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Shri. S. K. DAS., I.F.S.,
Principal Chief Conservator of Forests.

CIRCULAR No.3/2005/PMU-I/1

Sub: APCFM Project - Introduction of Bamboo in the Degraded Forests for improvement of the species composition and income generation to the local community - Guidelines - on the techniques for raising such plantation -Issued.

Ref: 1. Circular No.06/-A/G. 1/3/2005 (Communicated through Prl.CCF ref. no. 17309/2000/G.1 dated 08.05.2005).

Bamboo has been identified as one of the most important species for large scale propagation as it is found very suitable for employment and income generation to the local community.

In addition to raising of pure plantation of bamboo under semi mechanical method on which detailed guidelines have been issued in the reference cited above, a large target has been taken up (more than 30,000 ha.) this year to introduce bamboo in the degraded natural forests, as it has been found that these degraded forests are not generating any significant income to the local community protecting these forests by forming into VSSs. The whole idea of introduction of bamboo in such degraded forests is to improve the composition of the species within a very short time so that a lot of income flows to the local community from the harvesting and value addition of bamboo.

This will be one of the most difficult plantation models and therefore the Conservators of Forests / Divisional Forest Officers will have to plan the plantation programme very meticulously much in advance. The following guidelines are to be invariably followed while introducing bamboo in the degraded natural forests:-

1. Total number of plants per hectare will be approximately 125. The distance between the two plants should never be less than 5m. It may vary from 7m to 12m. Variable espacement will help in choosing a planting point where soil is good in a comparatively clear area.

2. The plantation area should be divided into sectors. The area of this sector should not be more than 5 ha. On the sector boundary stone monoliths should be fixed giving the sector number inscribed on it. It may be combined with trenches with septa wherever the site is suitable. Each sector will have a plantation Board/Stone giving the details, no. of plants, area etc.

3. The dimension of the pit will be as follows:-

Length	Breadth	Depth
45 cm.	45 cm.	60 cm

4. Wherever the pit is dug out in the degraded forest area for planting with bamboo rhizomes a red polythene ribbon should be tied up to the nearest tree/Shrub at a height of 2 m (app.) for locating the pit easily by the inspecting officers. In addition to the red polythene ribbon, a red band mark may also be applied to the same tree or shrub, if necessary.

5. Best of the planting stock should be separated before actually taking up the planting programme under this model. Only more than two year old rhizomes should be planted. In each pit 1/2 cft of dry cow dung powder/vermi-compost should be mixed with equal quantity of dug out soil and the planting should be done after the first onset of monsoon, leaving the top of the pit at least up to a depth of 20cm empty. In areas where rainfall is heavy (more than 800 mm/annum) only 10cm of the top of the pit may be kept empty. The polythene bag need not be removed while planting the seedling but only a few vertical cuts should be given as mentioned in the Circular No.04/2002/U.1. The reason for keeping the upper portion of the pit empty is for collections of water in the pit during the rains which would help the growth of bamboo rhizomes in clump formation very fast. After some time a few branches of tree around the clump may be cut to allow the bamboo shoots to grow vertically.

6. After planting of the seedlings, the local area around the pit should be treated with respect to slope and a little manipulation should be done with a spade so that rain water flows into the pit without any obstruction. In addition to this, a semi lunar bund may be made at a distance of 1m (app.) away from the planting point wherever it is possible with locally available stones on the lower side of the slope in order to harvest more rain water. The stone should be arranged in the form of a wall in a semi lunar trench of 30 cm depth x 30 cm width x L. This should be done only when cutting of tree growth is not necessary and stones are available locally.

7. The entire area should be treated with SMC works identifying the streams of 1st order, 2nd order, 3rd order etc. and effort should be made to see that saturation level watershed treatment is obtained by erecting percolation tanks and digging trenches with septa. Some of the trenches should be dug out in such a manner that they may serve the purpose of fire line as outlined in Circular No.02/J.4/2004.

8. For each plantation an FBO/FSO should be designated as Plantation Manager and they should be given training by our officers on these techniques in order to understand the technique in a simple manner. Handouts in Telugu with simple sketch should be distributed to our field staff and the leaders of the VSS. The Director, Forest Academy, Dulapally, will organize the training in coordination with the Conservator of Forests, Research and Development Circle.

9. The Conservators of Forests/Divisional Forest Officers are requested to plan this programme very sincerely with full interest and see that the model plantations are raised in each range at the earliest and replicated every where as per the target.

Repeated inspections should be taken before and after planting in order to adopt corrective measures, if necessary.

Sd/-**(S.K.DAS)**
Principal Chief Conservator of Forests