

## Bamboo Management Plan: A Unique blend of Traditional Knowledge and Scientific Bamboo Working Plan

Yashmita-Ulman<sup>1</sup> and Sudhansu Sekhar Deo<sup>2</sup>

1 Research Scholar, Department of Forestry, NERIST, Nirjuli – 791 109. Email address: yashmita.forester@gmail.com

2 Sudhansu Sekhar Deo, Consultant in Natural Resource Governance and Management, Cuttack, Odisha.

### Abstract:

Community Forest Management is being practiced in Odisha from times immemorial which is not legally recognized. The Forest Rights Act of 2006 gives legal recognition to such indigenous systems of protection. Jamguda, a village in Odisha is the first village in Odisha to get Forest Rights Act and sell bamboo legally. According to FRA, 2006 provisions, the villagers of Jamguda harvested *Dendrocalamus strictus*, and prepared a bamboo management plan for its further protection and sustainable use. This paper focuses on the bamboo management plan prepared by the community which incorporates the traditional practices and working plan procedures for sustainable bamboo management.

**Keywords:** Jamguda, bamboo management plan, traditional knowledge, community management plan, sustainable management.

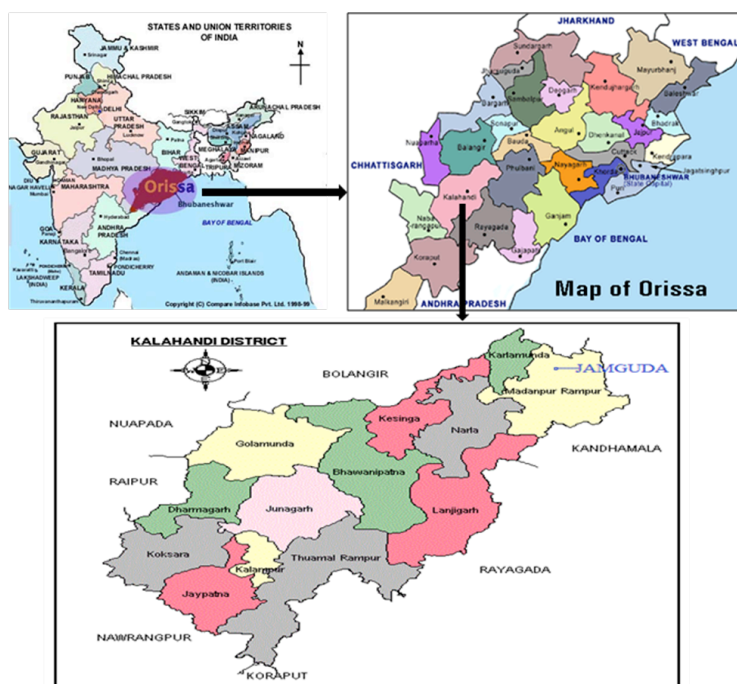
**Introduction:** Community Forest Management (CFM) means the protection, management and utilization of a forest area by a community. CFM has been documented in various parts of India (Poffenberger 1996) and in various other countries, such as Nepal, Philippines, Thailand (Arnold 1998) and Vietnam (Poffenberger 1998). For many years communities in Odisha are protecting their own forests but their efforts haven't been recognized. After Mendha-Lekha of Maharashtra which is the first village in the country to have legally exercised its community right to harvest bamboo under the provisions of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act better known as Forest Rights Act, 2006 (FRA), Jamguda in Odisha became the first village in the state to do the same (Yashmita-Ulman and Deo 2013). Initially, the community faced problems in getting control over their forests even after getting their title deeds but finally they managed to successfully sell the first lot of bamboo in the local markets and earned a living from their years of conservation effort.

**Current forest management system:** After the onset of FRA in 2006, the villagers decided to embrace community forest management by claiming their rights over their forests. In 2010, Jamguda village got recognition of their community forest rights in the reserve forest area. It was decided that the community forest resources would be managed by the Gram sabha as per the FRA rules (Yashmita-Ulman and Deo 2013).

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**Community Management Plan:** For better management of the bamboo forest and according to the provisions of the FRA, 2006, the Jamguda Gram sabha initiated the development of a management plan. The community, with the help of the bamboo experts, has also come up with a management plan for the bamboo forest. This management plan tries to include best of two worlds by including indigenous traditional knowledge and Forest Department based bamboo working plans. This paper highlights the case study of the village Jamguda, which is a very good example of community based bamboo management plan.

**Study Area:** Jamguda village is located in Barabandha Gram Panchayat of Mandanpur Rampur block in the Kalahandi district (Yashmita-Ulman and Deo 2013) (Fig 1, shown on page 3). Out of 65 households in the village, 60 are tribal (Gonda tribe) and rest 5 are Scheduled Caste. Among them 6 households are landless. So, most of the villagers are totally dependent on the forest for their livelihood. They collect mushrooms, edible fruits, char (*Buchnanian lanzan*), mahua (*Madhuca indica*) flowers, siali (*Bahunia spp.*) leaves, honey, tubers, and leafy vegetables from the forest. The forest produce thus forms a major part of their diet. These NTFP's also form a source of income. The forest comes under the Norla range of Kalahandi North forest division (Yashmita-Ulman and Deo 2013). It is dry deciduous in nature. The dominant species is bamboo (*Dendrocalamus strictus*) or Salia baunsa. Bamboo is well knitted with the lifestyle and tradition of the villagers. The villagers depend on bamboo for basic necessities like food, shelter, implements, tools and as a source of livelihood. The bamboo culms are harvested on small scale by the village artisans for making handicrafts and on large scale for selling bamboo in local market.



**Fig 1. Map showing Jamguda village in the Kalahandi**

**Methodology:** Most of the reserve forests in Odisha are managed through community forestry system. Jamguda is the first village in Odisha to get Community Forestry Rights (CFR) on its community forests. The objective of this work was to document the management practices before

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and after getting the CFR so that Jamguda could act like a role model for other villages in managing their community forests. To achieve this goal, the second author, Deo, S.S., documented the traditional practices of bamboo management by surveying the bamboo forests through transect walks with villagers. Information regarding bamboo management techniques, harvesting of bamboo culms, season of harvesting, pattern of transport was gathered through field visits and interacting with villagers through detailed and structured questionnaire. The whole process of felling of bamboo and preparation of management plan was documented through personal observation.

## Results:

**Traditional Knowledge on Bamboo Management:** Moulding of soil around the bamboo clumps is practiced in rainy season. In the opinion of villagers this helps reduce the mortality rate and produces healthier shoots. The lower side from where the soil is removed is given a crescent moon shape which helps in storing water. This acts as a soil and water conservation measure. This helps storage of water which can be utilized by the plant for its growth. Leaf litter and farmyard manure is applied to the clump every six months or one year as the need may be. This helps provide the nutritional requirements of the bamboo. Culm of one or two years of age is not harvested. Culms which are three to five years of age are harvested. Selective felling of mature bamboo is preferred rather than clear felling. This practice prevents the sacrifice of the immature culms in the clump and is allowed to become mature enough for harvest and sustainable utilization. Before the recognition from FRA, 2006, the bamboo was harvested as and when required only for household use like house construction or making of other daily-use articles. Large scale felling for commercial purpose was never required and therefore never done. Vegetative propagation was never attempted as bamboo was found profusely in the forest. Grazing is banned in rainy season to protect the new emerging shoots from damage.

**Community based Bamboo Management Plan:** The general features of the Community based bamboo management plan is depicted in Table 1. The beauty of the management plan is that it combines the scientific techniques and the traditional management system.