

**Memorandum Circular
No. 15
August 2, 1990**

TO: All Regional Executive Director/PENRO/CENRO

**SUBJECT: Updating of Cost Estimates for the
Establishment and Development of Rattan
Plantation by Contract and Administration**

For purposes of setting a maximum allowable cost for the establishment and development of rattan plantation by contract and administration using seedlings and/or wildlings, Annexes "A", "C", and "D" of Memorandum Circular No. 18, Series of 1989 dated September 14, 1989, are hereby revised pursuant to Annexes "A-1", "B-1", "C-1", "D-1", "D-2", and "D-3", respectively, in order to offset cost escalation brought about by increases in labor rates, materials and the need for infrastructure component in rattan plantations.

For this purpose, the maximum allowable cost for the establishment and development of rattan plantation by contract and administration shall be P13,284.00 per hectare using wildlings, and P15,776.48 per hectare using seedlings pursuant to Annexes "C-1", "D-1", "D-2", and "D-3", respectively, attached hereto. However, in selected sites where there are existing and usable infrastructure, the corresponding cost/s for such item/s shall be deducted accordingly. Furthermore, the Scheduling of Disbursements as provided for under Section 5 of Memorandum Circular No. 04, Series of 1990, shall be strictly adhered to in the preparation of yearly and quarterly cash flows of rattan plantation projects.

Henceforth, Section 3 of Memorandum Circular No. 18, series of 1989, shall read: In the formulation of Work and Financial Plans and/or assessment and modification of plans submitted by contractors and contract proponents, all DENR offices shall refer to the attached Annexes "A-1", "B-1", "C-1", "D-1", "D-2", and "D-3, respectively.

All other provisions of Memorandum Circular No. 18, Series of 1989, shall remain in force and effect.

This Circular shall take effect immediately.

FULGENCIO S. FACTORAN, JR.
Secretary

RECOMMENDING APPROVAL:

EBERT T. BAUTISTA
Director, Special Concerns Office and
Chairman, NFP Steering Committee

**OUTLINE OF INDICATIVE RATTAN PLANTATION
DEVELOPMENT/WORK PLAN
(Using Seedlings)**

- I. DESCRIPTION OF THE AREA
- II. TOTAL PROJECT AREA
- III. OBJECTIVES
- IV. TECHNICAL FEATURES
 - A. Nursery Establishment/Activities
 - 1. Seed Collection and Transport
 - 2. Seed Extraction and Storage
 - 3. Hilar Treatment
 - 4. Bagging and Arranging of Pots
 - 5. Maintenance of Seedlings
 - 6. Weeding, Watering, Fertilizer, Spraying and Hardening
 - 7. Grading and Transporting
 - B. Plantation Establishment
 - 1. Site Preparation
 - a. Strip Brushing
 - b. Staking
 - c. Hole Digging
 - 2. Seedling Transport
 - 3. Planting
 - C. Maintenance and Protection
 - 1. Brushing/Ringweeding
 - a. Fertilization
 - b. Prevention/Control Measures on Pests and Diseases
 - 2. Replanting
 - 3. Fireline Construction
 - 4. Patrol Work

D. Infrastructure

- 1. Road Construction**
- 2. Foot Trail Construction**
- 3. Look Out Tower**
- 4. Bunkhouse**
- 5. Water System**

E. Administration and Supervision

V. BUDGETARY REQUIREMENT

VI. MODE OF IMPLEMENTATION

VII. MONITORING AND EVALUATION

VIII. ANNEXES

- a. Map of the Project**
- b. Scheduling/Work Plan/Average Manpower Requirements/Cost Estimates**
- c. Quarterly Distribution of Cost and Labor Requirements with Respect to targetted hectarage under Rattan Plantation Contract**
- d. Contract, if any.**

**OUTLINE OF INDICATIVE RATTAN PLANTATION
DEVELOPMENT/WORK PLAN BY CONTRACT
(Using Wildlings)**

I. DESCRIPTION OF THE AREA

II. TOTAL PROJECT AREA

III. OBJECTIVES

IV. TECHNICAL FEATURES

A. Nursery Establishment

1. Wildlings Collection
2. Mudpuddling
3. Packing
4. Potting
5. Shading
6. Watering
7. Fertilization
8. Hardening-off
9. Grading and Transporting

B. Plantation Establishment

1. Site Preparation
 - a. Strip Brushing
 - b. Staking
 - c. Hole Digging
2. Seedling Transport
3. Planting

C. Maintenance and Protection

1. Brushing/Ringweeding
 - a. Fertilization
 - b. Protection/Control Measures on Pests and Diseases
2. Replanting
3. Fireline Construction
4. Patrol Work

D. Infrastructure

- 1. Road Construction**
- 2. Foot Trail Construction**
- 3. Look Out Tower**
- 4. Bunkhouse**
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- d. Contract, if any.**

COST ESTIMATES FOR RATTAN PLANTATION DEVELOPMENT

Basic Assumptions:

