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THE FOREST DEPARTMENT AND FOREST RIGHTS ACT IN INDIA; An Enquiry into Perceptions, Adaptations, and Resilience in Madhya Pradesh.

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Glossary of terms

Caste	A system of social stratification and social restrictions in the Indian subcontinent.				
Eco Development	A committee constituted for the forest areas within or around national parks				
Committee	and wild life sanctuaries so as to obviate pressures on them.				
Forest Protection	A committee constituted under the JFM programme to safeguard and protect				
Committee	the forests.				
Forest Village	A village community established in a reserved forest or protected forest for the purpose of maintaining a supply of local labour for forestry works.				
Governance	Governance is the process of decision-making and the process by which decisions are implemented. It focuses on the formal and informal actors involved in decision-making, implementing the decisions made and the formal and informal structures that have been set in place to arrive at and implement the decisions.				
Gram Panchayat	The lowest tier of the Panchayat Raj institution, which is formed on the basis of the population and may consist of one or more villages.				
Gram Sabha	A body consisting of persons registered in the electoral rolls relating to a village comprised within the area of Panchayat at the village level.				
Gram Swaraj	Village self rule.				
JFM	The practice of management of forest resources jointly by the Forest Department and the local communities which would entitle them in sharing of usufructs in lieu of their participation in protection and management of forest resources.				
Lok Vaniki	Social forestry.				
Nistar	Usufruct rights of the individuals living in the vicinity of the forests, over the certain forest produce in the public lands.				
NTFP	Non-timber forest products (NTFPs) are any product or service other than timber that is produced in forests. They include fruits and nuts, vegetables, fish and game, medicinal plants, resins, essences and a range of barks and fibres such as bamboo, rattans, and a host of other palms and grasses.				
Panchayat	An institution (by whatever named called) of self-government constituted under Article 243B of the Indian Constitution for rural areas.				
Panchayat Raj	Institution of local rural self-governance.				
Patta	Land title deed.				
Protected Forest	An area notified under the provision of Indian Forest Act having limited degree of protection. In Protected Forests, all activities are permitted unless prohibited.				
Recorded Forest	All lands statutorily notified as forest, though they may not necessarily bear				
Area	tree cover.				
Reserve Forests	An area notified under the provisions of Indian Forest Act, 1927 having full degree of protection. In Reserved Forests, all activities are prohibited unless permitted.				
Scheduled Areas	Tribal Areas so declared under Art 244 (1) of the Constitution of India.				
Scheduled Tribes	Communities notified as Scheduled Tribes as per provisions contained in Clause 1 of 342 of the Indian Constitution.				
	Traditional local institution that owns and manages forestland.				

Village Forest	A committee constituted for management of forest areas under joint forest			
Committee	management program.			
Working Plan	A written scheme of management of forests, prepared by the Forest			
	Department.			
Zemindar	Landlords employed by the Mughal Emperors of India to collect taxes from			
	peasants.			

Abbreviations and Acronyms

ACF	Assistant Conservator of Forest
APCCF	Additional Principal Conservator of Forests
CCF	Chief Conservator of Forest
CEC	Central Empowerment Committee
CF	Conservator of Forest
CFM	Community Forest Management
CSD	Campaign for Survival and Dignity
DCF	Deputy Conservator of Forest
DFO	Divisional Forest Officer
DLC	District Level Committee
EDC	Eco Development Committee
FCA	Forest Conservation Act, 1980
FPC	Forest Protection Committee
FRA/Forest	The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of
Rights Act	Forest Rights) Act 2006
FRO	Forest Ranger Officer
GOI	Government of India
GOM	Group of Ministers
GOMP	Government of Madhya Pradesh
IAS	Indian Administrative Service
IFA	Indian Forest Act, 1927
IFS	Indian Forest Service
JFM	Joint Forest Management
JFMC	Joint Forest Management Committee
JPC	Joint Parliamentary Committee
MFP	Minor Forest Produce
MoEF	Ministry of Environment and Forests
MoTA	Ministry of Tribal Affairs
MP	Madhya Pradesh
MPFD	Madhya Pradesh Forest Department
NCA	National Commission for Agriculture
NFP	National Forest Policy
NTFP	Non Timber Forest Produce
PA	Protected Area
PCCF	Principal Chief Conservator of Forest
PESA	Panchayats (Extension to Scheduled Areas) Act 1996
PESA	Protected Forests
PRI	
RF	Panchayat Raj Institutions Reserved Forest
SDLC	Sub Divisional Level Committee Sub Divisional Officer
SDO	
SES	Social Ecological System
SFD	State Forest Department
SFRI	State Forest Research Institute
SFS	State Forest Service
SLMC	State Level Monitoring Committee
ST	Scheduled Tribes

UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
WFP	World Food Program

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Summary

Indian forests are predominantly (98.46%) owned and managed under command and control system by State through State Forest Departments (SFD) since 1865. Numerous legislations enacted by the States since 1865, has alienated people from forests, and curtailed their forest related rights severely. However, owing to acute dependence on forest for habitation and livelihood needs, tribal and other forest dependent people continue to stay and use forests unauthorisedly, facing stiff resistance of SFD's. Their prolonged struggle for recognition of their forest related rights has led the Government of India to enact "Forest Rights Act" (FRA) in the year 2006, which confers host of forest use and habitation rights to the forest dependent communities. It also empowers them to protect and manage the State owned forests. Such empowerment places them on equal footing with SFD in management of State owned forests and lead to existence of two parallel power structures at village level. Therefore, the FRA is considered as an important piece of legislation in decentralisation of forest governance to grass root level in India and expected to affect the working pattern and resilience of SFD's. Thereby, the implementation of FRA is likely to result in conflict between SFD and forest dependent communities due to their differing interest in forest management.

Despite of enactment in the year 2006, the FRA has not yet implemented in many States in India. Among various reasons cited for poor progress, non-cooperation from SFD is also considered as a major factor. Contrary to the accusation, the Madhya Pradesh Forest Department (MPFD) in India is actively involved in implementation of FRA and the State of Madhya Pradesh leads other States in FRA works in India. Thereby, the MPFD provides scope to assess the effect of FRA on Forest Department working and its resilience. To assess these issues, a perception study was conducted among the forest officers of Madhya Pradesh, working at State, district, and village levels on how they view the effect and changes caused by FRA and their perceived position in the changed environment.

The study revealed that the perceived effect of FRA on MPFD working and resilience is "minimum" as it already has number of State legislations similar to provisions of FRA. However, the Madhya Pradesh Forest Department adapt to these minimal changes by incorporating certain element of governance (responsive administration, consensus oriented decision-making, inclusive approach of management etc.) in its decision-making system and maintain its resilience. The study also identified drivers, which are contributing to global

resilience of MPFD, and suggests measures to manipulate these drivers to enhance the organisational efficiency in the changed working condition.

Key words – Forest Rights Act, Madhya Pradesh Forest Department, Governance, Resilience, Institutional Reforms.

1. Introduction

Forests are part of Indian culture and abundant reference to forest oriented life style is often mentioned in epics of India (Balooni 2002). Indian forests were managed since ages by the erstwhile kingdoms of India. Though the forests were under the control of the States (kingdoms) people never had any restriction in using forests to meet their needs (Joy and Symlieh 2006). However this trend was changed with the arrival of British model of forest administration in India (Patnaik 2008).

The Indian Forest Department was created by the British in 1864, to manage the forests in scientific way and to augment timber production. They viewed the people as a disturbance to scientific management of forests and restricted their interaction with forests through State Forest Departments (SFD). That was the starting point of alienation between forest and people in India. This trend of forest management continued in India till Indian independence in 1947 and the SFD were managing the forests under command and control system effectively (Singh *et al.* 2005). However the post independence period, witnessed change in management objective of forests, raise in voice of the people on State affairs, policy changes, and emergence of new stakeholders (such as NGO's, civil rights groups etc.) who had more say in forest management affairs.

These changes brought gradual shift in forest management pattern in India and the latest Indian forest policy enacted in the year 1988, called for involvement of people in management of forests. Accordingly, the SFD has changed its management approach from command and control system to participatory forest management and manage certain patches of forestlands with involvement of village communities through a program called joint forest management. The JFM is now well rooted in India and covering 140,953 sq kilometres of forest area, in 22 Indian States (Appukuttannair and Stefanie 2003). However, the decision making process in JFM mainly works under the prescription of Forest Department, as it controls the fund flow of the JFM program and owns ownership rights of the forests. The weak legal footing of JFM institutions is also considered as a main reason for such domination of SFD in forestry decision-making process (Kumar and Kant 2005; Matta *et al.* 2005; Patnaik 2008; Sarin *et al.* 2003).

Despite of change in management approach and significant success in JFM, the State Forest Departments (SFD) in India have undergone little change in their basic structure and function and still follows authoritarian system of work (Kumar and Kant 2005; Matta *et al.*

2005; Patnaik 2008; Sarin *et al.* 2003). Thereby, the SFD's are able to maintain their resilience to changing trends. One of the primary reasons behind this ability could be attributed to its ownership right on 98.42% of forests in India and various legislations empowering it as a sole authority of forest protection and management. However, these very factors (ownership, protection and management rights) are in stake with the newly created "Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006" (shortly Forest Rights Act) in India, which confers right to hold and manage State owned forests to forest dependent people. Thereby, it shifts the forest management pattern from predominately-authoritarian style to gross root level management and provide solid legal footing for village level institutions to manage the State owned forests.

The changes are likely to have far-reaching consequences in Forest Department functioning in India (Ballabh *et al.* 2002; Bose 2008; Bose 2006; Patnaik 2008; Springate-Baginski *et al.* 2008) and thus provide scope to study the effect of policy change on forest bureaucracy and organisational response to it. Moreover, the shift in the policy also need appropriate management climate and entail attitudinal change of officials to translate policy visions on ground (Rao and Kerr 2002; Whisnant 1980). Since forest officers are known for translation of policy into norms prior to implementation, their perception and attitude towards the new policy also assumes significance (Sukwong 2000). Thereby, the study on perception of forest officers on Forest Rights Act assumes importance.

The present study is intended to assess the perception of the forest officers working at different hierarchical positions (State, District, and Village levels) towards the Forest Rights Act and strategy to be adopted by them to manage the changes arising from Forest Rights Act. The study would be conducted in the Madhya Pradesh State Forest Department in India, as it leads all other Indian States in implementation of Forest Rights Act (Table 1) and known for formulation of pro people policies and decentralisation of governance to grass root level (Bose 2006; Hobley 1996; Sarin *et al.* 2003).

The inquiry would reveal the effect and changes caused by the Forest Rights Act on Madhya Pradesh Forest Department work and its adaption and resilience to the changes. Thereby, it would provide an insight into the future trajectory of forestry administration in Madhya Pradesh and suggestions for improvement of organisational efficiency.

1.1. Forestry administration in India

The British created Indian Forest service in the year 1864 and paved way for scientific management of forests in India (Balooni 2002; Saxena Undated). They attempted to create Indian Forest Act in 1865 with view to manage the forests in production lines and succeeded in 1927. The British viewed forests as revenue earning resource and emphasised on timber production and development of agriculture by converting fertile forest areas. They classified forests into four group's viz. protection forest, production forests, minor forests and pastures and grazing lands. The protection and production forests were designated as Reserved Forest (RF) and people right over these forests were restricted completely (GOI 1894). The people rights were permitted only in minor forests and grazing/pasture lands in a restricted way in the name of Concessions and Privileges (Balooni 2002; Singhal 2008). The British groomed the forest service to keep the people away from the reserved forests and regulate their use in permitted forest areas. Thereby, the conflict of interest between the Forest Department and people started during this period.

1.1.1. Pre independence period (1865 to 1947)

The first Indian forest policy enacted in the year 1894, followed the conceptual frame work of unpublished Indian Forest act, 1865 and asserted that the people's interest is subservient to the State's commercial interests (Balooni 2002). Though this act was opposed by the tribal and rural people in many parts of India, their resistance was suppressed by the State and the control over the forest was maintained in the strong grip of the SFD's (Balooni 2002; Bijoy 2008).

However, in 1916, a group of villagers in an Indian State called Uttar Pradesh challenged the State reservation of forests and opposed it severely. As a result of such protests, the Forest Grievances Committee was set up by the State to look into the issue. The committee recommended for reclassification of certain State forests (with low commercial value but of high livelihood value to local people) and permitted to manage those forests by the village councils in the name of Van Panchayats (Balooni 2002; Nayak 2002). Accordingly, those forests were declassified from the status of reserved forest and assigned the new status of revenue forests. The ownership of the forest was transferred to Revenue Department of the State. This was the first incident in India on devolution of forest management rights to local communities. Even now, the State of Uttar Pradesh has about 4800 Van Panchayats (a village level institution in India) managing 244800 hectares of forest area spread over six districts (Balooni 2002).

1.1.2. Post independence period (1947-1970)

The post Independence forest management in India largely followed the British model of forest management except for giving more importance to conservation and ecological protection. The Second Indian Forest policy, enacted in the year 1952 in the independent India asserted that the fundamental concepts underlying the colonial policy were sound and only need to be reoriented (Balooni 2002). The policy assertion on neighbourhood claim on forests is as follows.

"Claims of neighbouring Communities -Village communities in the neighbourhood of a forest will naturally make greater use of its products for the satisfaction of their domestic and agricultural needs. Such use, however, should in no event be permitted at the cost of national interests. The accident of village being situated close to a forest does not prejudice the right of the country as a whole to receive the benefits of a national asset. The scientific conservation of a forest inevitably involves the regulation of rights and the restriction of the privileges of user depending upon the value and importance of the forest, however, irksome such restraint may be to the neighbouring areas" (GOI 1952).

The post 1950 period witnessed large-scale deforestation of forests in India. As an independent nation, the country was launching many developmental projects which were mainly located on forest areas (GOI 1952). In addition to that, the subsidy provided to forest based industries to promote their expansion led to explosion of forest based industries and consequent over exploitation of forests (Balooni 2002). The lack of ownership feel among the surrounding villagers and ever increasing demand on forest products (on account of increase in population) for livelihood needs led to large scale illicit felling and destruction of forests in rural areas (Singh *et al.* 2005).

Concerned with growing forest degradation and its inability to protect the forests from people the State Forest Departments were looking for alternate means to ensure forest protection in 1970's. First, such experiment was initiated in the year 1970 in the State of West Bengal in a district called "Midnapore". In Midnapore forest division, the forest officials involved local people in forest protection under an informal agreement of care and share principle. They sought the co-operation of the people in protection and regeneration of *Shorea robusta* forests in the division and in turn offered particular share from the final felling from forests. This model worked well and adopted by the GOI subsequently and expanded throughout India in the name of joint forest management in 1990.

On the other hand, the villagers were also affected by the growing degradation of forests and resisted deforestation by the State for developmental purpose in certain cases. The tree protection movements like Chipko movement in Uttar Pradesh in 1973 and protest against conversion of Sal forest with teak in Baster district in Madhya Pradesh (Gadgil *et al.* 1983; Singhal 2008) are notable among them. These protests brought some positive change in the Forest Department's view towards the people, which otherwise viewed them as destroyers of forests (Singhal 2008).

Concerned with growing forest degradation and increase in demand for agricultural products (due to sheer growth of population) the GOI constituted the National Commission on Agriculture (NCA) in 1970 to examine and recommend measures for improvement and modernisation of agriculture and forestry. In its report in 1976, NCA recommended for creation of farm forestry to supplement small timber requirement for agricultural progress and as a source of raw material for industry (GOI 1976). Subsequently, the GOI launched a 'social forestry' programme (including 'farm forestry' on private lands and 'community self-help woodlots' on community lands) on a large scale to reduce pressure on the government owned forests. The social forestry programme provided an opportunity for SFD's personnel to enter in dialogue with village communities and to appreciate their skills in tree management. Thus it also laid the foundations for JFM in India (Balooni 2002).

1.1.3. Post 1980 period

The post 1980 period witnessed the emergence of joint forest management in India and democratisation of forest governance to higher extent. The creation of Ministry of Environment and Forests (MoEF) to deal with forest and environmental issues of the nation from the Ministry of Agriculture marked change in the priorities of the forest management.

The third Indian Forest policy, rolled out by the MOEF in the year 1988, called for massive people movement for management of forests. It asserted that

"The life of tribals and other poor living within and near forests revolves around forests. The rights and concessions enjoyed by them should be fully protected. Their domestic requirements of fuel wood, fodder, minor forest produce and construction timber should be the first charge on forest produce" (MoEF 1988).

Closely following the 1988 forest policy, the first policy directive of joint forest management was issued by MoEF in 1990 for involvement of village communities and voluntary agencies (NGO's) in regeneration of degraded forests.

The Forest Department also found it beneficial to adopt to joint forest management model as it reduced the cost borne of monitoring and enforcement of forest, reduction in forest offences and forest fire, improved relation with people, improvement in tree cover and flow of international organisations funds for forestry works (Ballabh *et al.* 2002; Chaturvedi and Godbole 2005; MPFD 2009; Vemuri 2008).

The 73-rd Amendment of the Indian Constitution in 1992 has also facilitated the democratisation of forest governance in the country. This amendment empowered village councils to undertake village level planning for all developmental activities including those relating to forestry, irrigation, and agriculture.

The series of events occurred in MoEF in late 1990's viz. creation of JFM Monitoring Cell in 1998 to monitor the impact of JFM in States, creation of a Standing Committee on JFM in 1998 to review the JFM arrangements in the country, creation of Committee of States for sharing of information on JFM, creation of JFM Network in 2000 to act as a regular mechanism for consultation between various agencies engaged in JFM work and to obtain constant feedback from various stakeholders on the JFM programme for policy formulation, and issue of JFM guidelines to further strengthening the legal footing of JFMC in 2002, has asserted the MoEF's commitment to promote participatory forest management in India.

The Forest Department also adopted to changing policy conditions and actively involved in participatory forest management. As on 2002, about 140,953 sq kilometres of forest area in India was managed under participatory forest management in 22 States (Appukuttannair and Stefanie 2003). About 63,618 Forest Protection Committees (FPC) are involved in forest protection work with the Forest Department in different States.

1.1.4. Resilience of Forest Department

However, despite of these changes in the approach in forest management (from command and control approach to participatory management approach), the Forest Department managed to maintain the ownership right of 98.42% of forest area in India (FAO 2005; FSI 2005). There is also a little change in the Forest Department's structure, function, and outlook over 150 years since its creation (Matta *et al.* 2005; Patnaik 2008; Sarin *et al.*

2003). Thereby, the Forest Department has shown a remarkable capacity to adapt to changing circumstances and to maintain its resilience. One of the prime reasons behind its ability to maintain the resilience could be attributed to the fact that the forest protection and ownership of the forests are under the fold of Forest Department throughout these period. However, these plus points are now under stake with newly enacted "Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006" which grants the right to hold forestland for habitation / agriculture purpose and to protect, conserve and manage the forest to the tribal and forest dependent people of India.

1.2. Background of Forest Rights Act

India has 577 Scheduled Tribal communities numbering 84.32 million (comprising 8.32% of the total population) (Bijoy 2008). The alienation of people right from the forests promoted by the British forest policies has deprived their rights. However the Tribal people continue to live and use forests, facing stiff resistance from Forest Department (Bijoy 2008). The Indian Forest Act, 1927 led to nationalisation of forests and in that process many people residing in forest area became encroachers of forest land and faced the eviction threat by Forest Department (Bijoy 2008).

Adding to this problem, the developmental projects in independent India also had its toll on forests. Many tribal villages and forest dwelling communities were displaced for developmental purposes even without proper compensation package in some case (Bijoy 2008). These displaced people moved into nearby forests and encroached the forest area. They were also facing threat of eviction by State Forest Departments. These social problems led to swelling unrest among the tribal people and some armed movement against the State in many States of India (Bijoy 2008). Further, the Supreme Court of India, ordered the MoEF to carry out eviction of forest encroachments in a time bound manner in 2002, in a forest related case (Patnaik 2008). Following the directions of the MoEF, about 300,000 forest dwellers were evicted from forests between 2002 to 2004 and about 152,400 hectares of land was recovered from their possession by the State Forest Departments in India (Bijoy 2008). The eviction attempts of the SFD's were resisted stiffly by the tribal people and other forest dwellers. Violent conflicts erupted throughout India and it has become a political issue subsequently. Following these issues, the GOI decided to discontinue the eviction attempts and to regularise their occupation in forest by enacting appropriate law to avoid conflicts (Bijoy 2008). This led to evolution of Forest Rights Act.

1.2.1. Evolution of Forest Rights Act

The tribal related issues were led by an organisation called Campaign for Survival and Dignity (CSD) and it was lobbying the GOI to enact Forest Rights Act to solve the problem of tribal people. The GOI engaged in dialogue with CSD since 2004 and decided to enact the FRA on 19/1/2005 in a meeting chaired by the Prime Minister of India. The MoTA (Ministry of Tribal Affaires) was given task of framing the draft bill. The draft bill was finalised by the MoTA and it was introduced in Indian parliament on 13/12/2005.

The bill faced severe opposition for various quarters including forest service, conservationists, wildlife enthusiasts, tribal people, and other forest dwellers. The main issues were

- 1. The tribal people demanded for integration of forest rights and forest protection rights.
- 2. The draft bill was only covering the interest of scheduled tribes (ST). The other forest dwellers and displaced forest dwellers were also demanding to include them in the ambit of the bill.
- 3. The cut off date proposed for regularisation of encroachments in the year 1980 was not acceptable to the forest dwellers.
- 4. The regularisation of 2.5 ha area of forestland for each tribal family was not acceptable to environmentalists, wild life lobby and forest bureaucracy as it would lead to reduction in forest area (about 2% of recorded forest cover) and fragmentation of habitat.
- 5. The provision of keeping "Core area" in protected areas and providing provisional right for 5 years in such core areas as proposed by the MoEF in the draft bill was not acceptable to forest dwellers.
- 6. The draft bill proposed committee, for regularisation of encroachment was consisting of officials from district and sub district level only. The forest dwellers demanded inclusion of non-official members in the Sub divisional level committee and district level committee (Source-Bijoy 2008; Das 2008).

Therefore, the bill was referred to the Joint parliamentary committee (JPC) for reexamination. The JPC made countrywide consultation and modified the bill as under.

- 1. It included a clause on forest protection rights in the revised bill.
- 2. It enlarged the ambit of the bill by including "other traditional forest dwellers".
- 3. It changed the cut off date for regularisation as 13/12/2005 (the date on which the bill was presented in parliament).
- 4. It increased the land ceiling for allotment to 4 ha.
- 5. It dropped the concept of "Core Area" and introduced a new concept called "critical wildlife habitats" with the condition that these should be established on a scientific basis, through a process of broad consultation.
- 6. It included non-official members in the Sub Divisional, District, and State level committees to make it a democratic structure (Source-Bijoy 2008; Das 2008).

The bill was reintroduced in the Indian parliament with JPC's recommendations on 23 May 2006. However it was opposed by tribal groups, other forest dwellers and other stakeholders of forests (Patnaik 2008; Springate-Baginski *et al.* 2008). The main issues raised were:

- 1. The definition of "forest dwellers" mentioned in the revised bill, which included only those residing 'in' forest—was not acceptable to forest dwellers.
- 2. The eligibility criteria chosen for other forest dwellers (i.e. proof of three generations of stay in forest) was not acceptable to forest dwellers.
- 3. The definition of "Gram Sabha" (village assembly) was changed in the revised bill to include the Revenue Panchayats (Institution of local rural self-governance) and not the hamlet based Panchayats. This change was not acceptable to the tribal people.
- 4. The power of the Gram Sabha in deciding the claim was limited only to initiate the process while, the final power was in the District level committee. This provision was not acceptable to the forest dwellers.
- 5. Bill was silent on rights of the shifting cultivators. The tribal people insisted to include the shifting cultivation rights (Bijoy 2008; Das 2008).

The act was again referred to "Group of Ministers (GOM)" to sort out the issue (Bhullar 2008). The GOM examined the bill and made some changes in the JPC recommendation and reintroduced it as "Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Bill, 2006 (the 'revised Bill'). The bill was passed in Indian parliament on 18/12/2006 (Bhullar 2008).

Subsequently, the MoTA set up a technical support group, consisting of government officials, NGO's, civil activists and experts to prepare the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Rules, 2007 (the 'draft Rules'), which supplement the procedural aspects of the Act. The panel convened consultative meetings with State officials and civil society groups throughout India and prepared the draft rules. The draft rules were ratified by the GOI and the final rules were notified on 1 January 2008 (Bijoy 2008).

However, the implementation of act was delayed due to number of public interest litigations raised in the Supreme Court of India, challenging the constitutional validity of the Forest Rights Act on the ground that distribution of land is a State government subject, and parliament direction in this regard is unconstitutional. This delayed the process of implementation and courts granted interim relief around March 2008 and implementation of Forest Rights Act Stated around April 2008.

1.3. Salient feature of Forest Rights Act

The Forest Rights Act claims that it is aimed at removing historic injustice rendered to the tribal people and other forest dwellers since colonial rule in India (MoTA 2007a).

The salient features of the act are given below.

Chapter 3 (1) of the act States that "for the purpose of this act, the following rights which secure individual or community or both shall be the forest rights of forest dwelling scheduled tribes and other traditional dwellers on forest land".

Chapter 2. 3(1) (a)

"Right to hold and live in the forest land under the individual or common occupation for habitation or for self cultivation for livelihood by a member or members of a forest dwelling Scheduled Tribe or other traditional forest dwellers".

Chapter 2. 3(1) (b)

"Community rights such as nistar (entitlement of tribal people to usufruct from the forests for their domestic needs), by whatever name called, including those used in erstwhile Princely States (kingdoms), Zamindari (landlord) or such intermediary regimes".

Chapter 2. 3(1) (c)

"Right of ownership, access to collect, use, and dispose of minor forest produce which has been traditionally collected within or outside village boundaries".

Chapter 2. 3(1) (d &l)

"Other community rights of uses or entitlements such as fish and other products of water bodies, grazing (both settled or transhumant) and traditional seasonal resource access of nomadic or pastoralist communities;

Any other traditional right customarily enjoyed by the forest dwelling Scheduled Tribes or other traditional forest dwellers, as the case may be".

Chapter 2. 3(1) (f, g & h)

"Right in or over any disputed lands under any nomenclature in any State where the claim is disputed".

"Rights for conversion of Pattas or leases or grants issued by any local authority or any State Government on forestlands to titles".

