

## PROCEEDINGS OF STATE-LEVEL CONSULTATION & TRAINING

ON

### SILVICULTURAL PRACTICES IN COMMUNITY FOREST AREAS

Odisha, an eastern state of India, has been known for its rich cultural traditions, natural resources, and also community forestry practices. Documentary evidence suggests that community forestry began in this state as early as 1930s, but spread over during 1970s when acute shortage of timber and other forest produce forced the local communities to take over the protection & management of local forests, irrespective of their legal status. Forests of the state are owned by the State Forest Department(reserve forests, national parks, & sanctuaries) whereas many forest lands are still under the State Revenue Department. The Revenue Department has not been sincere in conserving the forests under its control, but it also happened that the Forest Department directly or indirectly accelerated degradation of valuable forest resource through its timber leases. There are working plans, but timber contractors hardly cared for the prescriptions and except but few cases there was hardly any effective departmental check & balance system to prevent these contractors from taking undue advantage of the lease. Another factor was increasing population pressure. All these factors led some local communities to protect & conserve locally accessible forests independent of the Forest Department. Their experiences caused a lack of trust in the Department, and they strongly believed that they should own the resource which they saved and conserved at their own cost. These groups are popularly known as CFM(community forest management) groups.

In 1980s, the Forest Department attempted to involve the local communities in its protection measures for forests. This was formalized in early 1990s as what is known as Joint Forest Management(JFM) system. This system essentially puts the Forest Department in the decisive role, and local communities have a relatively secondary role. It adopts silvicultural operations, and the JFM member communities get full share in the small timber and other forest produce generated through such operations. These forest protection village committees under JFM are known as VSSs(Vana Samrakhana Samiti s).

The CFM groups, being independent of the Forest Department(which does not recognize their independence), do not normally practice silviculture & other scientific forestry techniques. They protect & manage the forests, make rules regarding the benefit sharing, and aim at utilizing the surplus funds in development of their village. As such, some foresters consider their management system relatively inferior on the technical ground.

Bikash Rath, Sr. Programme Manager of Regional Centre for Development Cooperation(RCDC, [www.rcdcindia.org](http://www.rcdcindia.org)), a premier not for profit organization working on natural resource management, also coordinates the IUFRO Working Party on Community Forestry. He wanted to facilitate a consultation process which could help the CFM groups consider incorporation of scientific techniques like silviculture for healthy development of the forest patches under their control. As such, under the facilitation of IUFRO Working Party on Community Forestry, RCDC organized a two-day consultation-

cum-training<sup>1</sup> programme on silviculture in community forestry, in Hotel Suryansh at Bhubaneswar, the capital city of Odisha, on 22-23 December 2010. More than 50 participants from various parts of the state attended this programme. Most of them belonged to CFM groups, but few also belonged to JFM groups. Almost all of them are members of the state-level federation of the CFM groups, known as Odisha Jungle Manch(OJM). In the panel were Mr. N.C.Kanungo, retired forest officer; Mr. B.C.Pal, retired forest officer; Mr. Sangram Rout, former Honorary Wildlife Warden; and Mr. Bikash Rath.



*(The eco-friendly banner of cotton)*

Mr. Pravat Mishra, Programme Officer, RCDC welcomed the participants after which Dr. R.K.Patnaik, Dean, College of Forestry, Odisha University of Agriculture & Technology(OUAT) inaugurated the programme jointly with Mr.N.C.Kanungo and Srimati Taramani Sahu(a women leader of CFM groups) . He appreciated the efforts of RCDC and IUFRO Working Party on Community Forestry in promoting forest-related education & awareness. However, he could not continue in the meeting because of some urgent engagement elsewhere.



*(The inauguration: from left- Dr.R.K.Patnaik, Mr.N.C.Kanungo, and Srimati Taramani Sahu)*

<sup>1</sup> As we shall see later in the proceedings, the programme eventually got focused on consultation, and the training part could not get much attention because the community experiences on silviculture almost unexpectedly diverted the discussion to protective measures against the erroneous silvicultural practices.