1. Spacing/Density per hectare = 4m x 4m/625 seedlings
2. Mortality Allowance = 50% of the prescribed density per hectare or 312 additional seedlings for every hectare.
3. Seedlings shall be potted; Production period for seedling from seed sowing to hardening will be from 6 to 8 months.
4. Brushing/ring weeding and fertilizer application shall be done as follows:

Year 1 = 2 passes Five (5) mandays/pass

Year 2 = 4 passes x 9 passes in three (3)

Year 3 = 3 passes years = 45 mandays

5. Fertilizer Application: 40 grams/hill applied twice a year at 20 grams/application: 1/2 bag/year at P250/bag; 2 md/application/hectare x 2 applications = 4 md/ha/yr. x 3 years = 12 md for 3 years.
6. Replanting: 30% of 625 seedlings originally planted; 10% to be replanted within the first rainy season;

Yr. 1 = 62 seedlings/ha --- 1 md/ha.

Yr. 2 = 188 seedlings/ha --- 2.5 md/ha.

Total MD	3.5 md/ha.
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7. Pesticides (against rodents): P25/ha.

8. Firelines Construction:

$$\begin{aligned}
 10\text{-m wide} \times 50\text{-m long} &= 500 \text{ m}^2/\text{ha}; \\
 500 \text{ m}^2/\text{ha} + 200 \text{ m}^2/\text{md} &= 2.5 \text{ md/ha/yr} \\
 \times 3 \text{ yrs} &= 7.5 \text{ md for 3 years.}
 \end{aligned}$$

9. Infrastructure:
- a) Road (major repair/construction): 0.01 km/ha;
P100,000/km; P1,000/ha.
 - b) Foot trail: 0.5m wide x 50m long per hectare; $P25 \text{ m}^2/\text{ha} + 12.5 \text{ m}^2/\text{md} = 2\text{md}/\text{ha} \times P79/\text{md} = P158/\text{ha}$.
 - c) Look-out Towers: One unit for every 100 hectares; elevated at least 4 meters from the ground; local materials; 2m x 2m floor area; P7,900/unit; P79/ha.
 - d) Bunkhouses/Field Office: One unit/100 ha.; $50 \text{ m}^2/\text{unit}$; $P500/\text{m}^2$; P25,000/unit; P250/ha.
 - e) Water System: P250/ha.
10. Administrative/Supervision Cost (10% of the above items).
11. Survival Bonus (Retention payments) P2,366.47/ha.

ESTIMATE PER HECTARE OF RATTAN PLANTATION DEVELOPMENT

I. Seedling Cost (625 seedlings/ha. + 50% mortality allowance):

$$P4.96/\text{seedling} \times 938 \text{ seedlings/ha.} = P4,652.48$$

II. Plantation Establishment

- | | | | |
|-------------------------|---------------------|--|-----------------|
| 1. Brushing (strip) | : 10 md/ha x P79/md | | = P790.00 |
| 2. Staking (625 stakes) | : 2 md/ha x 79/md | | = 158.00 |
| 3. Hole digging | : 3 md/ha x 79 md | | = 237.00 |
| 4. Seedling transport | : 812 seedlings | | |
| | 4.5 md/ha x 79/md | | = 355.50 |
| 5. Planting | : 4.5 md/ha x 79 md | | = <u>355.50</u> |

Sub-Total P 1,896.00

III. Plantation Maintenance & Protection

- | | | | |
|---|------------------------------|---|--------------|
| 1. Brushing/ringweeding (see basic assumption): | | | |
| | 45 md for 3 yrs. x P79/md. | = | P 3,555.00 |
| 2. Fertilizer application: | 12 md x P79 | = | 948.00 |
| 3. Replanting: | 3.5 md x P79 | = | 276.50 |
| 4. Fireline construction: | 7.5 md x 79/md | = | 592.50 |
| 5. Patrol Work: (1 person for every | 50 hectares; 6 months patrol | | |
| period per year) | | = | 285.00 |
| 6. Materials | | | |
| a. Fertilizer: | 1/2bag/ha per | | |
| year x 3 years x P250/bag | | | 375.00 |
| b. Pesticides | | | <u>25.00</u> |

Total Cost of Pltn. Maint. & Protection P6,057.00

IV. Infrastructure (Pls. see basic assumptions)

1.	Roads	P 1,000.00/ha.
2.	Foot trail	158.00/ha.
3.	Look-out tower	79.00
4.	Bunkhouse	250.00
5.	Water system	<u>250.00</u>
	Sub-Total	P 1,737.00

Sub-Total for I to IV above P14,342.48

V. Project Administrative & Supervision P 1,434.00

GRAND TOTAL (3-YR. PERIOD) P15,776.48

LESS: 15% RETENTION P 2,366.47

OPERATIONAL BUDGET FOR 3 YEARS P13,410.01
(85% OF TPC)

NOTE: The Scheduling of Disbursements as provided for under Sections 5 of Memorandum Circular No. 04, Series of 1990, shall be strictly adhered to.

NOTE: Annex C-1 and D-2 omitted