



Floral Sanctuary : A Study of Sacred Grove of a Village in Western Orissa

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INTRODUCTION

Sacred Groves is an age-old tradition where a patch of forest or water body is dedicated to local deities and none is allowed to cut plants or to kill animals or any form of life (Gaikwad, Paralikar, Chavan and Krishnan, 2004). The institution of sacred groves dates back to the pre-agrarian hunting-gathering phase of human civilization, and is known to thrive in most parts of India (Kosambi, 1962). It has been estimated that total number of sacred groves in the country lies between 100,000 and 150,000 (Malhotra, et.al., 1999). These are mainly distributed in the states of Andhra Pradesh, Bihar, Jharkhand, Orissa, Maharashtra (Gadgil and Vartak, 1981; Deshmukh et.al., 1998), Rajasthan (Pandey), Uttar Pradesh (Sinha and Maikhuri, 1998), Tamil Nadu, Kerala, Pondichery, Gujrat, Goa, West Bengal, and some north-eastern states such as Meghalaya (Tiwari et.al., 1998). Studies in Orissa (Malhotra, Stanley, Hemam, and Das, 1998 ; Kulkarni, Barve, Jagdale and Inamdar, 1993; Das, and Malhotra, 1998; Appffel - Margalin and Parajuli, 2000) show a wide distribution of these sacred groves varying in size from a few trees to dense forests covering vast tracts of land and spreading over a wide range of communities and tribes i.e. *Gadaba* (Thusu and Jha, 1969; Nayak, Boal and Soreng, 1996), *Kharia* (Roy and Roy, 1937),

Khond (Boal, 1984; Nayak, Boal and Soreng, 1990; Patnaik, 1992), *Juang* (Nayak, Boal and Soreng, 1993), *Santal* (Muhkherjee, 1963), *Didayi* (Guha, Siddiqui and Mathur, 1968), *Bondo* (Elwin, 1950), *Bhuiyan* (Roy, 1935), etc.

Amidst the large scale destruction and rapidly dwindling forest cover in the Jharsuguda district, it is highly noteworthy that in a large number of villages, the local communities have initiated the process of protection of degraded forest patches and allowed them to regenerate. This process of community initiated protection and management of degraded forestlands started since early seventies. Amidst vast degraded landscape, luxuriant tree growth can be seen. In addition, a large number of sacred groves in their primeval form are seen distributed throughout the district. In Badadhara village where such initiatives have been undertaken, basic information was obtained in terms of ethnic composition of village, population size, area protected and management practices, etc. from the villagers. In addition, several detailed studies capturing different forms of management practices in the adjacent villages were carried out. The main criterion in selecting the village for case study was that the protection and management was entirely community initiated without any help from the forest department and other government agencies or NGOs. The objectives of the study were:



- to understand what motivates people to initiate on their own protection of degraded forest lands;
- How sanctity was attached to the protection programme;
- under what circumstances people come together and start a collective action;
- the structure of the evolved informal forest protection and management institution;
- the management practices (rules and regulations) including protection and use of biomass resources, conflict resolution, nature of fines and punishment etc; and
- what lessons can be learned from such initiatives in the broader context of the present policies related to forest management in the country.

VILLAGE PROFILE

Physical feature

The Badadhara village lies in the west of Jharsuguda town, about 72 kms. away along the Jharsuguda-Kanaktora road leading to Chhatisgarh. From the main road, at Badimal Chhak, a *kutchha* motorable road of about 2 kms. long connects the village. The village comes under Lakhanpur Tahsil of Jharsuguda District, Orissa. The total geographical area of the village is about 1206.870 acres. The south side of the village is bounded by Kelo river and Hirakud reservoir and the tropical forest of a small hill range (Chhelia *parvat*), running from east to west direction, forms the northern boundary belongs to Badimal village. The settlement is situated on the higher plane. The village has also one hamlet of about 11 households called Khajariapara, which is situated near the north-western boundary of the village.

