

IASCP

8/11/95  
WORKSHOP IN POLITICAL THEORY  
AND POLICY ANALYSIS  
518 HOBBS HALL  
INDIANA UNIVERSITY  
BLOOMINGTON, INDIANA 47408-3186  
REPORT FILES -- CPR

**COLLECTIVE ACTION  
FOR  
FOREST PROTECTION AND MANAGEMENT  
BY RURAL COMMUNITIES  
IN ORISSA**

**Neera M. Singh  
VASUNDHARA**

**May 1995**

**The Fifth Annual Common Property Conference of the  
International Association for the Study of Common Property  
"REINVENTING THE COMMONS"**

**Bodoe, Norway, 24-28th May 1995**

## COLLECTIVE ACTION FOR FOREST PROTECTION AND MANAGEMENT BY RURAL COMMUNITIES IN ORISSA

### Abstract

In Orissa, a State on eastern coast of India, many villages have undertaken active protection and preservation of forest patches in their vicinity in response to forest degradation and scarcity of forest produces. Some villages started protecting forests way back in 1940s- 50s and have been effectively managing the forest patches since then. Over time, faced with increasing forest scarcity, more and more rural communities have taken up forest protection in the State. These efforts became widespread in mid 1970s and 1980s. According to a conservative estimate around 3000 villages are protecting over 200,000 hectares forest area *in Orissa* (Singhs, 1993).

This paper attempts to look at the institutional arrangements : rule system, decisions making mechanism, benefit sharing system and conflict resolving mechanism evolved and adopted by communities which enable them to protect and manage forest patches as CPR. The institutional arrangements evolved by communities have also been analyzed using Ostrom framework.

Community Forest protection involves protection of a forest area (clearly defined with clear boundaries) by a well-defined user group by framing rules which restrict the access and exploitation of the forest and govern its management. These rules are modified *from* time to time in an attempt to fine tune the system to make it effective and responsive to the needs of the user/ appropriators. Also a system of monitoring adherence to these rules and penalties for non-adherence is evolved. The stability of these community forest management systems depends on the resilience of these systems, ability to cope up with changes in the internal and external environment, participation of all sections of the community i.e. user group in management decisions (equity), and ability of the community to resolve conflicts. Another important factor is the ability of the institution at community level and the CPR system to cope up withstand external pressure such as market forces and how the community institution interacts with other external institutions : other villages, State (Government & Forest Department) etc.

### Background:

The importance of forests in national economy as well as local economy cannot be overemphasized. Forests are important as revenue generating resource for the State and as bio-reserves. But more vital is the role that forests play in the life support systems *of the dwellers* living in and around forests. For them forests are the central resource from which very basic necessities for sustenance - food, fuel and shelter are derived. The concern for forest degradation and over-exploitation of the resource amongst forest neighbouring communities has led to collective action for forest protection and management in many villages in Orissa, as also in some other parts of the country.

### Forest Preservation Movements in Orissa

Orissa is a State on the eastern coast of India. It lies between 17 41'N to 22 34'N latitude and 81 29' E and 87 29' £ longitude. The total geographical area of Orissa is 1,55,707 Sq. Kms of which the recorded (classified) forest area is 57745.42 Sq.Kms. constituting about 37.09% of the land area. The population of the State is 31.512 millions (1991 census), out of which 86.6% live in 46,553 villages. The total forest area of the State on the basis of interpretation of 1985-87 satellite imagery data comes to 47,137 Sq. Kms. A comparison of forest cover in 1987 (based *on* 1981-83 imagery) and that of 1989 (based *on* 1985-87 assessment) indicates a loss of 11.3% in forest cover in five years. The 1991 FSI Report shows a marginal increase to 47205 sq. km., this increase in forest cover could possibly be due to forest regeneration under community care.

In response to forest degradation and scarcity of forest produce many villages in Orissa have undertaken active protection and preservation of forest patches in their vicinity. Some villages started protecting forests way back in 1940s- 50s and have been effectively managing the forest patches since then. Over time, faced with increasing forest scarcity, more and more rural communities have taken up forest protection in the State. These efforts became widespread in mid 1970s and 1980s. At present, for Orissa, a conservative estimate of 3000 villages protecting over 200,000 hectares of forests area can be made. Comprehensive information about the scale of this movement does not yet exist.

The community action for forest management is present in all the districts of the State, with higher concentration in Dhenkanal, Mayurbhanj, Koraput, Sambalpur, Puri, Keonjhar, Balangir and Sundergarh districts of Orissa. Thus, a large forest area in Orissa are de facto common property resources managed by communities, though these are, de jure, a state property (Kant et al, 1991).

Protection of forest by a community entails restriction of access and use of the forest by the members of the community (user-group) and almost complete stop on access of non-user group. This protection system is enforced through a set of rules for restricting access and a monitoring system and penalty system for ensuring compliance to the rules.

In this paper an attempt is made to present an overview of the community forest management systems operating in Orissa and present the variety of institutional arrangements, decision making mechanisms, conflict resolution systems that exist. The institutional mechanisms in the Forest CPR systems in Orissa have been analyzed using Elinor Ostrom framework.