Right of settlement and conversion of forest villages into revenue villages".

Chapter 2. 3(1) (I)

"Right to protect, regenerate, or conserve or manage any community forest resource, which they have been traditionally protecting and conserving for sustainable use".

Chapter 4. 6(1)

"The Gram Sabha shall be the authority to initiate the process for determining the nature and extent of individual or community forest rights or both".

1.4. Potential implication of Forest Rights Act on Forest Department

The following passage elaborates the likely implication of Forest Rights Act on Forest Department works and potential issues. Thereby it forms basis for problem Statement.

1.4.1. Chapter 2. 3(1) (a)

The right to hold conveys permanent handing over of habitation right of forestland to the individuals, even though the ownership right of the land remains with the State (MoTA 2009b; Springate-Baginski *et al.* 2008). The act defines forestland as "existing or deemed forest, protected forest, reserved forest, sanctuaries, and national parks". These forests are largely owned and managed by the State Forest Departments.

The transfer of holding rights was opposed by the MoEF at the formative stage of the act as it would involve transfer of holding right of 1.25-1.34 million hectares of recorded forest land (about 2% of recorded forest area of India) to individuals and it could affect the MoEF's national goals of achieving 33% tree cover (Bhullar 2008). Beside that the forest ministry and wildlife lobby were also critical about in situ regularisation of encroachments which may result in fragmentation of the habitats (Bhullar 2008).

Since the act is already enacted, the Forest Department has to evolve means to make up the reduction in forest area and fragmentation problem.

1.4.2. Chapter 2. 3(1) (b)

This provision of the act permits unrestricted entry to the beneficiary of the act, to collect their bona fide domestic needs from the forest. Whereas, the Forest Rights Act also States that these provisions are in addition to existing laws like Indian Forest Act, 1927, Forest Conservation Act, 1980 etc. and not in derogation to any other law existing in force (MoTA 2007a). As per the provisions Indian Forest Act 1927 and Wildlife Protection Act, 1972, entry into the forest and collection of forest produce without prior permission from the Forest Department is a punishable offence (GOI 1927a, 1972). Due these conflicting provisions of the above said acts, redefining position of the Forest Department under different laws is essentials to avoid conflict on ground.

1.4.3. Chapter 2. 3(1) (c)

The transfer of complete ownership right of NTFP to village council is expected to break the monopoly of the Forest Department in this sector (Springate-Baginski *et al.* 2008).

Presently there are extensive State legislations and administrative regulations that govern the collection, sale and transit of NTFP in all States of India (Springate-Baginski *et al.* 2008). For instance, in the State of Orissa and Madhya Pradesh Tendu (*Diospyros*

melonoxylon) leaf has been nationalised and all the rights on Tendu leaf rests with the government (MPSFP(T&D)CF 2009). The collection and sales are organised through State NTFP trading federation (organisations established by the State to carry out collection and sale of nationalised NTFP's). Whereas, due to the Forest Rights Act, the ownership right of all nationalised NTFP has been transferred to communities. Therefore, the Forest Rights Act necessitates new institutional arrangements to deal with the NTFP and probable lose of authority of Forest Department on NTFP's marketing and control.

Few Forest Departments already suggested that this provision should not be implemented in places where existing system works wells and people get majority of sale proceed from nationalised NTFP (Springate-Baginski *et al.* 2008). For example in case of Madhya Pradesh about 60% of revenue earned from the NTFP sale is ploughed back to collectors, 20% invested on NTFP development and improvement of forests and 20% retained for infrastructure development (MPSFP(T&D)CF 2009). The Forest Departments also apprehensive that sudden change in the NTFP working pattern could destabilise the market and could have negative impact on collection price (Patnaik 2008). However, it is a contentious issue and need to be sorted out on consultation with stakeholders.

1.4.4. Chapter 2. 3(1) (d &l)

The community rights, which are not in consistence with Forest Department's programs likely to lead to conflict. For example, grazing control is an important component in joint forest management programs (Ballabh *et al.* 2002). Permitting grazing rights in Forest Department plantations and restricted coupes would affect Forest Department's interest and might lead to conflicts.

Similarly shifting cultivation rights may not be acceptable to Forest Departments. These incompatible issues need to be sorted out to avoid conflicts and forest deterioration.

1.4.5. Chapter 2. 3(1) (I)

The term community forest resource is defined by the act as "the land within the traditional or customary boundaries of the village or seasonal use landscape in case of pastoral communities, including reserved forests, protected forests, and protected areas such as sanctuaries, national parks to which the community had traditional access" (MoTA 2007a).

Further, the section 5 of the Forest Rights Act empowers the right holders and village council to: (1). Protect wild life, forest, and biodiversity, (2). Ensure that the habitat of the forest dwellers are preserved from any form of destructive practises affecting their cultural and natural heritage, (3). And to ensure decisions taken in village council to regulate access to community reserve and to stop any activity which adversely affects wild animal, forest, and biodiversity is complied with (MoTA 2007a).

Whereas, the Forest Rights Act has not specified the term traditional access. Therefore if the village councils decide to manage the government forests, where they claim to have traditional access, the conflict with Forest Department is inevitable (Springate-Baginski *et al.* 2008).

Alternately, since the village council is empowered to manage the forest resources, it becomes important stakeholder in resource management and Forest Department may need to accommodate the village council's interests in a larger way. This may lead to change in decision-making pattern and power relations between Forest Department and village council.

1.4.6. Chapter 4. 6(1)

As per the 73rd Indian Constitutional amendment enacted in the year 1993, the village councils are responsible for preparing plans for the management and development of natural resources within their boundaries (Bose 2006). As per the Forest Rights Act they are empowered to manage the community resources (which includes government forests if they had traditional access) (MoTA 2007a). Thereby a condition of two parallel power structures (Forest Department and village council) for management of same natural resource has emerged. This could lead to conflict due to differing interests (Bose 2006).

Because of political nature of Panchayat Raj Institutions and elite domination in village councils, the Forest Department often suspects their interests on forest and believe that they may destroy it for quick gains (Behera and Engel 2006b; Bose 2006). According to Hobley, 1996) the decision making power in village council are heavily politicised and may not be in the interest of the forests. Therefore, the Forest Department often tend to avoid village council in forestry issues and route the forest development funds through joint forest management committees (Bose 2006). Whereas, due to devolution of forest management powers to Gram Sabha by Forest Rights Act, the Forest Department cannot avoid it in forestry issues and may need to redefine its position.

Moreover, if the community forestry works taken up by the village councils, the Forest Department is likely to lose the donor support for community based forest programs (Springate-Baginski *et al.*, 2008). As the village council are often deprived of funds, community forestry projects could be a better proposition for them to get more funds for village developments (Bose 2006). Therefore, community forestry could become source of conflict between Forest Department and village council.

More over the Forest Rights Act transfer the management rights of community forests to village council. Thereby the Forest Department created institutions for managing community forests such as Joint Forest Management Committee, Forest Protection Committee, Eco Development Committee etc. lose importance. Since the Joint Forest Management Committee (JFMC) were funded by Forest Department and works under its prescriptions, the Forest Department have lot of say in their decision making process (Bingeman *et al.* 2004; Matta and Kerr 2007; Sarin *et al.* 2003). Besides that they joint forest management committee is not a constitutional structure or formal institution. Thereby its position is very feeble and Forest Department said to often take advantage of these facts (Sarin *et al.* 2003)

Whereas the village council is a constitutionally recognised body and have its own funding mechanism from the State. The Forest Department also do not have any direct control over their action. Thereby, the approach of Forest Department towards the village council is likely to be on a different footing in comparison to JFM committees. Therefore redefining power balance, changes in decision-making process are inevitable.

1.5. Problem Statement

Based on the literature review elaborated above, the following potential issues connected with implementation of Forest Rights Act forms problem statement of the study.

- Reduction in forest area to the tune of 1.25 -1.34 million ha (2% of recorded forest cover of India) forestland due to transfer of holding rights to the beneficiaries of Forest Rights Act and consequent increase in work load of Forest Department to make up the loss in handed over forest area to achieve its national goal of establishing 33% forest cover (Bhullar 2008; MoEF 1988).
- The fragmentation of forest habitat due to in situ regularisation of encroachments (Bhullar 2008).

- Incompatibility of certain provisions of Forest Rights Act with other acts (IFA, 1927, WPA, 1972 etc.) may warrant for establishing dialogue with the stakeholders to avoid potential conflicts (GOI 1894, 1927b, 1952, 1972; MoEF 1988, 2006; MoTA 2007a).
- Necessity to establish linkage with the Gram Sabha to manage community forests (including government forest where they had traditional access) as they are on equal footing as that of Forest Department due to Forest Rights Act (MoTA 2007a).
- Consolidating Forest Department's position in forestry decision making process due to change in power relations (improved voice of Gram Sabha on natural resource management and decision making process) emerging from Forest Rights Act (Bose 2008; Bose 2006; MoTA 2007a)
- Probable loss of monopoly of Forest Department over the NTFP management and regulation due to transfer of complete ownership rights of NTFP to village council.
 Redefining the role of State NTFP federations and involving village institutions in NTFP management is also likely to happen in the changed scenario (Patnaik 2008).
- Incompatible community rights like grazing, shifting cultivation etc. which are not favoured by the Forest Department laws need to be reworked in consultation with stake holders (Ballabh *et al.* 2002).

These implications may test resilience of the Forest Department and provide scope to study the dynamics in implementation. Due to above said problems, despite of enactment Tribal Act, in 2006, only little progress has been achieved by SFD's in India (David 2009). The status report on implementation of Forest Rights Act as on 31st August 2008 given below justifies this claim (Table 1).

S. No	State	Claims received	Title deeds distributed	
1.	Andhra Pradesh	2,95,000	2800 (approx.)	
2.	Arunachal Pradesh		ready	
3.	Assam			
4.	Bihar			
5.	Chhattisgarh	2,50,000	15,000	
6.	Goa			
7.	Gujarat			
8.	Himachal Pradesh			
9.	J&K			
10.	Jharkhand			
11.	Karnataka			
12.	Kerala			
13.	Madhya Pradesh	2,53,000	5000 (approx.)	
14.	Maharashtra			
15.	Manipur			
16.	Meghalaya			
17.	Mizoram			
18.	Nagaland			
19.	Orissa			
20.	Rajasthan	34,370	883 ready	
21.	Sikkim			
22.	Tamil Nadu			
23.	Tripura			
24.	Uttar Pradesh			
25.	Uttaranchal			
26.	West Bengal			
27.	A & N Islands			
28.	Daman & Diu			
29.	Dadra & Nagar Haveli			
30.	Lakshadweep			
		1		

(Source: MoTA, 2008)

Table 1. Status of FRA implementation as on 31/8/2009.

Among the four States (viz. Andhra Pradesh, Chhattisgarh, Rajasthan, and Madhya Pradesh as indicated in Table. 1) which are actively working on Forest Rights Act, the central Indian State Madhya Pradesh leads all. Thereby it appears that the Madhya Pradesh Forest Department has already geared up to face the changes emerging from implementation of the Forest Rights Act. Hence, it forms perfect place to study the organisational behaviour to policy changes and effect of the changes on resilience of the institution. In addition to that, the following factors also add significance for conducting study in Madhya Pradesh.

1. Madhya Pradesh is the largest Indian State in area and the sixth largest in population. Forests account for 35% of the State's geographic area and represent 20% of the total

forest area of India. 30,000 of the State's 71,526 villages are located within or on the fringes of forests. 90% of the State's Scheduled Tribe population (representing 22% of its total population, and the largest Scheduled Tribe population among Indian States) lives within or near forests. 44% of the State population lives below the poverty line and 80% of this percentage in concentrated in forest areas (Sarin *et al.* 2003)

- 2. The Madhya Pradesh State government was the first State to issue joint forest management resolutions in 1991 has been pro active in forest policy reforms and empowering the village level institutions historically (Bose 2006; Sarin *et al.* 2003).
- 3. The State has many parallel forest institutions at village level (viz. 14,073 Joint forest management committees) and most of the government schemes are implemented by the Madhya Pradesh Forest Department through joint forest management committee and not by village councils (Chaturvedi and Godbole 2005).

Therefore, the study would be conducted in the Forest Department of Madhya Pradesh in India.

1.6. Objective

The objective of the study is to assess the effect of the Forest Rights Act on Madhya Pradesh Forest Department working and its resilience.

Thereby the study seeks to understand current system of working of Madhya Pradesh Forest Department, likely changes it would undergo following the implementation of Forest Rights Act, its strategy to deal with the changes and effect of the changes and strategies on resilience of the Madhya Pradesh Forest Department. From the analysis, the configuration of current system of Madhya Pradesh Forest Department to its mandate in the changed scenario would be assessed and some recommendation for improving organisational efficiency would be suggested.

1.7. Research questions

Since the study issues (change and adaptation) are closely related to resilience of the system (Walker *et al.* 2004) the study was dealt from resilience angle.

According to resilience literatures, the resilience of a system need to be considered in terms of its attributes (viz. Resistance, Latitude, Precariousness and Panarchy) that govern the system dynamics (Walker *et al.* 2004). Thereby, the study of system dynamics such as how

the system view the change caused by the perturbation, visualise the effects and adapt and respond to it, provides scope to understand its resilience.

Basing this concept, the following research questions would be investigated in the study to understand the attributes related to system dynamics and its effect on global resilience of Madhya Pradesh Forest Department.

- 1. Attitude of the Madhya Pradesh Forest Department officers working at various working levels (State, District and Village levels) to changes emerging from the implementation of Forest Rights Act (Resistance),
- 2. The perceived extent of changes on the Madhya Pradesh Forest Department on account of Forest Rights Act (Latitude),
- 3. The perceived threat to the existing system of Madhya Pradesh Forest Department (Precariousness),
- 4. The perceived position in changed policy environment (Adaptation and Panarchy)

1.8. Structure of thesis

The thesis is organised in seven chapters. The contents of the individual chapters are elaborated below.

The first chapter of the thesis outlines the evolution of State forest administration in India, system of working, background, development of Forest Rights Act, its implication of State Forest Departments. It also gives account on problem Statement, objective of the study and research questions.

The second chapter provides theoretical background of resilience concepts, definitions, and various theories connected with Social Ecological Systems, resilience of institutions and the purpose of resilience study.

The third chapter deals with the frameworks for assessment of resilience and theoretical approach to the current study and research methodology. It elaborates research approach, data collection procedure, questionnaire details, data analysis method and over all research design.

The fourth chapter describe the current system of working of Madhya Pradesh Forest Department. It elaborates its structure, function, cross scale interactions, continuity, feedback

mechanisms, innovation, and self-organisational skills. It also elaborates the results of time line analysis and application of adaptive cycle theory to Madhya Pradesh Forest Department and sets the background for analysis.

The fifth chapter provides the details of data analysis and results. It gives information on details gathered in the study, data analysis procedure, and elaborates results under various themes developed from the study.

The sixth chapter elaborate the discussion of results. The chapter provides holistic picture of information gathered, links between the results and existing theories, theoretical and managerial implications of the findings etc.

The seventh chapter deals about the conclusions and recommendation. It sums up the main research findings and explains the limitations of the study presenting some recommendations for future research.

The references, list of websites referred and annexes and presented in the end of the thesis.

2. Theoretical background of research

2.1. Background information on resilience studies

The concept of resilience has its origin in ecology and increasingly applied in analysis and management of Social Ecological Systems (SES) including institutions in recent times (Walker *et al.* 2004; Walker *et al.* 2006). According to literatures, it is being widely applied in studies related to social learning, social memory, mental models and knowledge—system integration, visioning and scenario building, leadership, agents and actor groups, social networks, institutional and organizational inertia and change, adaptive capacity, transformability and systems of adaptive governance (Folke 2006; Folke *et al.* 2005; Lebel *et al.* 2006; Olsson *et al.* 2004).

2.2. Definitions

The concept of resilience in ecological science is defined as "the buffer capacity or the ability of a system to absorb perturbations, or the magnitude of disturbance that can be absorbed before a system changes its structure by changing the variables and processes that control behaviour" (Holling 2001). However, it is used in different context in engineering and social science. The characteristics of the resilience concept in other branch of studies, as described by Floke (2006) are given below (Table. 2).

Resilience concept	Characteristics	Focus on	Context
Engineering	Return time,	Recovery, constancy	Vicinity of a stable
resilience	efficiency		equilibrium
Ecological /	Buffer capacity,	Persistence,	Multiple equilibria,
ecosystem resilience	withstand shock,	robustness	stability landscape
Social resilience	maintain function		
Social – ecological resilience	Interplay disturbance, reorganisation, sustaining and developing	Adaptive capacity, transformability, learning innovation	Integrated system feedback, cross scale dynamic interaction

(Source: Folke 2006)

Table 2. A sequence of resilience concepts in SES context

In case of SES, the resilience is defined as "the capacity of a system to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity, and feedbacks" (Walker *et al.* 2004). It also focus on dynamics of the system, existence and interactions of sub systems operating at particular organisational scales and existence of multiple stable States (Adger 2000; Walker *et al.* 2004).

2.3. Attributes of resilience

According to Walker et al. (2004), the resilience has four attributes Viz.:

Resistance: "The ease or difficulty of changing the system; how "resistant" it is to being changed".

Latitude: "The maximum amount a system can be changed before losing its ability to recover (before crossing a threshold which, if breached, makes recovery difficult or impossible. Threshold is defined as a point between alternate regimes in ecological SES)".

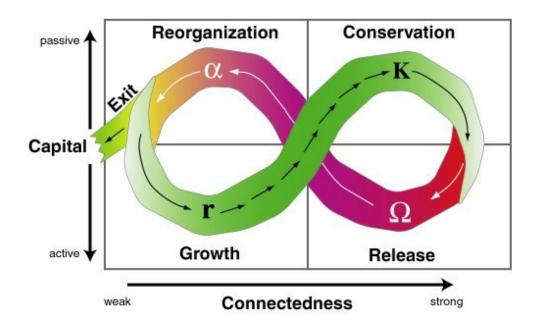
Precariousness: "How close the current State of the system is to a limit or threshold."

Panarchy: It refers to the relative stability of a sub system on account of cross scale interactions among the other subsystems that exist above and below and influence it.

Together these attributes affect the adaptive mechanism of the SES and influence the resilience of the system. The adaptive mechanism is explained as an adaptive cycle consisting of four different stages in ecological theory.

2.4. Theory of adaptive cycle

According to adaptive cycle theory in ecological science, the adaptive cycle is consisting of following stages (Fig. 1),



(Source – Holling 2001)

Figure 1. Adaptive cycle diagram.

The adaptive cycle involves the movement of a system through four phases: a period of rapid growth and exploitation (r); leading into a long phase of accumulation, monopolization, and conservation of structure, during which resilience tends to decline (K); a very rapid breakdown or release phase (creative destruction (Ω)); and, finally, a relatively short phase of renewal and reorganization (α) (Holling 2001). If the system retains sufficient of its previous components in α phase, it can reorganize to remain within the same configuration as before (Ascher 2001). However this stage also give scope for entry of new institutions, ideas, policies and could lead to "new", emerging system, with the same or a different configuration and gains resilience (Walker *et al.* 2002).

This adaptive cycle is used as a guide in assessing SES dynamics as it emphasizes the importance of changes in resilience and focuses on the timing of management interventions.

2.5. Resilience of institutions

Basing on these concepts elaborated above, the resilience of institutions has been defined as (1) the amount of change that a system can undergo while still maintaining the same controls on structure and function; (2) the system's ability to self-organize; and (3) the degree to which the system is capable of learning and adaptation (Carpenter and others 2001).

2.6. Purpose of resilience study

The study of resilience has gained considerable importance in political ecology in recent times as it is closely associated with actions that govern natural resource management (Cumming *et al.* 2005). The political ecology focus on political, economic and cultural factors underlying human use of natural resources and the complex interrelations among people and groups at different scales. The resilience based approaches are used for developing management solutions as an alternative to command and control systems and adaptive management systems to generate and protect social – ecological well being (Cumming *et al.* 2005). It is also useful to identify the drivers that forms the basis for resilience and to locate the strategy to either enhancing or reducing the influence of drivers on overall system so as to achieve the desirable configuration of the management system (Cumming *et al.* 2005; Walker *et al.* 2002)

3. Research Methodology

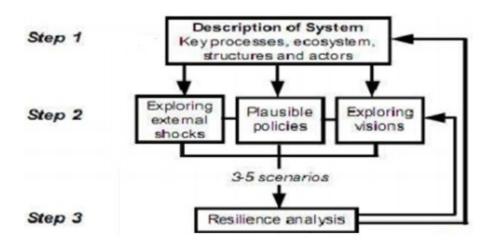
3.1. Frameworks for assessment of organisational resilience

In order to assess the resilience of the SES various methodological approaches has been devised by various scholars (Anderies *et al.* 2004; Bellamy *et al.* 2001; Cumming *et al.* 2005; Endter-Wada *et al.* 1998; Peterson 2000; Plummer and Armitage 2007). The approaches ranging from nonlinear models, ecosystem based approach, scenario based analysis and testing of hypothesis. However the framework varies depending on the situations and other variables as each SES is unique in its own way (Walker *et al.* 2002).

For analysis of resilience in institutions with participatory mode of working, Walker *et al.*, (2002), has proposed a framework consisting of following stages:

- 1. Description of system (key processes, structure, actors, historical profile and important drivers that supply the goods and services);
- 2. Identifying the range of unpredictable and uncontrollable drivers, stakeholder visions for the future, and contrasting possible future policies, weaving these three factors into a limited set of future scenarios;
- 3. Using the outputs from steps 1 and 2, developing simple models of the system's dynamics for exploring attributes that affect resilience (Walker *et al.* 2002).

The framework is schematically depicted as follows (Fig. 2),



(Source: Walker et al., 2002)

 $\label{eq:Figure 2.} \textbf{Framework for analysis of resilience in SES}$

Since the present study is relating to analysis of Madhya Pradesh Forest Department as an institution, it is proposed to use the framework devised by the Walker *et al.*, (2002).

For defining the system, it is proposed to use the variables suggested by Cumming *et al.*, (2005) in the "exploratory framework for empirical measurement of resilience" in conjugation with the Walker *et al.* (2002) framework, as it provides clear guidelines for defining the system. The variable suggested by Cumming *et al.*, (2005) equates resilience with identity and it defines identity as a property of key components and relationships (networks) through space and time. It also inclusive of innovation, memory and self organisation and its effect on system resilience (Cumming *et al.* 2005).

As per the Cumming *et al.* (2005) framework, the system components refer to pieces of the system (human actors in case of institutions) and boundaries of the system (implicitly or explicitly). The relationships refer to ways in which the system components interact or fit together. Continuity refers to ability of the system to maintain itself as a cohesive entity through space and time. Innovation refers to subsets of the system that generate change or novelty. System memory refers to laws, legacies, customs, and knowledge base available with the system. The parameter also calls for a focal point against which the system resilience would be assessed.

Based on these conceptual frameworks, the theoretical approach of study is proposed as under in Fig. 3.

3.2. Theoretical approach to study

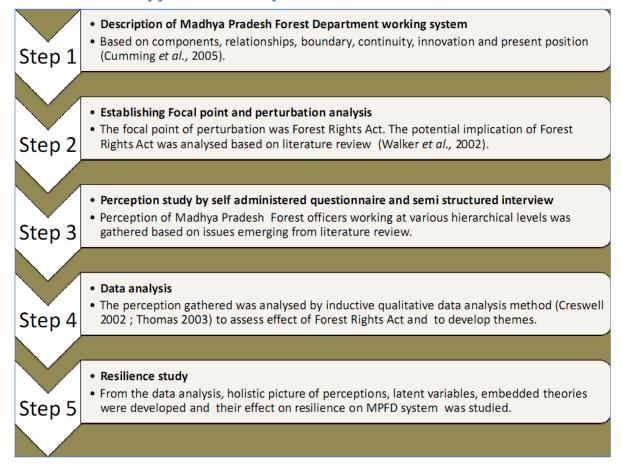


Figure 3. Theoretical methodology of research

3.3. Selection of research technique

3.3.1. Research Approach

Since the purpose of the study is to gather the individual's perceptions relating to specific issue, it falls in the ambit of social science research. Hence, it was decided to follow the decision tree proposed by Bliss (1999) for research in social science (Fig. 4), to select relevant research approach.

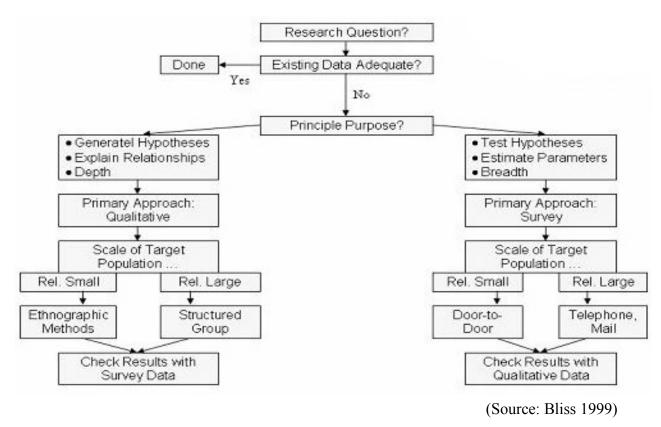


Figure 4. Simplified social science research decision tree

As Forest Rights Act is a recently enacted legislation and actual implementation on ground started only in April 2008, very few secondary source of information was available for understanding the issues relating to the research questions. Therefore, based on nature of the study and following the sequence of the decision tree (Fig. 4), the "qualitative research approach" was selected for the research purpose. Qualitative research is defined as a "process of inquiry with the goal of understanding a social or human problem from multiple perspectives; conducted in a natural setting with a goal of building a complex and holistic picture of the phenomenon of interest" (Creswell 2008). As the study intend to produce a

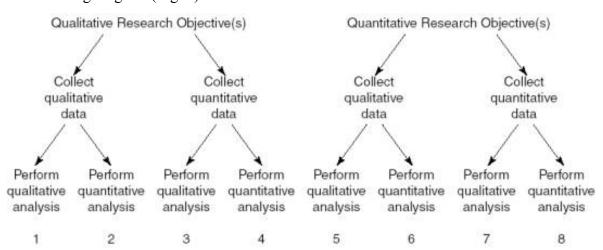
holistic picture of the Forest Rights Act effects and its consequences to resilience of Madhya Pradesh Forest Department, the qualitative approach was considered appropriate.

