the country has been reviewed by the Government of India from time to time in consultation with State Governments, NGOs and other stakeholders in view of several emerging issues. In order to further strengthen the programme, State Governments may take action along the following suggested lines.

(A) Legal backup to the JFM Committees :

1. At present, the JFM committees are being registered under different names in various States as per the provisions contained in the resolutions. Except in a few States where the committees are registered under the relevant acts in most of the states there is no legal backup for these committees. It is, therefore, necessary that all the State Governments register the JFM or village committees under the Societies Registration Act, 1860, to provide them with legal back up. This may be completed by 31st March 2000. Completion of such formation of existing JFM committees should be reported to this Ministry.
2. There are different names in use for the JFM committees in different States. It would be better if these committees are known uniformly as JFM committees (JFMC) in all the states. A Memorandum of Understanding, with clearly defined roles and responsibilities for different work or areas should be separately assigned and signed between the State Governments and the committees. All adults of the villages should be eligible to become members of the JFM committees.

(B) Participation of women in the JFM programme :

Considering the immense potential and genuine need for women's involvement in the JFM programme, the following guidelines are suggested for ensuring their meaningful participation.

1. At least 50% of the members of the JFM general body should be women. As a prerequisite, a minimum of 50% of members present at general body meetings should be women.
2. At least 33% of the membership in the JFM Executive Committee/Management Committee should be women. The quorum for meetings of the Executive/Management Committee should be one-third women executive members. One of the posts of the office bearer i.e. President/Vice-President/Secretary should be filled by a female member of the Committee.

(C) Extension of JFM in good forest areas

For better resource planning and collective management, the distance from the village and the village's dependency on a forest should be the main criteria in allowing JFM programme to operate. Therefore, a JFM programme should cover both degraded as well as good forests (except the protected area network). The micro-plan or treatment plan and memorandum of understanding should be different for degraded forests and good forests (crown density above 40%). In good forest areas, the JFM activities should concentrate on NTFP management and no alternation should be permitted in the basic silvicultural prescription prescribed in the Working Plan. This should involve the promotion of regeneration, development and sustainable harvesting of NTFPs that can be obtained for free or at a confessional rate as per the existing practice in degraded areas under JFM. The benefit sharing mechanism will also be different in good forest areas. The JFM committees will be eligible for benefit sharing for timber, only if they have satisfactorily protected the good forests for a minimum period of the last 10 years and the sharing percentage shall be limited to a maximum of 20% of the revenue earned from the final harvest. The felling of trees and harvesting of timber will be as per the provisions of the Working Plan. A certain percentage of revenue from the final harvest should be invested back into the silviculture and management of the forests. The extent of good forest areas to be incorporated in this scheme will depend upon the number of village households and should be restricted to a maximum limit of 100 ha and generally limited to that forest area which falls within 2 km of the village boundary. Similarly, degraded forests under JFM should as far as possible be concentrated within 5 km of

the village boundary. The implementation of JFM in good forest areas shall be done in a phased manner on a pilot basis. Pilot areas will be monitored closely for a few years and based on the feedback and success achieved the programme may be extended further in consultation with the Central Government. Before incorporating good forests on a pilot basis, all degraded forests within the locality should first be incorporated simultaneously.

(D) Preparation of microplan in JFM areas :

1. In the case of a new Working Plan, a JFM overlapping working circle should be provided to incorporate broad provisions for microplans. To achieve this, flexible guidelines should be evolved for the preparation of microplans based on local needs. For this purpose, the Working Plan officer will work in tandem with the territorial DFO and CF for finalisation of the prescriptions of the JFM overlapping working circle. The microplans should be prepared by the Forest Officers and Village Forest Protection Committees after detailed a PRA exercise and should reflect the consumption and livelihood needs of the local communities as well as provisions for meeting these demands in a sustainable manner. It should utilise locally available knowledge as well as aim to strengthen local institutions. It should also take into account marketing linkages for better return of NTFPs to the gatherers and should also reflect and needs of local industries/markets. This should be done with due regard to the environmental functions and productive potential of the forests and their carrying capacity as well as their conservation and biodiversity values.
2. In areas where Working Plans are already in force (and until their revision in the future), a special order may be issued by the PCCF to implement the incorporation of micro plans into an existing Working Plan. In such areas, a microplan should aim at ensuring a multi-product and a more NTFP-oriented approach. Without changing the basic principles of silviculture, deviations may be approved in the existing Working Plan if necessary. To ensure this, the concerned DFO and CF should dovetail the requirements of microplan with the Working Plan.
3. The microplan should also take into consideration and provide suitable advice for areas planted/to be planted on community lands and other Government lands outside the notified forest areas including the district council areas in the North East.
4. Infrastructure/Eco-development under microplans constitute a separate entity for funding through concerned development agencies.

(E) Conflict resolution

In order to resolve conflicts in the functioning of JFM committees and to maintain harmony among different group participating in JFM, State Governments may constitute divisional and state level representative forums or working groups. This forum/group should include representatives from all the stakeholders including NGOs. The model prescribed by the Andhra Pradesh Government for this purpose is a case in point for consideration.

(F) Recognition of self-initiated groups

The community groups in many places in Orissa, Bihar, Gujarat, Andhra Pradesh and Karnataka are performing the essential functions of forest protection and regeneration. These groups need to be identified, recognized and registered as JFM Committees after proper verification of records and a thorough inquiry. The period of their existence and duties performed for protection and regeneration should be suitably assessed and proper weight given to them for deriving benefits under the JFM programme.

(G) Contribution for regeneration of resource :

1. For long-term sustainability of resources, it is essential that a mechanism be created for investing a certain percentage of the revenue earned from final harvest into regeneration. For this purpose, no less than 25% of the share of village community should be deposited in the village development fund for meeting the conservation and development needs of the forests. A matching contribution may be made by the forest department from its share of such sales. There should be a transparent mechanism for the computation of incomes and the sharing the benefits between different stakeholders.
2. Monitoring and Evaluation : Concurrent monitoring of progress and performance of this programme should be undertaken at Division and State level. Evaluation of the programme should be planned at an interval of 3 years and 5 years at Division and State level respectively.

Yours faithfully,
(C.P. Oberai)
Inspector General of Forest & Special Secretary

Copy for information and necessary action to :

- Principal Chief Conservator of Forests/Chief Conservator of Forests (All States/UTs).
- Special Secretary, National Afforestation and Eco-development Board, Ministry of Environment and Forests. New Delhi.
- Secretary, National Wasteland Development Board, Ministry of Rural Development, New Delhi.
- Chief Conservator of Forests (Central) of all Regional Offices located at Bhubaneshwar, Bangalore Bhopal, Shillong, Lucknow, Chandigarh.
- DG, ICFRE, Dehra Dun.
- Director, Indian Institute of Forest Management, Bhopal.
- Director, Indira Gandhi National Forest Academy,

Dehra Dun.
- Director, Forest survey of India, Dehra Dun.
- Director, Forest Education, Dehra Dun.
- Director, Wildlife Institute of India, Dehra Dun.
- All Officers of the Ministry of Environment and Forests.

(Dr. V.K. Bahuguna)
Dy. Inspector General of Forests