

Gaps in the policy – implementation – research cycle in participatory forest management in India: stakeholders' perceptions

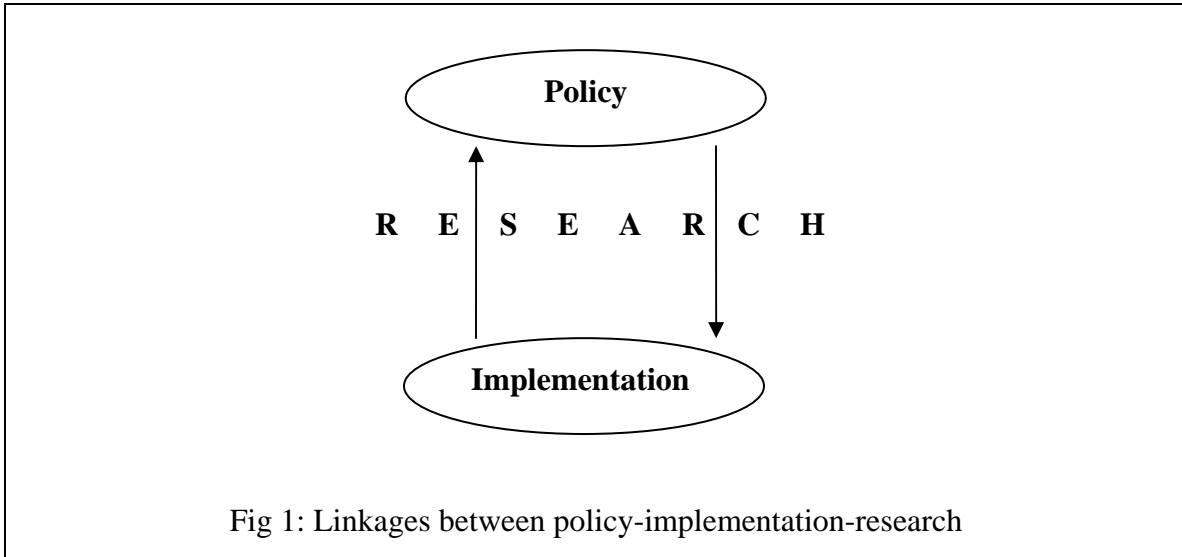
Our analysis of the evolution of the present participatory approach to management of forest resources, commonly referred to as JFM, in Madhya Pradesh (MP) and Orissa identifies evidence based research carried out at various points of time, by the progressive forest officersⁱ, communitiesⁱⁱ, and Non Government Organizations (NGOs), as one of the major drivers for recognizing people's role at policy level. With the rapid progress and expansion of JFM in 1990s, the interests among researchers, based in academic and research institutions, as also NGOs, to investigate the ecological, socio-economic, and institutional aspects of community oriented management continues unabated. However, much of these researches on JFM are anecdotal. Hence, the present study examines the nature of research¹ being undertaken, whether current research objectives and findings match the stated concerns of key stakeholders in JFM, especially those of forest policy makers along with field implementers, and the forest communities and other representatives. Is it possible to identify areas of research necessary to improve the quality and implementation of JFM and related policies²?

Figure 1 below clearly shows that research intertwines policy and implementation. While policy change emerges from variety of sources where power relation is the key, research can play an important role in development policy and practices (Mills *et al* 2001 & Crewe *et al* 2002). Implementation of policy, for example, often requires/demands innovations in setting up new institutional structure, new technology and also capacity building of stakeholders, and inputs from research could have important bearing on all these. In addition, in order to be sustainable, policy implementation ought to introduce monitoring, evaluation and feedback mechanism supported by scientific methods and

¹ Research is defined as any systematic effort to increase the stock of knowledge. This may include any systematic process of critical investigation and evaluation, theory building, data collection and analysis related to development policy and practices. It also includes action research i.e. self reflection by practitioners oriented towards the enhancement of direct practices.

² Policy is defined as purposive course of action followed by an actor or set of actors.

techniques. Results of M& E of implementation could enlighten decision makers/policy makers and help them taking objective decision for policy review and change.



Methodology

Information was collected through in-depth semi-structured interviews of key informants such as community representatives, frontline staff of the local forest department, policy makers, researchers, NGOs and donors. A list of people interviewed and checklist used for these interviews are provided in the Annex II and III respectively.