3.3.2. Sample size decision

For selecting the target population size, the objective was referred to. As the study covers the forest officers' perception and requires personal information in terms of many attributes, it was decided to have small sample size. According to Creswell (2002), a sample size of 30 participants is often considered as minimum to achieve desirable result in qualitative data analysis studies. Following this guideline, 33 forest personnel from the Madhya Pradesh Forest Department (as explained chapter 4.3.2) were selected for the study.

3.3.3. Research method

Again following the sequence of decision tree (Fig. 4), the "ethnography method" was selected for study purpose due to small sample size. Ethnography is defined as an art and science of describing a group or a culture (Creswell 2008). A cultural group can be any group of individuals who share a common social experience, location, or other social characteristic of interest (Creswell 2008). The ethnographic techniques essentially based on careful observation, questioning, and recording so as to understand topic under study from insiders' perspective. Since the study objectives calls for forest officers view on changes emerging from Forest Rights Act, the ethnography techniques considered as a best match for the purpose of the study. However, to facilitate the interpretation and typology analysis, limited quantitative analysis was preferred at the end of qualitative analysis (at the cross over stage). Hence, it was decided to adopt "across the stage mixed model research" as mentioned as 1 and 2 in the following diagram (Fig. 5).



Source: http://www.southalabama.edu/coe/bset/johnson/lectures/lec14.htm

Figure 5. Mixed model research approaches

3.3.4. Sampling method

As the study is connected with Forester's perception and closely related to their field of work, purposive sampling procedure was selected. In order to enhance the qualitative information from different perspectives, it was decided to adopt the "maximal variation sampling technique" as proposed by Creswell (2008). Therefore, officers working at different level of hierarchy/ position (State level officers involved in policymaking and direction setting of the Department, district level officers involved in overall execution of works at district level and frontline staff involved in forest protection and execution of work at ground level) were selected to capture varied information. In case of the State level officers, key informants (viz. head of the State forest service, head of different wings etc.) was selected on basis of key informant selection method. For district level, officers and village level staff snowball sampling procedure was adopted to select the sample.

3.3.5. Information gathering

Two types of information gathering were aimed at. The primary information gathering was based on a questionnaire designed in such a way to reveals the reasons behind the perceptions and strategies. Secondary information was gathered by collecting various government records, reports and other written materials.

For the primary information gathering three types of self-administered questionnaires were designed and sent by email to the officers. In case of village level officers, the questionnaire was translated in Hindi language and sent in bilingual form through the respective Divisional Forest Officers. The information was gathered by email or semi structured telephonic interview, following the questionnaire according to the preference of the respondents.

3.4. Questionnaire

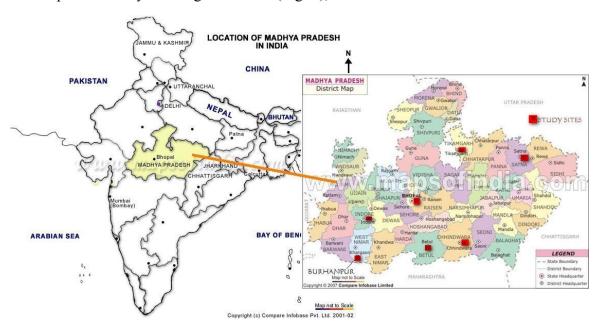
The questionnaire was designed based on the nature of the work handled by the officers. The perception of officers on various provisions of the Forest Rights Act was gathered among all working levels. In addition to that, for the State level officers, the emphasis was given for objective of the Forest Department and its position in the changed environment. In case of district level officers the information on how do they view their job, knowledge on Forest Rights Act, effect of Forest Rights Act on Joint Forest Management and Forest Department position in changed condition was given emphasis. In case of village level officers, the information on how do they describe their job, knowledge on Forest Rights Act, effect of Forest Rights Act on Joint Forest Management and their position in condition was

given emphasis. The questionnaire prepared for all the working levels is mentioned in the annex no. 3.

3.5. Study Area

During the study, the perception of officers working at seven districts of Madhya Pradesh State was gathered. At the State level, majority of the officers covered in the study were working in the State capital Bhopal. In case of district level officers, the sample was consisting of officers working in five districts viz. Satna, Burhanpur, Indore, Tikamgarh, and Chhindwara in the State of Madhya Pradesh. In case village level officers, all were selected from two districts viz. Satna and Burhanpur. In all 45 questionnaires were sent out and 33 responses were received (73% response rate) and interviewed subsequently.

The map of the study area is given below (Fig. 6),



(Source - Partly adopted from Maps of India website)

Figure 6. Study area in MP State

3.6. Respondent details

For the purpose of the study three distinct levels of officers, working at various level of hierarchy of the Forest Department were selected. The histogram showing the respondents designation and position is given below (Fig. 7).

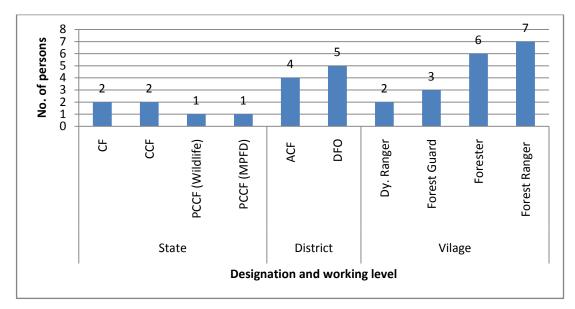


Figure 7. Respondents and their working positions

The officers working in the position of PCCF to CF were included in the State category. The respondents at the State level included head of the State Forest Department (PCCF Madhya Pradesh Forest Department) and head of the State wildlife wing (PCCF, Wild life). Their work mainly involves setting of management direction of the Forest Department, evolving policy and monitoring of progress of the Department. Majority of the respondents were male (5) and only one respondent was a female officer. The mean age of the officers at the State level was 53.

In case of the district level officers, nine officers working in five districts were selected. For the category purpose, the officer working in the capacity of DFO and Sub district level officers (ACF) were included in the district category. Their work is mainly related to management of forests at district/sub district level and execution of various forest related schemes implemented by the Madhya Pradesh Forest Department. Besides that, they are also responsible for protection of the forest in their jurisdiction and co ordination of forest related works at the district level. The respondent sample consists of only one female officer and rest male. The mean age of the respondents was 43.

In case of village level officers, officers falling in the ranks between Forest Guards to Forest Ranger were included in the village category. They are the cutting edge of the Madhya Pradesh Forest Department and responsible for protection of forest in their area and execution of forest related schemes (joint forest management, forest harvesting, creation of plantations, meeting the community needs, regulating movement of forest produces etc.). This particular group does not include any woman officer and the mean age of the group was 49.

3.7. Data analysis

The different questionnaires were sent to the officers through email. Following the email correspondence, appointment for interview was fixed in case of State level officers and district level officers who preferred discussion over phone and interviewed based on the questionnaire. Their interview was recorded with their permission. In some cases, the response was noted down when recording request was declined. In some cases, the response was received in the email or as a scanned copy of questionnaire reply (mainly from the village level officers whose access was coordinated by the district level officers). Most of the scanned questionnaires were in Hindi language, and hence it was translated to English. The translation also necessitated re-contacting the field level staff to some extent. Thereby, the interview data was available in four main forms viz. recorded interviews, email responses, interview notes, and scanned questionnaires replies.

The information gathered was transcribed to MS Word and subjected to the technique of "general inductive data analysis method" evolved by Creswell, (2002) through qualitative software called Atlas.ti.

The data analysis procedure involves the following steps:

Preparation of raw data file: the information gathered from the questionnaire, telephonic interview etc. was transcribed and brought in same format for easy reading and establishing links across categories. The raw data was classified according questions and would be subjected to further analysis.

Identification of theme: in order to identify the major theme and to have general understanding of the data, close, and multiple reading was given to the text data and themes were highlighted using word processor packages.

Creation of categories: the deductive and inductive approach was applied to the raw data to draw the major categories. The research questions (deductive approach) were used to gather the major categories from multiple reading and interpretation of raw data (inductive approach) as prescribed by Thomas (2003). In vivo coding procedure was used to identify the actual phrases in specific text segments.

Assessing overlapping coding and uncoded text: at the end of the coding procedure, the codes were assessed for overlapping. The Uncoded text data, which considered unimportant at

initial reading, was reassessed with emerging codes to avoid loss of valuable data in summarizing process.

Refinement of category system: the consolidated categories were given further reading for assessing the possibility of establishing sub topic, typology, links, or new insights. By merging fairly relevant categories 8 categories were evolved as per the existing procedures in qualitative data analysis works (Creswell 2002).

Uncovering embedded information: from the finalised categories through labelling, describing category, locating text associated with each category, the links as well as embedded theory or model or perceptions were developed and discussed (Thomas 2003).

In nutshell, the data analysis followed the following framework (Table. 3)

Initial read through text data	Identify specific segments of information	Label the segments of information to create categories	Reduce overlap and redundancy among the categories	Create a model incorporating most important categories
Many pages of text	Many segments of text	30-40 categories	15-20 categories	3-8 categories

Note: Adapted from Creswell, 2002, Figure 9.4, p. 266

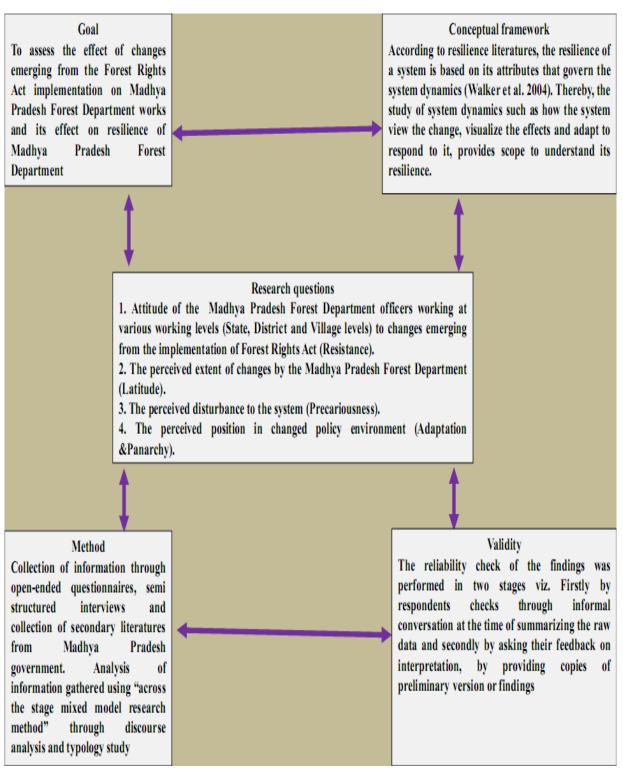
Table 3. The coding process in inductive analysis

3.6. Reliability check

The reliability check of the findings was performed in two stages viz. Firstly by respondent's checks through informal conversation at the time of summarizing the raw data and secondly by asking their feedback on interpretation, by providing copies of preliminary version or findings (Ockwell 2008; Thomas 2000; Thomas 2003)

3.8. Overall research design

To summarise the research methodology, the overall research design (Maxwell 2005) is given below (Fig. 8)



(Source: Partly adapted from Maxwell (2005))

Figure 8. Design of research

4. Description of Madhya Pradesh Forest Department

The Madhya Pradesh Forest Department is a government Department working under the control of Madhya Pradesh State government in India. It was established in the year 1956 and responsible for all forest related works of Madhya Pradesh (MPFD 2009). It manages all the State owned forest resources broadly in line with forest policies emanating from GOI from time to time as well as the supplementing forest legislations enacted by the Madhya Pradesh State.

4.1. Forest resources of Madhya Pradesh

4.1.1. Forest Area

Madhya Pradesh is endowed with rich and diverse forest resources. The geographical area of the State is 3, 08,252 sq. km, which constitutes 9.38% of the land area of the country. The forest area of the State is 94689.38 sq. km constituting 30.71% of the geographical area of the State and 12.44% of the forest area of the country. Legally this area has been classified into "Reserved Forest, Protected Forest, and Unclassified Forest", which constitute 65.36%, 32.84%, and 1.7% of the forest area respectively. Per capita forest area is 0.16 ha. As against the national average of 0.07 ha. The total growing stock (volume of timber / wood) is 50 million cu. m valued worth 56.81 Billion USD (@ 1 USD = 45 Indian National Rupee) (MPFD 2009).

The State has 9 National Parks and 25 Sanctuaries spread over an area of 10,862 sq. km constituting 11.40% of the total forest area and 3.52% of the geographical area of the State. Efforts are under way to increase the protected area network to 15% of the forest or 5% of the geographical area as suggested by State Wildlife Board. The State also has 5 Project Tiger areas namely Kanha, Panna, Bandhavgarh, Pench and Satpura and known as the 'Tiger State of India' as it harbours 19% of India's tiger population and 10% of the world's tiger population.

4.1.2. Forest composition

Variability in climatic and edaphic conditions brings significant difference in the forest types of the State. There are four important forest types viz. Tropical Moist, Tropical Dry, Tropical Thorn, and Subtropical broadleaved Hill forests. Based on composition, there are three important forest formations namely Teak (Tectona grandis) forest, Sal (Shorea

robusta) forest, and Miscellaneous Forests are available in the State. Bamboo bearing areas are also widely distributed in the State.

4.2. Objectives of the Madhya Pradesh Forest Department

The objectives of the Madhya Pradesh Forest Department range from forest protection to meeting the needs of the forest dependent people. The main objectives are,

- To protect and conserve forest resources in Madhya Pradesh through sustainable forest management.
- To maintain and enhance biodiversity for ecosystem health and vitality.
- To conserve soil and water resources for ecological and environmental stability.
- To enhance forest productivity using modern scientific tools.
- To meet the requirements of forest products like timber, fuel wood, fodder etc. of the people of the State particularly those dependent on forest.
- To cater to the needs of socio-economic development of villages in and around forest areas.
- To evolve strategic policy, legal and institutional framework to address emerging needs.

The content analysis of the mandate reveals that broadly the Madhya Pradesh Forest Department works cover four issues.

- 1. Protection, conservation, and sustainable management of forests.
- 2. Ensuring health and vitality of forest ecosystems.
- 3. Meeting the needs of the people living around the forests.
- 4. Evolving framework to accommodate emerging needs.

The content analysis also shows that the Madhya Pradesh Forest Department is aware of changing trends and it has a mechanism in place to respond to such changes.

4.3. Structural components of management

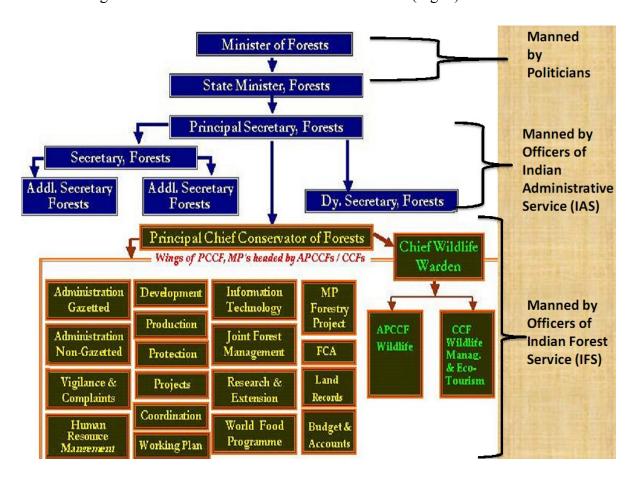
The Forest Department is managed by trained forest officers coming from two sources of recruitments. The top-level management (from district level to State) is performed by the Indian Forest Service (IFS) officers who are recruited by the GOI and placed under the disposal of the Madhya Pradesh State. The Sub District and Range level forest management is done by State Forest Service (SFS) officers and subordinate forest officers (Forest Rangers)

respectively, who are recruited by the State of Madhya Pradesh and trained in institutions under GOI. The officers working below the Forest Ranger are recruited by the State of Madhya Pradesh and trained in institutions under government of Madhya Pradesh. The training of officers from Forest Ranger and above is carried out by the GOI in all Indian States to ensure uniform forest management throughout India.

4.3.1. Organisational structure at State level

At the State level, the Madhya Pradesh Forest Department is headed by Principal Chief Conservator of Forests (PCCF). He is assisted by another PCCF who heads the wildlife wing of the Forest Department. The Forest Department is divided into number of specialised wings and wings are headed by officers in the rank of Additional Principal Chief Conservator of Forests (APCCF) / Chief Conservator of Forests (CCF). The CCF also heads the territorial regions, which consists of number of Forest Circles, which are headed by the officers in the rank of Conservator of Forests.

The organisational chart at the State level is as follows (Fig. 9).



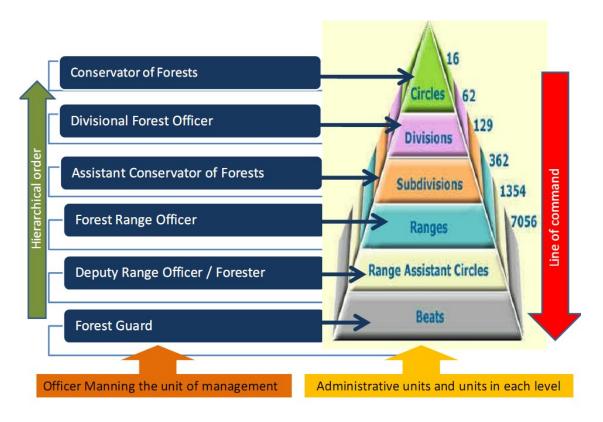
(Source: Partly adopted from MPFD website)

Figure 9. Organisational structure of MPFD at State level

4.3.2. Organisational structure below the State level

The State is divided into various Circles and Divisions. The Circles are manned by officers called "Conservators of Forests" who belong to Indian Forest Service. Each Circle consists of 4-5 Divisions. The forest in each district is designated as a territorial division and manned by a Divisional Forest officer (DFO). Normally the DFO's belong to IFS and are in the rank of Deputy Conservator of Forests (DCF).

Below the divisional level, the Divisions are subdivided into various Subdivisions under the control of Assistant Conservator of Forests (ACF). The Subdivisions further divided in Ranges (manned by Forest Rangers), Range Assistant Circles (manned by Deputy Rangers / Foresters), and Beats (manned by Forest Guards). The schematic diagram of the administrative structure, rank of the officer manning the unit, total number of administrative units present in Madhya Pradesh Forest Department, flow of hierarchy and line of command are given below (Fig. 10).



(Source: Partly adapted from MPFD website)

Figure 10. Organisational Structure beneath the State level in Madhya Pradesh Forest Department

Altogether, the State has 16 Forest Circles, 62 Territorial Divisions, 129 Territorial Subdivisions, 362 Territorial Forest Ranges, 1,354 Sub Ranges, and 7,056 Beats. To render specialized services, 16 Production Divisions, 11 Research, Extension& Lok Vaniki (a private forestry promotion division) Divisions, 1 Wildlife Division, 3 Working Plan Circles and 9 National Parks have been instituted (MPFD 2009).

The administrative structure is manned by 269 IFS officers, 319 SFS officers, 1,192 Forest Rangers, 1,257 Deputy Rangers, 4184 Foresters, 13,997 Forest Guards, and 7,397 other employees. Thus, total strength of the Department is 27,944 (MPFD 2009).

The content analysis of the structural components reveals that the uniform training pattern among the officers working above sub divisional level ensure uniform organisational goals and vision.

4.4. Method of working

The Madhya Pradesh Forest Department is involved in management of forest resources of Madhya Pradesh State in accordance to its objective. The forest management is carried out through a documented planning system created by the Forest Department. In case of production-oriented forests, a document called "Working plan" is written by the officers of the Department as per the guidelines governing management of government forests issued by GOI. The plan decides overall management of forests present in a division and implemented by the district level officers. Their work is supervised by senior officers of the hierarchy as per a documented code called "Forest Code", which specify the roles, and responsibility of each level of forest officers.

In case of protected areas, a document called "Management Plan" is written as per the GOI directions and managed by the Director / Deputy Director of the protected area. The work performance of the wildlife divisions is managed by wildlife wing of Forest Department, which is manned by officers specially trained in wildlife management.

In case of community forests, management is carried out through a document called "Micro Plan" prepared by the village councils under the overall framework of working plan of that area, with assistance from the Forest Department. The management of these forests is done in a participatory forest management model and again monitored internally by the officers of the Forest Department.

In addition to forest management, the Forest Department acts as nodal agency for rural development works and also implement other works assigned by the State of Madhya Pradesh under the annual schemes.

The government Departments in India work on basis of "5 years plans" drafted by the GOI once in every five years, which decides the trajectory of future growth and performance in each sector. Based on these 5 year plans, funding is provided by the GOI to the State governments. The annual plan of operation is decided under overall guidelines of the five-year plan and submitted by the Forest Department to the Madhya Pradesh State through forest minister. The cabinet of the State government decides the actions to be performed by each Department and provides funding. The fund received by the Department is distributed to different wings and divisions to perform the works.

In addition to that, the Department prepares project notes for external funding; cabinet notes on emerging forestry issues, press releases on forestry matters etc. and submit to government through the forest minister. Similarly, it receives the orders from the government and implements it through the field functionaries.

4.5. Functional relations

The Forest Department has two types of functional relations in its working. They are Internal working relation within the Forest Department and external relations outside the Department.

4.5.1. Internal functional relations

Forest Department in India was created by the British administration, to enhance the productivity of the forest and protecting it from the people. Therefore the Forest Department was trained in lines of paramilitary model and the culture of command and control is deep rooted in its functioning (Chaturvedi and Godbole 2005; Kumar and Kant 2005; Matta *et al.* 2005). Even after Indian Independence neither forest policy nor the organisational structure of the Forest Department has not changed much until 1990 (Balooni 2002). Thereby the Department follows strict hierarchy in official works and flow of information is always top down. The system is result oriented and has little tolerance for underperformance, negligence, or laxity. It also lack rewards for good performance and provides severe punishments for mistakes even if done in good faith (Matta *et al.* 2005). Thereby it has a clear demarcation of area of operation and communication link across the hierarchies (Kumar and Kant 2005). This culture has often blocked the flow of ground level information to State

level officers and resulted in centralised planning devoid of gross root realities at times. However, this trend has changed after launch of joint forest management in India since 1990 and the accessibility across the hierarchy has improved (Chaturvedi and Godbole 2005). However there exists a feel among the forest personnel working below the regional level that the MPFD need to shed its command and control system as the working conditions has changed a lot over the years (Kumar and Kant 2005; Matta *et al.* 2005).

4.5.2. External functional relations

By and large, the external relations of the Forest Department can be classified into four categories:

- 1. relation with politicians and higher management,
- 2. relation with line Departments at district and State level,
- 3. relation with people,
- 4. relation with non-governmental agency (Panchayat Raj Institutions, NGO's and others).

A. Relationship with higher management and politicians

The relationship with the higher management level and politicians are often not satisfactory in the Forest Departments in India for two reasons (Saxena Undated).

Firstly, due to command and control system, the head of the Department becomes sole representative of the Foresters view at higher echelon. The rigid command and control system provide little scope for brain storming with the junior officers and obstruct information flow from the ground level, which often results in a limited vision. More over since, the head of the service become the sole representative of gamut of Foresters; his individual disposition also has an influence in decision-making. In addition to that, his relation with those in higher echelon is based on his disposition and becomes subjective nature.

Secondly, the top forest administration is buffered by another layer of bureaucracy manned by the IAS officers who directly report to politicians (Fig. 10). Hence, the Departments view often reaches the politicians in an abstract or modified way. Sometime this could also leads to conflict in interest and decisions. Therefore, most of the times, the Forest Department is not in a position to directly voice its view at decision-making levels in the government and simply carry on with the government's directions by internally organising itself.

B. Relationship with other Government Departments

Due to remote nature of work and para military outlook, the Forest Department relation with line Departments of government was very weak till 1980's. However, with advent of social forestry and joint forest management, the Forest Department has taken advantage of its presence in remote villages to facilitate the works of other line Departments, which are virtually absent. Thereby it has become a nodal agency for rural development programs since 1980's (Matta and Kerr 2007). The trainings and orientation of forest personnel to liaison with line Departments for rural development programs has also improved the relations with other Department dramatically. However, at the State level, the relationship among the line Department is often not satisfactory with Madhya Pradesh Forest Department as it impose number of conditions for sparing of forestland for developmental purposes proposed by line Departments, under Forest Conservation Act, 1980.

C. Relationship with people

The relationship between Forest Department and the people was very bad ever since its creation till 1980's, as it was protecting the forests from people. In case of Madhya Pradesh the total population of the State is 60.3 million (2001 census) of which 73.33% is rural and 26.66% urban. The population density is 196 persons per sq. km. The total livestock population of the State is 31.5 million. Of the total 52,739 villages in the State, 22,600 villages are located in or near forest areas(MPFD 2009). Being away from the mainstream of development, most of the villagers are dependent on forests for their livelihood. In addition to these, they collect a host of items like leaves, flowers, fruits, bark, seeds, etc. (NTFP), which contribute significantly in socio-economic development of the rural communities.

In such a condition of dependence, protecting forest from people is a herculean task and the Forest Department has earned adverse publicity by doing its duty. However, with advent of social forestry and joint forest management schemes, the Forest Department has taken following steps to bridge the gap between the people and Department.

Nistar rights

Nistar entitles the residents of villages bordering forest area, within a periphery of 5 km, to get forest produce like fuel wood, poles, bamboo at concessional rate depending on the availability. The scheme was launched following the spirit of National Forest Policy, 1988 which States that the first charge on forest would be to meet the requirements of the

communities residing in and around forest areas. Under this scheme, the Forest Department has established 1896 depots across the State and 1.5 million people are benefitting from this scheme.

Usufruct sharing

With the advent of Joint Forest Management, many village level committees viz. Forest Protection Committee (FPC), Village Forest Committee (VFC) & Ecodevelopment Committee (EDC) have been formed in Madhya Pradesh. They render different type of service to Forest Department. In lieu of the services provided, the villagers are entitled to share the usufructs produced in the areas earmarked to respective committees. There are 11,621 committees, representing around 1.5 million families, engaged in the joint forest management, and getting benefit from the Forest Department.