### **Initiation and Spread**

Community initiative for forest protection has in most cases been a response to forest scarcity situation. It has resulted from a desire to save forest patches for the posterity and also quite strikingly from an urge to assert the village's control over the forest patch otherwise *open to* all. Generally, the villagers start protecting patches which are considerably degraded but have the root stock intact. Such patches regenerate rapidly once protected. Efforts for regenerating forests were initially limited to non-Reserve Forest areas but have now spread to Reserved Forest<sup>1</sup> areas also.

The villagers generally narrate that the nearby forest (now regenerating) had become 'completely barren' before they started protecting it. They had started fearing that even "jhanti-panti" (twigs etc.) for burning would become unavailable in future, and this concern led them to protect that patch.

The favorable conditions that facilitate the initiation and spread of community protection of forests include (Singh, 1993):

- Presence of a strong village level organization/ potential for such an organization emerging forth.
- Village unity which in turn depends on factors like homogeneity of the village, strong leadership etc.
- Appropriate (Conducive) level of forest produce scarcity. Scarcity as *mentioned* earlier is a major initiating factor. However in a situation of very acute scarcity it might become impossible to close the degraded area for protection due to the pressure on the patch. Whereas in areas where forests are abundant, generally the need to protect and regulate use is not felt

---

<sup>1</sup> Reserved Forest (R.F) : In Reserved Forests local rights do not exist. Broadly speaking in R.F. everything is prohibited unless specifically admitted, and in case of Protected Forests local people have *some* rights,

- Ambiguous status of Protected Forests and poor State control over these forest areas. In Orissa, Protected Forest lands belong to the revenue department while the management lies in the hands of the Forest Department, the P.F are hence poorly managed and provided management vacuum where people could step in.
- Demonstration/ ripple effect of other villages protecting forest patches in the vicinity.

Apart from hardships due to forest produce scarcity, *adverse environmental effects* of forest degradation viz. *loss of soil fertility* at the foot of forests and drying up of streams, have *also played* a significant role in inducing forest protection. In a few cases, large farmers took lead in forest protection after experiencing loss of soil fertility in their land holdings at the foot of forested hills due to denudation of the hillsides. Villagers also show a good understanding of the environmental impact of deforestation. They often link changing pattern of rainfall and occurrence of droughts to forest degradation. (In Kasaunda, Khurda district, the villagers started forest protection after a low rainfall year).

Once a village starts protecting a patch of forest and excludes other villages from its use, the other villages also realize the gains involved and start taking up protection of other patches. This phenomenon thus starts spreading. The spread effect of the Forest protection phenomenon is very pronounced

### Protection Mechanisms

The protection of a patch of forest by a village involves partial or complete restraint from using that patch within the village and complete stoppage of access of outsiders to that area. The villagers clearly demarcate the forest patch that they intend to protect and indicate their decision/ inclination to protect this patch to nearby villages. For thus protecting the patch, the village engages a watchman/ watchmen or practice thengapalli (voluntary patrolling on rotation basis).

Initially, problem is faced in stopping the access of other villages which earlier had free access to the patch. Since this involves a transition from open access to common resource, it has initial problems. So in the start-off period it is sometimes exercising of power, sometimes sheer muscle power which leads to other villages accepting the situation. In cases where the stake is less, for e.g. if the patch is in extreme degraded state with availability of forest produce being very low and other villages have other areas to go to, it is easier to start off.

<u>Protection System</u>
Patrolling Mechanisms:
<ul style="list-style-type: none"> <li>• Thengapalli: Voluntary Patrolling</li> <li>• Paid Watchmen: through village funds</li> <li>• Keeping an eye</li> </ul>
Rules for regulating use : Written/ Spoken
Penalty system for Offenders

### *Ride System:*

For regulating the use of the forest patch by the community rules are framed. These rules vary from village to village and have evolved over time. The variation depends on factors like level of scarcity of forest produce esp. small timber and fuelwood in the locality, threat perceptions, condition of the forest, level of awareness/ tree consciousness amongst the villagers, leadership and organizational ideology, market orientation etc. The degree of restriction also depends on the status of the forest patch i.e. the extent to which it is degraded and the pressure it can withstand.

In some cases explicit written rules have been framed. In other villages there are informal spoken rules, which are few and simple. The complexity of rule system increase with the increase in availability of forest produce from the forest.

The villagers generally start with a few simple rules in the initial stage, as the forest protection system evolves further rules are added or modified. The complexity of rules increases as the community is faced with complex situations which the original simple rules cannot address to.

For e.g. in village Badtika in Balangir district, it was decided in the Executive Committee (E.C) meeting (of Forest Protection Committee) held on 5th January 1987 that one paid watchman would be engaged, who would be given monthly remuneration of Rs.210. In addition it was decided that all the FPCs members will visit the forest site regularly i.e. once in every two or three days.

Later on it was observed that the watchmen were not performing their duties properly and then on 18th September 1989 the E.C decided that henceforth the watchmen will be appointed for 89 days period, and the period would be extended only an satisfactory performance.

#### Forest Protection & Benefit sharing system in Lapanga Villa&e in JharsuBnda District

Lapanga ia a large village with 700 households. The village it spatially divided into six carte based hamlets. It is one of the earliest cases of forest CPR. The village has been actively protecting 500 acres of forest In Lapanga, active forest preservation efforts started from 1936. However records do not exist from that tune. Records for forest protection exist from 1960s. Elaborate roles were evolved in the 1970s for management of forests.