Sl no	Category of stakeholders	Nature of consultations
1.	Community	Focus Group Discussion was held in four Policy Plots in MP (Mandla district) and Orissa (Koraput district).
2.	Frontline staff	Forest Guard posted in Bilgaon & Goreghat Panchayats in MP, and Balipeta & Komugunda Panchayats in Orissa were interviewed.
3.	Policy makers	Discussion was held with 8 Officers posted at state headquarters in MP & Orissa.
4	Researchers	Researchers at the state forest

Sl no	Category of stakeholders	Nature of consultations
		research institutes, Indian Institute of Forest Management, Bhopal and NGOs were interviewed. The draft paper was presented at the 11 th Biennial Conference of IASC at Bali in June 2006 to get feedback from a mixed group of researcher.
5	Donors	Discussion was held with the state representative of Dfid in Bhopal, MP

Report structure

The first part of this section enumerates various provisions of JFM and other related policies. The second part focusses on stakeholders' perception on gaps between policy and implementation. The stakeholders' views are presented in five main categories viz., community, forest guard, policy makers, researchers and donors. Based on these perceptions, the concluding section sets the agenda for further researches in JFM. A summary of stakeholders' perception on gaps in policy, implementation and research is also presented in Table in Annex I.

What the policy says

A detailed analysis of various provisions of JFM guidelines in Orissa and MP was done in literature review section in the state reports. However, a summary of these guidelines is presented below:

- (i) Regeneration of forests, primarily the degraded forestlands, and combating deforestation.
- (ii) People's involvement in the development and protection of forests from illicit felling, fire, grazing etc.
- (iii) Providing incentives to people in lieu of protecting forests.
- (iv) Building institutions at the grassroots involving community and representatives from the forest department.

- (v) Developing a regulatory mechanism for sustainable harvesting of forest produces.
- (vi) Meeting the subsistence requirements of people.
- (vii) Augmenting income of forest dwellers through giving them rights over NTFP, final felling, wage employment and others.
- (viii) Capacity building of community in sustainable harvesting and basic forestry operations.
- (ix) Developing alternative livelihood opportunities to reduce the dependence of the poor on forests.
- (x) Increasing environmental awareness among the forest-fringe people.
- (xi) Change management from timber-oriented silvicultural practices to NTFP-oriented management, and to introduce bottom up planning through microplanning exercises.
- (xii) Integration of JFM with the Panchayati Raj Institution, the constitutionally recognized body of governance at the grassroots level in India.

Stakeholders' perception

Community

Community living in forest fringe villages is the key stakeholder of JFM. Findings of the Policy Plot (PP) reinforce that forest dwellers across classes and castes are still dependent on forests for fuelwood, fodder, and small timber needs for household construction and agricultural implements. Among NTFPs, collection of tendu leaf attracts them all. From an institutional perspective all the villagers are members of General Body of JFM committees but the Executive Committee (EC) members are the people who have overall responsibility of forest protection. They are the bridge between frontline staff of the forest department and community.

Communities identified several inadequacies in the current form of implementation of JFM. Problem in forest regeneration and declining forest health was one of them. People interviewed in Policy Plots in MP and Orissa observed that over the last decade the health of forest especially diversity of NTFP and medicinal plants, had deteriorated. People now

need to spend more time and travel longer distances for collecting fuel-wood. Absence of a simple mechanism to monitor extraction of forest produces, the lack of awareness among the people on environmental role of forests and the importance of various species were identified as major hindrances to successful forest protection. For example, following the passage of New NTFP Policy 2000, which deregulated 68 NTFPs, no systematic record keeping for NTFP extraction has been developed at the panchayat level. Absence of regulatory mechanisms and presence of a ready market in the vicinity led to overexploitation of fuelwood in the Poliy Plots of MP. On the other hand, the level of transparency in participatory management is still dependent on the individual, be it forest guard or JFM committee President. Members of the Belgaon committee (Mandla district,MP) experienced this with changes of Forest Guard and Executive Committee last year. Short and long term migration of communities to neighboring districts and states in search of wage employment also lead to poor protection of forests. This was especially relevant for MP where village men and women migrate from October to March. The need was to develop additional avenues for income generation in these villages so that seasonal migration is reduced. In general, people felt the need for more support in terms of developing long term assets. They also wanted conducive policies to reduce their dependence on forests for subsistence needs and income generation.

