

## **Lack Of Investment In Institution Building: A Major Lacuna of JFM**

Rucha Ghat<sup>1</sup>

### **Abstract:**

A decade long experience of increasing popularity of JFM among communities located in and around forests has encouraged the government to strengthen the program by setting up Forest Development Agency (FDA) as federation of JFM committees. This step to take JFM to the next logical level is indicative of Government of India's commitment towards people's participation in forest management. FDA programme is being promoted to ensure sustainability of forests by establishing linkages between rural development, rural employment, and forest conservation. Present paper is based on a study of three communities undertaken in the year 2002 to understand status of JFM as a decentralised institution, using IFRI methodology. Same three communities were revisited in the year 2007, which had come under the FDA umbrella by then, and same methodology was used to collect institutional data. The paper shows that JFM and FDA programmes concentrate only on investments in resource enhancement through plantations, and neither do the communities formulate and follow self-restrictive rules of forest product use, nor does the Forest Department guide the communities to build robust institutions.

*Key words: JFM, Forest Development Agency, participation, Maharashtra State, India.*

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## **Lack Of Investment In Institution Building: A Major Lacuna of JFM**

- Rucha Ghate

### **Decentralization initiatives in forest management**

Decentralization of forest management began ever since the acceptance of people oriented forest policy in 1988, followed by the Joint Forest Management (JFM) programme in 1992. In the year 2000, Government of India introduced a scheme for establishing Forest Development Agencies (FDA) at forest division level in various states, for federating JFM committees. This indicated government's commitment towards continuation and expansion of participatory forest management. In the meanwhile the *Panchayat* Extension to Scheduled Areas Act (PESA) of 1996 took decentralization of management and ownership of natural resources, including forests, to areas beyond the Forest Department managed territory. It gave power to the *gram sabha* (village assemblies) in scheduled areas over community resources, especially over minor forest products. The recent passing of the 'Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006' (STOTFDA) in Indian parliament on 15<sup>th</sup> December 2006 is another major step in the process of recognizing and re-establishing indigenous people's symbiotic relation with forest. It is one in the series of similar initiatives towards decentralization of forest management. JFM is the most common operational form of these major devolution policies for the 'inclusive' decentralized management of forests in India. But, have the local communities internalized JFM provisions? Has JFM resulted in regulated use of forest products by communities? What has been the role of forest department in ensuring this? These are some of the questions addressed in this paper. I first discuss the experience of JFM as reflected in the writings of researchers, to set the argument in

proper perspective. This is followed by presentation of the results of field study from three villages located in Gadchiroli district of Maharashtra state in India. The study concludes that there is a need for the Forest Department, as the implementer of the programme, to shift its focus of investments, presently restricted to plantations, to investments in institution building of JFM committees that are responsible for managing forests.

### **Background of JFM and its critique**

The JFM system envisages involvement of local communities in the management of state-owned forests under partnership arrangements with the state Forest Department (FD). Usufruct rights on forest products for subsistence, restoration of degraded as well as preservation of well stocked forest lands, sharing of benefits flowing in the long term, and making available other development funds for poverty alleviation (under FDA) are the broad incentives offered under the program, with operational variations between states, and alterations/modifications over the time<sup>2</sup>. JFM is looked as an attempt to reverse the process of forest degradation on the one hand, and meet people's need on the other.

There is a large body of literature on JFM. Research scholars have extensively studied various aspects of JFM – provisions, structure, working, and impacts. JFM program, which is based on the Forest Policy of 1988, had incorporated suggestions made in the Report of Committee on Forest and Tribals in India (1982). The authors of the report had advocated a major turn towards a management strategy in which user groups were to play a much more active role than in the past (Baland and Platteau, 1996). Therefore, JFM was not just a response to pressure from donor agencies, but a recognition of the failure of past approach of the state agencies (Thompson 1995, Matta 2006). From the outset JFM has been looked as a unique approach that kindled lot of hope and, at the

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<sup>2</sup> No.6.2/89-Forest Policy, June 1, 1990; No.22-8/2000-JFM(FPD), February 21, 2000; Strengthening of JFM Programme, Guidelines, by MoEF, on December 24, 2002; NAEB 25-1-1/99-B-2 Dated 4-01-2000 issued by Central Government to all States; Government Regulation No. MSC/2000/143/F-2, 25.4.2003 issued by Government of Maharashtra.

same time, led to skepticism during the initial years. While Poffenberger et al. (1998: xi) had enthusiastically expressed that JFM has brought in “reversal of the alienation of forest people’s rights, of institutional conflict, and of ecological patterns of forest degradation”, and that “India’s grassroots experience of ethnoforestry can be replicated across regions and nation-states, provided communities are allowed to regain management authority over the integral resources that sustain their livelihoods” (p. 13), other studies showed that JFM would suffer because in many instances both the partners –Forest Department and the communities – were not ready for the new institutional arrangement (Parul 2006). Similarly, the communities found it difficult to reconcile with the idea of being equal partner in managing a resource from which they were strictly kept away for so many years and whose use invited punishment (Sarin 1998).