#### Penalty

Penalties charged for violation of roles • can go as high « Rs. 2000. Ultimate penalty is baaing from forest use for npto 15 years. The penalty acts as major disincentive for potential free riders.

Penalties decided on a case to ~~case~~ **case basis.**

#### Forest Protection and Management Rule system :-

1. One paid watchman is appointed for patrolling the ana regnlady. This forest guard is paid from village fond.

X Any person who reports a forest offense gets 50% of the fine imposed. The fines are determined from case to case (fines even onto Rs. 2000/-have been levied).

3. In case, an offender refuses to pay the fine he shall be debarred from the protected forest's use for 10-15 yeann. (This threat invariably leads to compliance).

4. Free grazing, no restriction on NTFP

6. Trees are felled by selection on an area rotation basis.

#### Benefit Sharing.:

a. No restrictions on Non-Timber Forest Produce collection

c. Timber - Mainly Sal (Shorn robnsta) is allowed on highly subsidized rates for ~~bonafide~~ ~~Tpoinrfiniciff~~ ~~10€~~ ~~AOQSO~~ ~~coostnjction~~ ~~or~~ ~~rrpwf~~ ~~unó~~ ~~agricultural~~ ~~implements.~~ Upper bunt is two trees per household. More valuable timber trees tike Brja and Sissoo an not allowed. The rates for the households having their rayoti land in the Protected Forests (termed as Prajas) an half the rates charged from other villagers. The process for timber allotment (on subsidized rates) is:

Applicant gives an application to the vuTage forest protection committee through his pada (hamlet) members. The pajq member verifies the genuineness of the applicants' ~~requir~~ ~~nif~~ ~~^~~ ~~^~~ ~~t~~ and passes on the aii Question ~~^~~ the President 'with his tesbmony. The President ~~^~~ ~~^~~ preliminary scrutiny hands over the application, (if found satisfactory) to the Secretary. The Secretary on aflotment issues receipt (in triph'csteX for the applicant, for the forest guard and the third for the record. The applicant along with the forest guard then selects a tree from amongst the trees already selected and marked for felting by the VFPC. After felling of the tree, the Secretary and the forest guard measure the girth again and in case of my difference between allotted girth and extracted girth, difference in the rates an adjusted. If after allotment, the aflotee does not use the tree **within one year period, he is reprimanded and penalized for the purpose.**

d. In case of Marriage or funeral in a famiry, one cartload of wood is given free of cost to the tamuy.

e. The readimits of Lapsngn an given fbelwood at subidaBd rates / lower rates than charged from outsiders.

f. If any villager takes any wood without an application and the completion of the required formalities, a fine is imposed on the Offender.

g. Twotreesforhouseconstructionisthepenrossflrtelinmiforallocationperhh.

## Village level organisations

The organisations which have emerged or have diversified for managing forest resource have shown a high degree of organizational and managerial capabilities for managing community resources. Each district, even each group of villages presents its own management *system*. The diversity of the local institutional arrangements is a result of their responsiveness to the local conditions.

In Orissa, in many villages some kind of village (community) level organisations generally exist. These organisations provide a forum to discuss the changes in their resource base and decide on collective action. Since quite often the village organisations were already handling other commons like ponds, temple land etc., resolving conflicts, organizing religious and cultural functions it was relatively easy to extend the community management regime to forests as well.

Villagers have organized themselves into informal and formal organisations, to protect and manage forest patches in their vicinity. The informal organisations are - Village Forest Protection Committee, Village Councils, and formal organisations are - Village level Voluntary Organisations, Village Youth Club and formal VFPCs (which were formed by the FD after a government resolution in this regard in 1988) and the Vana Samrakhsana Samiti (VSS) being formed by the FD now after Govt Resolution of 1993.

In many cases Village level organisations looks after management of general affairs pertaining to the village, village development etc. while a sub-committee exists for management of forests. In many cases all major decisions pertaining to forest management are taken by the village committee (in case of small villages by the Village General Body) while the Forest Protection Committee functions more as an executive of the Village Committee executing the decisions endorsed in the village committee.

*General Body:* The general body consists of all adult male members of the village. In most cases women are not part of the General Body and do not attend the General Body meetings.

*Executive Committee:* Executive Committee of both the Village Committee and the Forest Protection Committee consists of 7-11 members selected in most cases through consensus. There *id no* need felt for election procedure or an elaborate selection procedure, because being a part of the Executive Committee entails considerable amount of unpaid work and people have to be coaxed to become members of the EC. Hence in most cases there have been no past experience of many more contestants than the number of office bearer positions.

Apart from community level institutions, in some cases apex organisations have been formed/ have evolved to provide stability to the forest protection systems at community level. Prominent examples of apex organisations are forest protection in Kesharpur and in Baripada. In Nayagarh area, Brukshya O\* Jeevaro Bandhu Parishad itself can be termed as an apex-organization formed initially to coordinate forest protection efforts on cluster basis for the initial 22 villages. BOJBP is spearheading a prominent environment protection movement which has been led to initiation of forest protection efforts in over 300 villages in the area.