The topography of the village consists of undulating surface of protruding shallow spurs and flat river valley. The whole area can be divided into five zones. Each of these zones has different soil type and utilization pattern. The southernmost part of the village is covered by a narrow strip of low lying river plain of fertile *Potu (rem) mati* (river site soil) soil type. Earlier villagers used to cultivate paddy in this area. But, since the construction of Hirakud dam at Hirakud on Mahanadi, in 1950s, most of the fertile area (*bahal*) of the village has been submerged i.e. Khadkhadiabahal, Baghberna, Baigamunda and Jor. During the monsoon, the reservoir is filled up almost touching the settlement but during the summer, vast grassy and open land is available for a shorter period for cultivation or for animal grazing. However, most of its forest has been submerged in the reservoir. Above this submerged river valley is a small narrow strip of undulating land which was subsequently modified as cultivation fields. The settlement site lies on the higher plane is mainly of infertile reddish soil *Gori mati* (hard and stony soil), abutting to the north-west the sacred grove called Dunguri. In between the settlement site and the hill range (Chheliaparvat), lies a strip of dry land -fields of fertile soil. Beyond this is the high hill range with regenerating forest off the northern boundary of the village.

The village enjoys reasonably good rainfall spread over 6 months. Monsoon season starts as early as April and continues up to October. The maximum rainfall occurs during August and September. The other source of water is Kelo river and a small perennial stream running from north-south meandering through the paddy fields. It finally opens to the Kelo river.

People

The population is primarily dominated by *Kulta*, settling in the centre of the settlement,



circumscribed by others. They were the first settlers of this village. In the beginning before the Hirakud dam, they stayed at various locations i.e. Dihi, Baghberna, Luhurendhipa etc. on the bank of river Kelo, subsequently with the submergence of bank, they shifted to the present site. They have been settled here for the last five generations. In due course of time, other groups also came and settled in the village i.e. *Kandha, Dhoba, Keuta, Khajaria, Jhankar, Gauda, Teli*, etc. Such immigration of people from other villages and natural increment of their own population led to gradual increase in population. Eventhough their houses are clustered in small area, there is settlement segregation based on ethnicity. The *Kultas* occupy the central portion of the village road while the remaining groups are settled on the periphery.

Livestock

The main livestock found in the village are cattle, buffalo, goat, sheep, dog and hen. There are about thousands of cows and buffaloes and hundreds of goats and sheep. Grazing is mainly done inside the forest and on fallow cultivation fields. The *Gauda* in the village takes care of grazing of the whole village livestock. In return for his services, he is given annual paddy proportionate to the cows and occasional cloth and food on festive occasions.

Occupation

The main occupation of the villagers is cultivation. They practice both wet and dry land cultivation. Besides, they also plant vegetables and other fruit bearing trees in home gardens. Those who have no wet land for cultivation take up dry land cultivation on the bank of river during summer and also tenant farming. During off season some people who work as labourers in and around the village also go for fishing.

The main crops grown are rice, *ragi*, niger, millets, maize and many varieties of vegetables in different seasons. They sell some of the vegetables (brinjal, chili, potato, tomato, beans, peas, lady finger, bitter guard, pumpkin), oilseeds and the surplus cereals or millets. However, most of the households do not produce sufficient food. Some of them purchase rice from outside mainly from Government depot of public distribution system (PDS).

Land and forest ownership

Their most fertile land (river valley) has been submerged by the Hirakud dam. The river valley is lying submerged for the last 50 years. More than 200 acres of land have been lost. Villagers have been compensated for on a lump sum basis by the Government for their lost land. Some of them also cultivate on the slopes, just below the protected forest area where there are no trees. However, they do not have permanent ownership for such fields. The whole forest area (hill range) officially belongs to the Forest Department. However, the villagers have usufruct right over these lands. There is no permanent or individual ownership of forest land or trees grown there.