Rural communities respond easily to messages conveyed through emotional songs. Tekendra Jal, a community leader from the famous Gandhamardan area in Balangir district sang the inaugural song with a message that we should not forget our duties for our mother earth and its resources which nourish our life.

*Tekendra Jal singing the song*



Bikash Rath addressed the House explaining the significance of silviculture in forestry. He mentioned the two meanings of the Sanskrit term 'samskara': 1. an impression/habit, and 2. a reform or change for good. He said that it is in the sense of the second one (reform) that ancient seers of India suggested for various samskaras at various stages of human life, like *jataka samskara* at the time of birth, *vibaha samskara* (marriage), and *antima samskara* (last rites). These are done through certain ceremonial observations or rituals so as to make the desired change/reform possible. Likewise, he said, forest resources also need 'reforms' at various stages of their development which we can call *vana samskara* or silviculture ('vana' in Sanskrit means 'forest'). So, vana samskara helps in healthy growth of the forest, he said.

He further said, silviculture is not a totally new concept for the communities since they traditionally adopt similar practices in agriculture and coconut farming. Although forest silviculture is relatively an untouched sector for them, still the famous traveler Hamilton mentions in his book 'Hindustan' how people in certain parts of Odisha used (some two centuries ago) to grow long bamboos of desired shape through a simple technique of tying the strongest shoots in the desired direction; Mr. Rath explained.

Mr. N.C. Kanungo, a retired forest officer, then addressed the House on the concept, objective & practice of silviculture. He said silviculture is a vast subject, and is defined as 'the art & science of cultivating the forest crop'. He clarified that silvicultural operations vary according to the type & age of the crop, environmental conditions & local ecosystem, and also on the wildlife present in the area. He elaborated further on the details of objectives and cultural operations.

This was followed by a question & answer session along with sharing opportunity for community experiences in silviculture. Various community leaders shared their experiences in this context, the salient features of which are given below:



(From left to right, Mr. Sangram Rout , Mr.B.C.Pal, Mr. N.C.Kanungo, and Mr. Bikash Rath listening to community responses)

1. Many cases suggest a bitter experience with silviculture. For instance, in a forest area of Bonai forest division, cleaning & thinning operations cleared the undergrowth to such an extent that an invasive weed has now established itself in that area to a large extent. This weed, locally known as *bombay lata*, has stopped the growth of seedlings of mango(planted in that area for tribal development), has increased the fire hazards(people tend to put fire in these bushes to eliminate them), and is making the movement of barking deer difficult. This problem is not seen in a neighbouring forest of Barghat(Hatikala) under CFM group who do not practice thinning & cleaning.



**Aswini Mohata, a community leader telling about the disadvantages of silviculture in Bonai area.**

On the other hand, in Baidharnagar area under Deogarh forest division, valuable climbers like siali(*Bauhinia vahlii*, whose stem produces a good fibre and leaves are used to produce platters on commercial scale) were cut during thinning & cleaning operations. The operation was stopped after local people protested against the same.

In Saria village(Narla Block, Kalahandi district), the Forest Department employed unskilled/untrained wage labourers for thinning & cleaning operations which in turn caused a lot of damage to the forests. Now, the District Forest Forum, Kalahandi, which is the district-level federation of local CFM groups, strictly sees to it that without the community permission, no such operation is carried out.

2. In Siarimalia forest(Deogarh Division) however, silvicultural operations are carried out properly in the VSS area, and the VSS has been benefited from it. So for Siarimalia people thinning & cleaning operations are not an issue.
3. Some CFM groups practiced or are practicing methods that can be related to silviculture. For instance, in Koska area(Nayagarh district) the thumb rule for thinning is that the distance between the trees should be enough to operate the axe, otherwise this much space will be provided by thinning. In Bharuamunda village(Balangir district), the villagers deploy 3 to 4 times more watchers during the rainy season so as to strictly control the cutting of young bamboo shoots(popular local food which causes large scale unsustainable exploitation of such shoots every year in some parts of Odisha)<sup>2</sup>.