The early criticism of JFM was based on it being a typically top-down approach of the state; asymmetric power relationships between the state functionaries and the people; power imbalances within communities, and inadequate benefit-sharing provisions (Sundar 2001, Conroy et al. 2000) and, doubts were expressed about the department executing sharing of long-term benefits from timber (Arora and Khare 1994). Another major limitation discussed in 1990s was in the context of ‘tenure’ being unclear, insecure, and without unambiguous, exclusive rights of access to the resource (Lele and Rao 1996). Absence of legal status to Forest Protection Committees (FPCs), government’s right to dissolve FPCs, unilateral decision-making, and inappropriate sharing of forest produce were some other aspects criticized by scholars (Pattnaik and Dutta 1997).

Now, more than a decade later, many evaluation-based studies have been published offering both (few) positive and (more) negative outcomes of the JFM. The studies demonstrate that in most places protection committees created under JFM do not last long, or end being unequal partners (Matta and Kerr 2004). They become dysfunctional either after initial enthusiasm dies down or after the incentive money is exhausted (Kumar 2002). In some cases village level JFM committees exist only on paper, and are

ineffective in protecting the resource (Ghate and Nagendra 2005). Some note that communities by and large have remained unconvinced about the benefits to be gained from accepting the state designed arrangements at considerable loss of autonomy, while there are also concerns over what is being perceived as covert attempts by the state to expand its authority over forests (Sarin *et al* 2003), leaving no room for people's participation (Ballabh, Balooni, and Dave 2002). Some studies are harsh at the attitude of forest officials towards JFM committees, which are looked at 'not as people's organization' but as 'a creature that works under the thumb of a forester' (Shah 2003). It is alleged that forest officials have no real interest in the community and therefore in 'collective action' (Hill 2000), and some find participation by local communities as 'puppetish', indicating that it is not 'participation' in true sense.

Upadhyaya (2003) feels that JFM continues to be on weak legal footing as it fails to grant security of rights. He feels that the short-term benefits offered under JFM do not act as additional incentives because they are no different from the *nistar* rights that were enjoyed by the communities before JFM. Studies have also brought out the fact that legislation is not enough to ensure participation. Because even when representation of women and backward class in executive committee is made mandatory, they might feel too intimidated and inhibited to express their interests and concerns in any form in a public forum (Puri 2004). Scholars have brought out problems with JFM treating community as homogenous entities right from the beginning. "JFM, like many other participatory projects, does not take into account the fact that the community, it is going to be working with, is made up of people placed very differently" (Kumar 2005). It is assumed in most cases that once provisions for participation have been made, people would participate (Puri 2004). Murli et al. (2003) summarize these issues in their statement "Lack of proper planning, management of village resources and community involvement in the process of planning, inadequate participation of forest dependent communities in JFM, such as landless artisans and women, are other gaps in the JFM program".

On the other hand, there are studies claiming that the forest committees in several instances are working not merely as the 'sounding board for schemes that the department would wish to undertake in villages', but have successfully used the forum, both formally and informally, to secure forest usufruct (Tiwari 2005). Shylendra (2002) has found that JFM in Gujarat has been able to incorporate and address various issues concerning the livelihood security of the local people. Another multi state study indicates that biomass growth rate has been comparatively higher in JFM forests as compared to the national average (Murli *et al.* 2002). Similarly a study on JFM in Gujarat has found that JFM forests are meeting substantial biomass needs of the community and contributing towards achieving sustainable forestry (Patel *et al.* 2006). Similar positive results have been quoted from Rajasthan as well (Aggarwal *et al.* 2006). In a study conducted in Dehra Dun district of Uttar Pradesh, it was observed that the household income has considerably increased due to alternative job opportunities, as well as agricultural production. There was reduction in distance traveled and time spent for fuel wood and fodder collection, and thus village women are now financially empowered, and institution building has paved the way for sustainability of the whole process (Srivastava *et al.* 2004). According to Balooni *et al.* (2007: 1443) "Recent literature does suggest that the paradigm shift from centralised to decentralised forest management has increased the access of local communities to forest resources, increased internal social mobilization has helped communities challenge the traditional state authority and enabled them to create political capital, exposed the conflicts over resource interests, paved the way for positive changes and explored potentials for better forest management".