Forest

The forest area (hill range) covers an area of about 22.410 acres (Plate I) initially spread over two shallow rocky outcrops divided by a shallow defile subsequently converted to a *kutchra* road leading from the village to *Prahlad munda*. As mentioned earlier, the whole area is collectively controlled by the village. There is no private ownership of forest land or trees in the forest. Depending upon the nature of natural vegetation or distinct feature of the area, there are different names for different sites in the forest. For instance, the forest site where there is good



growth of trees is called *Bada Dunguri*. Against *Chhota Dunguri* which is smaller and devoid of any growth. The whole forest is a very old. Though the forest is dominated by *Sal, Mango, Dumri, Senha, Bela, Mahul, Biza, Swanigi*, etc. its unique biodiversity character has been reflected by harbouring many medicinal plants, roots, fruit trees and creepers (like *siari*), shrubs etc along with many faunal types including various resident birds, reptiles and wild animals (Plate II).

A list of plant species once formed the vegetation cover over the hillock is furnished below : *Achyranthes aspera* (Apamaranga), *Aegle marmelos* (Bela), *Ageratum Conyzoides* (Poksungha), *Alstonia scholaris* (Chhatim), *Andrographis paniculata* (Bhuin nimbi), *Annona squamata* (Ata), *Argemone mexicana* (Dengbhejri), *Aristolochia indica* (Panairi), *Asparagus racemosus* (Satabari), *Azadirachta indica* (Nimba), *Boerhavia diffusa* (Puruni), *Bombax ceiba* (Simuli), *Butea monosperma* (Palash), *Cassia fistula* (Sunnari), *Chloroxylon swetinoides* (Bheru), *Cleistanthus collinudus* (Karada), *Cleoma viscosum* (Huluhulu), *Curatigo orchinoides* (Talmuli), *Curcuma longa* (Haldi), *Cyperus rotundus* (Mutha), *Diospyros melaroxylon* (Kendu), *Eclipta prostrata* (Bhrungaraj), *Euphorbia hirta* (Chitakutei), *Evolvulus alsinoides* (Bichhamalia), *Ficus mumosa* (Dimri), *Hemidesmus indicus* (Sugandhi), *Holarshena antidysenterica* (Kurei), *Jatropha curcusa* (Ramjada), *Lemonia acidissima* (Kaintha), *Madhuca indica* (Mahula), *Millettia pinnata* (Karanja), *Mimosa pudica* (Sajakuli), *Nyctanthus arboristis* (Gangasiuli), *Parsiflora foetida* (Bisiripi), *Pergularia daemia* (Uturuli), *Phyllanthus emblica* (Aanla), *Phoenix sylvestris* (Khajuri), *Plumbago indica* (Rakta Chitapar), *Sapindus trifoliata* (Rithaphala), *Semecarpus anacardium* (Bhalia), *Similax microphylla* (Muturi),

Soyamida febrifuga (Rahen), *Stercularia urens* (Genduli), *Syzygium cumini* (Jam), *Tephrosia purpurea* (Barakolathia), *Terminalia arjuna* (Arjuna), *Terminalia bellerica* (Bahada), *Terminalia chebula* (Harida), *Tinospora cordifolia* (Guluchilata), *Vitex negundo* (Begunia), *Woodfordia fruticosa* (Dhatki).

Deforestation in the village

In the past (prior to 1960) there used to be very dense vegetation covering the whole forest area. The subsistence needs of the villagers such as timber, fuelwood, fodder, roots, medicinal plants, fruits and other requirements were met from the forest. There was no individual or community ownership and control over utilization of forest produce. Every villager had free access to all the forest resources. One could collect whatever items and quantities he wanted or make shifting cultivation fields. Even villagers from other areas were given free access to the forest produce. During that time with a small population and no commercial exploitation, the forest provided sufficient materials for their own subsistence needs.