Frontline staff

One of the major concerns of Forest Guards, the primary link between the forest department and the people, was the inadequacy of the present incentive structure for communities. The typical incentives available to them from the protected patches, such as access to NTFPs and small timber for subsistence needs, was not enough to motivate people to come forward to protect the forests in times of high threat – e.g. at the time of a major incidence of fire or in case of extensive illicit felling by outsiders. NTFP could become a strong incentive. However, in the absence of effective institutional mechanisms for marketing, people either do not collect NTFPs or get very low prices for them. People are not interested in NTFP collection unless there is a buyer at their doorsteps. Thus, in absence of significant income from NTFPs, people in MP were seen to fallback to selling fuelwood in nearby markets.

Policy makers

Policy makers in the forestry sector in India are a homogeneous group, mostly Indian Forest Service officers, posted in these positions after getting experience of working in the fields for 10 to 15 years.

The main problem identified by them was the lack of scientific study on ecological impacts of JFM such as (i) forest productivity and (ii) biodiversity. There are often conflicting claims on the impact of JFM on forest health.

Also, forest fringe people have not benefited significantly from NTFP collection and sale, as was envisaged in the various JFM & NTFP policies. This group felt that there is a need to develop an institutional model for NTFP management that would address issues such as prioritization of products, sustainable harvesting, collector-friendly marketing network, and enhanced market information system. There is also a need to undertake research to identify species with high productivity and medicinal value (for medicinal plants). Another lacuna pointed by policy makers was the conflict between the policy objectives and the current management practices of the forest department. For example, JFM envisions a shift from timber-oriented management practice to NTFP-oriented management. This is missing in the Working Plan, which is the bible for management of forests in India. Also, JFM is still individual driven. There is a need to change the mind set of frontline staff and middle level management of the forest department in order to facilitate JFM. There is also a need to develop management skill and technical knowledge about basic forestry operations among the JFM committee members. Lack of transparency and accountability both within the community and in the forest departments another drawback of the current institutional design. In the context of devolving governance to Panchayat by the 73rd Amendment to the Constitution of India in 1992 and the Provision of Panchayat (Extension to Scheduled Areas) Act popularly known as PESA in 1996, it is imperative to develop synergy and better linkages between these policy initiatives and JFM.

Inadequate planning has been identified as one of the major constraints for successful implementation of policy objectives in the field. This was illustrated by the case of the Policy (2000) and related Rules (2002) on Procurement and Trade of NTFP in Orissa. The policy envisions a revolutionary step to hand over the authority to regulate the purchase, procurement, and trading of 68 NTFPs to the Panchayat. Following the passage of this policy, forest department completely withdrew themselves from the management of these NTFPs while Panchayats were not equipped with the knowledge of regulating sustainable extraction (when should the harvesting begin and how long it can last), and the process of maintaining information on harvesting amount etc. Thus, it suddenly created a vacuum in the field. In the process the objective of devolving authority of a sustainable management system for NTFP also got lost.

Researchers

Researchers are a heterogeneous group consisting of professionals working in state run forest research institutions, NGOs and academic institutions.

It is recognised that JFM as an institution and its effectiveness on forest protection and management is not uniform. However, no research has been carried out to evaluate the strengths and limitations of committees showing good, average and poor performance. Concerns were also raised about the limited impact of programmes aimed at generating environmental awareness among communities. Researchers also feel that JFM should take an ecosystem approach of management covering small species, grasslands, and small and medium water bodies. The group was most worried about discontinuation of scientific research. Practices like laying sample plots and/or preservation plots to monitor periodic changes or preparation of yield tables for various timber species has almost stopped. Thus, management in JFM areas is being carried out without having ecological data to monitor and evaluate its effectiveness. Similarly, tradition of maintaining seed production areas is almost discontinued due to lack of funds. The major lacuna in the functioning of state sponsored forest research institutions is the lack of coordination between scientists and forest department officials, especially officials working in the field such as forest guards and foresters, during formulation of research projects. Moreover,

scientists who are engaged in such research mostly have a degree in agricultural science and are not exposed to the various policies, forest management practices and laws.

A number of concerns were raised on the NTFP management. First, there is no uniform definition of NTFP. Definition of NTFP used in MP/Chhattisgarh and Orissa varies substantially. Researchers also felt whatever definitions have been provided by the government are based on convenience rather than on any scientific understanding (RCDC 2006). There is need to have a definition of NTFP that transcends state boundaries as there is a contiguous rich forest patch rich in NTFP from eastern Maharashtra to western Orissa. In this context, it is also important to initiate thinking on developing either a regional level NTFP policy or institutional mechanism for more inter-state cooperation and information exchange on NTFP pricing, marketing etc. Absence of organized initiative for fixation of prices of non-nationalised NTFP is another neglected area pointed out by researchers. Again, in Orissa, even the price is fixed, no effort is made to ensure payment of the minimum procurement of price.