Regional Committees facilitated by Forest Department Field Staff in Salebhata Section:

Formation of three apex level committees was irrtaaly tadltated by the ex-Forester (FD fleW staff). Mr. U.C. Patnalk viz. Barhtika, Neglpal and Patuapal Anchalk (Regional) Committees. Each regional committee consists of representatives of member vllages (approx 10-12 vtages per Apex Committee). A President and secretary ls selected from amongst the representatives. This Committee was promoted by the FD field staff to help ln resolMng local conflicts and discuss local problems.

**District Forestry Forum:**

A recent effort by an NGO, RCDC (Regional Cenfre for Development Cooperation for facilitating networking amongst forest protecting communities has resulted ln emergence of federations of vilages at Different levels: cluster & Block level and finely at the District tevel. This forum ls expected to ptay an Important rote ln Information dssemination. laJson with external agencies and Conflict resolution. Recently a District Forestry Forum (in May 1995) has been formed with representatives from Block level federations

In Baripada area, over 55 villages involved in forest protection have formed an umbrella organization, Budhikhamari Joint Protection Party (BJPP) for better coordination. This organisation was formed in 1986 with only five to six villages as its members (Pati and Panda, 1993). These apex organisations and cluster approach, provide stability to the community level systems. In cases of conflicts, these also function as conflict resolving bodies.

**Benefits from protection of forests**

Benefit flow in form of forest produces starts quite early due to profuse regeneration. There are three categories of benefits:

- Small timber and fuelwood for the consumption of the villagers.
- Non timber forest produce for subsistence or sale purpose.
- . Funds obtained from auctioning of fuelwood obtained from cleaning.

The availability of these benefits and access to them varies from village to village depending upon the type of forest, age of forests, rules regulating the extraction of forest produce, availability of the cleaning permit from the forest department etc.

Availability of non-timber Forest Produce is a major benefit from the regenerating forests. Though sal seeds, mahua fruits and flowers and fruits like kendu, char etc. are available only in older protected patches, people, specially the poor obtain mushrooms, edible roots, leaves for vegetables etc. Sal leaves are also collected from the regenerating sal bushes for making leaf plates for both self-consumption and sale. The poorer sections especially the tribals depend to a large extent on NTFP to see them through the lean seasons, ft is significant that while the elite refer to the NTFP as secondary benefits from the protected patches, the poor feel that these are the primary benefits.

**Government Intervention and the role of forest department**

Forests in India are mainly under the control and management of the State. It is now being acknowledged by the administrators that the forests cannot be managed in isolation and that people's active involvement is necessary

for protection and management of natural forests. Joint Forest management (JFM) is being advocated strongly. The Government's of Orissa and West Bengal issued orders in 1988 and 1989 respectively which can be termed as steps towards JFM. The Government of India also issued a facilitative resolution in July 1990 endorsing Joint management of forests). Following which sixteen states have issued resolutions for JFM.

The Government of Orissa (GOO) responded to the pressure coming from communities protecting forest in 1988 (amended in 1990), by issuing a facilitative resolution for formation of Forest Protection Committees for protection of Reserved Forest. Infact Government of Orissa has been the pioneer state in India to issue such facilitative resolution for involvement of village communities in protection of forests. These resolutions provide for formation of Forest Protection Committees (FPCs) and assigning of R.F and P.F (included in 1990) to the FPCs for protection and allow certain concessions to the villagers involved in protection to meet their bonafide requirements of small timber and fuelwood.

Following the 1988 GOO resolution, a large number of Forest Protection Committees were formed by the Forest Department. Approximately, 6000 such FPCs have been formed all over Orissa. However, a majority of them are non-functional, formed by the Department in haste as a target chasing exercise. While forming the (formal) FPCs, the existing forest protection efforts and the informal village committees protecting forests were not taken cognizance of. In cases, where the informal forest protection efforts were formalized, the FPCs thus formed have been effective and functional, while a majority of the others are non-functional and exist only on paper.

A recent government resolution issued on 3rd July 1993, provides for 50% share to protecting communities from any major harvest, in addition to all intermediate produces to the communities. This a very positive step. However, the new resolution is ridden with many constraints and problems. In many parts of Orissa where villagers have been protecting forests, the communities are finding the new government resolution unacceptable. From a stage where defacto communities have been in control, admitting the Forest Department's stake in management partnership is unacceptable to the autonomous forest protection group.

The reaction of forest protection groups to this resolution has brought forth forcefully the issue of role of Forest Department in supporting community based forest management systems. In Orissa where communities have spontaneously taken up protection of forests, and have evolved strong community based forest management systems the role of the forest department, and terms and conditions of agreement for forest management between the forest department and communities become important

### **Analysis of Forest CPR in Orissa Using Elinor Ostrom framework for analyzing the Forest CPR in Orissa:**

The wide-spread examples of forests being managed as CPR by communities in Orissa are an example of self-governing and self-organizing CPR which demonstrate the capability and vibrancy of the community institutions to work out arrangements for forest conservation and management thus halting and revering the trend of forest degradation.

An attempt is being made to analyze the Forest CPR systems in Orissa in the framework developed by Elinor Ostrom, which includes the following seven design principles. The institutions in Orissa for managing forests as CPR are varied and include strong, fragile and evolving/ struggling CPR systems. While analyzing these range of institutions in this framework general observations on these institutions on these design principles is being made.



