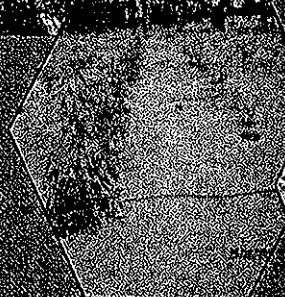
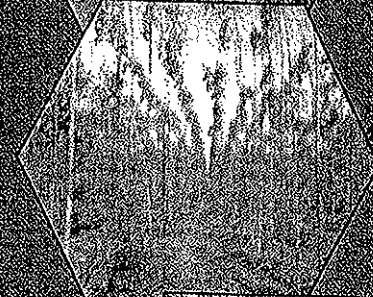
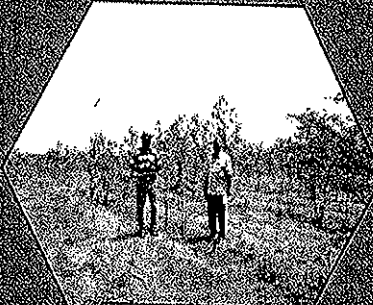


REPORT ON
EVALUATION OF CAPTIVE PLANTATIONS
RAISED BY TNPL
(2010-11 to 2016-17)



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EVALUATION OF CAPTIVE
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RAISED BY TNPL
(2010-11 to 2016-17)**

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We also record our sincere thanks to all the field officer who accompanied to the SSFRDT Team during the time of evaluation to identify and to locate the plantations. The Field Supervisors help is greatly acknowledged.

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Co-consultants of SSFRDT

EXECUTIVE SUMMARY

1. TNPL embarked on a captive plantation in farmer's field in 2010-11 to 2016-17 to create pulpwood bank and got the project evaluated by external agencies. The present evaluation, sixth of its kind, was carried out by the Society for Social Forestry Research and Development Tamilnadu, covering captive plantations raised during 2010-11 to 2016-17. Field work was carried out during May 2017.

2. Operational Area

The evaluation covered 17 districts of Tamilnadu. An extent of 2914.39 Ha has been tackled by Captive Plantations from 2010-11 to 2016-17.

3. Methodology

Adapting random stratified linear sampling technique enumeration was done to assess the stocking%. Girth at breast height (GBH) and height measurements were taken in well distributed sample plots. Where the standing crop rendered itself for yield estimation, point sampling using wedge prism was adapted in the case of eucalyptus. In the case of casuarina, sample plot of size 10m x 10m were laid in cordinal grid. Average height and average girth was assessed and the yield was assessed using stand weight table which was prepared exclusively for casuarina

4. Sampling intensity

The man date of TNPL is to evaluate 100% of the Captive Plantations areas, raised from 2010-11 to 2016-17 in each district were visited by the evaluation team and the parameters evaluated. This stipulation was scrupulously adhered to.

5. Stocking Position

Generally the survival % of 2016-17 plantations varies from 80 to 94.8%. Ramanathapuram recorded the lowest survival% of 35 and the reasons were given in the text.

In coppice growth stool mortality is high and the survival varies from 34% to 67% which require study on stool mortality.

In 2014-15 plantations the survival% varies from 75 to 82%. Virudhunagar recorded the highest survival% of 82.

6. Yield at Present

S.No	District	Year	Yield at Present Mt / Ha	Total yield at Maturity in Mt/Ha
1	Sivagangai	2013-14	1566.18	2610.29
2	Ariyalur	2010-11	2844	3024
		2011-12	379.40	400
		Total	3223.40	3424
3	Trichy	2011-12	262.25	262.25
		2013-14	9.10	11.39
		2014-15	415.88	693.28
		Total	687.23	966.92
4	Virudhunagar	2013-14	1468.20	2446.52
5	Thanjavur	2011-12	188.59	565.75
6	Thiruvarur	2012-13	123.96	123.96 (To be felled during 2016-17)
7	Tirunelveli	2014-15	600	1500 (Coppice)
8	Karur	2013-14	447.99	746.64
	Total		8304.95	12383.48

7. Pest and Diseases

No incidence of pest and diseases were noticed during the present evaluation.

8. Recommendation

- In Sivagangai district the growth of the plantations is moderate due to moisture deficient. In such low rainfall area moisture conservation is very much essential with deep furrow and cross bunding. Clones C103, C3, C7, C413 were planted but heavily mixed. The performance of C103 is poor and such clones may be ignored in future. Soil is mostly red gravelly with good depth. Focus on moisture conservation is very much required in site specific planting operation.
- In Karur district out of 10 FMU raised over an area of 101.52 ha 3 plantations belongs to 2013-14 over an area of 32.413 and 7 are coppice growth over an area of 69.1 Ha. In coppice growth stool mortality is high which accounts only 60% survival. All the growth of newly raised plantations and coppice growth are very good. Reason for stool mortality and the respective clones required further study. Better stocking will fetch good yield.
- In Ramanathapuram the site is totally pure sand. Planting was done with application of hydro gel. Initial watering was done manually by digging a well. In spite of that survival is of 35%. Clones C3 & C4 were planted. C4 is performing better than C3 in this site. Root coiling is the main reason for heavy mortality. Average height is 0.65 m. The planting technique requires site specific modification.
- In Trichy district almost all the plantations are water stressed and the survival is below 80%. In Musiri Government Waste Land Block No.1 survival is 40% and in Srirangam it is 50%. In Sooriyur heavy stool mortality was noticed in these coppice growths. Coppice growth also requires maintenance like deep inter

ploughing and cross bunding. Water requirement is high for coppice growth than newly planted. This is also one of the reason for heavy stool mortality

- In Kanchipuram district Block No.6 all the planted clonal plants and seedlings have died due to the presence of high salinity in the soil which was polluted by the effluents of the Shrimp farms near by. It require saline tolerant clone.
- In Virudhunagar district plantations with large area require compartmentalization and effective moisture conservation making the rain water to impound and summer ploughing to get rid of weed is very much necessary to increase the productivity.