

**MEMORANDUM CIRCULAR  
No. 19**

**SUBJECT : Additional Implementing Guidelines on  
Timber Stand Improvement (TSI) in  
Dipterocarp Forests.**

To further accelerate TSI implementation under the ADB-OECF Program, the following additional instructions/guidelines are hereby issued for guidance and immediate compliance:

1. Designation of Regional and CENRO TSI Project Officer (RTPO/ CTPO) -A RTPO, preferably a Forestry Supervisor I who has undergone TSI training, directly responsible for field implementation, supervision, and management of the Project shall be designated in every Region except NCR likewise, a CTPO who has undergone TSI training and preferably a Senior Forester shall be designated in each CENRO where TSI activity can be undertaken.
2. Preparation of Three-Year Plan -The RTPO and CTPO shall jointly prepare a 3-year (1989-1992) TSI plan. The location of the areas to be treated shall be shown on a 1 :50,000 scale topo map. The 3-year plan shall be shown in sufficient details in the annual operations plan which shall be accompanied by a 1: 10,000 scale map. Quarterly and yearly TSI progress or accomplishment reports following the guidelines under BFD Circular No. 48, Series of 1983 shall be submitted. In the selection of residual (logged-over) dipterocarp forest for TSI treatments, the ideal age of stand must be 10-15 years after logging to ensure adequate stocking of potential crop trees (PCTs).The residual stands must contain 100-150 Potential Crop Trees (PCTs) per hectare based on diagnostic sampling surveys conducted in selected TSI areas. Otherwise, less than 100 PCTs per hectare and lower than 20 residuals would entail enrichment planting activities.
3. Organization of TSI Crew -An ideal TSI crew is composed of 8 persons: one crew leader, a Forester, who will identify the PCTs and will select the competitors to be eliminated, two painters who will mark with red paint the identified PCTs and yellow paint for those trees to be eliminated/girdled, five laborers girdle those trees which are marked with yellow paints.
4. Preparation of TSI Work and Financial Plan -The RTPO and CTPO shall be directly responsible for the preparation and execution of this plan.

**COST ESTIMATE FOR TSI OPERATIONS**

ACTIVITY	MANDAYS/ HECTARE	COST/ HECTARE
1. Improvement of accessibility		
1.1 Trail opening	—	₱ 10.00
1.2 Road improvement <sup>1</sup>	—	500.00
2. Preliminary work prior to TSI treatment		
2.1 Diagnostic sampling	—	100.00
3. TSI treatment		
3.1 Girdling and climber cutting	5.5	967.00
4. Enrichment planting (10% of area)	—	1,650.00
5. Administration/supervision/monitoring About 10% of Items 1 to 4)	—	273.00
<b>TOTAL</b> .....		<b>₱ 3,500.00</b>

In each of this activity, except for administration/supervision TSI Labor Contract must be executed between concerned DENR Officials and Contracting Party (laborers or company that has capability to do it).

5. TSI Monitoring and Evaluation – To ensure a more effective and accurate monitoring and documentation of TSI activities, under the ADB-OECF Program and within TLAs, TSI control shall assess the quantity and quality of accomplishments as earmarked in the approved TSI plan.

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<sup>1</sup> Assured ₱20,000/km and road density of 25 meters/hectare

For this purpose, a sampling intensity of ten (10) percent using 10 meters wide strips spaced 100 meters apart, shall be used to assess the following parameters:

- a. Size of TSI area
- b. PCT stocking of TSI area
- c. Selection and spacing of PCTs
- d. Extent of liberation
- e. TSI expenditures

Deviation of more than two (2) percent with regards to proper selection, spacing and liberation shall result on the recommendation to treat the area again.

The Regional Executive Director shall be authorized to organize a monitoring and evaluation team from the Regional and Provincial Offices, whose head will not be lower than a Senior Forester. Field monitoring and evaluation activities shall be conducted once in every quarter, with their program reports to be submitted to the FMB through channels.

The report of the TSI field monitoring team shall constitute the following (see Annexes 1 to 3):

- a. Field Tally Sheet (Form No. 1) to serve as data sheet during field control operations.
- b. Management Block Ledger (Form No. 2) which is summary sheet of Form No. 1.
- c. TSI Evaluation Sheet (Form No. 3) to be accompanied by proper TSI management map (1:10,000).
- d. Narrative analysis of the above Forms.

6. Regional TSI Target for 1989 – The region, TSI target under the ADB and OECSDF budget for the period July to December 1989 are as follows:

REGION	TOTAL	ADB	OECSDF
CAR	1,029	341	688
1	371	193	178
2	2,016	664	1,352
3	733	257	476
4	2,398	779	1,619
5	331	194	137
6	333	163	170
7	167	129	38
8	1,456	529	927
9	870	333	537
10	2,511	708	1,803
11	2,616	737	1,879
12	1,169	459	710
<b>TOTAL</b>	<b>16,000</b>	<b>5,486</b>	<b>10,514</b>

FULGENCIO S. FACTORAN, JR.  
Secretary

Recommended by:

CIRILO B. SERNA

Director, FMB

Signed on September 26, 1989

\* (Annexes 1, 2, and 3 Omitted)