### **Provisions for institution building under JFM**

JFM also envisages building of village-level institutions, more popularly named as Forest Protection Committees (FPC). In a recent move, as has been mentioned earlier, the central Government has encouraged federation of JFM/FPC under Forest Development Agencies (FD) to strengthen the JFM committees. Offering better livelihood opportunities through integration of development programmes of other

government agencies to deal with rural poverty is an extended objective of FDA. Looking at the structure of JFM, it could be said that many of the design principles formulated by Ostrom (1990) are, in principle, incorporated in the JFM. The design principles are defined as essential elements or conditions that help to account for the success of institutions in sustaining common property resources (CPR). They are: clearly defined boundaries, congruence between appropriation and provision rules and local conditions, collective-choice arrangements, monitoring, graduated sanctions, conflict resolving mechanisms, and minimal recognition of rights to organize. While first and seventh are supported by the Forest Department, communities under JFM are supposedly given the autonomy to deal with the rest, though irrespective of communities' capability to form operational rules, implement, monitor, sanction, and resolve conflicts. Even if one is to look at commonly accepted conditions conducive for collective action, summarized by Baland and Platteau (1996: 289) as, "...user group must be small, live close to the CPR, and be free to set access and management rules in its own way; the CPR must be clearly defined and people must have high level of dependence on them; rules as well as techniques of calculation and control must be simple and fair; there must be well-established schemes of punishment (and these work best when they are graduated to fit the offence); cost of monitoring must not be too high, well-known and low cost conflict-resolution must be available; crucial decisions must be taken publicly, and some record-keeping accountability must be provided for", JFM seems to be programmed fairly well. Because, if communities living in and around forest have the autonomy, as is the intention under the JFM, to develop rules of use, they are likely to be fair and simple. Community, traditionally or otherwise, can arrange to deal with infractions and sanctions. Further, the Forest Department has a mandate to provide help with record keeping and technical know-how. Emphasis of Wade on the resource being 'critical for the locals' and 'scarce', are both relevant in case of the JFM in forest-based rural communities, especially with degraded forest (Wade 1988). It is now pertinent to ask, if JFM is thus structurally on sound footing, has it been successful in building robust institutions? It is with this basic query that a study of three communities was undertaken first in the year 2002, and the same communities were revisited in the year 2007.

## **JFM and FDA in Maharashtra**

Maharashtra state is one of the forerunners in JFM. It adopted JFM in the year 1992 and has modified it on the lines of Central Government regulations from time to time. According to the JFM cell of Forest Department of Maharashtra, of the 15,000 odd forest fringe villages in the State, 11,759 had come into the JFM fold by September 2006. Recognizing the important role that can potentially be played by JFM committees, Principal Secretary, Government of Maharashtra has instructed all the state government departments to implement development schemes in the villages with JFM committees, on priority<sup>3</sup>. In the year 2002 central government issued the necessary guidelines to all states mentioning that the agency would function as the federation of all Joint Forest Management Committees within a territorial /wildlife forest divisions under the Societies' Registration Act. The concept of FDA was construed on the fact that it is the Forest Department that has most access to villages where staff or workers of other rural development departments cannot reach. Being in constant contact, forest officials know better than any body else that it is the lack of alternative developmental activities that the villagers are compelled to encroach and use the forest unsustainably. Thus, using the network of JFM registered communities it is aimed that rural development activities will be routed through FDA in the forest fringe villages, which are registered under the JFM program. The decision to establish FDA and implement the *Samanvit Gram Vanikaran Samirddhi Yojana (SGVSY)* in Maharashtra State was taken on 20/01/2001.

The broad short term and long term objectives of the programme include regeneration of degraded forests, augmentation of fuel wood, fodder and grasses, people's participation in planning and regeneration efforts to ensure sustainability and equitable distribution, conservation and improvement of non-timber forest produce such as bamboo, employment generation, ecological restoration, environmental conservation, and eco-development, and improvement in quality of life of people living in and around forest

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<sup>3</sup> GR No. MSC/2004/lt.no. 20/F-2.



areas. To fulfil the above-mentioned objectives, it was proposed under FDA that respective divisional offices of Forest Department would create awareness about FDA, prepare micro plans in consultation with villagers, and undertake the activities proposed in micro plan by coordination between district rural development departments.

## **Research methods**

Data used in this article is a sub set of data collected through primary as well as secondary sources. Primary data for the three villages, namely Deulgaon, Markegon and Ranvahi, was collected with the help of ten research instruments developed by IFRI<sup>4</sup>. In addition to this a sample survey of randomly selected 40 percent of households in each of the villages was conducted through a pre-structured questionnaire.

