

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

CIRCULAR No. 02/2003 / PMU. 1/3

Sub: Forest Management- Poverty Alleviation through sustainable Management of Forests - Watershed Development Programme and raising of high value plantations in the forest areas - Conversion of the forests into a great asset for generating income and employment - Certain guidelines Issued - Regarding.

- Ref: 1. Circular No. 4/2002 / U.I (Communicated in Prl.CCF's ref: No. 19908/2002/U.1, dated 07.08.2002
2. Circular No.5 / 2002 / PMU-I/3 (Communicated in Prl.CCF's ref. No. 17309 / 2000 / PMU.I/3, dated 23.08.2002
3. Circular No. 5-A / 2002 / PMU.I/3 (Communicated in Prl.CCF's ref. No. 17309 / 2000 / PMU. I/3, dated 08.09.2002
4. Circular No.6 / PMU. I/3 / 2000 9Communicated in Prl.CCF's ref. No. 17309/ 2000 / PMU. I/3, dated 27.09.2002
5. Circular No. 7 / 2002 / PMU.I/3 (Communicated in Prl.CCF's ref. - No. 34274 / 2000 / PMU.I/3, dated 16.10.2002

1.1 Certain guidelines have been issued in Circular 2nd and 3rd cited to take up watershed development programme intensively in the forest areas by adopting durable and cost effective structures. In the same reference, emphasis has also been given to plant NTFP and commercial species in order to generate income and employment to the local community.

1.2 In the references cited 1st, detailed guidelines have also been issued on how to raise single row and multiple plantations on the highways and the canal banks. Again, detailed guidelines have been issued on how to raise plantations under semi-mechanical method in the reference 4th cited giving due importance to the aspect of Soil and Moisture Conservation.

2.1 Guidelines available in the above circulars cover all types of forest areas for raising plantations except the type "Degraded forest areas on hill slopes which are not fit for raising with plantations under semi- mechanical method"

2.2 The above type of forest area may be divided into two broad categories - (I) Degraded Hill Slopes with viable root stock and (II) Degraded Hill slopes without viable root stock.

The method of afforestation of the above two categories of forest areas are discussed below: -

3.1 **Category- (I):** Degraded Hill Slopes with Viable root stock:

Step-I: The area should be treated with extensive Soil and Moisture Conservation measures to the saturation level as outlined in Circular Nos.5 and 5-A, Importance should be given on digging of CCTs with septa and erection of percolation tanks - mini, small and big - from the first order stream to the last order stream. Erection of Rock-fill dams and Check Dams may be taken up, if it is essential.

Step-II: Cleaning of the stumps and removal of thorny growth, if any and coppicing.

Step-III: Protection of the area against fire and grazing.

Step-IV: If there is a blank, planting in the blank should be done, preferably under semi mechanical method. The gap area should not be less than one hectare.

Step-V: Deep soil working should be done to the coppice shoots at least to a radius of 0.5m. While doing soil working to the plants, care should be taken to see that the old stump is covered with soil sufficiently and coppice shoots appear as of seedling origin.

Step-VI: This step is applicable to those areas where the annual rain fall is low and the root stock is quite valuable.

In such a situation we provide a semi lunar trench on the lower side of the coppice shoot 0.5 m away with the dimension of 30 cm width and 30 cm depth in order to make more water available to the plant for its rapid growth.

3.2 **Category - (II):** - Degraded Hill Slopes without viable root stock:

Step-I: Soil and Moisture Conservation measures should be adopted as indicated above under Category - (I) extensively as per the guidelines issued in Circulars cited 2nd and 3rd cited.

Step-II: Cleaning, removal/burning of thorny growth, if any, should be done.

Step-III: **Choice of Species:** Long rotation indigenous species of multiple values may be selected, some of which are noted below:

Ravi (*Ficus religiosa*), **Marri** (*Ficus bengalensis*), **Neem** (*Azadirachta indica*), **Chinta** (*Tamarindus indica*), **Neredu** (*Syngizium cumini*), **Ippa** (*Madhuca indica*), **Usiri** (*Embllica officinalis*), **Kanuga** (*Pongamia pinnata*), **Kunkudu** (*Sapindus trifoliatu*s), **Bamboo** (*Dendrocalamus strictus*)

3.3 **Technique:** Planting should be done with more than one year old seedlings in general in a big size pit of 50cm depth and 45cm length and width.

While planting the seedlings, the polythene bags need not be removed. Only a few sharp cuts on the side of the bags will suffice the purpose. This is to be done to reduce the planting shock.

3.4 Planting should be done with the concept of sunken pits i.e., top 20 cm of the pit is to be kept empty after planting of the seedlings in order to use the empty space for mulching before the summer starts.