Sustainable employment through multilayered plantation

For landless people, a scheme on multilayered plantations with tree, bamboo and medicinal and aromatic plants are undertaken by the Forest Department in consultation with the village council in degraded forest areas, which are prone to encroachment. Under this programme, beneficiaries get monthly wage earning of 28 USD (@ 1 USD = 45 Indian National Rupee) for a period of 2 years for the work done by them and are entitled to 100% of the proceeds from the medicinal and aromatic plants and 50% of the proceeds from the final harvest of trees. Around 1500 beneficiaries are benefiting from this scheme

World Food Programme

Under this programme, food commodities like wheat, rice, pulses, vegetable oils are given to the labourers involved in forestry related activities in the villages in lieu of part of their wages at highly subsidised rates. The amount thus recovered is used as welfare fund and used for infrastructure development (stop dam, lift irrigation etc.), socio-economic activity and women centred activities (poultry, rope making, mushroom cultivation etc.) in the village.

Bonus to Tendu (*Diospyros melonoxylon*) leaves collectors

Through this scheme, the net proceeds of the sale of Tendu leaves are shared among its pluckers. They are entitled to 50% of the net profit accruing from the sale. An amount of 11 million USD (@ 1 USD = 45 Indian National Rupee) has been given as bonus for 1999-2000 season. 1.5 million families are benefitted from this scheme.

Tribal development program

The Forest Department is involved in special development programs pertaining to both asset and capacity building in tribal areas. These programs include upgrading their agriculture lands, provision of basic amenities like drinking water, health centres, schools, community assets, and irrigation facilities etc.

Democratisation of forest management

The forest management has been democratised under the banner of joint forest management, Lok Vaniki schemes and people are involved in planning and management of forests. The benefits from the scheme are shared with people / village council.

All these measure have appeared to have changed the people perception on Madhya Pradesh Forest Department. Thereby, the Forest Department has gained their goodwill and improved relation (Chaturvedi and Godbole 2005).

D. Relationship with others (NGO's, Panchayat Raj Institutions etc.)

The Forest Department relation with the NGO's and Panchayat Raj Institutions was very limited, prior to launch of joint forest management scheme in Madhya Pradesh. However, the government resolution in 1990 to involve the village councils and NGO's in joint forest management activities provided scope for the Forest Department to involve Panchayat Raj Institutions/ NGO's in joint forest management works and to learn the positive aspects of their association. Thereafter, the Forest Department involved NGO's in works like community mobilisation, capacity building etc., where it lacks competence (Chaturvedi and Godbole 2005). The relationship was further strengthened under World Food Program (WFP), where in the Forest Department involved Panchayat Raj Institutions and NGO are in various developmental works.

In short, the external interaction pattern of the Madhya Pradesh Forest Department could be depicted in following diagram (Fig. 11).

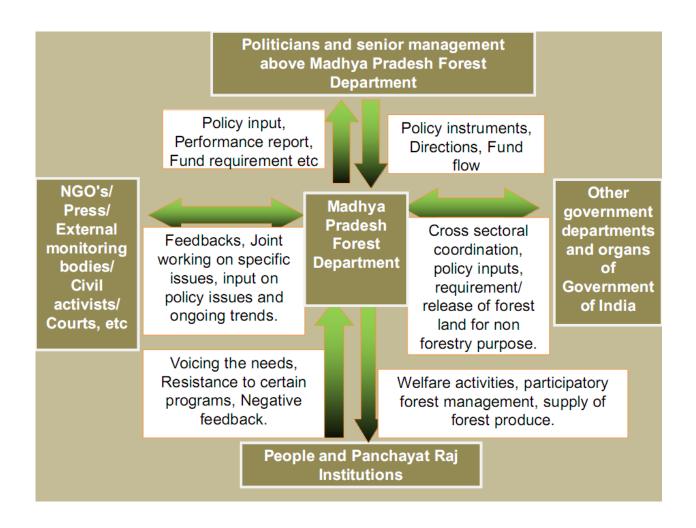


Figure 11. External interaction pattern of MPFD

4.6. Feedback mechanism

The feedback mechanism of the Madhya Pradesh Forest Department works at two levels. Internally, incremental learning is adopted, by constant review of ongoing works by the senior officers of different hierarchical levels. Their feedback on performance of works, decides the future course of action. Similarly, it has internal mechanism like vigilance, complaint system etc., to assess the performance of individuals, works, and system itself.

The external feedbacks, are received from press, politicians, civil activists, external monitoring agencies, and various committees constituted by the government for assessment of specific issues. The feedback is conveyed to the Department through the PCCF or appropriate level of officers and the system takes suitable action following the Forest Department code or government regulation relating to the issues.

4.7. Continuity

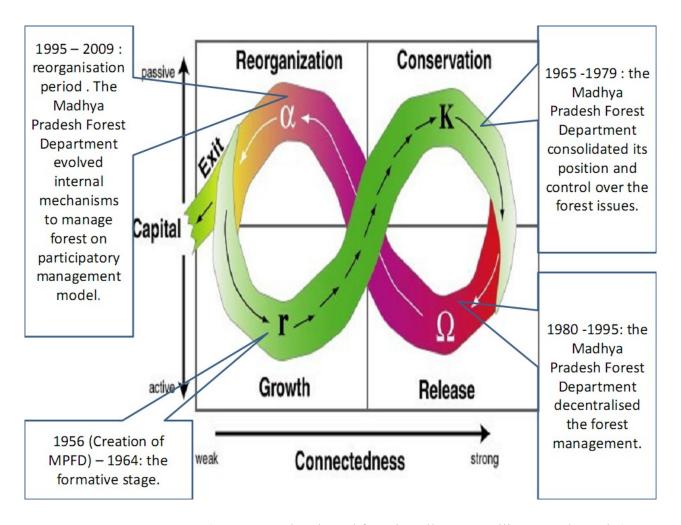
In accordance with the resilience literatures, the continuity of organisation over a period depicts its resilience and its evolution to the present form. The time line study of the Madhya Pradesh Forest Department is given below.

- 1956 Madhya Pradesh Forest Department was created.
- 1965 Trade of Tendu (*Diospyros melonoxylon*) leaves was nationalized to remove intermediaries and to increase income and living standards of poor villagers.
- 1969 Other minor forest products like Chebulic Myrobalan (*Terminalia chebula*), Gums, Mahua (*Madhuca longifolia*) Flower, and Sal (*Shorea robusta*) Seeds nationalized.
- 1971 Trade of important timber species like Teak (*Tectona grandis*), Sal (*Shorea robusta*), Shisam (*Dilbergia sissoo*) etc. nationalized.
- 1973 Madhya Pradesh State Forest Development Corporation was created to enhance productivity of forest. Loan from financial institutions procured for viable forestry schemes.
- 1976 Departmental harvesting of forests started to abolish middleman problem and other ill effects of contractor based forest-harvesting system.
- 1980 Social forestry established. Afforestation of non-forest areas in villages carried out to meet the forest produce requirement of people.
- 1984 Madhya Pradesh Minor Forest Produce Federation was setup to manage NTFP.
- 1991- First State in India to issue State resolution for adoption of joint forest management. It also opened productive or good quality forest under joint forest management scheme.
- 1994 The Madhya Pradesh Panchayat Raj Adhiniyam, 1993 (an act for decentralisation of governance to village levels) was enacted and it empowered village councils to manage village forests. The ownership right of NTFP in village forests was also transferred to Gram Sabha. Creation of State Forest Research Institute (SFRI) for research on field issues, revision of Nistar Policy, abolishment of committed supply of timber to industry are also important events of this year.
- 1995 World Bank aided Madhya Pradesh Forestry Project (1995 to 2000) was launched in the participatory forest management model.

- 1995 Well stocked forests were also included in the ambit of joint forest management by government resolution. It also included one man and one woman per household as members of joint forest management committees (Sarin *et al.* 2003).
- 1996 The Global Environment Facility (Trust) and the World Bank funded "India Eco-development Project" in protected areas (1996 -2004) was launched.
- 1997 PESA act endorsed by the Madhya Pradesh and its resolution empowered the Gram Sabha (village assembly of all adults) in Schedule V areas to "manage natural resources including land, water and forests within the area of the village, in accordance with its traditions and in harmony with the provisions of the Constitution" (Sarin *et al.* 2003).
- 1999 Private forest scheme called "Lok Vaniki" launched. Under this, individuals or communities who own the tree clad patches can manage it on their own in accordance with management plan prepared by qualified forest personnel. This transferred the right of management of forest to people in private areas.
- 1999 Collection of NTFP in protected area was permitted.
- 2000 The protected area also included in the purview of forest protection committees. However, the usufruct sharing was replaced with monitory compensation. Joint forest management was practised in 5.8 million hectares of forestland. This accounted for 37.54% of the State's total forest area of 15.45 million ha (Sarin *et al.* 2003).
- 2001 Joint forest management resolution revised in accordance with GOI resolution. It provided for general membership of all Gram Sabha members in the joint forest management committee and declared forest protection committee members shall be treated as public servants while on patrolling duty and entitled to legal protection and the same compensation as forest staff in case of death or injury.
- 2002- State wide encroachment evictions were launched following the Supreme Court of India directives.
- 2005 –Initiatives for submission of project on "Biodiversity Conservation and Rural Livelihood Improvement" to be funded by International Development Association (IDA) and Global Environment Facility (GEF). The work is under progress.
- 2008 Implementation of Forest Rights Act began.

The time trend study of Madhya Pradesh Forest Department revealed three distinct stages of change in organisational approaches over time. It also matches with the pattern of adaptive cycle theory. To start with, the period from 1956 to 1964 could be termed as a "growth period" (r) as the Madhya Pradesh Forest Department established its hold in the natural resource management affair in Madhya Pradesh. The period from 1965 to 1979 could be termed as the "K" period as the Madhya Pradesh Forest Department consolidated its position and gained overall governance of forestry issues in its ambit. The period between 1980 - 1995 could be classified as " Ω " period, when the Forest Department subjected to number of perturbations, emerging from growing civil awareness on forest related rights, emerging voice of NGO's, launching of many foreign aided projected which compelled the Forest Department to accommodate NGO's, people and other stake holders in forestry decision making process etc. Consequent to these perturbations, efforts for decentralisation of forest governance initiated during this period. The period from 1995 to till date could be classified as a period, as internal reorganisation effected in the Madhya Pradesh Forest Department to accommodate the emerging trends. To adapt to the changed scenario, it organised number of training programs to its staff to reorient them in the forest management process. The Department outlook also changed from regulator to facilitator in this phase.

The adaptive theory application to the time line study of Madhya Pradesh Forest Department could be depicted in figure 12.



(Source: partly adapted from http://www.resalliance.org/593.php)

Figure 12. Application of adaptive cycle theory to time line development of Madhya Pradesh Forest Department

4.8. Innovation skills

The innovation skills of Madhya Pradesh Forest Department appear to arise from its following traits:

- Ability to handle multifarious jobs,
- Diversity among the educational background of forest service personnel,
- Result oriented command and control system,
- System components like research wing,
- Capacity to learn from the mutual working.

Ability to handle multifarious jobs: practically the forest officers are handling variety of subjects with very limited resources in India. The nature of the job of the Foresters range from forest protection, forest management, forest harvesting and sale, meeting the people needs, co-ordinating rural development works, wildlife management, tribal development works,

office administration, etc. This multifarious nature of job appears to enhance the innovation skills among the Foresters.

Diversity among the educational background of forest service personnel: forest officers in India are recruited from science graduates. Though dedicated graduate course in forestry is available in India, recruitment for higher posts (DFO) in forest bureaucracy comes from national level competitive exams among science graduates (Engineering and Life Sciences etc.) and the recruited are oriented towards forest management by intense professional training. In lower level recruitments also similar procedure is followed. Hence, the Foresters have diverse background and it augments innovation pool of the Department.

Result oriented command and control system: the result oriented command and control system leaves little scope for the staff to communicate their constraints to the higher ups. Hence, the personnel often devise their own ways to get works done in time. This factor also adds up innovation.

Accessibility to research findings and training: in case of Madhya Pradesh, Forest Department has autonomous State Forest Research Institute carrying out research in forestry, on issues faced by the forest officers in the field. In addition to this it has 22 Research and Extension Centres which are involved in training of rural folk, small, marginal & elite farmers, NGO's, people's action group, rural youths, JFM Committees, Panchayat members, user groups, people's representatives of village, block, district and State levels, forest personnel, extension workers and forest based industries on various aspects of forestry (MPFD 2009).

Capacity to learn from mutual working: the Social forestry program and joint forest management has provided chance for the Forest Department to work with various developmental agencies, people, NGO's and international organisations (donors) (Chaturvedi and Godbole 2005). Through this interaction, the field level forest officials have learned skills like co-ordination, book keeping, report writing, motivating villagers etc. over the period and manage the show now. Thereby, the Forest Department has shown capacity to learn from joint works. The capacity to learn from joint working lead to capacity building, innovation, and organisational efficiency.

Following approaches of the Forest Department could be attributed to its innovation skills.

Forest protection issue

Forest protection is a primary responsibility of the Forest Department staff. The main problems in forest protection emerge from illicit felling, encroachment, forest fire, and illegal collection of the NTFP from forests. The realisation of the Forest Department that forest cannot be protected against the swelling army of the people has changed their strategy of forest protection. To prevent the illicit felling by the people to meet their needs, the Forest Department has developed the scheme of Nistar regulation. Under this scheme, the residents of villages bordering forest area, within a periphery of 5 km, get forest produce like fuel wood, poles, bamboo at concessional rate depending on the availability. The State has 1896 depots and 1.5 million people benefitted from this. Consequently, the illicit felling of forest to meet their basic needs is reduced by this approach.

Similarly, it involved people in forest protection works by executing agreement under care and share principle. Thereby, 11,621 Forest Protection Committee, representing around 1.5 million families in Madhya Pradesh are rendering assistance to Forest Department in forest protection (MPFD 2009).

To control the forest encroachment, the Madhya Pradesh Forest Department has identified the degraded patch of forestlands, amenable to encroachments and executed agreement with Gram Sabha to create multilayered plantation through landless people. Under this program, beneficiaries are selected in consultation with village council and they get monthly wage earning of 28 USD (@ 1 USD = 45 Indian National Rupee) for a period of 2 years for the work done by them and are entitled to 100% of the proceeds from the medicinal and aromatic plants and 50% of the proceeds from the final harvest of trees. Around 1500 beneficiaries are benefiting from this scheme. This scheme reduced the forest encroachment problem and provides livelihood support to the people.

Forest fire is a serious problem to the Foresters in Madhya Pradesh and every year the Madhya Pradesh Forest Department maintains 2, 60,000 km of artificial fire lines and 30,000 km of forest and other roads acting as fire line. It also engages large number of firewatchers (around 7000) during the fire season to detect and put off fire. Due to limited availability of fund and lack of sufficient infrastructure, the Madhya Pradesh Forest Department has serious problem in managing fire issue. Whereas, the forest fires are mostly created by the people for collection of NTFP (to locate calyx of Mahua (*Madhuca indica*) flower on ground) or on vandalism. To tide over these problems, the Madhya Pradesh Forest Department has adopted

two strategies. Firstly, it transfers the forest protection fund to the joint forest management committee and involves them in forest protection. This approach has reduced the forest fire incidents considerably. Secondly, it issues 50% bonus to NTFP collectors based on net proceeds of the sale. Thereby, the NTFP collectors are cautious to avoid forest fire as that would reduce the NTFP availability and consequent reduction in the NTFP bonus.

4.9. Self Organisation

The multifarious works performed by the forest officers in Madhya Pradesh Forest Department such as forest protection, forest management, forest harvesting and sale, meeting the people needs, co- coordinating with developmental works, wildlife management, tribal development works, office administration, etc. itself is a evident for their self organisation skill. Since 1980, the Madhya Pradesh Forest Department has stepped out of its closed system of work (wherein it work was mainly confined to forest protection and forest management) and now works as facilitator and nodal agency for rural development works. Despite of addition in nature of works performed, the Forest Department has not added any specialised cadre to meet the demands of the new works, and it manages the works through internal reorganisation.

5. Data analysis and results

5.1. Data analysis

For data analysis, the information gathered from various sources (phone recordings, notes, email correspondence, and scanned replies) was transcribed to text form in MS Word for discourse analysis. Following the transcription, the data was given multiple intensive readings to get the general feel of issues and its relevance to the research questions. Based on this iterative process, specific responses on various issues were identified as elaborated in chapter 3.

Then the transcribed data was processed through a qualitative data analysing software called "Atlas.ti" for coding, sorting, and collating specific issues. Initially the interview questions were used as a base mark for segregating the issues. Then from the collated data the specific issues relating to research questions viz. general attitude towards the act, extent of change perceived by the officers, perceived threat to the position in the changed condition and perceived position following implementation of the act were identified and coded as resistance, latitude, precariousness, panarchy and other issues. The coded information was further analysed for specific themes and following eight broad themes were developed from the data.

- 1. General view of the officers on Forest Rights Act.
- 2. Perceived negative impact of Forest Rights Act on forests by the forest officers.
- 3. Response related to community forest management rights.
- 4. Response related to effect of Forest Rights Act on joint forest management program.
- 5. Responses related to NTFP rights.
- 6. Response related to grazing rights.
- 7. Proposed strategy to deal with the changes emerging from Forest Rights Act.
- 8. Other issues.

The issues in the theme were again classified according to the working level for typology analysis. In order to assess the difference in perception among the working levels and to elaborate the number of officers subscribed to particular view, a database was created using the MS Access software and information received for each officer was entered. For facilitating entry, very close responses, for example "Forest area will be reduced", "there will be loss of forest" etc. where merged and coded into a category called "Decrease in forest Cover and forest area". Likewise, closely related response for all themes and sub themes were given specific codes on basis of discourse. This information was fed in a table against respective officers in MS Access. On completion of data entry, the query tool of the MS Access was used to gather the data relating to specific theme and sub theme issues and it was transferred to MS Excel for sorting, calculation of response of each working level and making pie charts and histograms.

As the number of officers in each working category differs widely, to have uniform representation of view, the individual view within the specific working level were added together and percentage of the same to the total number of person present in that particular working category was calculated to make the histogram. By this way the percentage of response to particular view among the State level, district level and village level officers was calculated and used in histogram.

The result of the data analysis is given below.

5.2. Results

5.2.1. General view of the officers on Forest Rights Act

The general perception of the officers revealed that 50% of the officers are of the view that the Forest Rights Act is bad for the forests vitality and existence and exhibited negative attitude towards it. About 28% expressed mixed response (it has positive and negative effect) and 22% were of the positive view that the act is good for the people and Forest Department. The overall attitude towards the Forest Rights Act is given in figure no. 13.

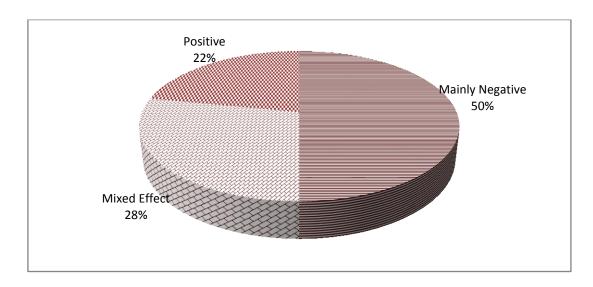


Figure 13. Overall attitude towards Forest Rights Act in MPFD

The perception pattern across the working levels is as follows (Fig. 14).

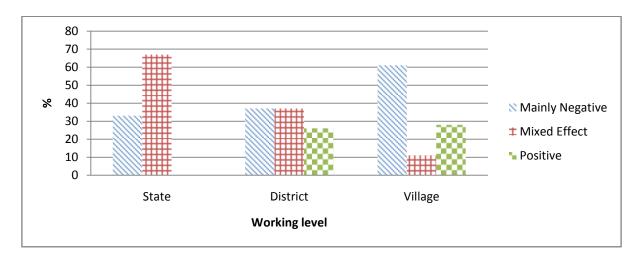


Figure 14. View on the Forest Rights Act across the working levels

5.2.2. Perceived negative impact of Forest Rights Act on forests

As explained earlier, the general negative impact expressed by the individual officers was coded into specific categories viz. Effect on forest management (specific responses were "it will affect forest works", "it will affect forest plantation" etc.), Decrease in forest cover and forest area (specific responses were "It will affect regeneration", "it will lead to illegal cutting of forest", "reduction in tree cover" etc.), Affect morale of the staff (specific responses were "there is no point in forest protection by staff as it will be encroached and given to people", "in places, where, with great difficulty we evicted encroachments, the people are coming back and claiming the same area under this act. This affect our morality" etc.), Fragmentation of habitats (specific responses were "it will lead to forest fragmentation", "it affects continuity of forest blocks and fragment administrative units etc".), Increase in biotic

pressure and increase in encroachment. The information was fed in the computer and queried for typology analysis.

The analysis revealed that 54% of the respondents were of the view that the Forest Rights Act would lead to reduction in forest cover and forest area. About 14% of the respondents were of the view that it will lead to encroachments and biotic pressure. About 7% said it would affect forest management and morale of the field staff. Only 4% said that the act would result in fragmentation of habitat and forests. The perception across the working level is given below (Fig. 15).

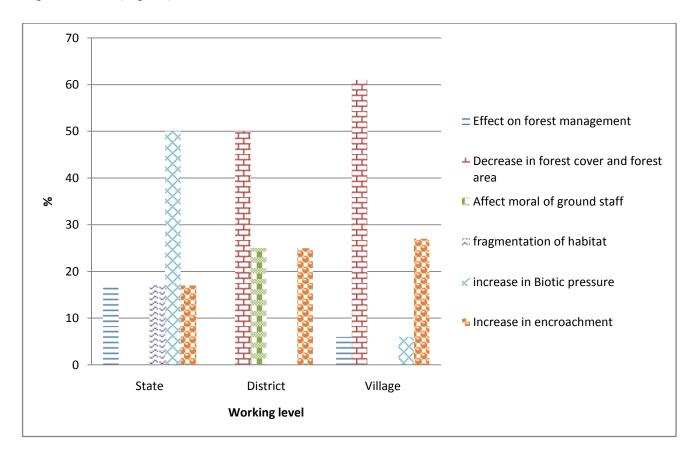


Figure 15. Perception of expected negative impact across working levels

5.2.3. Community forest management rights

The analysis of attitude towards the community rights had revealed that 48% of the officers had positive view and 45% had negative view. About 7% opted a neutral stand and said it is already present in the form of joint forest management in Madhya Pradesh and brings no difference.

The perception across the hierarchy level revealed that State level officers have predominantly positive attitude and village level officers have predominantly negative attitude. The district level officers exhibited a mixed response (Figure 16).

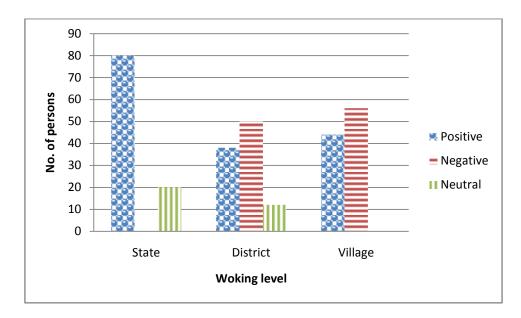


Figure 16. Attitude towards community rights

The issues raised in connection with the CFM rights revealed that 33% of the respondents were of the view that the Gram Sabha lacks expertise to manage the community forests. About 27% said the Gram Sabha is likely to exploit the forests if the rights are given. However, 20% of the respondents were of the view that the Gram Sabha can manage the forest and responsibility can be given to them. The remaining respondents subscribed to views like Gram Sabha is divided in opinion (7%) and dominated by village elites (7%).

The histogram of perception on issues is given below (Fig. 17).

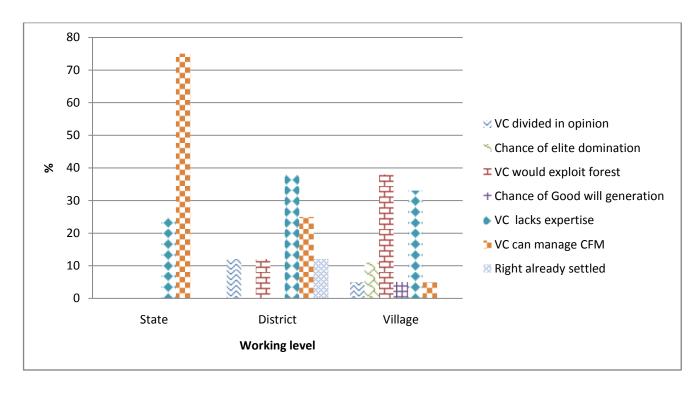


Figure 17. Views expressed in connection with CFM rights across working levels

For management of CFM rights, three types of strategies were proposed by the officers viz. joint working with the communities (75%), capacity building in the communities so that they can manage the community forests properly (21%) and awareness creation among the resource users about their duties and responsibilities so that they would take initiatives to maintain the forest (4%). The view across the working levels is given below (Fig. 18).

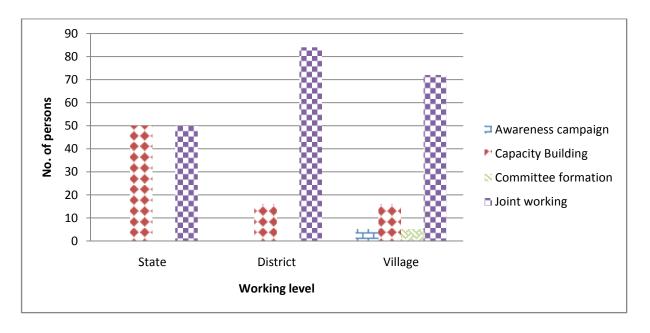


Figure 18. Proposed strategy for CFM rights across the working levels

5.2.4. Effect of Forest Rights Act on joint forest management program

Regarding the effect of the Forest Rights Act on joint forest management program, about 52% of the respondents were of the view that it would have negative effect, as the beneficiaries who get the rights under Forest Rights Act, will no more be interested in the joint forest management program. About 16% were of the view that there will be no change in the joint forest management, as the Forest Rights Act will benefit only a small section (20-30%) of the rural community (viz. tribal people and forest dependent people who prove their existence in forestland for 3 generations) (MoTA 2007a). Hence, for remaining majority of the rural people (70 – 80%) the joint forest management is needed to meet their requirement. Remaining officers were of varied view that the encroachment regularisation would bring goodwill of the rural people (13%), and improvement of forest protection by the Forest Protection Committee (3%). Some were of the view that the Forest Rights Act would divide the village into two group's viz. those who get benefit under Forest Rights Act and others and would result in conflict (7%) in village level and division of interest in forest management (3%).

The perception on joint forest management related issue across the working level is given below (Fig. 19).