## **Study sites**

Gadchiroli is one of the eleven districts of Vidarbha, in Maharashtra State (India). Most of the forest in the state is concentrated here. Yet, the per capita income of Gadchiroli district is 48% less than the State average. The total geographical area of the district is 14,412 square kilometres, which works out to 4.68% of the State. Of the total forest yield, 61.34% comes from this district. Population density of the region is very low, only 0.99% of the state's population resides in this district, and 38% of it is tribal population. More than half the population of the district is below poverty line despite being surrounded by rich forest resources. As the three villages fall under the same bio-climatic zone, there are no perceivable differences in climatic conditions. The region receives around 1420 mm of rainfall annually. The forests belong to the dry deciduous category. The dominant floral species include *Cliestanthus collinus (garadi)*, *Anogeissus*

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<sup>4</sup> Research instruments developed by the International Forestry Resources and Institutions (IFRI) research program, based at the Workshop in Political Theory and Policy analysis, Indiana University, USA, has developed a set of ten research instruments to facilitate collection of information about demographic, economic, and cultural characteristics of communities dependent on forests, and botanical data from forest by laying of temporary forest plots. These structured data collection forms, which make inter-regional comparisons possible, are completed in using rapid appraisal and traditional interview methods.

*latifolia (dhawda)*, *Tectona grandis (sagwaan)* and *Terminalia alata (ain)*. The three forests have different histories. While Markegaon forest is still a part of a larger forest with little human pressure to deal with, Deulgaon forest was a highly degraded forest till a decade ago. The Ranvahi forest, though slightly better than the Deulgaon forest, too was in a degraded state when the community started its protection efforts with the help of an NGO (Ghate and Nagendra, 2005).

## **Results of case studies**

In this section we explore the impact of FDA program in the case of three villages. We are able to compare the situation from 'before FDA' to 'after FDA' because these villages were studied in the year 2002, using the same IFRI methodology. At that time FDA was not introduced although JFM was present in all the three villages. In 2007 a revisit study was done especially to understand the working of Forest Protection Committees as important institutions established under JFM and strengthened under FDA. Socio-economic details of the case study villages can be found in Ghate (2003).

### ***Case study 1: Deulgaon***

#### ***Socio-Economic changes***

Village Deulgaon has not changed much in five years since no modern amenities, including an all weather road, have come to the village since 2002. Number of households has increased from 33 to 45, while individuals in the community have increased from 173 to 182. The caste combination has also remained same, that is, 70 percent Gond and 30 percent Kunbi. The nearest market remains at Gilgaon village, which is 6 kilometres away, and Dhanora remains the bigger market, 17 kilometres away. There has been slight improvement in the level of interaction with officials, mainly forest officials, due to introduction of FDA scheme. Subsistence farming continues to be the major occupation and main crops grown remain the same – paddy and pulses. Old

bamboo plantation, which was reported in the first visit, is completely ruined due to lack of protection. New plantation of bamboo was taken up under FDA in 2005.

The whole community continues to form one user group since there are no variations in type of dependence on forest (Appendix-1). The only activity the user group does collectively is monitoring of the forest. While all the households and all individuals continue to depend significantly on forest for subsistence, no one reportedly uses forest for commercial gains. Number of cattle and goats reportedly increased significantly over the five years period. Cattle heads have gone up from 80 to 100 and goats from 10 to 60, while the number of households owning them remains to be 32. With all these animals grazing in forest, as it is the cheapest option, it has clearly impacted the resource (Table-2). There has been no effort volunteered by the villagers for improving condition of forest. Only one plantation has been taken up by Forest Department in Deulgaon in past five years. Fuel wood, timber for house construction, and grass for fodder continue to be the important forest products for the community (Appendix-1). Reportedly, availability of minor forest products – gum, *moha*, *tendu* leaves etc has reduced. While in 2000-01, twenty percent of the food needs were met from the forest, five years later only 10 percent of the needs are met with. This is mainly because poaching of forest products in area beyond Kathani River has increased, although poaching in area closer to the village has reduced. This has increased the number of conflicts with neighbouring villages over forest use, though otherwise the social relations are quite cordial. Lack of support from the division office of forest department is reportedly affecting the protection work in Deulgaon.

### ***Forest Association***

The two individuals, who initiated forest protection in Deulgaon, alone continue to take interest in forest management works. Both of them mention that work of the protection committee has suffered for various reasons but they maintain that due to the committee, wasteful use of forest products has been stopped. However, many evidences of illicit felling in the forest were found (Table – 2).