Donors

According to the donors governance and corruption are the major hindrances in implementing projects. They also felt that though in principle bottom up planning has been accepted, but in practice concerns and practical constraints of ground level staff hardly get reflected in policies, programmes and schemes. Inadequate research input in policy formulation and implementation is one of the reasons for it. Amendments carried out in JFM Guidelines at the central as well as the state levels were mainly based on anecdotal research inputs. Synergy and better linkages with Panchayat and other user groups was a concern that donors share with the policy makers.

What are the gaps in research and what needs to be done?

Community:

- Develop alternative livelihood opportunities to reduce their dependence on forests including policy initiatives (such as promoting use of alternative fuel) and also to reduce migration.

- Research to develop regulatory mechanism to monitor forest produce extraction and uses. There is a need to identify success stories practiced in various parts of the country including traditional forest management models. More research is also required to develop participatory monitoring method.
- Develop effective communication tools for spreading awareness among people about the role of forests.

Frontline staff

- Develop suitable incentive structure for motivating people to come forward during incidences of fire and control of illicit felling.
- Develop institutional structure for marketing NTFP taking into account the ground realities.

Policy makers

- Scientific research to understand impacts of JFM on forest ecology including biodiversity.
- Develop institutional structure for marketing NTFP taking into account the ground realities.
- Develop exist strategy for changed management practice. For example, at the time when Forest Department handed over the management of NTFPs to Panchayat.
- Identify tools for increasing transparency and accountability at the grassroots.
- Capacity building on management skill and participatory silvicultural management.
- Research that facilitate changed management such as NTFP oriented Working Plan, communication skill etc.
- Institutional mechanism to establish linkages with Panchayati Raj Institution and other user groups.

Donor

- Institutional mechanism to establish linkages with PRI and other user groups.
- Identify tools for increasing transparency and accountability at the grassroots.

- Scientific research to provide feedback to policy-makers and facilitate implementation in the field.
- Change in planning process to incorporate concerns of frontline staff.

Researchers

- Addressing PFM from ecosystem approach
- Setting up forestry plots/preservation plots etc in PFM areas for scientific research.
- Integration of scientists, field level officials and frontline staff in designing scientific research project.
- Developing effective communication tools for spreading awareness among people about the role of forests.

CONCLUSION

JFM is at a crossroad. It is evident that while JFM as a policy has not been discarded by stakeholders, several lacunae in implementations have been pointed out. After one and half decades, a wide gap has emerged between policy aspirations and reality. Implementation of JFM suffered due to failure in bringing changes in forest management as envisioned in the policy. In case of JFM as institution, the above discussions clearly show the scope of improvement in capacity building, awareness generation, increasing transparency and accountability and improving regulatory mechanism and incentive structures.

JFM also lacks inputs and support from pure scientific research on aspects related to the forest and ecosystem. A cursory look at the research projects carried out by the State Forest Research Institute, Jabalpur from 2000 to 2006 showed that a major thrust of its research was on agro-forestry, bio-fertilizer, tissue culture and nursery techniques during 2000-04 with the financial support from ICFRE³, Dehradun. There was no targeted research on JFM. However, research projects focusing on socio-economic issues in JFM

³ Indian Council for Forestry Research & Education, an autonomous body of Ministry of Environment and Forests, Govt. of India

especially tribal areas have been initiated since 2004/05 (http://www.tfri.res.in/completed_research_projects.htm). There has also been increasing emphasis on sustainable yield assessment, standardization of non-destructive harvesting practices, collection and processing of NTFP including medicinal plants. Chhattisgarh Minor Forest Federation is currently supporting a project to document best practices in collection and processing of NTFPs in Chhattisgarh. One more project on developing coalition approach to NTFP for better livelihood of tribal in MP is being funded by DfID, UK (<http://www.tfri.res.in/ongoingprojects.htm>).

Another, important issue is the inability to provide alternative livelihood options in forest fringe villages, including failure to develop efficient marketing for forest produces. However, the Regional Centre for Development Cooperation (RCDC) in Orissa has recently taken initiatives to facilitate community based management and trade of NTFPs through supporting NTFP (amla, kalmegh, soapnut, reetha) enterprise development in KBK region covering Kalahandi, Bolangir and Koraput districts.