### Clear Boundaries & membership:

In most cases the communities define the boundaries of the forests clearly. However, these boundaries are not legally enforceable or legally valid in most cases, (except in case of Village Forest where the forest comes under the revenue boundary of a village). Since in many cases villagers are protecting Reserved Forests which are under State ownership and under strict governance by the State, the boundaries are a result of negotiations within villages and with the Forest Department. In many cases where this process of negotiation is rushed through or ignored there are possibilities (and actual cases) of conflict at later stage. The neighbouring villages do not protest on the boundaries at the initial stage when forest protection is being taken up by a village since the benefits accruing from that forest patch in degraded state are meager. But as the forest regenerates and the value of the resource increases the neighbouring villages might start protesting or questioning the boundaries.

User-group membership is restricted to the residents of the village or the particular settlement (hamlet in many cases) involved in forest protection. The members of the user-group/ appropriators are expected to contribute i.e. bear cost for sustenance of the CPR system (by helping in monitoring e.g. by thengapalli: voluntary patrolling). In many cases the sanctions for non-compliance to rules or not bearing costs include debarring from membership. For e.g. in Lapanga village one of the oldest Forest-CPR systems in Orissa (since 1936), the community forest land includes some private land donated by individuals and these individuals enjoy preferential membership i.e. enjoy some preferential benefits as compared to other members.

### Congruent rules:

Elaborate rules are framed for restricting access and use of the forest resource. These rules vary from village to village and have evolved over time. The variation depends on factors like level of scarcity of forest produce esp. small timber and fuelwood in the locality, threat perceptions, condition of the forest, level of awareness/ tree consciousness amongst the villagers, leadership and organizational ideology, market orientation etc. The degree of restriction also depends on the status of the forest patch i.e. the extent to which it is degraded and the pressure it can withstand

In some cases explicit written rules have been framed. In other villages there are informal spoken rules, which are few and simple. The complexity of rule system increases with the increase in availability of forest produce from the forest. Communities constantly review the efficacy of these rules and faced with new situations which are not addressed to by the existing set of rules, new rules are framed.

### Collective-choice arenas:

Appropriators/ User group generally consists of all residents of the community represented by the heads of the households which constitutes the Village General Body. Most decisions with regards to rules, monitoring system, penalty system are taken by the General Body. In many cases where a separate executive committee exists as Forest Protection Committee, changes in rules, forming new rules etc. can only take place in the General Body meeting alone. This gives the user-group a better chance to exert control over the collective decisions.

### Monitoring System;

In almost all CPR systems elaborate monitoring systems are observed to monitor and check free-riding by appropriators. The elaborate patrolling arrangements worked out for checking outsiders (non-User group members) also act as monitoring system for potential free-riders within the community. Patrolling systems that are in use include thengapalli, paid watchmen, and Everybody Keeping-an-eye. The freeriding problem which can arise in Everybody Keeping an eye system is sometimes offset by incentives that are attached with catching and reporting a culprit. Moreover in systems where Keeping an Eye system is adopted other safeguards for minimising the possibility of free-riding by the appropriators are also adopted. For e.g. in case of Kasaunda all the villagers have taken an oath in the Mahadev Mandir (Temple) not to cut trees from the forest, and this oath taking exercise provides assurance to the villagers against free-riding by individuals.

### Graduated Sanctions:

The penalty systems adopted by most forest protecting communities include a system of graduated sanctions. First offense is generally let go with a warning. The penalties are generally decided on a case to case basis by the Executive Committee of the FPC. There is also a system of fines in case the appropriators do not meet their share of cost e.g. by contributing to the monitoring system (contributing voluntary labor for patrolling) etc.

### Conflict resolving mechanisms:

Conflicts both within village and between villages over the forest resource are very common. The stability of the Forest CPR system depends on the system's ability to resolve these conflicts, in some cases apex-organisations/federations of Forest Protection Committees are emerging which have the potential of playing an important role in conflict resolution. In cases where the CPR system have been unable to resolve conflicts the system has broken down, and appropriators are de-motivated and disinterested to start again.

#### *Inter-community conflicts*

The protection of forests by a community means that the community establishes its control over the forest and excludes others from using it. This often creates a conflict situation. Almost every protected forest patch has its history of conflicts. The conflict may be on the issue of demarcation and distribution of areas, or over the closure of a forest patch, or over stealing of timber or fuelwood from a protected patch.

#### *Inter-village conflicts*

Considering that villages are not homogeneous communities but have glaring class and caste differences, inter-village or intra-community conflicts do seem inevitable. In the case of forest protection too, many villages have internal conflict history.

### Recognized rights to organize;

The forests being protected as CPR are actually state property and the Forest Department has the responsibility and powers for protection and management of these forests. The CPR systems till now have been operating, designing their own rules in one or a combination of the following situations:

- The Forest Department staff have been unaware of the complex CPR systems functioning and the rules that are framed by villagers.
- The Forest Department staff have been aware of the CPR systems operating but have been turning a blind eye.