There is no change in the governance structure of the committee, it continues to have 12 members – 3 female and 9 male. Similarly, there has been no change in the activities carried out by the association, which is mainly coordination of work when plantations are taken up by the forest department. Although it is imperative for a committee under JFM to form specific rules of forest product use for specific products, it has not done so. Even the protection work in relation to poaching from outsiders has suffered because the dispute of boundary with the neighbouring villages has not been settled yet. And this has been a major discouragement for the community. Election of office bearers has become irregular and so are the meetings. Earlier, meetings were held once a month, but these are now held at irregular intervals. Even the general body meetings that were held once a month are now held once every six months. Selection of guards for forest patrolling is now done by 'lots', while earlier the community appointed the guards. Although number of guards has increased from 2 to 4, patrolling is now done only in summer season.

**Rules for Timber:** although the community has traditional rights for harvesting timber for house construction and making of agricultural implements, there is total ban on tree felling imposed by FD. Only under JFM some concessions have been given. The rules prepared by the JFMC have remained as before – one can harvest as per requirement and no one is allowed to sell it in the market. No formal distribution of the product takes place. Five years ago there was restriction on felling of timber below particular girth, but this restriction does not hold good any more. There is no record of infractions, and reportedly there are no infractions. But it is quite clear that level of monitoring has deteriorated.

**Rules for fuel wood:** the most important rule is that only dry and fallen twigs or branches are to be picked by the villagers and no tree is to be cut or branches lopped for this purpose. There are no other restrictions on quantity for self-use, but no sale is allowed. Only axe is used for cutting small branches. Earlier there was restriction on

cutting of big and old trees, no such restriction remains. No infractions are reported, no penalties imposed, no fines collected in case of this product also.

**Rules for fodder:** As has been mentioned earlier there is large number of cattle that graze in this forest. In past five years all restrictions on grazing have remained only on paper and this is evident from survey of forest plots. Evidence of grazing was found in each plot taken in the forest of this village. Earlier there were rules regarding open grazing of cattle in forest area, grazing was opened in parts of forest and each area was kept open for 5 years. But now there are no rules.

### ***State of forest***

Deulgaon's forest is a natural forest which is used by the community as well as neighbouring communities. In past five years one bamboo plantation has been taken on 50 hectares of land. But it is poorly protected and survival rate is as low as 20 percent. The 'visit notes' taken in the year 2002 specifically mention that this ancient forest had degenerated due to over use but good protection by the community is helping it regenerate. However, the revisit in the year 2007 clearly indicates the deterioration of the forest. Felling is rampant and so is grazing. The total number of saplings and trees on the 30 sample plots has decreased over past three years (See Table - 1). Pest infestation too has grown drastically. As before, the forest is not divided into management zones and there is no system of rotational harvesting. Legally, since the forest has been handed over to the community under JFM, the community has rights over non-timber forest products (NTFPs) for consumption and sale, and usufruct on timber and grass. Yet there is no evidence of active management by the communities. While people had invested in maintenance of forest earlier, this has not happened in past five years. As has been mentioned earlier there are no incidences of infraction and no penalties imposed. Five years ago forester's appraisal (as is included in the IFRI protocols) had mentioned that this forest was about normal for this ecological zone, in the revisit, this opinion has changed to 'somewhat sparse'. Similarly commercial value

of forest has gone down from 'normal' to 'below normal', and the type of conservation measures adopted in relation to this forest continue to be too lax.

### **Case study 2: Ranvahi**

#### **Socio-Economic changes**

Number of households in Ranvahi increased from 81 to 89 in five years, and number of individuals from 393 to 424. Malewada continues to be the nearest market, which 2.5 kilometres away, and Kurkheda is the larger market 27 kilometres away. Caste combination remains same at the village, with majority (96%) of *gond* tribe. Community members often interact with the officials, mainly forest officials. For all the households in Ranvahi, subsistence farming is the main occupation, which provides them with food crops that lasts 7 to 8 months. Paddy is the main crop. Cash income comes to the village through sale of *tendu* (*Diospyros melanoxylon*) leaf and *moha* (*Madhuca longifolia*) flower. There is some employment generated through the Forest Department as well. In past five years there have been plantations and other forestry operations like singling, weeding, and fodder plantation. However, a nursery developed in the village for plantation work under JFM almost 8 years ago, is not there any more. Apart from monitoring work in the forest, the community does not do much work together.

There has been some increase in the livestock as well as number of households that own the livestock in the village. Number of cattle has increased from 233 to 236, and water buffaloes have increased from 10 to 14. This has resulted in added pressure on forest for grazing (Table-2), the number of goats show a decrease from 43 (in 2001) to 39 (in 2007). In five years there has been no change in use of fuel-efficient technology.