Against this background researchers in participatory forest management need to concentrate on methods to solve problems in the field and provide workable tools and models. There is also a need to undertake targeted research on good practices and disseminate them for wide adoption.

References

Mills J Thomas & Clark N Roger (2001) Roles of research scientists in natural resource decision-making, *Forest Ecology and Management* Vol-153, pg 189-198 Elsevier Science

Crewe Emma & Young John (2002) Bridging Research and Policy: Context, Evidence and Links, ODI, London & Global Development Network

http://www.tfri.res.in/completed_research_projects.htm accessed on June 12, 2007

<http://www.tfri.res.in/ongoingprojects.htm> accessed on June 12, 2007.

Annex 1 Summary on perception of stakeholders on gaps in implementation of JFM and research agendas

Provisions of JFM Policy	Gaps in implementation/concerns					Research agenda
	Community	Forest Guard	Policy makers	Researchers	Donors	
Regeneration of forests mainly degraded forestlands/ checking deforestation	- Declining forest health.		-Conflicting claim on impact of JFM on forest health. -Perceived increase in forest cover but absence of research on ecological impact of JFM on biodiversity, product outflow including NTFP to support or negate perception.	Absence of ecosystem approach including small species, grasslands, small water bodies etc.		Scientific research to facilitate management on the ground.
People's involvement in forest management and protection from illicit felling, fire etc	- Absence of people from village due to seasonal migration for livelihood.					- Identify effective incentives - Developing alternative livelihood option based on local resources.

Provisions of JFM	Gaps in implementation/ concerns					Research agenda
Policy	Community	Forest Guard	Policy makers	Researchers	Donors	
	- In absence of alternative livelihood options, people opt for unsustainable harvesting.					
Building institution at grassroots			<ul style="list-style-type: none"> - Transparency and accountability in functioning. - Capacity building of JFM committee members on management skills. 		- Transparency and accountability	<ul style="list-style-type: none"> - Identifying tools fro increasing transparency and accountability. - Developing effective communication tools for capacity building. - Developing model for participatory monitoring & evaluation.
Building up mechanism for regulating forest extraction and use	Overexploitation of resources due to absence of regulatory mechanism					

Provisions of JFM Policy	Gaps in implementation/ concerns					Research agenda
	Community	Forest Guard	Policy makers	Researchers	Donors	
Providing incentives to people for forest protection		Incentive system is not strong to motivate people to protect forests from fire and illicit felling.				- Identify effective incentives
Meeting subsistence needs of fuelwood, fodder, NTFP including medicinal plants etc	- Spending more time for fuelwood collection. - Declining availability of medicinal plants.					Absence of micro level on availability and outflow of produces such as NTFPs
Augmenting income of forest fringe population through the sale of NTFP, providing them a share from final felling of timber and wage employment.	- Declining availability of medicinal plants in the forests. - Declining health of forests.	Lack of people friendly marketing institutions	Institutional model for marketing			Developing effective marketing model.
Capacity building of						Developing effective

Provisions of JFM	Gaps in implementation/ concerns					Research agenda
Policy	Community	Forest Guard	Policy makers	Researchers	Donors	
community on sustainable harvesting techniques and forestry operations						communication tools for capacity building.
Providing alternative livelihood option						Developing alternative livelihoods options including policy initiatives.
Environmental awareness	Lack of awareness about the environmental role of forests among people living in forest fringes.			Increasing awareness among local people. Lack of awareness about the importance of maintaining ecosystem in parks among fringe villages. Importance of maintaining waterbodies,		Communication tools for awareness buildings etc

Provisions of JFM	Gaps in implementation/ concerns					Research agenda
Policy	Community	Forest Guard	Policy makers	Researchers	Donors	
				grasslands, woodlots in national park areas.		
Changed management from timber oriented to NTFP/multiple species oriented management			Ntftp oriented working plan of the forests including inventory of species available, estimation of stocks etc. Middle management has to create an enabling environment. Attitudinal change in middle and frontline staff. JFM is still individual driven - need to			

Provisions of JFM	Gaps in implementation/ concerns					Research agenda
Policy	Community	Forest Guard	Policy makers	Researchers	Donors	
			<p>internalise and correlate to FD's dat to day working.</p> <p>Strengthening and developing linkages with PRIs.</p>			
Bottom up planning					<p>Problems of ground level staff are not articulated in planning.</p> <p>Mechanism to involve ground level staff in planning and policy making and decisions.</p>	
Linkages with PRIs and other user groups			<p>Strengthening and developing linkages with PRIs.</p>		Empowering PRI	