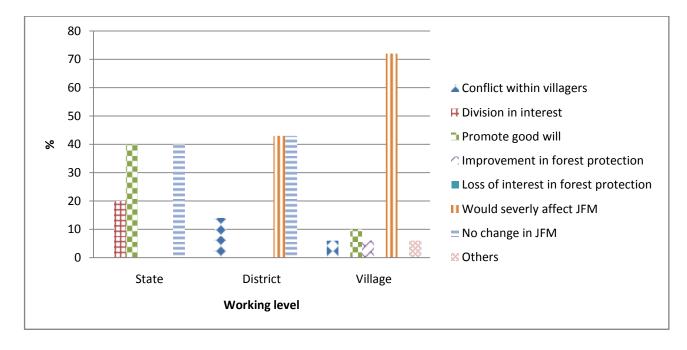


Figure 19. Perception of effect of Forest Rights Act on Joint Forest Management Program across the working levels

However, in response to expected change in joint forest management, about 43% were of the view that the total effect on joint forest management would be minimum and 23% said

there would be no change. About 34% of the respondents said the Forest Rights Act would have very severe effect on joint forest management and it would be replaced by CFM over time.

The change perception across working level is given below (Fig. 20).

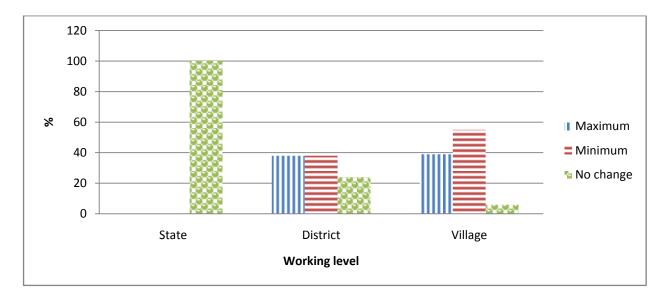


Figure 20. Expected change in JFM

5.2.5. NTFP related rights

In all, 59% of the officers expressed negative attitude towards the NTFP right on the reason that it would lead to over exploitation by the beneficiaries and likely be dominated by the village elites with vested interests. However, 38% had positive attitude and were of the opinion that it would bring benefit to the poor people. About 3% were of the opinion that it is already enjoyed by the people and brings no change. The perception was mainly positive among the State level officers, mixed among the district level officers and predominantly negative at village level officers (Figure 21).

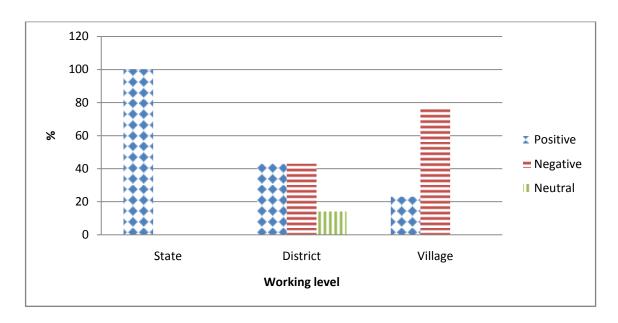


Figure 21. Attitude towards NTFP rights

Among the issue related to NTFP rights, majority of the respondents (47%) were of the view that this right would lead to over exploitation of forests. About 30% said it is already enjoyed by the people in Madhya Pradesh. 13% of the officers were of the opinion that the right is good for individuals but likely to be exploited by the village elites. About 7% said the beneficiaries lack capacity to manage the NTFP. The perception across the working levels is given below (Fig. 22).

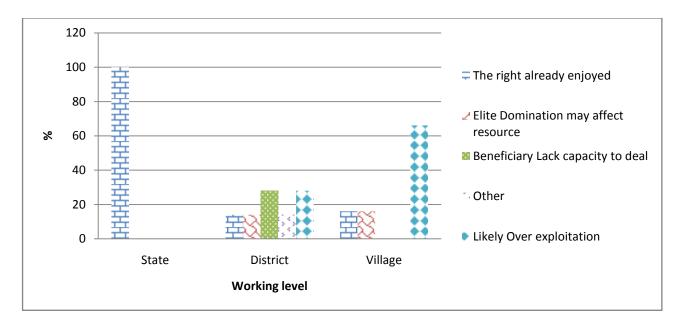


Figure 22. Views expressed in connection with NTFP rights across working levels

For management of NTFP rights three types of strategies were proposed by the officers' viz. joint working with the communities (85%), management through State NTFP

trading corporation (8%) and management through State regulation (7%). The view across the working levels is given below (Fig. 23).

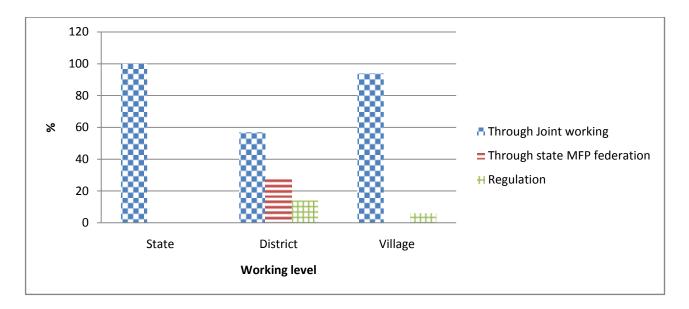


Figure 23. Proposed strategy for NTFP rights across the working levels

5.2.6. Response related to grazing rights

The grazing rights are viewed positively by 72% of the officers. About 14% said it already exists in Madhya Pradesh and adopted a neutral stand. However, another 14% expressed concern regarding its potential effect on forests and adopted a negative view towards the right. The perception across the working levels is given in Fig. 24 as under.



Figure 24. Attitude towards Grazing rights

Among various issues raised in connection with the grazing rights, 50% of the respondents expressed concern about possibility of loss of regeneration and forest loss. About 32% of the respondents were of the view that it is already enjoyed by the people. About 4%

said individual grazing rights are acceptable, as it is needed for poor forest dependent people falling in the purview of the Forest Rights Act. However, they were sceptical about the community rights on the ground that it would lead to exploitation by village elites. The perception of views across the working levels is given below (Fig. 24).



Figure 25. Views on Grazing rights

For management of grazing rights two types of strategies were proposed by the officers' viz. joint working with the communities (72%) and by State regulation (28%). The view across the working levels is given below (Fig. 26)

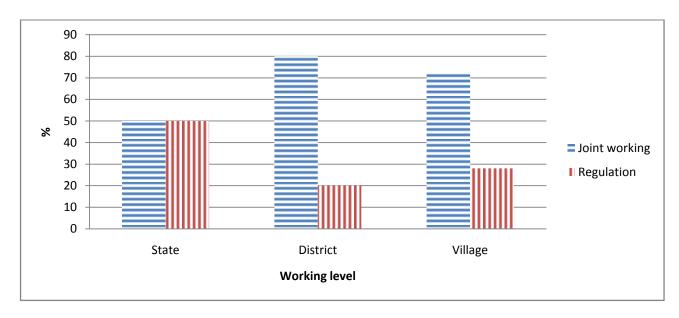


Figure 26. Grazing Strategy proposed across hierarchy levels

5.2.7. Proposed strategy to deal with the changes

Following the enactment of the "Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Rules, 2007", the Madhya Pradesh State government has appointed a nodal officer for implementation of the act. It also created various committees for implementation and overseeing the progress viz. State Level Monitoring Committee (SLMC), District Level Committee (DSL) and Sub Divisional Level Committee (SDLC) (MoTA 2007b). In all these committees, the Forest Department occupies an important position. At the State level, the Forest Department is represented by the PCCF, at the district level by the DFO and at the sub divisional level by ACF level officers. The committee is headed by the Chief Secretary at the State level, District Collector at the district level and Sub Divisional Revenue Officer at sub divisional level. Tribal Welfare Department and appropriate level of Panchayat Raj Institutions members are also present in these committees. The status of implementation of Forest Rights Act in Madhya Pradesh as on 30/4/2009 is as follows (Table. 4).

Name of the state	Activity	Status	
Madhya	lhya 1. Appointment of a Nodal officer		
Pradesh	2. Status of formation of various Committees		
	(a) SDLC	Yes	
	(b) DLC	Yes	
	(c)SLMC	yes	
	3. Translation of the Act and the Rules into the regional	Yes	
	languages and distribution to Gram Sabha, FRCs etc.		
	 Creation of Awareness about the provision of the Act and the Rules 	Yes	
	Arrangements made for the training of PRI officials, SDLC, DLC members	Yes	
	Constitution of Forest Rights Committees by the Gram Sabhas	Yes	
	7. No. of claims filed at Gram Sabha level	3,38,661	
	8. No. of claims recommended by Gram Sabha to SDLC	2,15,745	
	No. of claims recommended by SDLC to DLC	94,661	
	10. No. of claims approved by DLC for title	71,554	
	11. Number of titles distributed	15,245	
	12. No. of claims rejected	42,935	
	13. Projected date for distribution of title deeds	June, 2009	
	14. Problems	-	

(Source: MoTA, 2009a)

Table 4. Status of Tribal act implementation as on 30/4/2009.

The strategy adopted by the Forest Department, in connection with Forest Rights Act is given below.

- 1. The Madhya Pradesh Forest Department has nominated forest officers for various committees connected with implementation of the Forest Rights Act. All the officers connected with the committees have been given training regarding various provisions of the Forest Rights Act, role of the Forest Department, procedure for dealing with claim applications etc. In the overall framework, the Forest Department is responsible for supply of records and maps to the Gram Sabha to enable it to initiate the claim proceeding. Besides that, it is also involved in contesting the claim at verification stage by Gram Sabha. Hence, to cope the field level staff with this new work, extensive training has been given to them in preparation of maps and dealing with claim contest/ proceedings. They have also been trained in use of GPS for locating the boundaries of the encroachment plots. The staff had also given administrative training to maintain and update the land records, which was otherwise done at the divisional level. In nutshell, the Madhya Pradesh Forest Department has sensitised the field staff about the Forest Rights Act and trained them to deal with the works connected with it.
- 2. The interaction also revealed that the Forest Department had number of in-house discussions and meetings at district and State level to avoid surge in fresh encroachments and expansion of existing encroachments following notification of Forest Rights Act. Hence, it demarcated all eligible encroachment areas on ground and enhanced vigil to prevent encroachments.
- 3. To assess the impact of Forest Rights Act on wildlife, the Madhya Pradesh Forest Department has already constituted teams for identifying the inviolate areas under Forest Rights Act, wherein exercise of rights would affect the wildlife resources. It is planning to declare inviolate areas on site-specific basis.

In addition to these actions, the Madhya Pradesh Forest Department is proposing to take following actions:

- 1. It is planning to organise awareness building campaigns among the beneficiaries of the act to sensitise them about their duties and responsibilities associated with the rights.
- 2. It is planning to work with the communities in joint forest management model to ensure that the exercise of rights does not affect that the vitality of the forests.

- 3. It is planning to carry out capacity building program for the communities to enable them to shoulder the new responsibility given by the Forest Rights Act. It is also preparing training programs and materials with curriculum including State forest policy, various forest and biodiversity conservation laws enforced in the State, legal provisions and procedure for enforcements, developmental activities etc.
- 4. It is planning to propose to the State government to make suitable mechanism to avoid misuse of right by the village elites.
- 5. It is planning to carry out the encroachment evictions of ineligible encroachers following settlement of eligible claims and also to take over the excess forestland in the possession of Forest Rights Act beneficiaries beyond the permitted ceiling of 4 ha.
- 6. It is proposing to empower the field level staff on par with the Revenue Department officers at village level and make them responsible for record maintenance at village level.
- 7. The officers also expressed possibility of approaching courts in case, some of the rights pose serious threat to forest vitality and the dispute could not be solved through negotiation.

5.2.8. Other issues

The compatibility of the Forest Rights Act with existing forest laws was enquired during the study. It revealed that about 90% of the staff was of the opinion that it conflicts with the existing forest legislations and needs clarification. Only 10% opined that the act has over riding effect on the existing laws and needs no clarification.

Regarding overall change to Forest Department working following the changes emerging from implementation of Forest Rights Act, 91% of the respondents opined that only slight change is expected in the Madhya Pradesh Forest Department work. About 6% opined no change. About 3% said there would be a significant change in the role of the Forest Department and it would need to work with people in the capacity of consultant or adviser.

Regarding all sort of rights given by the Forest Rights Act, the officers were of the view that the joint working is the key to solve the problems. They were also of the view that the CFM claims would be very minimum in Madhya Pradesh, as the State has already settled all the community rights while declaring the reserved forests in the State under the provisions of the IFA, 1927.

Regarding the description of job, almost 90% of the village levels staff said forest protection with involvement of people and meeting the needs of the villagers as their primary job. In case of district level officers, the term forest management and forest protection occupied the top two slots of response pattern. In case of State level officers, forest protection and managing the forests to meet the people needs was mentioned as top priority.

6. Discussion

In this chapter, the results of the study are analysed against the existing theories and latent variables observed in the discourse to evolve a comprehensive picture of the effects, changes caused by the Forest Rights Act, and its impact on system attributes that govern the resilience of Madhya Pradesh Forest Department. The theoretical implication of the study and managerial implications are also discussed.

6.1. Attitude of the Madhya Pradesh Forest Department to changes emerging from the implementation of Forest Rights Act (Resistance)

The general attitude of the forest officers working at various hierarchical levels towards the Forest Rights Act is predominantly (50%) negative (Fig. 13). The general negative attitude appears to arise from the potential negative impacts of the Forest Rights Act on vitality of forests as perceived by the forest officers. About 54% of the officers have opined that the Forest Rights Act would lead to reduction in forest and tree cover. The opinions slightly differed among the officials at village level and other levels. At State and district levels the officers informed that recognition of the living right in forest does not change the legal status of the forestland and theoretically there will be no reduction in recorded forest area. However, the holders of the rights are likely to destroy the trees in the allotted area for agriculture or habitation purpose and it would result in loss of forest cover. In case of village level officers, they viewed forest cover reduction and forest area reduction together and opined that forest will be reduced due to habitation / agriculture in forest area. All the levels are concerned about possible increase in biotic pressure following in situ regularisation of encroachment in forests.

Almost all the levels are also deeply concerned about the chance of increase in the encroachment following the Forest Rights Act. All the officers unanimously opined that Forest Rights Act gives scope for regularisation of encroachments in future and many villagers would be motivated to encroach forests. Few district level officers narrated about incidents of mass encroachment attempts, under the instigation of some tribal organisations following enactment of Forest Rights Act. In general, the act is viewed as a problem for forest protection by the forest officers. This perception match with similar studies conducted in Madhya Pradesh Forest Department on their attitude towards forest protection and encroachment regularisation (Chaturvedi and Godbole 2005).

However, the general perception towards the rights granted under the act and its effect on Forest Department working differed sharply among the officers across the hierarchy in case of community rights and NTFP rights (Fig. 15, 20) and slightly in grazing rights (Fig. 23). Majority of the officers working at State level were viewing these rights predominantly in a positive way. The district levels officers view the rights as a mixed bag of good and bad. In case of the village level officers, the rights were viewed predominantly in a negative way (except grazing rights). However, in case of individual rights, most of the respondents had positive view and welcomed the provisions of the act.

The reason for varied perception was analysed from different perspectives and following reasons could be attributed to it.

According to organisational resistance theory, a policy level change causes structural and cultural resistance in an organisation. Number of internal factors such as hierarchical working practises, non participatory decision making process, centralisation of administrative and financial powers and stability oriented polices forms major obstacles to change and offers structural resistance (Kumar and Kant 2006). Whereas pressure from State government, monitoring by politicians, pressure from media and other sources tend to decrease the organisational resistance and facilitate the change (Kumar and Kant 2006). Further probing of the results from the resistance theory angle reveals following insights into the dynamics of latent variables in the response of officers.

At the State level, the officers are sitting at the top of the hierarchy and enjoy freedom in decision making and setting the direction of management. Besides that, they have full access to the information from various sources and appear to have good global view of issues and consequences. Their views are also likely to be influenced by the State government's priorities and ongoing trends at State, national and international arena. According to literatures, the number of training programs organised by the Madhya Pradesh State in the "Madhya Pradesh Forestry Project" under World Bank funding has brought substantial change in the attitude of the Forest Department officers at State and district level in Madhya Pradesh Forest Department (PRIA 1998). Besides that Madhya Pradesh is hailed as a very progressive State in formulation of pro people policies and decentralisation of governance to grass root levels (Behar and Kumar 2002). Hence the culture of proactive people oriented thinking appear to have inculcated/instilled among the senior level officers and thus favouring people rights. In addition to that, State level officers are of the view that most of the

provisions of the Forest Rights Act already exist in Madhya Pradesh and people are enjoying it at present. Hence, the level of change is also viewed as minimum and rather the MPFD is trying to take the Forest Rights Act to its advantage by removing ineligible encroachment and by reoccupying excess land area (beyond 4 ha) retained by the beneficiaries of the act. Hence, these factors appear to have reduced the structural resistance at the State level officers and led to positive view of the act.

In case of District level officers, the mixed view towards the Forest Rights Act provisions could be viewed from their position in the hierarchy and global view. The positive view of these officers appears to emanate from their global view and interaction level. These officers are in the middle of the hierarchy and reasonably have good access to information from the higher ups. The study also revealed that their knowledge on Forest Rights Act comes from varied sources such as media, readings, regular interaction among other officers and through training. Hence, they also appear to have a balanced view of the act and its repercussions. Most of the district level officers interviewed were recruited from 1997 to 2001 batch of Indian Forest service. These officers were trained in the social issues and participatory forest management philosophy following the curriculum amendment in IFS training program, consequent to 1988 National Forest Policy, which emphasis on involvement of people in forest management. Hence, the positive perception could be attributed to these factors.

Nevertheless, the negative views appear to arise from their working position, which make them liable for negative consequences that may arise from injudicious exercise of rights. Though the Forest Rights Act grants host of rights and duties to the forest dwellers, it does not make them accountable to any bad consequences that could arise from faulty exercise of the rights. Moreover, the ownership of the forestland is also still rest with Forest Department. Therefore, ultimately the overall responsibility to maintain the forest productivity and vitality rest with the district level officers and this very factor appear to make them wary towards rights issues. In general the work culture in Forest Department in India is norm bound and promote risk averse trend (Hobley 1996). Thereby the cultural resistance appears to favour negative perception of the act.

In case of the village level officers, predominant negative perception was observed in community rights and NTFP rights. Most of the officers were of the opinion that the Gram Sabha lacks capacity to manage the forests and it would exploit the forests. Majority of the

officers viewed the village councils as a highly divided body, often influenced by the village elites with vested interest, having several factions based on caste, political affinity etc. and gives no platform for marginalised people and woman due to socio economic conditions and other factors prevailing in villages. These perceptions are supported by the State level and district level officers to the extent that elite capture at village level could lead to over exploitation of forests. These concerns are also supported by many secondary literatures (Behar and Kumar 2002; Bose 2008; Bose 2006; Hobley 1996). In a study on effectiveness of village council administration in 60 villages in Madhya Pradesh, Hobley (1996) reported that the participation of people in village council meetings is often less than the minimum quorum fixed by the government and the decisions are taken by consensus than on vote of account as provided in the relevant laws governing the Gram Sabha. In a caste ridden, poor socio economic milieu of Indian villages, many of the marginalised people never come forward for open confrontation in issues as they often economically depend on the influential members of the village and endorse the decisions of the village council put forward by the village elites irrespective of their individual opinions (Hobley 1996).

Besides these external factors, number of internal factors appears to contribute to the resistance by village level officers. Position wise there are working at the lowest level of Forest Department and have little freedom in decision-making. They are also ultimately responsible for protection of forest area in their jurisdiction. Even after successful decades of the joint forest management in Madhya Pradesh, still the village level forest officers are responsible for protection of forest in their jurisdiction, despite of the fact that the forest protection is jointly done with involvement of Forest Protection Committee through Forest Department funding. Thereby the Forest Protection Committee holds no accountability on forest protection. This inequitable distribution of benefits and responsibility appears to instil negative attitude towards the people right among the village level officers (Chaturvedi and Godbole 2005; Kumar and Kant 2005).

Secondly, the village level officers appear to have very limited information on general issues owing to poor communications facilities available in remote area of working. The information flow from their higher-ups is also limited to their work only. Hence, they appear to evolve opinions based on the limited information available at their level. For example, one of the immediate actions the Madhya Pradesh Forest Department has taken on notification of the Forest Rights Act was to instruct all officers to maintain vigil to prevent new encroachments or expansion of existing encroachments. Their training was also limited to

Forest Department role in execution of Forest Rights Act (on land demarcation issue). Hence, this information base seems to contribute to negative view.

Another aspect is that despite of people oriented approach of the Madhya Pradesh Forest Department since 1991, no change in its function and structure has been made to suit the new paradigm (Kumar and Kant 2005, 2006). Hence, it appears that role clash and lack of clarity in the approach exists among the village level officers. For example, all the village level officers said that Forest Rights Act is not compatible with the existing rules of the Forest Department and needs clarification. Whereas, some State level officers were of the view that the Forest Rights Act has overriding effect on existing forest legislations. In such confused State, the risk averse behaviour of the Madhya Pradesh Forest Department, tend to avoid potential problems by choosing a stand, which offers psychological safety.

Another organisational feature, which could be attributed to the negative feeling, is the degree of internal democratisation in Forest Department. About 42% of the village level staff has positive view towards the community rights. The training organised under Madhya Pradesh forestry project has reportedly improved the perception of the ground level staff towards recognition of people rights (PRIA 1998). However according to Korten and Uphoff (1981) "organizations tend to replicate in their external relations, those styles of operation, prevailing internally" (Korten and Uphoff 1981). As the Madhya Pradesh Forest Department operates on strict command and control system with focus of power on the top, the field staffs appears to replicate their work culture in working with people. Thereby, this factor appears to contribute to negative feeling on participatory decision making following the community rights granted.

Another potential reason for negative perception seems to be the curtailment of power of village level officers by the Forest Rights Act in regulating the access of villagers to forests and forest produce. The loss of authority over the resource control is likely to create a negative view among the frontline officers and probably manifested in their perception.

Nevertheless, the resistance of the district level and field level officers does not seem to affect the implementation of the Forest Rights Act in Madhya Pradesh, as the Madhya Pradesh Forest Department works on command and control system, wherein, individual perceptions are always of secondary importance to the commands received from the higher-ups. Hence, the down line hierarchy is implementing the orders as received from the top irrespective of their individual perceptions.

As pointed out by one of the field level respondent to the question on how do you view the provisions of Forest Rights Act, "This act is planned at higher levels and we have received orders to implement it, so we are implementing it".

The analysis also reveals that the command and control system itself is working as a major driver contributing to systems stability and resilience.

6.2. The perceived extent of changes visualised by the Madhya Pradesh Forest Department (Latitude)

During the interview only one respondent at State level said that the Forest Rights Act would lead to tremendous change in Forest Department working. Two respondents at district level opined that there would be no change in Forest Department work. Whereas 88% of the respondents informed that the effect of changes, caused by Forest Rights Act on Madhya Pradesh Forest Department working would be minimum, because its provisions are more or less match with existing norms of Madhya Pradesh Forest Department.

According to Hodges and Durant (1989) "the easy or difficulty of adopting and or implementing any new policy instrument in organisations will depend on the degree of consonance between the proposed policy change and the existing bureaucratic norms and routines" (Hodges and Durant 1989).

Majority of the officers informed during the interview that most of the provisions of the Forest Rights Act are already enjoyed by the people in Madhya Pradesh and the only additional thing it provides is the land to encroachers. This view appears to match with Hodges and Durant's theory stated above and holds key for successful implementation of Forest Rights Act by Madhya Pradesh Forest Department, while many Forest Departments in India are struggling to implement it.

A close examination of Forest Rights Act and existing provision of various State and central legislations in Madhya Pradesh has revealed following information.

The Chapter 2. 3(1) (a) of the Forest Rights Act provides "Right to hold and live in the forest land under the individual or common occupation for habitation or for self cultivation for livelihood by a member or members of a forest dwelling Scheduled Tribe or other traditional forest dwellers".

Similar provision already exists in the Madhya Pradesh Forests Village Rules, 1977. Forest villages are the villages established by the Forest Departments in India for executing forestry operations in forest areas. As per the MP Forests Village Rules, 1977, while creation of forest villages, land required for settlement of tribals, for nistar (area for meeting bonafide forest needs of the people) and community purposes has to be ensured. The State also guarantees every family in forest villages 2.5 hectare of land (in case more than one adult member present in a joint family 5 ha of land) on a deed or lease for 15 years (ELDF 2005; MPFD 2009). Whereas many States in India does not even recognise the forest villages and in some cases these villagers are not even recognised in the voter list. Madhya Pradesh is the only State in India, which enacted a law for formation of village council in forest villages also (ELDF 2005). Based on this provision, many leases were issued by the Madhya Pradesh Forest Department in the past (prior to enactment of Forest Conservation Act (FCA), 1980). Following the FCA 1980, this procedure was discontinued, as it was not in consonance with FCA. After the expiry of the lease period, the inhabitants of these lands continued to exist in same land unauthorisedly and thus became encroachers in forest records. Under the Forest Rights Act provision (chapter 2.3(1) (g)) those lands which were provided under lease would be regularised. Hence, the provision of regularising of encroachment is viewed as a continuation of erstwhile practise of Madhya Pradesh Forest Department and not as a change in working.

The 2. 3(1) (b) of the Forest Rights Act provides for community rights such as nistar Whereas, similar provision is already present in the MP Disposal of Timber and Forest Produce Rules, 1974, wherein nistar rights of the rural people are recognised and made applicable to the villages lying within the periphery of 5 kilometres from the forests (ELDF 2005; MPFD 2009). The joint forest management resolution of the State also permits collection of bonafide forest products requirement of the people and takes care of their nistar needs. Hence, this provision of the Forest Rights Act is also not new to Madhya Pradesh Forest Department.

The Chapter 2. 3(1) (c) of the Forest Rights Act provides for "Right of ownership, access to collect, use, and dispose of minor forest produce which has been traditionally collected within or outside village boundaries".

In case of Madhya Pradesh, the JFM resolution issued by the Madhya Pradesh State on 10.12.1991 and 4.1.1995 has given full right to non nationalised NTFP to the joint forest

management committees (ELDF 2005; MPFD 2009). The Panchayats (Extension to Scheduled Areas) Act notified in 1996 has recognised the Gram Sabha as a owner of the non nationalised NTFP available in village forests (ELDF 2005; MPFD 2009; Sarin *et al.* 2003). Hence, the respondents were of the view that no major change in non-nationalised NTFP could arise from the Forest Rights Act according to the perception of respondents.