#### **Forest Association**

There have been no major changes in the constitution of the association, though it seems to be more active in getting funds under various schemes of the government. No

new rules have been passed and the association is mainly coordinating all the forest related activities. There are in all 10 members in the executive committee, 2 women and 8 men. Earlier there were only 7 members. Meetings as well as election of the committee members are not held regularly any more. Although the meetings of the EC takes place regularly as before, that is, once a month, all the members do not attend these. General body meetings, which were held once a month five years ago, are now held once in only three months, and now only half the members attend the meetings which was earlier attended by almost all members. Decisions taken in these meetings have not changed much. They are for determining the quantity of forest products required by various households.

All the necessary records to be maintained under FDA are maintained by the ex-officio member secretary, usually a forest guard or a round officer. The striking feature of this association is that it works in close association with the local forest office and because of this cooperation; it has received funding more frequently than other forest associations.

The forest condition continues to be 'normal for this ecological zone', as perceived by the community members. But it is disheartening to note that despite the number of plantations taken up by the FD, most of these have failed. Therefore the condition of forest has not improved despite investments. Apparently the sense of responsibility has not come along with the funding.

**Rules for Timber:** The community has traditional rights for harvesting timber for house construction and making of agricultural implements – 20 poles and 50 bamboo poles. Later Forest Department changed the amount to 10 poles per households per year under JFM. This rule has remained till date. There is no record of infractions, and reportedly, there are no infractions. But it is quite clear that this is because of poor monitoring, and thereby absence of reported infractions.

**Rules for fuel wood:** the most important rule is that only dry and fallen twigs or branches are to be picked by the villagers and no tree can be cut or branches lopped for this purpose. There are no other restrictions on quantity for self use but no sale is allowed. Only axe is used for cutting small branches. These restrictions are just as before. Fuel wood is brought in cartloads as per need, but usually, on an average, 5 cartloads of 200 kilograms each, are taken per household per year. There are no close substitutes to fuel wood available. Earlier there were restrictions on harvesting for any purpose and grazing in the plantation area, now there is no such restriction.

**Rules for fodder:** As has been mentioned earlier there is large number of cattle that graze in forest. In past five years all restrictions on grazing have remained only on paper and this is evident from survey of forest plots. Evidence of grazing was found in each plot in this village, even in plantations (Table – 2). Resultantly, survival of plantation has been adversely affected. Earlier there were rules restricting grazing of cattle in forest area, grazing was opened in parts of forest and each area was kept open only for 5 years. But now there are no rules to restrict grazing of cattle in forest.

### ***State of forest***

Forest Department has played little role in the management of this forest. Although plantations have been taken up 6 times since 1998 in Ranvahi for improving the quality of forest, none has succeeded. Bamboo, *awala (Phyllanthus emblica)*, *shivan*, teak (*Tectona grandis*) (timber species), and fodder plantations have been taken up here. But all have failed without exception. The reasons given by the villagers are weak, since they say that the quality of land is poor and the tendu leave contractors frequently kindle fire, which destroys the forest. The main reason seen by the IFRI team is lack of protection. Also, naxalite (extreme leftist) activity being rampant in the area, FD staff usually does not participate in any forestry activity directly. The number of staff at the division office has gone down from 401 in 2000-01 to 376.



Ranvahi community received INR 200,000 of funding for entry point activity, which is incentive money, under FDA. This is over and above the funding received for plantation work. The amount is much more than the amount received by any other village. This was possible because of cordial relations of the community with the Forest Department and also due to intervention of an NGO working in Ranvahi for quite some time. However, these funds have not resulted in strengthening of the institution.

### ***Case study 3: Markegaon***

#### ***Socio-Economic changes***

This continues to be an old traditional village with no apparent change in the village. Even the number of households has remained 32 though population has increased from 161 to 172. Markegaon continues to be 100 percent tribal village. Dhanora town, which is also the sub-district headquarter, is the main market and is 7.5 kilometres away. People visit it 2-4 times a week, mainly on bicycles. Generally residents of Markegaon do not like to interact with officials, even forest officials, and are very passive in receiving new information as well. Subsistence farming is the major occupation, and paddy and other cereals and pulses grown are sufficient for households for 8 months. Apart from paddy, other agricultural products are sold for income.

There are no activities that are done collectively in relation to forest except protection work and any wage work provided by FD including plantation. All the households depend substantially on forest for variety of things. Although number of cattle in this settlement has gone down from 150 to 140, water buffaloes have increased from 30 to 42, and number of goats has increased from 30 to 110. This is mainly because of preference for cash income.