However these rules are framed without any formal sanctions to do so by the State agencies. These rules at many times impinge on the domain of the Forest Department or overextend the authority of the communities and are almost illegal for e.g. fines imposed by villagers are illegal as no such authority has been given to village community. The villagers are able to frame and implement such rules till the offenders comply and nobody complains against these. But there have been cases where offenders have refused to comply (and pay monetary fine being imposed) and have complained to the State authorities : Forest Department or the Police against these fines, in such a situation in the absence of backing by the external agencies and the legitimacy to impose fines, the villagers are lost and the CPR system is threatened

The informal forest protection groups do not have any legal identity. The formal Forest Protection Committees formed and recognized by the Forest Department are also not statutory bodies and are operating only under administrative Orders. Lack of legal standing robs them of legitimacy. Lack of legal standing of FPCs might lead to disputes over areas being protected being taken to courts. The administration of fines and proscriptions by VFPCs is legally null & void. In one case (Hardatal village, Balangir district) the FPC president was arrested because the VFPC had detained the cows which had entered their forest

The Non-Reserve forest are often right burdened and 'exclusive rights to a few villages' come under attack on two accounts first due to being in conflict with the existing right-regime, secondly due to 'moral right' claimed by other peripheral or farther away villages

At the Policy level the importance of involving local communities in protection and management of forests has been recognized and the Government of Orissa has adopted Joint Forest Management (Joint management of Forests by communities and the State Forest Department) as the management strategy for degraded forests. Presently there are efforts to formalize the Forest CPR systems into Joint Forest Management systems by the State. Ironically the ability of communities to manage forests effectively on their own initiative is being overlooked and the premise behind promotion of Joint Forest Management system is that communities alone cannot manage, or that communities cannot be trusted to manage the valuable forest resource (even under JFM, only degraded Forest is to be covered and high forests are excluded from the scope of JFM), and the State has to act as a Watch-dog.

The JFM system would provide some recognition to the communities to frame rules on a limited scale. As compared to the existing CPR systems, in JFM system the right of communities to frame and modify rules is attempted to be curtailed through imposing a fixed structure for the Executive Committee which has a number of non-residents/ non-appt operators officials as members and also the rights of communities are curtailed through the guidelines in the Govt resolution with regards to JFM.

Joint Forest Management does provide space for increased community control in management of forests. Ideally speaking JFM could work as a CPR system with effective control in the hands of communities and the State Forest Department providing technical and legal backing. However unless implemented properly and given the reservations of the Forest Department about the ability of communities to manage the resource and their apprehensions about handing over power to them, JFM could lead to disruption of the existing dynamic forest CPR systems

### Nested unto:

In many parts of Orissa, the villagers have started federating to solve common problems and to facilitate conflict resolution. For e.g. in Baripada area around 100 villages (i.e. 100 CPR systems) have federated and have formed Buddhikhamari (name of the leading village) Joint Protection Party, in Nayagarh area, attempts are being made to loosely federate around 300 villages in a Mahasangha (apex-organisation). Such federations are important as they instill confidence in individual villages to deal with external forces, help in conflict resolution and information dissemination etc. Such federations also hopefully enhance the bargaining power of villages and their ability to interact and negotiate with outside agencies.

### Institutional Performances:

Many communities in Orissa have been effectively protecting forests for the last 15-20 years, the oldest examples of Forest CPR in Orissa are 40 years old. This provides us inadequate time frame to draw conclusions about the viability of such CPR systems. However, it needs to be appreciated that these Community based forest management systems have evolved in an non-facilitative and uncertain atmosphere with minimum external interventions on a large scale. With the Forests being State owned and controlled, and with strong apprehensions of State appropriation and uncertainty over benefits such community initiatives become remarkable.

### Discussion

In Orissa strong community based forest management systems testify that communities can effectively manage local resources. The trend of forest protection by villagers is extremely desirable from both environmental and development perspectives, it has the potential of becoming a major part of the solution to the problem of deforestation and degradation of forest, as well as for village development

However the community forest management systems are at present faced with issues pertaining to equity and sustainability of these systems. Though some of these systems have evolved and stabilized over years, not all can claim this stability. Even those efforts where one finds well established and effective systems, the past is often full of conflicts. The current stability is an evidence of the ability of these particular communities to resolve the conflicts and contradictions.

As with any collective action, forest protection by rural communities has its own problems. In many cases, the protection system breaks down after a few years due to inter/intra-community conflicts. Once the forest regenerates and trees become larger, the temptation to cut increases. One villager's cutting a tree may trigger off a 'mass- loot and within days, years of regeneration may be cleared off. In few cases, even a cyclic process of protection, clear-felling (after 6-7 years), and then protection again has been cited

### Sustainability

Forest protection effort by a community can be analyzed as a coalition of different factions and interest groups within the village coming together for a common cause which offers benefits to all. Since forest protection is a 'Gain - Gain' situation (implying that all sections of society tend to gain from forest preservation efforts even if the relative gains might not be the same for all) so it is comparatively easier to form a coalition. The coalition may be led by an acceptable leader or leaders.

Such a coalition is inherently unstable in nature and therefore prone to breaking down in situations of conflicts. The conflicts may arise out of a sense of unfairness by a faction, or due to a leadership struggle, or an effect of clash of interests on some other issues etc. Too much scarcity or free riding can also break down the coalition. Sometimes excessive external pressure on the forest and stealing by outsider leads to a sense of helplessness and a breakdown in the protection system.