The deforestation process in the village started in early sixties. The beginning of deforestation in the area coincided with the construction of Hirakud dam which submerged most of the forest land on the bank of Kelo. After the submersion, many of the villagers became landless and had to encroach on more forest land for cultivation. Even shifting cultivation was also practiced. The slope of Dunguri was gradually converted into cultivable land towards west and north leaving the forest area restricted to less than 15 acres. This encroachment along with increasing population accentuated the degradation process further. On the ChhotaDunguri, many new houses came up along with *khala* for keeping paddy husk



leaving not a single tree. Around that time there was a sudden increase in demand of timber, fuelwood and charcoal. To make some quick money, villagers started selling off their trees and making of charcoal. This large scale extraction along with the continuation of the practice of shifting cultivation in the forest lands led to complete deforestation in the area by late seventies. Earlier there used to be lot of bamboo grown in the village. After the exhaustion of forest, they started cutting bamboo for fuelwood as well as for construction purposes. This ultimately led to exhaustion of bamboo from the village. The only remaining trees were those in the core of sacred grove of Dunguri reducing considerably its size.

Tree species collected for housing and other activities are:

Bamboo, Karla, Dhaura, Haland, Kendu, Mahua, Mango, Sal, Piasal, Telkurei, Veru, Valia, Sahaj, Sena, Stem as bole, Leaf for thatching and Root as rope.

Following species have been lost completely from the forest due to deforestation:

Asana, Bamboo, Bandhan, Bel, Bhanwar, Karda, Chara, Dhawra, Gamhari, Haland, Harida, Karanja, Kekata, Kendu, Khair, Khurdu, Kurei, Kusum, Mahua, Mango, Piasala, Rohini, Sahaja, Sal, Saliha, Sena, Sisoo and Veru.

Dependence on others

After the exhaustion of their forest in late seventies the villagers had to face lot of problem of finding fuelwood, timber and other subsistence requirements for many years. Since there was no tree left in the forest, they dug out even roots of dead trees for fuel. Finally, they started going to forests of other nearby villages in the surrounding

areas. They used to go to the forest of Chhelia Parvat of Badimal village which is situated about 3 kms. away for collection of fuelwood, household construction materials, and other non-timber forest produces (NTFPs). In the beginning they were allowed to collect without giving any royalty/ payment to the host village. The forests of Chhelia Parvat village also got degraded as many other villagers from other areas also started collecting biomass from the forest.

The people of Badimal village soon realized that unless restrictions of access to outside villagers including Badadhara were imposed, their forests will soon become totally denuded. Thus, outsiders were no longer allowed to collect fuelwood or any other item from their forest. However, as the Badadhara villagers had no other source, they continued to go there and collect fuelwood illegally. Manytimes they were caught, their weapons confiscated, fined and abused by the Badimal villagers. Often there personal belongings (like women's ornaments) were even robbed on the way. This led to a series of quarrels and conflicts between the two villages.

Origin of protection of forest

In the midst of constant harassment and humiliation by other villagers and the physical hardship of walking more than 3 kms. with full headload, they decided to start protection of their own forest which was lying completely degraded. The association of the ritual with the Dunguri was concurrently operated with the village committee. It was carried from two perspectives- (a) Association of rituals with the forest and (b) by forming a village committee to look after the forest.

Myth and legend of Dunguri

Folklore plays an important role in the preservation of sacred groves. The sanctity of



Dunguri has been formulated in many ways with multiple oral traditions being well kneaded to form the belief pattern.-