This user group has not undertaken any activity for forest improvement, except the plantation taken under the FDA program. Patrolling of forest is going on as before, which is half-hearted and unreliable. There are 28 households that own land, others

have encroached on forestland with no ownership rights. Farming and wage labour are the two occupations, some cash income also comes from sale of forest products like *tendu* leaves, *moha* flowers etc. Firewood is the only sources of cooking.

### ***Forest Association***

There are very few who attend meetings and disinterested men and most of the women do not participate in rule making. There have been no conflicts, no infraction to rules reported, and no punishments imposed in last five years. At the same time there is no misuse reported as nobody harvests trees for commercial purposes. If there is excess of bamboo or fallen trees, the whole community collects and sells it collectively. But people were not able to recall such instances, which means these are few and far in between. In past five years the association has passed additional rules regarding who is authorized to harvest the product, and regarding use that can be made of forest products. Although almost everyone in the village knows about the rules and has no complaints, it was clearly mentioned by the president of the JFM committee that these rules are not strictly implemented.

The number of executive members remains eleven but the composition has changed in favour of women. Earlier there were only 3 women members, now there are 5. But the team could easily see that the women are in the committee for namesake and they do not really participate in the proceedings. The village being very small, most of the meetings are general body meetings because no one can be deterred from attending an executive meeting, and there is low attendance in any case.

Since the inclusion of the village under FDA, number of records maintained by the committee has increased. And all records are submitted to the government. There are no employees of the association except the ex-officio member secretary who is the round officer. Plantations are undertaken only if funds are available with the Forest Department. Protection and enforcement is done voluntarily.

**Rules for Timber:** the community has traditional rights for harvesting timber for house construction and making of agricultural implements. There are no specific rules made and followed. It was earlier decided that each household should bring timber from forest for subsistence use only after informing the committee. However, reportedly nobody does so. Earlier there was no sale of timber reported, but now 10 percent of timber harvested is sold. It is quite clear that the community is lax about penalizing offenders. It is still not able to perceive the situation of scarcity, which would demand restrictive use. While timber is easily and sufficiently available in forest close by, its substitute is not.

**Rules for fuel wood:** the most important rule is that only dry and fallen twigs or branches can be picked by the villagers and no tree can be cut or branches lopped for this purpose. There are no other restrictions on quantity for self use but no sale is allowed. No infractions are reported, no penalties imposed, no fines collected in case of this product in last five years. Earlier there were reports of fuel wood collection in excess of requirement.

**Rules for fodder:** As has been mentioned earlier there is large number of cattle that graze in forest. In past five years all restrictions on grazing in plantation area have remained only on paper and this is evident from survey of the forest. Evidence of grazing was found in each forest plot in this village, and even in plantations.

### ***State of forest***

Markegaon's forest is old and natural. There are still many big trees standing, and this forest is better than the other two forests studied. Plantations in this forest were undertaken twice, once under JFM and then under FDA. Despite lack of enthusiasm amongst the community members, it has overall become more vigilant and understands the value of forest to some extent. Yet, uncontrolled grazing and fresh encroachments are evident.

To appreciate the dependence of all the three study communities on forest, it is necessary to emphasise the fact that the communities are totally dependent on forest around their habitats for fuel wood, fodder and timber for housing as well as making agricultural implements.

### **Selected indicators of change of forest condition**

JFM and FDA are basically resource enhancing programs, since a major portion of funds are allocated for plantation activity. Therefore, forest condition becomes an important indicator of its success. For understanding changes in the condition of forests belonging to the three case studies, indicators like total number of saplings and trees, evidence of soil erosion, grazing, damage caused by fire and insects, encroachments of forest land, and evidence of tree felling were chosen. Most alarming change is found in the number of saplings, which have drastically reduced in all the three communities. Saplings are usually harvested by communities for making houses. The girth is perfect as supporters of roof. The decreased number of saplings clearly indicates non-enforcement of rules in this regard. It also means loss of potential trees. The data clearly indicates that the number of trees has gone down in all the three communities. There is alarming increase in evidences of pest damage and grazing as well. Even if we assume that the communities would not have funds to deal with pest damage, grazing can certainly be controlled through stricter implementation of rules. Although the three communities have formulated simple rules, these are apparently not followed. This can be seen in case of tree felling also. Evidence of cutting of trees has increased in case of all the three, more in case of Markegaon and relatively less in case of Ranvahi.