Due to internal differences, sometimes there might be two groups protecting forests in the same village. In other cases, perception of inequitable distribution may lead to conflicts. In villages where forest is being protected by a group unrepresentative of all the groups/ sections of the village, open conflicts or repressed resentment may be present

To ~~minim~~ and resolve the conflicts at inter and intra village level conflict resolving mechanisms become important. Third *petty* intervention sometimes helps in resolving such conflict. Apex organisations (essentially People's organisations) consisting of representatives of the FPCs in a area, who mediate in both inter-village and serious intra-village conflicts have been found useful.

### Equity.

#### *Within Community*

Communities are not homogeneous but are ridden with caste, class and gender differences, it becomes important to analyze, given these differences the benefit and cost sharing within the community from caste/class and gender perspectives, it is important to assess the existing stratification within the community, benefits and costs the fairness of cost-benefit distribution.

Forest protection on community basis requires collective action. This collective action more often than not comes through consensus. All sections of the community decide to contribute for a common goal. One of the major factors for *effective* collective action for forest protection has been the *fact* that all sections tend to perceive benefits accruing to them.

In certain protection cases, poor and weaker sections may be excluded from participation in both decision making as well as benefit sharing, as in Balangir where the Youth clubs/FPCs auction the material obtained through cleaning and thinning. At the same time, in certain villages, equal distribution of the cleaning material is done. In these villages poorer and weaker sections are also involved in the decision making process to a greater extent. The increased NTFP flow also tends to benefit the poor more. Thus in such villages the poorer sections gain equal to, if not more than the better-off from forest protection. Therefore equity is more a function of the way the forest is managed and the representativeness of the organisation managing it it is often a reflection of the power dynamics of the village and the inequities present in the village social structure. Yet judicious external intervention in this respect can help the system to become more equitable.

#### *Between Communities*

It is also important to look at inter-community differences with regards to access and control over the resources. In many cases, the early-starters have taken up large areas of protection, leaving little areas for other villages. The completely degraded state of the forest might not have attracted anybody's attention initially but once regeneration comes up neighbouring villages also want a share, which the protecting village feels morally justified to refuse. Such situations lead to conflicts and raise the issue of equity.

Intervillage equity is a very complex issue. In areas where villages are already protecting forests and in some cases huge areas of forest, it would be impossible to even think of redistribution of these areas. In such cases, even if the distribution is inequitable it would be very difficult to do anything substantial about it. It might perhaps evolve some means of making forest produce available to the villages left out. But in areas where assigning (by the Forest Department) of forest areas to communities is yet to take place, it is important that area distribution takes place after a thorough negotiation process between villages.

#### *Gender equity:*

The impact of forest protection activity and regulation of forest use by a community on the women of the community needs to be seen. Generally women, especially amongst the lower caste are responsible for collection of fuel. The closure of forest area for protection at times results in women having to traverse longer distances to collect fuel. Often the benefits from increase in Biomass production does not go to women, due to decisions taken by the Community or rather by the men in the community to sell or auction the forest produce to nearby villages. The women in some cases are deprived of the cash flow from such sales, when decisions are taken to use this money for activities such as construction of Club-house or purchase of asset for the Youth Club etc. Women generally are not involved in decision making at community level and their representation in VSS is more of notional participation. However detailed studies on gender differentiated impact of community forest protection and women's involvement in the decision-making at community level have not been undertaken yet

#### Other crternalltles:

##### *Market Pressures*

Temptation to sell increases with the growth of trees, and pressures both from potential offenders within the system and outside timber smugglers increases. And in the absence of legal backing and external support offsetting these pressures become difficult

##### *Legal*

Lack of statutory status to the Forest Protection committees and powers or legitimacy to enforce community rule system, weakens the Forest CPR.

##### *Role of the Forest Department and external interventions:.*

JFM as mentioned earlier on the positive side has the potential of rendering stability to the system by providing support in various forms to the local systems. On the other hand there is also a danger of disturbing the local systems through counter-productive interventions by the Department. This could be on two counts : firstly because of inability of the Forest Department to deal delicately with villagers and respect local initiatives and through their efforts to undermine local efforts and the capability of villagers to manage forests. Second, due to flow of funds and external inputs into the system which could suppress local initiatives and contribution for resource management with little or no external inputs. The spirit of voluntarism and collective action which contributes to a large extent to holding together of community and collective management system could break through half-hearted hasty interventions. However this does not mean that no external interventions should be made or that external interventions are not desirable. The point being made is that possible external interventions should be carefully planned.

Forest CPRs in Orissa testify the ability of communities to protection and manage their forests and the viability of Community management regime. However there are variety of issues involved which threaten the sustainability of these systems. They relate primarily to inter and intra village, equity, productivity of forests and demand and supply of forest produce. These issues have to be addressed to and resolved for community management of forests to establish itself as a sustainable forest management alternative.

## REFERENCES

Das S.S., 'State of Forests in Orissa', 1991.

FSI, 'The State of Forest Report'<sup>1</sup>,1991.

Government of India (*GOT*), 'Forest Policy'<sup>1</sup>,1894  
—, 'National Forest Policy'<sup>1</sup>,1952.  
—, 'National Forest Policy'<sup>1</sup>,1988.

Kant Shashi. Singh Neera M and Singh Kundan, Community Based Forest Management Systems, 1991.

Kulkarni Shashi and Fernandes Walter, 'Towards a New Forest Policy'<sup>1</sup>,1983.