- In late sixties, a *Baba* of *Mahima Dharma* named Narayan Das came to the village and a thatched *matha* consisting of a single room was constructed on its summit for his staying. Due to medication and miracle of *Baba* many villagers were treated from many diseases leading to his increasing popularity and reverence. Many became his followers and attended to his various *sevas*. He took care of the forest and requested villagers not to cut any tree and protect the forest for future. *Baba* died after taking a pledge from the villagers that cutting tree would mean cutting his limbs. That was enough for the villagers to restraining the deforestation, instead they depended upon *Badimal* forest for their requirements. Subsequently, the *matha* was dismantled and a new *pucca matha* was constructed (Plate III) and other *Babas* are invited to reside here. The tale goes on that once a person cut a tree which oozes blood thought to be that of *Narayan Das Baba*, which led to believe firmly in the sanctity.
- The demise of *Baba* led to construction of a *matha/samadhi* in *Dunguri* and every year his death anniversary is observed on *Amla Puja* in the month of *Kartika* where all villagers gathered, moved around an *amla* tree in front of *matha* with *kirtan* and *bhajan* and took *prasada* collectively after putting *tilak* of ash from sacred *dhuni* presumably lit by late *Baba* and pledge to protect the trees.
- A sacred source of water (Plate IV) is located on its top in a natural cavern which does not dry even in the summer, believed to contain some magico-medicinal property.

- Some divine and semi-divine spirits like *Mauli*, *Peten*, *Mahulgachhien*, *Amgachhien* etc. are believed to be residing in this forest.

As a result the grove was under strict cultural taboos in harvesting of plant biomass and hunting of animals; none of the forest products was exploited for commercial purposes; was found undisturbed. The protection of sacred site was maintained by the belief in powers of resident spirits and deities, and no policing or monitoring was carried out by humans. Persons violating the established norms and values are generally not punished, instead are punished by local nature spirits/deities. In the village, the communities, irrespective of ethnicity, religion, language, age or gender observed traditional values and ethics in maintaining the biological and cultural integrity of the sacred site. Such values and ethics related to sacred sites have a strong bearing on the conservation of dwindling biodiversity. There is plenty to learn from such prudent cultural practices related to care and use of natural resources.

Village Committee

However, the increasing incidences of felling of trees indicate to the decreasing dependency on belief system which was not enough to counter deforestation. It forced the villagers to devise new method for the preservation of the forest. The village committee organized a meeting involving villagers to discuss the problem of felling of sacred trees, for procurement of needed biomass, especially fuel wood. In that meeting they discussed about the need to protection of the forest in the name of *Baba*. They agreed to start protection in a way to keep a vigil on the forest and punish the offenders. Although there was no written agreement, the villagers resolved to maintain the following norms and regulations:



- No one should cut any live tree. Only dead wood or branches or fallen trees are allowed to be collected.
- Even collection of bamboo shoot and fruits of some trees are not allowed.
- One should not remove any regenerating plant saplings.
- Other villagers from nearby area will be allowed to collect leaves for religious and social functions.
- One should not cultivate inside or on the lower slopes of the protected site except where there was no tree growth.
- One cannot collect anything from forest for commercial purposes.
- Violator of the above norms will be punished accordingly (imposition of fine). Fines collected shall be utilized for common village purpose.
- In case of any dispute the matter shall be sorted out in a common village meeting.

In order to maintain the above norms, all villagers keep an eye on the forest.

CONCLUSION

Large scale commercial exploitation of forest in the district seemed to have started in early part of this century. After independence, various

development projects, industries, and mining operations have also come up in the district. All these have led to submergence of large forest and cultivable land, encroachment on forest land for mining and other purposes, large scale displacement of locals, etc. Besides, there is large scale practice of shifting cultivation by people which also contributes to degradation of forest. The district, as noted above, went through the process of rampant deforestation beginning from early part of this century. It is also noted that in many villages community initiated forest protection and management systems have been initiated. The exact number of such villages and the total area being protected and managed is not known or documented, it can be safely inferred that the phenomenon is fairly widespread and in a substantial area of earlier degraded forestland biodiversity has been restituted. Here, community based initiation, coupled with sacred nature of the grove protected the site leaving other profane groves viz. *Chhota Dunguri, Amburei* and *Talbhana* to considerable deforestation.

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Morality is the second fundamental factor for the success of democracy. - P.R. Sarkar