Whereas, the Forest Rights Act also covers nationalised NTFP, which are managed by the State through State NTFP federation. The existing provisions of the rules shows that the State is organising the NTFP collection through co-operative societies constituted by villagers and distribute the revenue in following pattern (MPSFP(T&D)CF 2009). Out of the total revenue collected by sale of NTFP, about 60% is ploughed back to collectors, 20% invested on improvement of forests and 20% retained for infra structure development with the Forest Department (MPSFP(T&D)CF 2009). Therefore, the officers were of the view that the Madhya Pradesh Forest Department earns little for itself in the NTFP trade and taking over of NTFP trade by communities would not affect the Department financial position seriously.

Similarly in case of regulating the movement of NTFP, The Transit (Forest Produce) Rules, 2000 (Rules framed under section 41 and 42 along with section 76 of the Indian Forest Act, 1927 by Madhya Pradesh Forest Department) has empowered the village councils to issue passes subject to the ownership of forest produce including certain commonly grown timber (ELDF 2005; MPFD 2009). Hence, the loss of authority over NTFP movement is not visualised as a change, as it was already devolved to Gram Sabha.

Therefore, the transfer of ownership right of most of the NTFP, regulation of collection and movement were already devolved to village councils in Madhya Pradesh to greater extent. Hence, the respondents were of the view that the provisions of Forest Rights Act on these grounds are not likely to make big difference.

The Chapter 2. 3(1) (d &l) of Forest Rights Act provides for "Other community rights of uses or entitlements such as fish and other products of water bodies, grazing (both settled or transhumant) and traditional seasonal resource access of nomadic or pastoralist communities".

This study mainly concentrated on grazing rights as it was viewed as a major issue in literatures (Ballabh *et al.* 2002). In case of Madhya Pradesh, provision for grazing rights already exists under the Madhya Pradesh Protected Forest Rules, 1960, where in artisans,

labourers or agriculturists residing or owning land in a village are permitted to graze their cattle in the nearby protected forests. According to the Madhya Pradesh Grazing Rules, 1986, grazing is also permitted in reserved forests with certain restrictions (ELDF 2005; MPFD 2009). Hence, the respondents were of the opinion that the Forest Rights Act provision on grazing rights is not bringing any big change in the Madhya Pradesh Forest Department working.

The Chapter 2. 3(1) (I) of Forest Rights Act provides for "Right to protect, regenerate, or conserve or manage any community forest resource, which they have been traditionally protecting and conserving for sustainable use".

In case of Madhya Pradesh, following the 73rd Indian constitutional amendment in 1993 (which decentralised the governance to village level and empowered it to undertake village level planning for all developmental activities including forestry, irrigation and agriculture) the Madhya Pradesh has enacted "The MP Panchayat Raj Adhiniyam, 1993 (an act) and empowered the Gram Sabha to manage the village forests. The subsequent act namely Panchayats (Extension to Scheduled Areas) Act 1996 (Hereinafter referred to as PESA) extended the provisions of Madhya Pradesh Panchayat Raj Adhiniyam, 1993 to scheduled tribal areas also. Under PESA the Gram Sabha was given complete ownership of NTFP and also entrusted with the management of natural resources within a village (ELDF 2005; MPFD 2009; Sarin *et al.* 2003).

As such, the empowerment of Gram Sabha for management of community forest resource is not a new issue in Madhya Pradesh context. However, the earlier acts were not implemented in Madhya Pradesh due to lack of concurrent modification of existing legislative provisions, which empower the Forest Department to manage the community resources. Whereas, the Forest Rights Act has over riding effect on existing forest acts and likely to change the working conditions in community forest management. However, this likely change is viewed as minimum by Madhya Pradesh Forest Department on following grounds. Firstly, 65% of the State's forest are classified as reserved forests where in community claims are duly extinguished under the provisions of Indian Forest Act, 1927 while declaring them as reserved forest by Madhya Pradesh Forest Department (GOI 1927b). Hence, the Department is of the view that no claims would arise from these areas. The remaining forest areas (35%) are predominantly under protected forests, and set aside for meeting the people needs. It is mainly managed under joint forest management program. Since the management of these

areas are already under joint working pattern, wherein community needs/aspirations are incorporated in the management plan of the forest (through a document called "Micro plan") to some extent. The communities' claims for such forests are considered as a status quo by the respondents. Hence, the change is perceived as minimum.

Moreover, the MPFD is of the view that the community rights does not change the ownership of the land or give power to alter the land use. Hence, the rights are mostly applicable only to NTFP. Since, the NTFP is under the complete ownership of the communities, this provision is not likely to make big difference in the work of Madhya Pradesh Forest Department. These perceptions and ground realities seem to have enabled Madhya Pradesh Forest Department to carry on with Forest Rights Act implementation.

From the discussion, it appears that the latitude of the change caused by the Forest Rights Act is "minimum", due to predisposing factors already present in Madhya Pradesh.

The analysis also reveals that the systems memory such as past working, legislations in place and learning from the past working etc. contribute to present perception and thus tend to conserve the system's resilience. Hence, the system memory could be termed as one of the major drivers contributing to resilience of Madhya Pradesh Forest Department.

6.3. The perceived threat to the existing system of Madhya Pradesh Forest Department (Precariousness)

In the study, 88% of the respondents opined that the threat / disturbance posed by the Forest Rights Act to existing system of Madhya Pradesh Forest Department are "minimum". Various reasons were attributed by officers across the levels for such perceptions. In general, the State and district level officers were of strong view that the Forest Rights Act in not a threat to position of Madhya Pradesh Forest Department as it changes only certain dimensions of present Forest Department work and interface. However, few village level officers expressed concern that that the Forest Rights Act would lead to destruction of forest and Forest Department work completely. However, they lacked explanation for such perception beyond reasons like disturbance to forest plantations, forest protection, and likely increase in wildlife poaching. The limited global view and work boundary appears to be the reason behind their views. The various reasons attributed by the officers across the working levels are as follows.

Many officers were of the view that the Forest Rights Act does not alter the ownership status of the land. Hence, the Madhya Pradesh Forest Department would continue to hold its

position in terms of its ownership and would manage the forest as per its mandate. They also of view that the community rights are mostly applicable to NTFP in community forests and not for timber or to alter the land. Any such attempts by communities are likely to attract the Forest Conservation Act, 1980 and hence unlikely to occur.

Secondly, many officers were of the opinion that the Forest Rights Act does not supplement the Forest Department by Gram Sabha or communities. They also observed that the role of the Forest Department is multifarious and it will continue with management of forest and protection of natural resources. As such, they did not perceive any big threat to their position.

Thirdly, the Forest Department is of the opinion that the Gram Sabha lacks capacity to deal with management of forests and association of Madhya Pradesh Forest Department would be essential to provide technical inputs and proper management of the community forests. In case of nationalised NTFP trading also, officers were of the view that it is a multi million business and communities cannot handle it themselves. According to Behar and Kumar (2002), the Gram Sabha do not have basic capacity needed for planning and they do not even develop any micro plan for management of resources in its disposal. It also depends on government for funds and grants and even lack capacity for financial accounting. They further add that the functional capacity of the Gram Sabha is very limited on account of lack of technical skills and ability to negotiate administrative and political negotiations of conflicting priority and interests in management of natural resources (Behar and Kumar 2002). The Panchayat Raj Institutions are of the view that they lack capacity to deal with forestry issues due to its technical nature and consider Madhya Pradesh Forest Department as a best agency to manage the forests on account of its technical supremacy (Kaur and Ganguli 2003). On the other hand, the NGO's and State legislators are also of the view that the Forest Department is essential to ensure sustainable management of forest (Bose 2006; Singh and Sinha 2005). In such a scenario, the Forest Department position as a technical expert remains intact and the Forest Department visualise no threat to its position in forest management affair in the post Forest Rights Act scenario.

Another view of the Forest Department is that the National Forest Policy 1988 emphasis management of forest with involvement of the people (Jain 2001; MoEF 1988). Therefore, the changes arising from Forest Rights Act move it close to people and help in

achieving its mandate. Hence, the changed position is viewed as a boom rather than a threat by the Madhya Pradesh Forest Department.

The provision of declaring inviolate areas for wildlife conservation purpose and carrying out rehabilitation plans in such areas are well within the jurisdiction of the Forest Department as per the Forest Rights Act (MoTA 2007a). The Madhya Pradesh Forest Department officers were very confident that this provision of the act would help them to protect the wildlife in places where exercise of rights could pose threat to wildlife existence. They have already constituted teams to find out inviolate areas under the provision of Forest Rights Act. Thereby, the Forest Rights Act indirectly emphasised the role of Forest Department and adds strength to its existing position.

Another view echoed by many officers was that in case of serious conflicts or gross variation in interests, the Forest Department could approach the court for clarification or amending certain rights on specific grounds. The officers were confident that this option would help them in protection of forest vitality, wherever required. Considering the manpower, entrenched establishment, and technical prowess the Forest Department is definitely in a better position to deal with court cases than the communities / Gram Sabha, which are starved for funds and capacity.

Another aspect highlighted by majority of the officers was the provision of legal powers. The Forest Rights Act as such has not given legal powers to the communities or beneficiaries of the Forest Rights Act to enforce legal provision of the exiting forest laws. As such, the Forest Department position is left intact on this count and its presence is indispensible for the communities to take actions against various forest offences likely to happen inside the community forests.

Because of these factors, the Forest Department feels that the perceived threat due to Forest Rights Act would be minimum and have little impact on its system of existence.

The analysis also reveals that the system knowledge such as technical expertise in forestry, supremacy given by legislations to handle forestry affairs and capacity to deal varied works etc., contribute to present perceptions and tend to conserve the resilience of the system. Thereby, system knowledge could be termed as one of the major drivers contributing to resilience of Madhya Pradesh Forest Department.

6.4. The perceived position in the changed policy environment (Panarchy and Adaptation)

Majority of the officers across the hierarchical levels perceived "Joint Working" as an outcome of the changes appearing from the implementation of the Forest Rights Act. The cross scale interaction pattern emerged from the study is elaborated in following passages.

In case of the State level officers, the external interactions regarding implementation of Forest Rights Act come from Politicians (monitoring and feedback on progress), other Departments working with MPFD in Forest Rights Act implementation (Tribal Department, State administration wing etc.) civil societies (pressuring for early implementation and conflict resolution), media (giving feedback and conveying Departmental views), central government (monitoring and feed back), and courts (attending court proceedings connected with Forest Rights Act and implementing directions). These interactions decide the way in which the State level officers view the Forest Rights Act and shape the implementation strategy. The decision is communicated to the district level officers and their performance is continuously monitored. They also take the feedback from the district level officers and reshape the strategy / methodology or bring it to the notice of political bosses for solving certain issues, which hamper implementation.

In case of district level officers, they operate at two levels. Firstly, they receive and internalise the command from the higher-ups. They reorganise the limited resources available in their disposal, to execute the commands on the ground. They devise strategy and communicate the decisions to the frontline staff for implementation. They also monitor the works of the subordinate officers and take feedback on progress, issues etc. They try to address the issues cropping up from time to time to possible extent and send the feedback to State level officers for appropriate solution. Externally they operate with their district level counterparts such as district administration, Tribal Welfare Department etc. They also interact with media and civil activists and collect their feedback and complaints and try to solve the issue either by communicating down the line or upward depending on the nature of the issue and their capacity in decision-making

In case of village level officers, they gather the directions from the district level officers and execute it on ground, in co-ordination with their counterparts in other government Departments connected with the Forest Rights Act implementation. They also closely interact with the Gram Sabha and beneficiaries of Forest Rights Act in delineation of plot, inspection

of claimed areas, preparation of papers for committee perusal at higher levels etc. They also communicate the district level officers about progress and issues from time to time.

The above description of Madhya Pradesh Forest Department reveals that it is closely working in collaboration with the other Departments and people to achieve early implementation of Forest Rights Act. The internal collaboration also improved significantly due to frequent monitoring and feedback flows above and below the hierarchy levels. The MPFD appears to be comfortable in collaborative working due to number of reasons as explained below.

In case of State level officers, external factors like global knowledge on trends in forestry sector, dealing of overseas donor projects, strong political will for promoting joint working with people, legitimisation of work and image building of the Department are appear to guide them for preference in joint working. Similarly, the internal factors such as norms governing the working (National Forest Policy, 1988 insist on joint working), property rights given by the legislation to people (Forest Rights Act), ownership rights of the forests, mandate of the organisation and incentives available (reduced conflict, improvement in public relation etc.) are appears to promote joint working preference (Ebrahim 2004).

In case of district level, officers and village level officers following predisposing factors appear to promote preference for joint working.

Since 1980, the Madhya Pradesh Forest Department is collaborating with the people (in social forestry schemes) and evolved organisational capacity to work on co-management model (Saxena 1992). Following adoption of joint forest management in 1991, the Madhya Pradesh Forest Department has changed its role as a facilitator of village development and closely involved in non forestry welfare activities of the villages, by collaborating with other rural development Departments (Chaturvedi and Godbole 2005; Kaur and Ganguli 2003; Kumar and Kant 2005). Hence, the culture of collaboration appears to have firmly established in Madhya Pradesh Forest Department working.

Following implementation of joint forest management in villages over two decades, the Madhya Pradesh Forest Department has gained considerable skill in initiating dialogue and managing social issues in the villages (Chaturvedi and Godbole 2005; Kaur and Ganguli 2003). This factor also appears to be a reason behind the preference for joint working.

According to Chaturvedi and Godbole (2005), following the launch of joint forest management, the field level staff often need to work with people in forest protection and other forest based works. This change in working pattern has incorporated a sense of partnership working as a part of job profile than as a preference among the field officers. This factor could also be a facilitator for co-working preference.

Consequent to the cross scale interactions, few changes in the organisational culture also have been noticed in the study. The cross scale interaction has promoted mutual learning from other Departments and people. The staffs have been trained in joint working with tribal Department officials and use of modern tools like GPS and data base systems from the Information technology wing of the State. The Madhya Pradesh Forest Department has computerised all the records and real time updating of Forest Rights Act related works has been achieved by the training. This has promoted skills of the field level staff and organisational efficiency of the Department.

The intense monitoring and intense feedback flow across the levels has appears to have reduced the rigidity of access, between the hierarchical levels in the Madhya Pradesh Forest Department. It also imparted a bit of flexibility in official interactions.

The sudden additional workload entrusted on the ground level staff has severely affected their normal forestry works. The lack of capacity of the Gram Sabha to prepare the map of the claims, verification on ground and record maintenance, has made them to rely on Forest Department for these works, though it is not falling in purview of the Forest Department under the Forest Rights Act. This has further strengthened the relation between the Gram Sabha and Madhya Pradesh Forest Department. However, many Range officers expressed displeasure that the forest staffs are busy with Forest Rights Act related works, at the cost of delay in forestry works.

According to Hobley (1996), "decentralisation policies lead to slow internal restructuring of formal institutions where lower level staff is being given increased responsibilities for substantial management". This theory appears to match with the study results. The Madhya Pradesh Forest Department is proposed to empower the field level staff to maintain the records of field level rights so as to enable them to monitor the habitation rights and other issues. It also plans to impart special training to them for this purpose and elevate their position on par with Revenue Department officers at village levels. Currently such records are maintained at divisional level and the proposed change would be a

significant empowerment for field staff and their psychological status at village level. Hence, the cross scale interactions appear to enable slow restructuring and empowerment of staff at lower level.

From these analyses, it appears that the Madhya Pradesh Forest Department is slowly losing some of its traits of command and control system (rigidity and centralisation of power) and moving towards participatory working. The study also revealed that Madhya Pradesh Forest Department would be involving the stakeholders (communities) concerned with resource management in the decision making process and devolve powers to them to influence the decisions made. It would also take decisions in connection with the community needs and ground situation rather than solely relying on pre established norms it follow to make management plans. It also intends to build capacity of communities to shoulder their new responsibilities. It is planning to execute contractual agreement with communities for joint management of community forest resources based on decisions evolved by consultation and consensus. Consequent of these actions, there would be some change power relations and decision-making pattern presently followed by the Madhya Pradesh Forest Department. This could be explained as a model using the double spiral theory (Irena and Buttoud 2006) as under (Fig. 27).

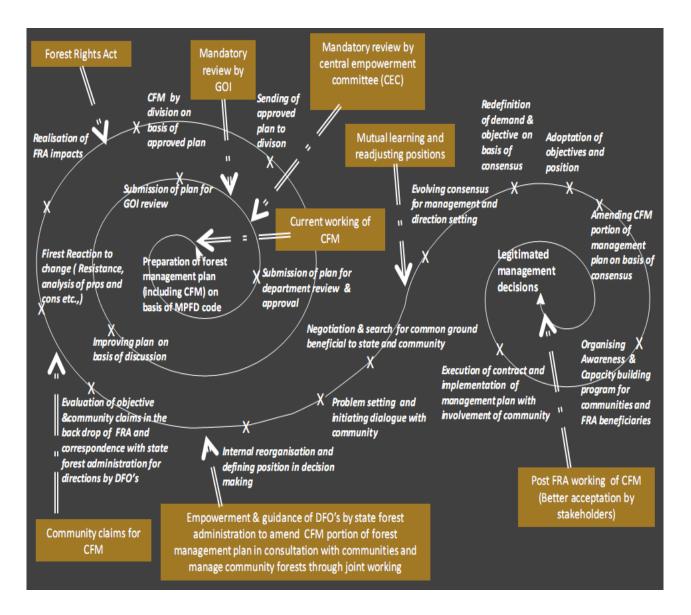


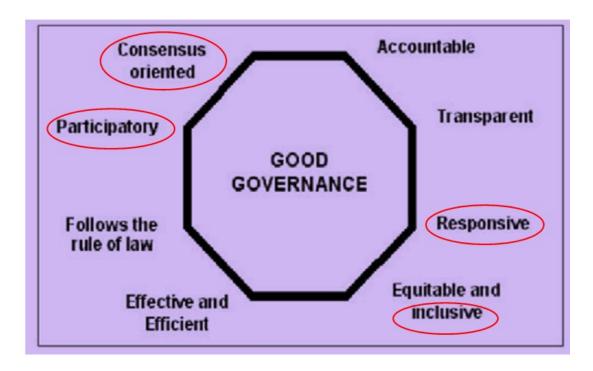
Figure 27. Application of Double Spiral theory to change in power relation and decision-making

Such a change in decision making pattern and incorporation of stakeholders aspirations in the management plan is a clear departure from work culture prevailing in Indian Forest Departments, which are known for their rigidity and normative culture (Behar and Kumar 2002; Kumar and Kant 2005, 2006). Thereby, it appears that the Madhya Pradesh Forest Department is slowly moving from government pattern of working to governance pattern of work (UNESCAP 2009), wherein it try to evolve as a translator of people needs in the overall context of forest management (Buttoud 2007)

One of the factors, which facilitated this change, appears to be the joint forest management program implemented by the Madhya Pradesh Forest Department over two decades in Madhya Pradesh. The following passage explains the cross scale interactions and changes in a different perspective following joint forest management program in Madhya Pradesh.

"If one looks at the role of the (Madhya Pradesh Forest) Department in a preparticipation and post-participation phase (of joint forest management) as 'Behaviour' in the form of a stimulus-organism-response equation we find that while the organism or the FD remained the same, the set of stimuli and the expected responses became more diverse in the post-participation phase. The transformed policy position, pressure from people's institutions, and international emphasis on participatory approaches in addition to the experiences in the field and the forestry statistics formed a complex set of stimuli that demanded different and seemingly contradictory responses ranging from conservation to rural development with the overarching objective of 'overall' development. ... The transition from a 'closed' system of working to an inclusive one necessitated a change in the scope of the Institution's functioning" (Chaturvedi and Godbole 2005).

Hence, the study reveals that the changes triggered by the Forest Rights Act appear to incorporate few elements of governance (such as consensus oriented decision-making, inclusive approach, participatory style of working and responsive administration) in the decision-making system of Madhya Pradesh Forest Department working and moving it towards governance system of administration. The elements of governance mentioned above are schematically given below (within the circle) in figure no. 28.



(Source- Partly adapted from UNESCAP 2009)

Figure 28. Elements of governance

The analysis also reveals that the system's ability to innovate means to meet the demands, ability to self organise in the changed scenario and capacity to learn form joint working have contributed to the present perceptions and tend to conserve the resilience of Madhya Pradesh Forest Department. Therefore, these factors could be termed as one of the drivers contributing to resilience of Madhya Pradesh Forest Department.

6.5. Effect of Forest Rights Act changes on resilience of Madhya Pradesh Forest Department

According to theory of organisational ecology, "only those organizations who are able to successfully adapt to the changes in their environment, continue to prosper while the rest die" (Hannan and Freeman 1984). Thereby, the organisational dynamism is very basic feature for survival of any organisations and the survival is influenced by its resilience, in the face the perturbation. In case of Indian Forest Departments the dynamism is absolutely essential as they function in a hostile environment (within government and external environment) where many stakeholders are viewing it as impediment to developmental works (government Departments view) and insensitive to people needs (civil rights groups, NGO's and others view). Such complaints arise from nature of work entrusted on foresters i.e. protection forests from burgeoning human pressure in the second populous country in the world and safe

guarding forests from the developmental projects put forth vibrant economy, which are often located in forestlands. Hence, to make up the torn image, the Indian Forest Departments are trying hard over decades to change their approach in working towards the people and their outlook. Interestingly, despite of two decades of implementation of participatory forest management programs in India there is little change in the structure, role in the overall framework and internal working style of the Forest Departments (Kumar and Kant 2005, 2006). Thereby, the same Madhya Pradesh Forest Department implementing the previous exclusionary policies is presently implementing participatory forest management with involvement of people. The ability to carry forward the basic structure established in 1956 in the changed working conditions justifies the presence of dynamism in the Madhya Pradesh Forest Department.

The study revealed that about 50% of the Madhya Pradesh Forest Department respondents expressed negative attitude towards the Forest Rights Act (Fig. 13). However, the perception pattern of resistance varied across the hierarchy level based on working position and responsibility. In a well-defined command and control system, individual preference is always of secondary importance and the system carry on with the work based on the instructions transmitted below. In this way, the positive attitude shown by the majority of officers at State level appears to be the system mover against the latent resistance prevalent in district and village level officers. Because of this inherent trait (command and control) of the Madhya Pradesh Forest Department, the system has not deformed on face of perturbation and adapted to changed scenario.

As already explained in latitude finding, the degree of consonance between the Forest Rights Act provisions and existing State legislations in Madhya Pradesh Forest Department has facilitated the Madhya Pradesh Forest Department to quickly adjust to the changes and carry on with implementation. It appears that since the latitude of change is very minimum, it has not stressed the system stability significantly, and the Madhya Pradesh Forest Department maintained its system intact due to this advantage.

In case of the perceived threat and closeness to the threshold of deformation, the Madhya Pradesh Forest Department has identified number of reasons as how it is away from the threshold. In fact, the changes are positive in many ways to the Forest Department existence. For example, the changes push the Forest Department system close to its mandate and promote the system's integrity. They also reinforce the Forest Department's capacity to

deal with varied works. The changes also enable the Madhya Pradesh Forest Department to mitigate the encroachment problems by evicting the ineligible ones and reclaiming excess area under encroachment. The Forest Rights Act also established supremacy of Forest Department in wildlife affairs and left the complete power on wildlife conservation issues intact to it. There by the perceived threat seems to be insignificant and the system is confident of maintaining its position well in the changed environment.

Regarding the perceived position in the changed conditions, the Madhya Pradesh Forest Department has shown inclination to move towards partnership working with communities and individuals. This is a significant shift in the attitude and approach. Though the joint forest management approach is in vogue in Madhya Pradesh Forest Department since 1991, the system of decision-making is dominated by the Forest Department based on its norms and very little room was left for inclusion of people's aspiration (Sarin et al. 2003). Number of reasons such as weak legal footing of JFM bodies, fund control by Forest Department, executing of agreement maintaining Forest Department supremacy in decision making etc. are cited in literature for such domination (Behera and Engel 2006a; Matta and Kerr 2007; Rishi 2007; Sarin et al. 2003). However, this equation seems to change with the Forest Rights Act. The empowerment of communities to manage the community forests under the Forest Rights Act change their position from favour seeker (from Forest Department) to partner in forest management. There is also an apprehension among the forest officers (about 52% of the respondents) that since the communities are entitled for 100% forest products under the Forest Rights Act, they may not be interested in the joint forest management scheme implemented by the Madhya Pradesh Forest Department any more, which offers only pre fixed share of forest produce based on agreement. The study by Hobley (1996) also subscribe to this view. In such a situation, rather than losing the complete control over the community forestry affairs, it is prudent for the Forest Department to associate itself with communities to retain its position in overall forestry administration. Number of other factors also favours the Madhya Pradesh Forest Department decision to associate with communities (ownership right of land, superior technical capacity, law enforcement power, goodwill gained over years through joint forest management and lack of capacity among the communities). Hence, these factors appear to be reason behind the change in its stand and inclination to move from the position of regulator to collaborator. However, the effect of such change in the role or position may affect its resilience. To assess the level of change in its work in the altered situation, the mandate of the Madhya Pradesh Forest Department prior to Forest Rights Act and post Forest Rights Act was analysed. The analysis revealed following results (Table 5).

From the table no. 5, it appears there are some changes creeping in the system of working in the Madhya Pradesh Forest Department due to Forest Rights Act. However, the changes affect only a portion of Madhya Pradesh Forest Department working and by and large, the system retains its configuration in terms of its mandate, structure, and functions. The adaptive cycle analysis of Madhya Pradesh Forest Department revealed that it is in the α stage. According to adaptive cycle theory if, the system retains sufficient of its previous components in " α " phase, it can reorganize to remain within the same configuration as before. (Ascher 2001) and it also has scope for entry of new institutions, ideas, policies and could lead to "new", emerging system, with the same or a different configuration and gains resilience (Walker *et al.* 2002). From this aspect, it appears that the Madhya Pradesh Forest Department is preparing to move to another cycle on adaption with more or less same configuration it managed to maintain through the change process.