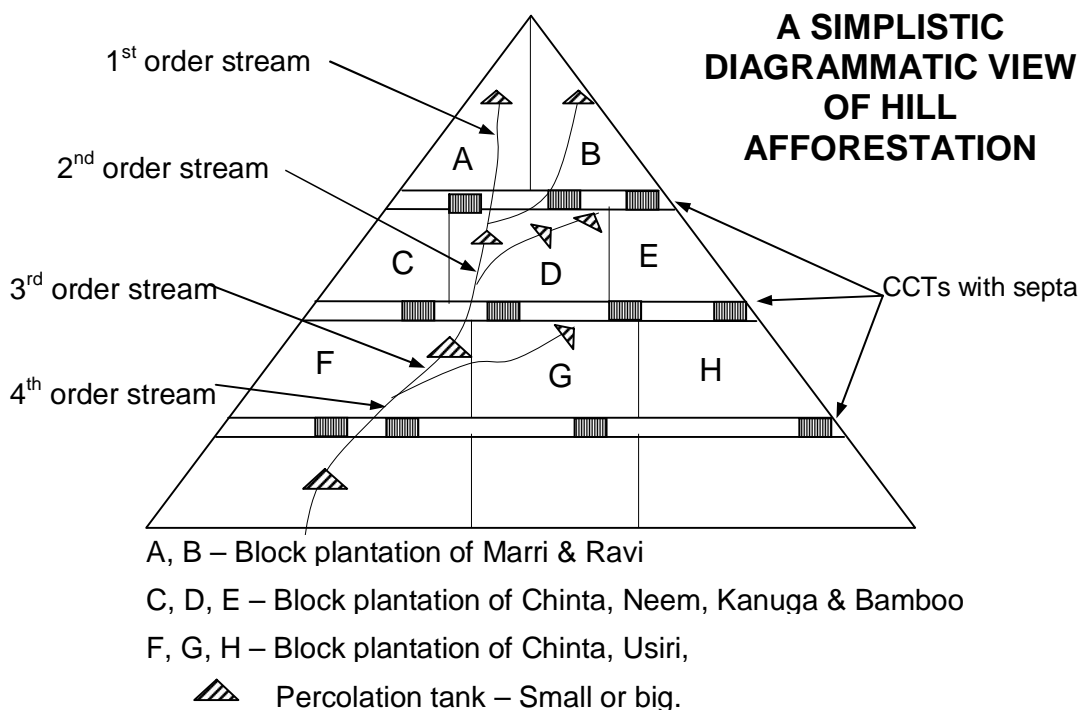
3.5 In dry districts where the annual rain fall is low, additional inputs may be created for the seedling by terracing with inward slope and digging the pits of the same size at a distance of 60 cm from the boundary (edge). In addition to this pit where the seedling is planted, an additional pit of the 30 cm cube may be dug out little away from the seedling towards the inner side in order to impound the rain water in the pit (catch water pit). While planting the seedlings in each pit $\frac{1}{4}$ th cft of dry cow dung powder and 100 grams of SSP should be applied. Since unit cost per planted seedlings is high, care should be taken to see that mortality is minimum after planting and if it occurs, casualties have to be replaced in time.

3.6 In the areas where rainfall and soil are good, terracing may not be necessary. Instead, we may go for pit planting in the trench whose dimension is 1m wide X 1m length X 30 cm depth. Suitable size of the pit in the centre of the trench should be decided depending on the size of the bag.

The following espacement should be adopted: -

Ravi, Marri, Neem, Chinta, Neredu, Ippa	-10 m x 10 m
Usiri, Kanuga, Kunkudu, Bamboo	- 5 m x 5 m
Seethaphal Eucalyptus clone Teak	- 3 m x 3 m

3.7 On the upper most portion of the hill slope, long rotation species like Ravi, Marri, and Neem may be planted for the purpose of eco-restoration, along with the commercial species like Kanuga, Teak, Bamboo in the middle and on the lower slopes fruit bearing species like Usiri, Seethaphal, Chinta etc. In order to illustrate the above points a diagram is given below:-



4.1 All these programmes are to be taken up with the participation of local community and the salient features of the technique should be discussed in detail with them.

4.2 The choice of species should also be decided in consultation with the local people with the objective of getting maximum periodical return from the plantation.

5.1 One of the most striking features that we observe when we travel long distances by road from one end of the State to other end is virtually **the non-existence of the Forest Department anywhere.**

Old Avenue Plantations of Ravi, Marri, Chinta raised by PWD are gradually disappearing due to biotic pressure and the forest lands abutting the highways have in most cases become degraded and denuded.

5.2 In view of this situation, it has been decided to take up corrective measures as discussed below.

We have already issued detailed guidelines to take up multiple row avenue plantations in the Circular cited 1st which should be followed scrupulously by the officers of the Social Forestry Wings of the department mainly.

5.3 For the degraded / denuded forest lands abutting the highways, the Divisional Forest Officers are requested to prepare a list of such areas with extents and prepare an action plan for developing these areas as **Bio-aesthetic Plantations** (Karthika Vanam) within a period of 2 to 5 years. Professional competence and social commitment of the forester should reflect in such plantations.

5.4 Care should be taken to raise a variety of species in small blocks with Ravi, Marri, Chinta, Kanuga, Neem, Usiri and a few flowering trees like Turai, Moduga, Peltophorum etc., scattered all over the area.

For each such plantation, the Divisional Forest Officers are requested to take the approval of their Conservator of Forests for the Planting design clearly showing the treatment map of the area.

The subject is of utmost importance as it would be one of the most high visibility programmes of the Department.

6.1 The Divisional Forest Officers (Planning & Extensions) are requested to take up such plantations in the identified community land abutting the highways where multiple row avenue plantations are to be raised.

6.2 In the exigency of the situation, the Divisional Forest Officers (Planning & Extension) may take up such activity in the RF areas also in consultation with the Conservator of Forests (Territorial) and the Conservator of Forests (Planning & Extension) in case no road side community land is available to take up such activity.

6.3 All these activities have to be taken up with the active involvement of the members of the local community / VSS.

7.1 Suitable Boards depicting the importance of forests in Telugu and English should be put up in all such Bio-aesthetic plantations. The Chief Conservator of Forests (Social

Forestry) will issue further instructions on the subject giving the standard size and design of the Board with important messages.

7.2 The guidelines issued in these circulars including the present one if followed properly, it will be possible to **manage the forests within a few years as a great asset that** will not only generate substantial **income and employment** to the local community but will serve as the much needed **water reservoir and ecological security for the rest of the area.**

All this will bring about a sea-change in the perception of the common man about the Forest Department.

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