### **Changes in forest condition between 2002 and 2007**

<b>INDICATORS</b>	<b>DEULGOAN</b>		<b>MARKEGAON</b>		<b>RANVAHI</b>	
<b>Findings from 30 plots in each village</b>	<b>2002</b>	<b>2007</b>	<b>2002</b>	<b>2007</b>	<b>2002</b>	<b>2007</b>
<b>TOTAL NO. OF SAPLINGS</b>	89	26	170	21	152	60

TOTAL NO. OF TREES	293	275	228	211	281	256
<b>TOTAL NUMBER OF PLANTS</b>	<b>382</b>	<b>301</b>	<b>398</b>	<b>232</b>	<b>433</b>	<b>316</b>

### Evidence on chosen indicators

INDICATORS	DEULAGOAN		MARKEGAON		RANVAHI	
	2002	2007	2002	2007	2002	2007
<b>Findings from 30 plots in each village</b>						
SOIL EROSION	1	23	4	30	5	24
GRAZING	6	29	20	26	22	30
FIRE DAMAGE	1	0	0	27	8	0
INSECT DAMAGE	13	30	21	29	25	26
TREE CUTTING	14	25	5	26	20	24
ENCROACHMENT	0	1	0	9	2	0
CHARCOAL BURNING	0	0	2	1	1	0

### Discussion

The three case studies, first visited in 2002 and revisited in 2007, bring out certain pertinent aspects of participatory programs like JFM and FDA. Both the programs are aimed at encouraging sustainable use of forest as a resource, and rural development. Accordingly allocation of funds has been done with maximum emphasis on plantations for restoration of degraded areas. The basic expectation under JFM program is that communities adopting the program would formulate self-restrictive rules of forest product use and follow them. But the study clearly shows that this has not happened and all the communities are lacking in any effort towards forest management, including protection. In past five years, the situation has worsened for all the three communities from the point of 'institutions' as such, as well as from the point of view of the resource. This is despite the fact that the three communities have been covered under JFM

program for the past 7-8 years, and then under FDA in past five years. Both the programs have brought additional funds for overall village development and also for improving forest quality through plantations and soil and moisture conservation works. It is clear that basically deterioration in the working of institutions as well as change in preferences of the people have failed the efforts like JFM and FDA. On the one hand active support/positive intervention of the Forest Department continues to be lacking, on the other hand preference of the community towards individual ownership rather than communal ownership is gaining favour. This is evident from the increase in number of encroachments, especially in case of the small, traditional, completely tribal village of Markegaon. Although the whole community knows about these encroachments, no one, not even executive members, want to object to this individual decision to encroach. The fact that this can adversely affect the forest, which is collectively owned, has not prompted the community to act.

This study also brings out the fact that the Forest Department is undertaking programs like JFM and FDA without much conviction in people's participation. At the same time the FD staff itself is unaware of the basic purpose and provisions of the program, in addition to problems like dearth of staff, irregular flow of funds, untrained staff to deal with people or to prepare micro plans using PRA techniques. Coordination between informal and formal efforts, that is, between the community and the Forest Department, which was the strength of Ranvahi community, now is turning into an unhealthy nexus. Forest Department and NGOs need showpieces that can be used to convince funding organizations, and community wants to corner as much funding as possible. This seems to be happening in case of Ranvahi. While multiple plantations have been taken up with huge costs, none has survived satisfactorily. While money is being pumped in through various programs, the institution is getting weakened. Participation in meetings has gone down, patrolling is becoming lenient, infractions are not getting reported, and activities that were done collectively earlier are now taking place individually. These are alarm bells for programs like JFM. It is important for policy makers to realize that provision of funds serves an objective in a limited way only. Moreover, funding needs to be made available for right kind of activities. Training of staff of the department, which is

the implementing agency of a participatory program, needs to precede activities like micro planning and plantations. Skill enhancement, awareness building among communities too needs to precede implementation of participatory forest management. With the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, coming into force, the use and misuse of forest resources would depend to a great extent on the maturity of communities. In these changed circumstances, building of strong local institutions should be the top priority, without which forests are likely to be the first casualty. As was found in a study of community management in Nepal, U.S. and Kenya (Kellert et al. 2000), the objective of sustainable utilization is closely associated with biodiversity protection, with a clear focus on managing species for economic benefit. In most of the cases sustainable utilization goals tended to be underemphasized and became the victim of mismanagement. In the present case studies also we find that there has been consistent investment in forests (through plantations), but these have turned into bad investment due to lack of institutional strength. It only indicates that now there is increasing need for investment in institutions. An important dimension of the response of communities to social, economic and environmental pressures is the institutional dynamics for which relations of trust, participation of all stakeholders on decision-making and a sense of ownership by all, are critical (Markandya, 2001). Without this the concept of sustainable development as perceived by Levett (1993) as “..... rooted in perennial themes of responsibility to others, providing for the future and dependence of life on the natural environment”, would become meaningless.

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