Mandate prior to Forest	Change level in working pattern		
Rights Act	Forest Rights Act	Rights Act	and mandate of Madhya
			Pradesh Forest Department
To protect and conserve	Mainly through joint forest	65% of the forests under reserved	Slight change in approach and no
forest resources in Madhya	management and command	forests will be primarily protected	change in mandate
Pradesh through	and control system.	through joint forest management and	
sustainable forest		command and control system and	
management		remaining will be managed through	
		association with the community	
To maintain and enhance	Mainly through working plan	Mainly through joint working plan to	Slight change in approach and no
biodiversity for ecosystem	implementation (in some	be prepared in consultation with	change in mandate
health and vitality	cases through micro plan	communities for community forests and	
To conserve soil and water	developed broadly on basis of	for remaining areas through command	
resources for ecological	working plan elements) and	and control and people involvement	
and environmental stability	protection in wildlife areas	(Ecodevelopment committees)	
To enhance forest	through command and		
productivity using modern	control and people		
scientific tools.	involvement		
	(Ecodevelopment		
	committees)		
To meet the requirements	Mainly through working plan	Mainly through micro plan prepared in	Considerable change in approach
•	1	consultation with the communities.	_
timber, fuel wood, fodder	prepared in consultation with	However elements of working plan will	
etc. of the people of the	the people	find some place as forest department is	
state particularly those		also partner to the resource	
dependent on forest.		management	
To evolve strategic policy,		Mainly by consultation and joint	Considerable change in approach
legal and institutional	and control system	working	and no change in mandate.
framework to address			
emerging needs			

Table 5. Comparison of MPFD mandate on pre and post Forest Rights Act implementation period

The proposed strategy of the Madhya Pradesh Forest Department to the changes emerging from Forest Rights Act viz. training and empowerment of forest staff, training and capacity building of the beneficiaries of Forest Rights Act to handle the community forests, awareness building activities among the beneficiaries about their duties under the Forest Rights Act, declaration of inviolate wildlife areas to avoid injudicious use of rights, and working with communities in "joint active partnership" mode etc. are intended to promote sustainable management of forests which is the very purpose of Madhya Pradesh Forest Department's existence. By such a strategy, it also consolidates its position in forestry affair in the change scenario.

The process of change and its effect on resilience could be explained in schematic way as under (Fig. 29).

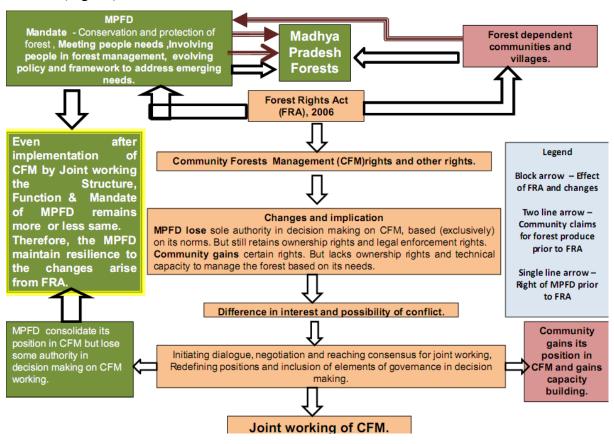


Figure 29. Resilience analysis of MPFD

Thereby, it appears that the Madhya Pradesh Forest Department has managed to absorb the perturbations from Forest Rights Act, reorganised to deal with the change and have undergone or propose to undergo some changes in internal working. In the overall process, it has managed to maintain more or less, its overall function, structure, identify and feedback mechanisms intact. Thereby, it remains resilient to the perturbations caused by Forest Rights

Act. Therefore, the change caused by the Forest Rights Act on resilience of Madhya Pradesh Forest Department could be considered as "minimum".

6.6. Theoretical implication of the study

The study reinstates the validity of following theories and strengthens the current knowledge in the respective fields.

The study finding coincided with the theories governing organisational resistance to changes and factors that could modify the structural and cultural resistance in the organisation (Kumar and Kant 2006). As explained in the chapter 6.1, the differential perception of the officers across the working categories and reasons for such perceptions match with above said theories.

The study finding also strengthens the organisational behaviour theory in terms of external relations (Korten and Uphoff 1981). As explained in the chapter 6.1, the negative attitude of village level officers toward the community rights coincides with this theory.

The study also supports the theory on factors governing implementation of policy reforms in the organisations (Hodges and Durant 1989). As explained in chapter 6.2, the higher degree of consonance between the provisions of Forest Rights Act and existing norms of Madhya Pradesh Forest Department has facilitated easy adaptation and implementation.

The study also supported the theory of empowerment in decentralisation scenario (Hobley 1996). The proposed empowerment of village level staff by the Madhya Pradesh Forest Department as detailed in chapter 6.4, could be attributed to this theory.

The study also supported the theory of transition from government to governance system of working (Buttoud 2007). The strategies adopted by the Madhya Pradesh Forest Department incorporate certain elements of governance system in its decision making process and facilitate the transition towards governance system as explained in chapter 6.4.

In addition to that, it also supports theory of organisational ecology on dynamism of organisations (Hannan and Freeman 1984) and adaptive cycle theory (Walker *et al.* 2002) as explained in chapter 6.5.

Thereby, the study revalidates the existing pool of knowledge on certain organisational and resilience theories as stated above.

6.7. Managerial implication of the study

One of the main reasons behind resilience study is to figure out the current configuration of the system in over all context of working, assessing drivers which contribute to system's resilience, assessing the systems effectiveness against its managemental objectives and devising strategies to either alter or retain or enhance the present configuration to meet its mandate, by modifying the drivers that contribute to resilience (Cumming *et al.* 2005; Walker *et al.* 2002).

The study has revealed that the command and control system, system memory and system knowledge act as the main drivers contributing to its global resilience of Madhya Pradesh Forest Department. The study also revealed that the National Forest Policy, 1988 and managemental objectives of the Madhya Pradesh Forest Department predominantly favour inclusion of elements of governance in forest management (GOI 1952; MoEF 1988; MoTA 2007a). However, the centralisation of power at higher levels, prevent the field level officers to take decisions close to resource users based on best alternative possible in the given situation. Thereby, the uncertainty in decision making, prevailing in the level of the divisional and village level officers, force them to choose risk averse approach and restrict to government system of work, though the overall framework of management calls for governance system of work. Thereby, the configuration of the present system appears to be inconsistent with its mandate and needs modification. Mechanistic modifications may not yield desired results, as the existing resilience of the system is robust in nature and it would tend to conserve the current practise. To justify this fact, the empowerment of village councils to manage the natural resources under the PESA, 1997 by Madhya Pradesh State government could be referred to. Despite of significant empowerment for grass root level management, it was not implemented due to concurrent non modification of existing legislations that favour management of natural resources by Madhya Pradesh Forest Department (Sarin et al. 2003). Taking advantage of this factor, the MPFD's "system memory" driver has reinforced the existing system and prevented change in the working pattern.

Therefore, careful manipulation of drivers contributing to system's resilience could either push the system close to or away from the desired state of system configuration (Walker *et al.* 2004). Since the command and control system is an important driver contributing to the system's resilience and closely associated with centralisation of power, modifying its effectiveness would alter the system configuration to the desired level. Therefore, institutional reforms such as decentralisation of power to divisional and village

levels, empowerment to take decisions based on ground reality and devolvement of discretionary power over rules to impart flexibility in negotiations would strengthen the position of field level officers and would improve the organisational efficiency. Similarly, imparting training on advantage of governance based working system (particularly among the village level officers), would entail attitudinal change and manipulation of system knowledge driver. Thereby it would promote system's acceptability towards governance type of management.

7. Conclusion & Recommendations

7.1. Conclusions

The objective of the study was to assess the effect of Forest Rights Act on Madhya Pradesh Forest Department working and its resilience on account of changes emerging from implementation of Forest Rights Act. The study revealed that the effect and extent of changes caused are "minimum" as the provisions of the Forest Rights Act are more or less similar to exiting norms governing Madhya Pradesh Forest Department working.

However, these minimum changes have brought some impacts on decision-making system of Madhya Pradesh Forest Department. To adapt to the changes, the Madhya Pradesh Forest Department is planning to work with the communities to ensure that the forest vitality is not destroyed by injudicious exercise of forest rights accorded by the Forest Rights Act. Though such change, incorporate certain elements of governance in the decision making pattern in Madhya Pradesh Forest Department, it does not appear to alter its structure or overall function in the changed scenario. Rather the change appears to move the Madhya Pradesh Forest Department further close to its mandate and improve the system's integrity. Thereby, the resilience of the Madhya Pradesh Forest Department remains largely unaffected by the changes triggered by Forest Rights Act.

The study also identified the drivers (command and control system, system memory and system knowledge and innovation skill) that contribute to the global resilience of Madhya Pradesh Forest Department. The study also revealed that the present structure of the Madhya Pradesh Forest Department promotes government type of working while its mandate calls for governance system of working. Such inconsistency in structure and mandate is likely to affect the organisational efficiency in the changed scenario. Hence, to further promote the current system of administration to match with the changes, institutional reforms such as decentralisation of decision making power to divisional and village level officers, empowering them to take decisions mainly based on ground reality and devolvement of discretionary power over rules to field officers (to impart flexibility in negotiations) are suggested.

7.2. Limitations and suggestions for future research

7.2.1. Limitations

The main limitation of the study was the time constraint. Due to paucity of time, the response gathered was limited to only two divisions instead of three divisions intended in the planning stage.

As a pioneer study, covering response of the Forest Department to Forest Rights Act implementation, very little information was available from the secondary literatures to support or reject certain issues raised in the study.

The author of the thesis worked for 10 years in the capacity of District Forest Officer in India. Though this factor contributed significantly to the study (in gathering information in time, access to officers working at various levels, access to certain government records, interpretation of results from insider perspective etc.), still there is a possibility of element of personal bias in interpretation. However, cross verification and triangulation with secondary literature was carried out to minimise the personal bias.

7.2.2. Suggestions for future research

Since the Forest Rights Act is a newly enacted legislation (actual implementation on ground started only in April 2008), most of the effects mentioned in the reports are based on the perception of officers. When this study was conceived in January 2008, only four States were involved in implementation of the Forest Rights Act (Table. 1). However, shortly many States have started implementation (Annexure 4). As on 31/4/2009, States like Chhattisgarh, Orissa, Tripura, and Madhya Pradesh has made significant achievement in distribution of individual rights whereas, many States (Bihar, Jharkhand, Karnataka etc.) are yet initiate Forest Rights Act implementation. The comparative study among these States on their success in implementation or reason for delay in implementation might yield interesting information on institutional resistance and resilience to perturbation.

Similarly, the main issue in the Forest Rights Act is relating to "Community Forest Management Rights (CFMR)". As on 30/4/2009 only 2 community claims are distributed in whole of India (only in the State of Rajasthan – Annexure 4)(MoTA 2009a). The State of Rajasthan and Orissa has already approved 247 and 44 community claims respectively and likely to distribute soon (Annexure 4). The working of CMFR in these States is likely to form

nucleus of learning for other State Forest Departments in India and may guide future trajectory of the joint working. Study on these aspects is likely to yield rich information on institutional reforms and resilience to perturbation and hence recommended.

Reference

- Adger, W.N. (2000) Social and ecological resilience: are they related? *Progress in Human Geography* **24**, 347-364.
- Anderies, J.M., Janssen, M.A. and Ostrom, E. (2004) A framework to analyze the robustness of social-ecological systems from an institutional perspective. *Ecology and Society* **9**, 18.
- Appukuttannair, D. and Stefanie, E. (2003) Joint Forest Management in India: Assessment of Performance and Evaluation of Impacts. In: *ZEF-Discussion Papers on Development Policy No. 77*, University of Bonn.
- Ascher, W. (2001) Coping with Complexity and Organizational Interests in Natural Resource Management. *Ecosystems* **4**, 742-757.
- Ballabh, V., Balooni, K. and Dave, S. (2002) Why Local Resources Management Institutions Decline: A Comparative Analysis of Van (Forest) Panchayats and Forest Protection Committees in India. *World Development* **30**, 2153-2167.
- Balooni, K. (2002) Participatory Forest Management in India-An Analysis of Policy Trends amid 'Management Change. *Policy Trend Report* **2002**, 88-113.
- Behar, A. and Kumar, Y. (2002) Decentralisation in Madhya Pradesh, India: from Panchayati Raj to Gram Swaraj (1995 to 2001), Overseas Development Institute.
- Behera, B. and Engel, S. (2006a) Institutional analysis of evolution of joint forest management in India: A new institutional economics approach. *Forest Policy and Economics* **8**, 350-362.
- Behera, B. and Engel, S. (2006b) Who forms local institutions? Levels of household participation in India's Joint Forest Management program. In: *International Society for New Institutional Economics*, Barcelona.
- Bellamy, J.A., Walker, D.H., McDonald, G.T. and Syme, G.J. (2001) A systems approach to the evaluation of natural resource management initiatives. *Journal of Environmental Management* **63**, 407-423.
- Bhullar, L. (2008) The Indian Forest Rights Act 2006: A Critical Appraisal. In: *Law, Environment and Development Journal (2008)*.
- Bijoy, C.R. (2008) Forest Rights Struggle: The Adivasis Now Await a Settlement. *American Behavioral Scientist* **51**, 1755-1773.
- Bingeman, K., Berkes, F. and Gardner, J.S. (2004) Institutional responses to development pressures: Resilience of social-ecological systems in Himachal Pradesh, India. *Int. J. Sustain. Dev. World Ecol.* **11**, 99-115.
- Bose, P. (2008) Strengthening Institutions: Panacea for Tribal Forest Governance in India. In: 11th Biennial Conference, IASCP Ubud, Bali Indonesia

- Bose, S. (2006) Role of User Groups and Panchayati Raj Institutions (PRIs) in strengthening Participatory Forest Management (PFM) in India. In: 11th Biennial Conference, IASCP Ubud, Bali Indonesia.
- Buttoud, G. (2007) Policy changes for sustainable forestry: From government to governance. In: *IFSA European Conference*, Nancy, France.
- Chaturvedi, R. and Godbole, G. (2005) Incorporating Stakeholder Perceptions in Participatory Forest Management Perceptions of the Madhya Pradesh Forest Department, UK Department for International Development.
- Creswell, J.W. (2002) Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research, Pearson Education., Upper Saddle River, NJ.
- Creswell, J.W. (2008) Research design: Qualitative, quantitative, and mixed methods approaches, Sage Pubns.
- Cumming, G.S., Barnes, G., Perz, S., Schmink, M., Sieving, K.E., Southworth, J., Binford, M., Holt, R.D., Stickler, C. and Holt, T.V. (2005) An Exploratory Framework for the Empirical Measurement of Resilience. *Ecosystems* **8**, 975-987.
- David, S. (2009) A year after the Tribal Forest Rights Act. In: *India Today*.
- Ebrahim, A. (2004) Institutional Preconditions to Collaboration: Indian Forest and Irrigation Policy in Historical Perspective. *Administration & Society* **36**, 208-242.
- ELDF (2005) Incorporating Stakeholder Perceptions in Participatory Forest Management The Law and Policy Context, UK Department for International Development, Delhi.
- Endter-Wada, J., Blahna, D., Krannich, R. and Brunson, M. (1998) A Framework for Understanding Social Science Contributions to Ecosystem Management. *Ecological Applications* **8**, 891-904.
- FAO (2005) Forest Resource Assessment Country report India Food and Agriculture Organisation Rome.
- Folke, C. (2006) Resilience: The emergence of a perspective for social-ecological systems analyses. *Global Environmental Change* **16**, 253-267.
- Folke, C., Hahn, T., Olsson, P. and Norberg, J. (2005) Adaptive governance of social-ecological systems.
- FSI (2005) State of Forest report 2005, Forest Survey of India, MoEF.
- Gadgil, M., Prasad, S.N. and Ali, R. (1983) Forest management and forest policy in India: a critical review. *Social Action* **33**, 127–155.
- GOI (1894) Indian Forest Policy, 1894, New Delhi
- GOI (1927a) Indian Forest Act, 1927, New Delhi

- GOI (1927b) Indian Forest Act, 1927, New Delhi
- GOI (1952) National Forest Policy, 1952, GOI, New Delhi
- GOI (1972) Wild Life Protection Act, 1972, New Delhi
- GOI (1976) National Commission on Agriculture Report, Ed: G.o.I. Ministry of Agriculture, New Delhi
- Hobley, M. (1996) *Institutional change within the forestry sector: centralised decentralisation*, Overseas Development Institute.
- Hodges, D.G. and Durant, R.F. (1989) The Professional State Revisited: Twixt Scylla and Charybdis? *Public administration review*, 474-485.
- Holling, C.S. (2001) Understanding the Complexity of Economic, Ecological, and Social Systems. *Ecosystems* **4**, 390-405.
- Irena, K. and Buttoud, G. (2006) Assessment of an iterative process: The double spiral of redesigning participation. *Forest Policy and Economics* **8**, 529-541.
- Jain, R.B. (2001) National Forest Policy Review, India., Indian Institute of Forest Management, Bhopal.
- Joy, D. and Symlieh, H.J. (2006) Trends in tenure arrangements for forest and their implications for sustainable forest management: The need for more unified regime: A case study from Meghalaya, India In: *Survivals of the Commons: Mounting challenges and New realities* Bali, Indonesia.
- Kaur, N. and Ganguli, A. (2003) Incorporating Stakeholder Perceptions in Participatory Forest Management in India: Perceptions of Panchayati Raj Institutions on Joint Forest Management in Harda TERI, India.
- Korten, D.C. and Uphoff, N.T. (1981) *Bureaucratic reorientation for participatory rural development*, National Association of Schools of Public Affairs and Administration Washington, DC.
- Kumar, S. and Kant, S. (2005) Bureaucracy and new management paradigms: modeling foresters' perceptions regarding community-based forest management in India. *Forest Policy and Economics* 7, 651-669.
- Kumar, S. and Kant, S. (2006) Organizational resistance to participatory approaches in public agencies: An analysis of forest department's resistance to community-based forest management. *International Public Management Journal* **9** (2), 141-173
- Lebel, L., Anderies, J.M., Campbell, B., Folke, C., Hatfield-Dodds, S., Hughes, T.P. and Wilson, J. (2006) Governance and the capacity to manage resilience in regional social-ecological systems. *Ecology and Society* **11**, 19.

- Matta, J. and Kerr, J. (2007) Barriers Beyond the Partners: Bureaucratic and Political Constraints to Implementing Joint Forest Management in Tamil Nadu, India. *Environment, Development and Sustainability* **9**, 465-479.
- Matta, J.R., Kerr, J. and Chung, K. (2005) From Forest Regulation to Participatory Facilitation: Forest Employee Perspectives on Organizational Change and Transformation in India. *Journal of Environmental Planning and Management* **48**, 475 490.
- MoEF (1988) National Forest Policy, 1988, GOI, New Delhi
- MoEF (2006) National Forestry Commission Report, 2006, Ed: GOI, New Delhi
- MoTA (2007a) The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 Ed: GOI.
- MoTA (2007b) The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Rules, 2007, Ed: M.o.T. affairs.
- MoTA (2009a) Status report on implementation of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 [for the period ending 30st April, 2009] Ed: M.o.T. Affairs, New Delhi.
- MoTA (2009b) Status of implementation of Tribal act in India (As on 31/1/2009).
- MPFD (2009) Madya Pradesh Forest Department website
- MPSFP(T&D)CF (2009) Madhya Pradesh State Minor Forest Produce (Trading & Development) Co-operative Federation website.
- Nayak, P.K. (2002) Community based forest management in India The issue of tenurial significance In: 9th Biennial Conference of the International Association for the Study of Common Property Victoria Falls, Zimbabwe.
- Ockwell, D. (2008) 'Opening up' policy to reflexive appraisal: a role for Q Methodology? A case study of fire management in Cape York, Australia. *Policy Sciences* **41**, 263-292.
- Olsson, P., Folke, C. and Berkes, F. (2004) Adaptive Comanagement for Building Resilience in Social–Ecological Systems. *Environmental Management* **34**, 75-90.
- Patnaik, S. (2008) Rights Against All Odds: How Sacrosanct is Tribal Forest Rights?, Regional Centre for Development Cooperation Bhubaneswar.
- Peterson, G. (2000) Political ecology and ecological resilience:: An integration of human and ecological dynamics. *Ecological Economics* **35**, 323-336.
- Plummer, R. and Armitage, D. (2007) A resilience-based framework for evaluating adaptive co-management: Linking ecology, economics and society in a complex world. *Ecological Economics* **61**, 62-74.

- PRIA (1998) Village Resource Development Program and Ecodevelopment Program in Madhya Pradesh Midterm Evaluation. In: *Midterm evaluation of VRDP and EDP in Madya Pradesh* Society for Participatory Research in Asia., New Delhi
- Rao, J. and Kerr, J. (2002) From Regulation to Facilitation? The Forest Department and Joint Forest Management in Tamilnadu, India. . In: *IASCP*.
- Rishi, P. (2007) Joint forest management in India: An attitudinal analysis of stakeholders. *Resources, Conservation and Recycling* **51**, 345-354.
- Sarin, M., Singh, N.M., Sundar, N. and Bhogal, R.K. (2003) Devolution as a threat to democratic decision-making in forestry? Findings from three states in India, Overseas development institute (ODI).
- Saxena, N.C. (1992) Farm Forestry and Land-Use in India: Some Policy Issues. *Ambio* 21, 420-425.
- Saxena, N.C. (Undated) Policies, realities and abilities to change: The Indian Forest Service A case study DFID, Grey Literature Collection.
- Singh, K.D., Sinha, B. and Mukherji, S.D. (2005) Exploring options for joint forest management in India. Forestry Policy and Institutions Working Paper (FAO).
- Singh, R.K. and Sinha, V.K. (2005) Legislators' Perceptions about Participatory Forest Management and their Role: A Case Study of Madhya Pradesh Legislative Assembly DFID, Bhopal
- Singhal, R. (2008) Changing Levels of Governance: Evolution in Community Forestry Regimes.
- Springate-Baginski, O., Sarin, M., Ghosh, S., Dasgupta, P., Bose, I., Banerjee, A., Sarap, K., Misra, P., Behera, S. and Reddy, M.G. (2008) The Indian Forest Rights Act 2006: Commoning Enclosures?
- Sukwong, S. (2000) Linking Local Lessons to Policy Development. In: *International Workshop on Model Forests for Field Level Applications of Sustainable Forest Management* Yamanashi, Japan, .
- Thomas, D.R. (2000) Policy under the Microscope: Research Strategies for Investigating Policy Processes University of Auckland
- Thomas, D.R. (2003) A general inductive approach for qualitative data analysis. In: http://www.health.auckland.ac.nz/hrmas/resources/Inductive2003 Accessed on 12/3/2009.
- UNESCAP (2009) What is good governance? In: http://www.unescap.org/pdd/prs/ProjectActivities/Ongoing/gg/governance.asp, Accessed on 14/04/2009.

- Vemuri, A. (2008) Joint Forest Management in India: An Unavoidable and Conflicting Common Property Regime in Natural Resource Management. *Journal of Development and Social Transformation* 5.
- Walker, B., Carpenter, S., Anderies, J., Abel, N., Cumming, G., Janssen, M., Lebel, L., Norberg, J., Peterson, G.D. and Pritchard, R. (2002) Resilience management in social-ecological systems: a working hypothesis for a participatory approach. *Conservation Ecology* **6**, 14.
- Walker, B., Holling., C., Stephen, R., Carpenter, S. and Kinzig, A. (2004) Resilience, Adaptability and Transformability in Social-ecological Systems. *Ecology and Society* **9 (2)**, 5.
- Walker, B.H., Anderies, J.M., Kinzig, A.P. and Ryan, P. (2006) Exploring resilience in social-ecological systems through comparative studies and theory development: introduction to the special issue. *Ecology and Society* 11, 12.
- Whisnant, M.S. (1980) The Management Climate for Implementation of New Processes for Resource Management Planning on the National Forests PhD Dissertation, Univ. of Georgia.

Web Sites referred

Digital Library of the Commons	http://dlc.dlib.indiana.edu/
Forest policy and Economics	http://www.foper.dvopivar.com/materials.htm#fl
reading materials (FOPER)	
M.P. State Minor Forest Produce	http://www.mfpfederation.com/content/about_us.html
(Trading & Development)Co-	
operative Federation limited . Fed	
.Ltd.	
Madhya Pradesh Forest	http://mpforest.org//
Department	
Ministry of Environment &	http://www.envfor.nic.in/
Forests, GOI	
Ministry of Panchayati Raj, GOI	http://panchayat.nic.in/viewContentItem.do?View=viewItem &itemid=3026&ptltid=320
Ministry of Tribal Affairs, GoI	http://tribal.nic.in/index1.html
Overseas Development Institute, UK	http://www.odi.org.uk/ccef/resources/greyliterature/
Research on Resilience	http://www.resalliance.org/1.php
UN ESCAP	http://www.unescap.org/pdd/prs/ProjectActivities/Ongoing/g
	g/governance.asp
University of South Alabama	http://www.southalabama.edu/coe/bset/johnson/lectures/lec1
	4.pdf



अंसाधारण

EXTRAORDINARY

भाग 🛚 --- खण्ड १

PART II - Section 1

प्राधिकार से प्रकाशित

PUBLISHED BY AUTHORITY

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NEW DELHI, TUESDAY, JANUARY 2, 2007 / PAUSA 12, 1928

इस भाग में भिन्न पृष्ठ संख्या दी जाती है जिससे कि यह अलग संकलन के रूप में रखा जा सके। Separate paging is given to this Part in order that it may be filed as a separate compilation.

MINISTRY OF LAW AND JUSTICE

(Legislative Department)

New Delhi, the 2nd January, 2007/Pausa 12, 1928 (Saka)

The following Act of Parliament received the assent of the President on the 29th December, 2006, and is hereby published for general information:—

THE SCHEDULED TRIBES AND OTHER TRADITIONAL FOREST DWELLERS (RECOGNITION OF FOREST RIGHTS) ACT, 2006

No. 2 of 2007

[29th December, 2006]

An Act to recognise and vest the forest rights and occupation in forest land in forest dwelling Scheduled Tribes and other traditional forest dwellers who have been residing in such forests for generations but whose rights could not be recorded; to provide for a framework for recording the forest rights so vested and the nature of evidence required for such recognition and vesting in respect of forest land.