*Kailash Sahoo took a prominent role in facilitating focused discussion on silviculture.*

Mr. Kanungo remarked that the bitter experiences of communities with silviculture are due to the fact that the operation has not been carried out scientifically by the Forest Department in the concerned cases. He said that the chief purpose of thinning & cleaning operations during the British era was to produce good timber to be used for railway sleeper and also to meet the demands of local needs of firewood & small timber, etc.; but now that the priorities have changed communities need not necessarily adopt these operations.

Linking silviculture to wildlife, he said that sometimes we need to keep in mind the survival of some endangered species and adopt silvicultural operations accordingly. For instance, the survival of horn-bill bird would depend on the species *Strychnos nux-vomica*, so we need to take care that this trees survives in our forests.

Bikash Rath clarified that 'cultivating' forest crop means not simply plantation but overall development of the crop. He compared thinning & cleaning operations with family planning.

Regarding the difficulties in harvesting thorny bamboo(*Bambusa bambos*), Mr.B.C.Pal, retired Chief Conservator of Forest who joined the panelists on 23<sup>rd</sup> December, explained that the harvesting is to be done in horse-shoe shape. He said that since the rhizome of bamboo lies inside the soil, exposure of the same may prevent healthy production of shoots; hence the silvicultural practice is to provide adequate soil cover to this rhizome. According to Mr. Pal, the difficulty increases if the procedure(horse-shoe method) is not followed in the beginning.

---

<sup>2</sup> Mr. Kanna Kumar, who himself had taught silviculture for some time, also referred in this workshop to his impressive experiences of community knowledge/practices that relate to silviculture. He found terms like 'coppicing' known to and understood by them. Probably the technical understanding was a result of some kind of interaction with the Forest Department (or a forester) at some point of time.



*(At a crucial point of discussion)*

In this context, an interesting case of fraud came up from a community leader in Deogarh district. Earlier the forests of Koshala area were rich in bamboo, but large scale exploitation followed by fraud in silviculture has significantly reduced the stock. Labourers/contractors have been paid Rs.260/covering, but the cover has been found to be a superficial one, i.e. rocks/stones have been used to reduce the quantity of soil to be used actually. So it is more a stony cover with some soil.

As of plantations in degraded areas, he said that first the soil & water conditions are to be improved after which only plantation should be attempted. He said that whereas bamboo saplings of one year age should be planted, actually supply (by government agency) is of 2-3 months age; hence the mortality rate is high.

In his concluding remarks, Bikash Rath said that silvicultural operations should be participatory and should also be based on proper microplans so that negative impacts on local livelihood base can be minimized/avoided.



*From left- Rangadhar Behera, Programme Officer, RCDC has played a key role in organizing and consolidating CFM activities; Banshidhar Sahoo giving the vote of thanks; Lochan Tandi, a community leader from Kalahandi, declares that without community permission the Forest Department can't take up operations in their area.*

Mr. Banshidhar Sahoo, a community leader from Deogarh district, gave the vote of thanks.

## Addendum

### **The one-man brigade**

Antaryami Sahu was a school teacher (now retired), but he has been better known for his contribution to the environment. He is so emotionally attached to the mother nature that any human disturbance in natural systems hurts him personally. As such, he has been on a personal mission of saving the earth & its environment with a focus on protection of trees/forests. He encourages people to plant trees, and has been able to facilitate a number of community forest protection activities. He is now popularly known as *gachha sir*, meaning the teacher who promotes trees. Stopping forest fire, and conservation of biodiversity have also been his major topics of campaigning.

In the workshop on silvicultural practices, he was quickly able to recognize one of the key points of the discussion, i.e. protection doesn't necessarily mean development, and that forest protecting communities should also think of the development of the forest under their protection. Thus he said that *surakshya*(protection) is not enough, and we have to think of *utkarsha sadhana*(development) also. This understanding and declaration of a person like *gachha sir* carries strategic importance since he has been an inspiring factor in the CFM sector particularly in the Nayagarh district of Odisha. RCDC therefore honored him as a resource person in this workshop.



*From left to right: Gachha sir showing a banner with a message of inclusive & sustainable growth; tree is god- this message links trees to the famous Lord Jagannath of Puri who Himself has a wooden body; message to stop forest fire.*