Lal J.B., 'India's Forests: Myths and Realities'<sup>1</sup>, natraj Publishers, 1989.

Malhotra K.C. et al, 'Role of Non-Timber Forest Produce in Village Economy : A Household Survey in Jamboni range, Midnapore District, West Bengal, 1991, BRAD

Mishra C.G., 'Awakening Environmental Awareness', Grantha Mandir Publishers, 1993.

Ostrom Elinor, 'Governing the Commons : The Evolution of Institutions for Collective Action', Cambridge University Press, 1991

Pati Suvendu and Panda Ranjit, 'Micro-Level Study on Community Based Forest Management Systems at Selected Sites in Orissa', 1993; Unpublished Report

Shiva Vandana et al, Forest Management: Strategies and Challenges, 1982.

Singh Neera and Kundan, 'Forest Protection by communities in Orissa - A New Green Revolution', FTP Newsletter, No. 19, January 1993.

Singh Neera and Kundan, 'Saving Forest for Posterity'<sup>1</sup>, Down to Earth, April 15,1993.

Slabbing E.P., 'The Forests Of India'<sup>1</sup> (1921-26), Reprint 1982.

## Anneiure I

### Forest Protection Movement in Nayagarh area

In Nayagaih district, about 324 villages (in 9 administrative blocks) have taken up protection of their neighbouring natural forest. According to one estimate about 80,000 acres (320 sq. km.) of area out of about 1800 sq. km. of total forest area is currently under their protection. With Gandhian philosophy as its guiding principle, the local villages effort, known popularly as "*Buddhagram*" Movement is one of the most important developments in the area of natural resource management by rural community in Orissa. The 324 villages are distributed within 18 zonal organisations and 23 village level committees. There is an apex level organisation at the district level of these organisations. The village level, zone level and district level efforts are supported by an NGO called "Briksha O Jeevar Bandhu Parishad" (BOJBP) UteraQy "Friends of Trees and Living Beings".

#### *Initiation*

By the late sixties, sporadic efforts for protecting forests were already present in Nayagarh area, for example *in Patchandiprasad and Sholapetta*. These efforts were self-generated with time or no support from external agencies. In the seventies the Buddhagram movement started in Keshatpur and over the next few years encompassed 22 nearby villages. BOJBP, formalised as an apex organisation of these twenty two villages in 1982, took up active promotion of forest protection and has directly or indirectly played a role in initiating/supporting forest protection by more than 300 villages.

The decision to protect Bmjhgiri hfl was a result of complete denudation of the forest resulting in scarcity of fuel wood, and visible adverse environmental impacts (drying streams, formation of gullies). The initiator was a Utkal University (Bhubaneswar) Professor, Mr. Narayan Hazari, resident of Keshaipur who had started writing letters to villages in the area expressing concern at the possible consequences of forest denudation. The village level leadership was taken up by a village school Headmaster, Mr. Joginain Sahu, who helped to start an environmental campaign in the area.

#### *Spread*

Late seventies and early eighties saw consolidation and spread of the "protection movement". In late seventies NSS camps were being organised and padayatans were being undertaken by the NSS volunteers. Involvement of local DFO and support from local MLA provided motivation

#### *Timeline*

- 1947 onwards - Rapid denudation & degradation
- Late 60's - Protection efforts by a couple of villages (Patchandiprasad and Sholapet villages) of their village forest
- Early seventies - Continuous draught for 4-5 years, protection started by Koska, Domasahi villages of nearby Reserve Forest
- Mid seventies - Individual concern, scarcity of forest produce, visible adverse environmental impacts.
- 1976 - Protection started in Keshaipur village (protected forest)
- 1978 - NSS camp by Nayagarh college students. Seven other villages joined with Keshaipur in protecting the protected forest
- 1978-82 - 15 other villages also (in total 22) involved in protection of Bpji' iML
- 1982 - NSS camp by Nayagaih college and Utkal University. BOJBP formed with representatives from 22 villages.
- 1990 - Total number of villages protecting forest increased to 255, area under protection about 30,000 acres (120 sq. km.)
- 1994 - Total number of villages involved in protection estimated at 324, protecting about 80,000 acres (320 sq. km.)



**Annexurell**  
**Main Forest Protection Zones in Orissa**

The following are the major forest protection zones/belts in Orissa according to the information available with us. (Apart from these major clusters, many more isolated cases abound, and perhaps even large clusters we do not know of.)

ZONE/BELT	DISTRICT
1. BARIPADA	MAYURBHANJ
2. NILGIRI	BALESHWAR
3. HINDOL	DHENKANAL
4. JORANDA-GONDIA	DHENKANAL
5. DEOGARH-BARKOT	SAMBALPUR & DHENKANAL
6. CHAMPUA-KEONJHAR SADAR	KEONJHAR
7. SUNDERGARH	SUNDERGARH
8. KOLABIRA	SAMBALPUR
9. RENGALI	SAMBALPUR
10. LOISINGHA-AGALPUR	BALANGIR
11. DEOGAON- S AINTALA	BALANGIR
12. JEYPORE	KORAPUT
13. PHULBANI-BOUDH	PHULBANI
14. NAYAGARH	PURI
15. TANGI-BANPUR	PURI
16. BONAI	SUNDERGARH
17. KODALA	GANJAM
18. KHAPRAKHOL	BALANGIR