Whereas the recognised rights of the forest dwelling Scheduled Tribes and other traditional forest dwellers include the responsibilities and authority for sustainable use, conservation of biodiversity and maintenance of ecological balance and thereby strengthening the conservation regime of the forests while ensuring livelihood and food security of the forest dwelling Scheduled Tribes and other traditional forest dwellers;

AND WHEREAS the forest rights on ancestral lands and their habitat were not adequately recognised in the consolidation of State forests during the colonial period as well as in independent India resulting in historical injustice to the forest dwelling Scheduled Tribes and other traditional forest dwellers who are integral to the very survival and sustainability of the forest ecosystem;

AND WHEREAS it has become necessary to address the long standing insecurity of tenurial and access rights of forest dwelling Scheduled Tribes and other traditional forest dwellers including those who were forced to relocate their dwelling due to State development interventions.

BE it enacted by Parliament in the Fifty-seventh Year of the Republic of Indians follows:-

CHAPTER 1

PRELIMINARY

Short title and commencement.

- 1. (1) This Act may be called the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.
 - (2) It extends to the whole of India except the State of Jammu and Kashmir.
- (3) It shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint.

Definitions.

- 2. In this Act, unless the context otherwise requires,---
- (a) "community forest resource" means customary common forest land within the traditional or customary boundaries of the village or seasonal use of landscape in the case of pastoral communities, including reserved forests, protected forests and protected areas such as Sanctuaries and National Parks to which the community had traditional access;
- (b) "critical wildlife habitat" means such areas of National Parks and Sanctuaries where it has been specifically and clearly established, case by case, on the basis of scientific and objective criteria, that such areas are required to be kept as inviolate for the purposes of wildlife conservation as may be determined and notified by the Central Government in the Ministry of Environment and Forests after open process of consultation by an Expert Committee, which includes experts from the locality appointed by that Government wherein a representative of the Ministry of Tribal Affairs shall also be included, in determining such areas according to the procedural requirements arising from sub-sections (1) and (2) of section 4;
- (c) "forest dwelling Scheduled Tribes" means the members or community of the Scheduled Tribes who primarily reside in and who depend on the forests or forest lands for bona fide livelihood needs and includes the Scheduled Tribe pastoralist communities;
- (d) "forest land" means land of any description falling within any forest area and includes unclassified forests, undemarcated forests, existing or deemed forests, protected forests, reserved forests, Sanctuaries and National Parks;
 - (e) "forest rights" means the forest rights referred to in section 3;
- (f) "forest villages" means the settlements which have been established inside the forests by the forest department of any State Government for forestry operations or which were converted into forest villages through the forest reservation process and includes forest settlement villages, fixed demand holdings, all types of taungya settlements, by whatever name called, for such villages and includes lands for cultivation and other uses permitted by the Government;
- (g) "Cram Sabha" means a viliage assembly which shall consist of all adult members of a village and in case of States having no Panchayats, Padas, Tolas and other traditional village institutions and elected village committees, with full and unrestricted participation of women;
- (h) "habitat" includes the area comprising the customary habitat and such other habitats in reserved forests and protected forests of primitive tribal groups and preagricultural communities and other forest dwelling Scheduled Tribes;
- (1) "minor forest produce" includes all non-timber forest produce of plant origin including bamboo, brush wood, stumps, cane, tussar, cocoons, honey, wax, lac, tendu or kendu leaves, medicinal plants and herbs, roots, tubers and the like;

- (i) "nodal agency" means the nodal agency specified in section 11;
- (k) "notification" means a notification published in the Official Gazette;
- (1) "prescribed" means prescribed by rules made under this Act;
- (m) "Scheduled Areas" means the Scheduled Areas referred to in clause (1) of article 244 of the Constitution;
- (n) "sustainable use" shall have the same meaning as assigned to it in clause
 (o) of section 2 of the Biological Diversity Act, 2002;
- (o) "other traditional forest dweller" means any member or community who has for at least three generations prior to the 13th day of December, 2005 primarily resided in and who depend on the forest or forests land for bona fide livelihood needs.

Explanation.—For the purpose of this clause, "generation" means a period comprising of twenty-five years;

(p) "village" means-

40 of 1996.

18 of 2003.

- (i) a village referred to in clause (b) of section 4 of the Provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996; or
- (ii) any area referred to as a village in any State law relating to Panchayats other than the Scheduled Areas; or
- (iii) forest villages, old habitation or settlements and unsurveyed villages, whether notified as village or not; or
- (iv) in the case of States where there are no Panchayats, the traditional village, by whatever name called;
- (q) "wild animal" means any species of animal specified in Schedules I to IV of the Wild Life (Protection) Act, 1972 and found wild in nature.

53 of 1972. of the Wild Life (Protection) A

CHAPTER II FOREST RIGHTS

- 3. (1) For the purposes of this Act, the following rights, which secure individual or community tenure or both, shall be the forest rights of forest dwelling Scheduled Tribes and other traditional forest dwellers on all forest lands, namely:—
 - (a) right to hold and live in the forest land under the individual or common occupation for habitation or for self-cultivation for livelihood by a member or members of a forest dwelling Scheduled Tribe or other traditional forest dwellers;
 - (b) community rights such as nistar, by whatever name called, including those used in erstwhile Princely States, Zamindari or such intermediary regimes;
 - ` (c) right of ownership, access to collect, use, and dispose of minor forest produce which has been traditionally collected within or outside village boundaries;
 - (d) other community rights of uses or entitlements such as fish and other products of water bodies, grazing (both settled or transhumant) and traditional seasonal resource access of nomadic or pastoralist communities;
 - (e) rights including community tenures of habitat and habitation for primitive tribal groups and pre-agricultural communities;
 - (f) rights in or over disputed lands under any nomenclature in any State where claims are disputed;
 - (g) rights for conversion of Pattas or leases or grants issued by any local authority or any State Government on forest lands to titles;

Forest rights of Forest dwelling Scheduled Tribes and other tradional forest dwellers.

- (h) rights of settlement and conversion of all forest villages, old habitation, unsurveyed villages and other villages in forests, whether recorded, notified or not into revenue villages;
- (i) right to protect, regenerate or conserve or manage any community forest resource which they have been traditionally protecting and conserving for sustainable
- (j) rights which are recognised under any State law or laws of any Autonomous District Council or Autonomous Regional Council or which are accepted as rights of tribals under any traditional or customary law of the concerned tribes of any State:
- (k) right of access to biodiversity and community right to intellectual property and traditional knowledge related to biodiversity and cultural diversity;
- (1) any other traditional right customarily enjoyed by the forest dwelling Scheduled Tribes or other traditional forest dwellers, as the case may be, which are not mentioned in clauses (a) to (k) but excluding the traditional right of hunting or trapping or extracting a part of the body of any species of wild animal;
- (m) right to in situ rehabilitation including alternative land in cases where the Scheduled Tribes and other traditional forest dwellers have been illegally evicted or displaced from forest land of any description without receiving their legal entitlement to rehabilitation prior to the 13th day of December, 2005.
- (2) Notwithstanding anything contained in the Forest (Conservation) Act, 1980, the Central Government shall provide for diversion of forest land for the following facilities managed by the Government which involve felling of trees not exceeding seventy-five trees per hectare, nemely:--refer assentation in 41 mg/2 day
 - (a) schools:
 - (b) dispensary or hospital;
 - (c) anganwadis;
 - (d) fair price shops;
 - (e) electric and telecommunication lines;
 - (f) tanks and other minor water bodies;
 - (g) drinking water supply and water pipelines;
 - (h) water or rain water harvesting structures;
 - (i) minor irrigation canals;
 - (j) non-conventional source of energy;
 - (k) skill upgradation or vocational training centres;
 - (f) roads; and
 - (m) community centres:

Provided that such diversion of forest land shall be allowed only if,-

(i) the forest land to be diverted for the purposes mentioned in this subsection is less than one hectare in each case; and

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(ii) the clearance of such developmental projects shall be subject to the condition that the same is recommended by the Gram Sabha.

CHAPTER III

RECOGNITION, RESTORATION AND VESTING OF FOREST RIGHTS AND RELATED MATTERS

- 4. (1) Notwithstanding anything contained in any other law for the time being in force, and subject to the provisions of this Act, the Central Government hereby recognises and vests forest rights in—
 - (a) the forest dwelling Scheduled Tribes in States or areas in States where they are declared as Scheduled Tribes in respect of all forest rights mentioned in section 3:
 - (b) the other traditional forest dwellers in respect of all forest rights mentioned in section 3.
- (2) The forest rights recognised under this Act in critical wildlife habitats of National Parks and Sanctuaries may subsequently be modified or resettled, provided that no forest rights holders shall be resettled or have their rights in any manner affected for the purposes of creating inviolate areas for wildlife conservation except in case all the following conditions are satisfied, namely:—
 - (a) the process of recognition and vesting of rights as specified in section 6 is complete in all the areas under consideration;
 - (b) it has been established by the concerned agencies of the State Government, in exercise of their powers under the Wild Life (Protection) Act, 1972 that the activities or impact of the presence of holders of rights upon wild animals is sufficient to cause irreversible damage and threaten the existence of said species and their habitat;
 - (c) the State Government has concluded that other reasonable options, such as, co-existence are not available;
 - (d) a resettlement or alternatives package has been prepared and communicated that provides a secure livelihood for the affected individuals and communities and fulfils the requirements of such affected individuals and communities given in the relevant laws and the policy of the Central Government;
 - (e) the free informed consent of the Gram Sabhas in the areas concerned to the proposed resettlement and to the package has been obtained in writing;
 - (f) no resettlement shall take place until facilities and land allocation at the resettlement location are complete as per the promised package:

Provided that the critical wildlife habitats from which rights holders are thus relocated for purposes of wildlife conservation shall not be subsequently diverted by the State Government or the Central Government or any other entity for other uses.

- (3) The recognition and vesting of forest rights under this Act to the forest dwelling Scheduled Tribes and to other traditional forest dwellers in relation to any State or Union territory in respect of forest land and their habitat shall be subject to the condition that such Scheduled Tribes or tribal communities or other traditional forest dwellers had occupied forest land before the 13th day of December, 2005.
- (4) A right conferred by sub-section (1) shall be heritable but not alienable or transferable and shall be registered jointly in the name of both the spouses in case of married persons and in the name of the single head in the case of a household headed by a single person and in the absence of a direct heir, the heritable right shall pass on to the next-of-kin.
- (5) Save as otherwise provided, no member of a forest dwelling Scheduled Tribe or other traditional forest dweller shall be evicted or removed from forest land under his occupation till the recognition and verification procedure is complete.

Recognition of, and vesting of, forest rights in forest dwelling Scheduled Tribes and other traditional forest dwellers.

- (6) Where the forest rights recognised and vested by sub-section (1) are in respect of land mentioned in clause (a) of sub-section (1) of section 3 such land shall be under the occupation of an individual or family or community on the date of commencement of this Act and shall be restricted to the area under actual occupation and shall in no case exceed an area of four hectares.
- (7) The forest rights shall be conferred free of all encumbrances and procedural requirements, including clearance under the Forest (Conservation) Act, 1980, requirement of paying the 'net present value' and 'compensatory afforestation' for diversion of forest land, except those specified in this Act.
- (8) The forest rights recognised and vested under this Act shall include the right of land to forest dwelling Scheduled Tribes and other traditional forest dwellers who can establish that they were displaced from their dwelling and cultivation without land compensation due to State development interventions, and where the land has not been used for the purpose for which it was acquired within five years of the said acquisition.

Duties of holders of forest rights.

- 5. The holders of any forest right, Gram Sabha and village level institutions in areas where there are holders of any forest right under this Act are empowered to—
 - (a) protect the wild life, forest and biodiversity;
 - (b) ensure that adjoining catchments area, water sources and other ecological sensitive areas are adequately protected;
 - (c) ensure that the habitat of forest dwelling Scheduled Tribes and other traditional forest dwellers is preserved from any form of destructive practices affecting their cultural and natural heritage;
 - (d) ensure that the decisions taken in the Gram Sabha to regulate access to community forest resources and stop any activity which adversely affects the wild animals, forest and the biodiversity are complied with.

CHAPTER IV

AUTHORITIES AND PROCEDURE FOR VESTING OF FOREST RIGHTS

Authorities to vest forest rights in forest dwelling Scheduled Tribes and other traditional forest dwellers and procedure thereof.

- 6. (1) The Gram Sabha shall be the authority to initiate the process for determining the nature and extent of individual or community forest rights or both that may be given to the forest dwelling Scheduled Tribes and other traditional forest dwellers within the local limits of its jurisdiction under this Act by receiving claims, consolidating and verifying them and preparing a map delineating the area of each recommended claim in such manner as may be prescribed for exercise of such rights and the Gram Sabha shall, then, pass a resolution to that effect and thereafter forward a copy of the same to the Sub-Divisional Level Committee.
- (2) Any person aggrieved by the resolution of the Gram Sabha may prefer a petition to the Sub-Divisional Level Committee constituted under sub-section (3) and the Sub-Divisional Level Committee shall consider and dispose of such petition:

Provided that every such petition shall be preferred within sixty days from the date of passing of the resolution by the Gram Sabha:

Provided further that no such petition shall be disposed of against the aggrieved person, unless he has been given a reasonable opportunity to present his case.

(3) The State Government shall constitute a Sub-Divisional Level Committee to examine the resolution passed by the Gram Sabha and prepare the record of forest rights and forward it through the Sub-Divisional Officer to the District Level Committee for a final decision.

(4) Any person aggricved by the decision of the Sub-Divisional Level Committee may prefer a petition to the District Level Committee within sixty days from the date of decision of the Sub-Divisional Level Committee and the District Level Committee shall consider and dispose of such petition:

Provided that no petition shall be preferred directly before the District Level Committee against the resolution of the Gram Sabha unless the same has been preferred before and considered by the Sub-Divisional Level Committee:

Provided further that no such petition shall be disposed of against the aggrieved person, unless he has been given a reasonable opportunity to present his case.

- (5) The State Government shall constitute a District Level Committee to consider and finally approve the record of forest rights prepared by the Sub-Divisional Level Committee.
- (6) The decision of the District Level Committee on the record of forest rights shall be final and binding.
- (7) The State Government shall constitute a State Level Monitoring Committee to monitor the process of recognition and vesting of forest rights and to submit to the nodal agency such returns and reports as may be called for by that agency.
- (8) The Sub-Divisional Level Committee, the District Level Committee and the State Level Monitoring Committee shall consist of officers of the departments of Revenue, Forest and Tribal Affairs of the State Government and three members of the Panchayati Raj Institutions at the appropriate level, appointed by the respective Panchayati Raj Institutions, of whom two shall be the Scheduled Tribe members and at least one shall be a woman, as may be prescribed.
- (9) The composition and functions of the Sub-Divisional Level Committee, the District Level Committee and the State Level Monitoring Committee and the procedure to be followed by them in the discharge of their functions shall be such as may be prescribed.

CHAPTER V

OFFENCES AND PENALTIES

7. Where any authority or Committee or officer or member of such authority or Committee contravenes any provision of this Act or any rule made thereunder concerning recognition of forest rights, it, or they, shall be deemed to be guilty of an offence under this Act and shall be liable to be proceeded against and punished with fine which may extend to one thousand rupees:

Offences by members or officers of authorities and Committees under this

Provided that nothing contained in this sub-section shall render any member of the authority or Committee or head of the department or any person referred to in this section liable to any punishment if he proves that the offence was committed without his knowledge or that he had exercised all due diligence to prevent the commission of such offence.

8. No court shall take cognizance of any offence under section 7 unless any forest dwelling Scheduled Tribe in case of a dispute relating to a resolution of a Gram Sabha or the Gram Sabha through a resolution against any higher authority gives a notice of not less than sixty days to the State Level Monitoring Committee and the State Level Monitoring Committee has not proceeded against such authority.

Cognizance of offences.

CHAPTER VI

MISCELLANEOUS

9. Every member of the authorities referred to in Chapter IV and every other officer exercising any of the powers conferred by or under this Act shall be deemed to be a public 45 of 1860. servant within the meaning of section 21 of the Indian Penal Code.

Members of authorities, etc., to be public scrvants.

Protection of action taken in good faith.

- 10. (1) No suit, prosecution or other legal proceeding shall lie against any officer or other employee of the Central Government or the State Government for anything which is in good faith done or intended to be done by or under this Act.
- (2) No suit or other legal proceeding shall lie against the Central Government or the State Government or any of its officers or other employees for any damage caused or likely to be caused by anything which is in good faith done or intended to be done under this Act.
- (3) No suit or other legal proceeding shall lie against any authority as referred to in Chapter IV including its Chairperson, members, member-secretary, officers and other employees for anything which is in good faith done or intended to be done under this Act.

Nodal agency.

11. The Ministry of the Central Government dealing with Tribal Affairs or any officer or authority authorised by the Central Government in this behalf shall be the nodal agency for the implementation of the provisions of this Act.

12. In the performance of its duties and exercise of its powers by or under this Act,

Power of Central Government to issue directions.

every authority referred to in Chapter IV shall be subject to such general or special directions, as the Central Government may, from time to time, give in writing.

Act not in derogation of any other law.

13. Save as otherwise provided in this Act and the Provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996, the provisions of this Act shall be in addition to and not in derogation of the provisions of any other law for the time being in force.

Power to make rules.

- 14. (1) The Central Government may, by notification, and subject to the condition of previous publication, make rules for carrying out the provisions of this Act.
- (2) In particular, and without prejudice to the generality of the foregoing powers, such rules may provide for all or any of the following matters, namely:—
 - (a) procedural details for implementation of the procedure specified in section 6;
 - (b) the procedure for receiving claims, consolidating and verifying them and preparing a map delineating the area of each recommended claim for exercise of forest rights under sub-section (1) of section 6 and the manner of preferring a petition to the Sub-Divisional Committee under sub-section (2) of that section;
 - (c) the level of officers of the departments of Revenue, Forest and Tribal Affairs of the State Government to be appointed as members of the Sub-Divisional Level Committee, the District Level Committee and the State Level Monitoring Committee under sub-section (8) of section 6;
 - (d) the composition and functions of the Sub-Divisional Level Committee, the District Level Committee and the State Level Monitoring Committee and the procedure to be followed by them in the discharge of their functions under sub-section (9) of section 6;
 - (e) any other matter which is required to be, or may be, prescribed.
- (3) Every rule made by the Central Government under this Act shall be laid, as soon as may be after it is made, before each House of Parliament, while it is in session, for a total period of thirty days which may be comprised in one session or in two or more successive

sessions, and if, before the expiry of the session immediately following the session or the successive sessions aforesaid, both Houses agree in making any modification in the rule or both Houses agree that the rule should not be made, the rule shall thereafter have effect only in such modified form or be of no effect, as the case may be; so, however, that any such modification or annulment shall be without prejudice to the validity of anything previously done under that rule.

K. N. CHATURVEDI, Secy. to the Govt. of India.

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MGIPMRND-4633GI(S5)--2-1-2007.

Annex 2- List of Respondents

Sl.No	Name	Sex	Designation	Level of working
1.	Dr. P.B. Gangopadhyay, IFS	Male	PCCF, MPFD	State
2.	Dr. H. S. Pabla,IFS	Male	PCCF, WILDLIFE	State
3.	Mr. Shamsher Singh,IFS	Male	CF	State
4.	Dr. Gopa Pandey, IFS	Female	CCF	State
5.	Dr. V. N. Pandey, IFS	Male	CCF	State
6.	Mr. Manoj Kumar Agarwal, IFS	Male	CF	State
7.	Mr. Bhagwati Pawar, SFS	Male	ACF	District
8.	Ms. Padampriya Balakrishnan, IFS	Female	DFO	District
9.	Mr. Uttam Kumar Sharma, IFS	Male	DFO	District
10.	Mr. Ajay Kumar Yadav, IFS	Male	DFO	District
11.	Mr. L. Krishnamoorthy, IFS	Male	DFO	District
12.	Mr. Yamuna Prasad Singh, IFS	Male	DFO	District
13.	Mr. R. N. Varma, SFS	Male	ACF	District
14.	Mr. R. S. Rawat, SFS	Male	ACF	District
15.	Mr. S. Gadaria, SFS	Male	ACF	District
16.	Mr. A.M.Tiwari	Male	Forest Guard	Village
17.	Mr. Bhanwar Singh	Male	Forester	Village
18.	Mr. Chandra Praksah Gupta	Male	Forester	Village
19.	Mr. Chunamani Pathak	Male	Forester	Village
20.	Mr. Gopika Prasad Dwivedi	Male	Forester	Village
21.	Mr. Jagandlal Harijan	Male	Forest Guard	Village
22.	Mr. M.K.Rawat	Male	FRO	Village
23.	Mr. Maan Singh Marathi	Male	FRO	Village
24.	Mr. Muniraj Patel	Male	FRO	Village
25.	Mr. N. K. Verma	Male	FRO	Village
26.	Mr. Raj Narayan Tiwari	Male	Forester	Village
27.	Mr. Rajendra Prasad Tiwari	Male	Forest Guard	Village
28.	Mr. S.P. Sakre	Male	FRO	Village
29.	Mr. Saukhila Tiwari	Male	Forester	Village
30.	Mr. Shankarlal Bhuriya	Male	FRO	Village
31.	Mr. Sukdev	Male	FRO	Village
32.	Mr. T. R. Yadav	Male	FRO	Village
33.	Mr. Vishwaand Pathak	Male	Dy.RO	Village

Annex 3- Questionnaire

For State level officer

Basic details - Name, age, designation, and present work

- 1. What are the objectives of the Forest Department?
- 2. What is your view on following provisions of the tribal act "Right to live and use forest land, community rights such as grazing & shifting cultivation, empowerment of Gram Sabha to manage community forests (including RF, PF, and protected areas where they had traditional access), complete ownership right over NTFP".
- 3. Do you think the Forest Rights Act could bring some change in Forest Department work? If yes, How? and how the Forest Department could manage that change?
- 4. How do you view the Forest Department's position in the forestry decision-making process in the wake of Forest Rights Act?

For district level officers

Basic details - Name, age, designation, and present work

- 1. How do you describe your job?
- 2. How do you know about Forest Rights Act?
- 3. What is your view on following provisions of the tribal act "Right to live and use forest land, community rights such as grazing & shifting cultivation, empowerment of Gram Sabha to manage community forests (including RF, PF, and protected areas where they had traditional access), complete ownership right over NTFP".
- 4. Do you think Forest Rights Act could affect / influence some of the Forest Department interests/ works (e.g. reduction in forest area, fragmentation of habitat, conflict with other forest laws, devolution of community forest management rights to communities etc.)? If yes. How do you propose to manage that effect?
- 5. How do you see future of JFM following implementation of Forest Rights Act?
- 6. How do you view the Forest Department's position in the forestry decision-making process in the wake of Forest Rights Act?

For village level

Basic details - Name, age, designation, and present work

- 1. How do you describe your job?
- 2. How do you know about tribal act?
- 3. How do you view following provisions of Forest Rights Act (Right to live and use forest land, ownership right over NTFP, Grazing rights, community empowerment to manage the community forest resources (including government forests where community had traditional access)
- 4. Do you think Forest Rights Act could affect some of the Forest Department interests in forest management (e.g. reduction in forest area, fragmentation of habitat, conflict with other forest laws, devolution of community forest management rights to communities etc.)? If yes. How do you propose to manage that effect?
- 5. How do you see future of JFM following implementation of Forest Rights Act?
- 6. How do you view your position in forestry decision-making process following implementation of Forest Rights Act?

Annex 4 - Status report on Forest Rights Act implementation in India as on 30/4/2009

Statement of claims and distribution of title deeds under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006

S. No	State	Claims Received upto 31.03.09	Claims received during the current month	d he t	Total number of claims received upto 30.04.09	Title deeds Distributed / ready upto 31.03.09	(As on 30.04.) Title deeds distributed/ ready during the current month	Total number of titles deeds distributed/ ready upto 30.04.09
1.	Andhra Pradesh	3,28,179 (3,22231 individual and 5,946 community)	-		3,28,179 (3,22,231 individual and 5,946 community)	330 distributed before the Court's order and 1,17,395 ready.	11,223 ready for distribution	330 distributed before the Court's order and 1,28,618 ready.
2.	Arunachal Pradesh							
3.	Assam							
4.	Bihar	495	-		495			
5.	Chhattisgarh	4,00,000 (approx.)	-		4,00,000 (approx.)	1,02,800 distributed and 6,911 ready	-	1,02,800 distributed and 6,911 ready
6.	Goa					ready		roady
7.	Gujarat	1,48,216 (1,41,560 individual and 6,656 community).	14,869 (14,659 individual and 210 community)		1,63,675 (1,56,209 individual and 6,866 community).	2,023 ready	1997 distributed	1997 distributed and 26 ready
8.	Himachal Pradesh							
9.	Jharkhand	878			878			
10.	Karnataka	1,412			1,412			
11.	Kerala							
12.	Madhya Pradesh	3,29,184	9,477		3,38,661	13,060 distributed and 32,417 ready	2,185 distributed and 23,892 ready	15,245 distributed and 56,309 ready
13.	Maharashtra	2,10,452	27,578		2,38,030	403 ready	642 ready	1,045 ready
14.	Manipur							
15.	Meghalaya							
16.	Mizoram							
				-				
17.	Orissa	2,91,107 (2,89,646 individual and 1461 community)	- 2,91,107 (2,89,646 individual and 1461		29,816 ready (29,772 individual and 44 community)	-	29,816 ready (29,772 individual and 44 community)	
18.	Rajasthan	34,535 (including 2 community daims)	- 34,535 (including 2 community claims)		1,778 distributed (including 2 community) and 247 ready	-	1,778 distributed (including 2 community) and 247 ready	
19.	Sikkim					· caa,		ready
20.	Tamil Nadu	4,876	-	- 4,876		-	-	-
21.	Tripura	1,60,046	-	1,60,046		29,507 distributed	-	29,507 distributed
22.	Uttar Pradesh					distributed		distributed
23.	Uttaranchal							
24.	West Bengal	1,39,494 (1,31,190 individual and 8,304	- 1,39,494 (1,31,190 individual and 8,304		5,249 distributed and 2839 ready	-	5,249 distributed and 2839 ready	
25.	A & N Islands	community)		con	nmunity)			
26.	Daman & Diu							
27.	Dadra &							
	Nagar Haveli Total	20,48,874	51,924	21,	,00,798	1,52,724 distributed and 1,92,051 ready	4,182 distributed and 35,757 ready	1,56,906 distributed and 2,27,808 ready