Annex II

Name of the people interviewed

1. BMS Rathore, CF (Community Forestry), MP Forest Dept
2. Ravee Srivastava, MP Forest Dept
3. Khare, MD, MP MFP Federation
4. P K Choudhury, MP MFP Federation & Scientist, SFRI, Jabalpur
5. ... SFRI, Jabalpur
6. G R Patro, DFO, Koraput
7. Mr Raghavan, Orissa Forest Dept
8. Avay Roy, ACF, Working Plan
9. Vidhan Chandra, MP Forest Dept
10. R K Singh, IIFM, Bhopal
11. Tapas... , DFID, Bhopal, MP
12. Sanjoy Patnaik, RCDC, Bhubaneswar
13. Forest Guard, Belgaon
14. Focus Group Discussion in Goreghat & Belgaon Panchayat
15. Focus Group Discussion in Bandhugaon Panchayat

ⁱ The most quoted experiment/action research carried out by forest officials, which successfully altered the views about people's role in forest conservation in India were carried out at Arabari and at Sukhomajri located in two states of India namely West Bengal and Haryana respectively. In Arabari in West Bengal, Dr A K Banerjee, the then Divisional Forest Officer, sought people's cooperation for protection of coppicing sal (*Shorea robusta*) forests when grazing and fuelwood pressures from the local villages disrupted his silvicultural experiment. In lieu, the tribal people were promised for the first preference for employment to the plantation, fuelwood, rotational grazing area and a promise to share 25% of the net profit from the sale of final harvest. The response was overwhelming, the commercial value of the 1272 hectares of forest, which was nil in 1972, was estimated as Rs. 90 million in 1988 (Kumar *et al.* 2000). Up to 1990/91, 618 families of Arabari received Rs 1938 per family as 25% share of net sale proceeds and also Rs 1618 from collection and sale of sal leaves etc (Saxena 1996). The net revenue to Forest Department was Rs 702,413 (Chatterjee 1995).

In Haryana, during the 1970s, the Sukhomajri catchment was suffering from heavy soil erosion, causing siltation of the Sukhna Lake, the primary water source in Chandigarh. Vegetative and engineering structures to check the erosion in the catchment did not sustain because of non-cooperation from villagers. Subsequently, a new package of activities was designed jointly by Haryana Forest Department (HFD) and Central Soil and Water Conservation Research and Training Institute in 1976 which included the construction of a small earthen embankment to store 0.8 ha m of surplus rainwater, which sufficiently irrigated the land and tripled the crop yields in following years. This dramatic change in livelihood provided a fillip to the people to practice social fencing. The control of grazing inside forests reduced soil erosion and regenerated forests in the catchments (Dhar 1994). Equity in benefit distribution from water was ensured by providing water rights to landless families who, in turn, could sell water to landholding farmers at a mutually agreed rate. Following the Guidelines issued by HFD in 1990, people had also been given usufructory rights on fodder, bhabbar grass (*Eulaliopsis binata*), and timber.

Also, in MP in 1988, the DFO at Noradehi sanctuary made an attempt to reduce the pressure on the forest by establishing cattle camps for animals of the fringe villages and by promoting alternative employment opportunities for people who depended on forests for their livelihood. Stone walls were erected around the agricultural fields of the villages to reduce the incidence of crop raiding. The efforts made at Noradehi were widely appreciated and raised a debate on the 'role of a forester' in the organization. It was also realized that without a village-level institution it would not be possible to achieve user discipline for optimal utilization of forest products and services. During the same period, the DFO at Ratlam tried to organize two cattle camps and formed about 20 committees of volunteers who assumed responsibility for forest protection.

ⁱⁱ Villagers in Lapanga in Sambalpur district in west Orissa started to protect nearby revenue forests in 1936 (Peter *et al* 1996). By 1970s it took shape of a people's movement especially in districts of Nayagarh, Mayurbhanj, Bolangir, Sambalpur, Keonjhar, Dhenkanal and Phulbani. By the late 1980s, an estimated 3000 to 4000 community groups in Orissa had established control over 10% (572,000 ha) of state's forests covering reserved, demarcated and undemarcated areas (Human *et al* 2000).