

**Memorandum Circular
No. 4
February 14, 1990**

SUBJECT: Updating of Cost Estimates for Reforestation Contracts and Providing Guidelines for Implementing Cost Saving/Low Cost Approaches, Scheduling Disbursements and Establishing the Duration of Contracts

**ARTICLE I
GENERAL PROVISIONS**

SECTION 1. The maximum allowable cost for upland reforestation contracts remains unchanged at TWENTY THOUSAND FOUR HUNDRED PESOS (P20,400) per hectare, as previously established in Annex "K" of Memorandum Circular No. 11 Series of 1988. The maximum allowable cost for mangrove reforestation contracts is ELEVEN THOUSAND SIX HUNDRED PESOS (P11,600) per hectare pursuant to Memorandum Circular No. 15, Series of 1989. The foregoing ceilings include all money allocated for sub-contracts and/or activity specific contracts that support reforestation of the site concerned. However, unit costs by activity for all types of contracts (comprehensive, sub-contract or activity specific contract) are hereby revised pursuant to Annex K-1 attached hereto.

SECTION 2. Annex K-1 shall be the basis for computing and establishing total costs for a reforestation contract. Giving due consideration for site variables, the DENR office responsible for awarding the reforestation contract shall select those technical options (i.e. activities) listed in Annex K-1 that are the most appropriate and cost-effective for the site.

SECTION 3. When drawing up a reforestation contract, the average unit costs set forth in Annex K-1 may be increased or decreased by a maximum of twenty-five percent (25%), provided however that the total cost of all activities to be implemented does not exceed the ceiling of P20,400 for upland reforestation contracts and P11,600 per hectare for mangrove reforestation contracts.

ARTICLE II COST SAVINGS/LOW-COST APPROACHES

SECTION 4. In order to offset cost escalation brought about by increases in labor rates, materials and the like, all DENR offices are hereby instructed to optimize application of cost savings and low-cost approaches including the following:

- a. **Assisted Natural Regeneration (ANR)** shall be the prescribed treatment to apply in the development of protection forests (i.e. all land where the slope gradient is greater than fifty percent (50%). In protection forest areas where the population and/or distribution of pioneer trees is/are not adequate to achieve crown closure in three (3) years, the planting of leguminous cover crop vines, direct-seeding of suitable tree species, the use of cutting or bare-root seedlings and similar cost-savings/low-cost revegetation treatments, shall take precedence over planting of potted seedlings.
- b. Except in areas that have been plowed, reforestation contractors shall be encouraged to apply **lodging/pressing treatments** instead of clear brushing and strip brushing in order to control the growth of fire-prone grasses (e.g. cogon, talahib). As a general rule, lodging/pressing treatments will effectively suppress grass and are faster and cheaper to implement than brushing. However, ringweeding and cultivation will still be required.
- c. **Roads shall not exceed two meters (2 m) width**, exclusive of shoulders and drainage ditches. To provide access for vehicles coming from opposite directions, turnouts may be constructed at intervals of approximately one hundred meters (100 m). Labor-intensive road construction methods shall be applied in preference to the use of bulldozers and other heavy equipment.
- d. To further reduce costs, graded trails, shall be encouraged in lieu of roads. If properly constructed, graded trails can provide satisfactory access for plantation establishment, maintenance and supervision.
- e. In the development of production forests (i.e. lands up to 50% slope) all healthy pioneer trees already growing on the site shall be retained, regardless of species. The target population density shall include the trees thus retained. For example, if the target population density is 1,000 trees per hectare, and there are already 400 pioneer trees growing on the site, the reforestation contract will only provide for the planting of 600 additional trees. The reforestation contractor shall be allowed to charge and collect for **maintenance** of the pioneer trees that are retained, subject however to

existing ANR procedures for monitoring and evaluation which provide that two or more trees growing in clusters and spaced less than 1.5 meters apart shall be counted as only one tree.

- f. In order to minimize nursery and plantation establishment costs, **nurse plants** that can be planted by seed, cutting or sucker shall be allowed in lieu of **nurse trees** in the development of production and protection forests. For example bananas, kadyos, orotolaria, wild sunflower and other non-woody species that perform the biological functions of a nurse tree can be introduced in lieu of woody species that require propagation in a nursery. Where the objective of a contract is to establish production or protection forests, the planting density per hectare shall consist of 1,000 trees (i.e. woody species) and 600 nurse plants that provide biological and/or financial benefits, thus a total population of 1,600 trees and nurse plants per hectare. The 1,000 trees per hectare may include fast-growing species, premium slow-growing species and pioneer trees.
- g. In addition to the examples cited above ("a to f") all DENR offices are enjoined to implement other cost savings/low cost approaches that are suitable for the site concerned.

ARTICLE III SCHEDULING OF DISBURSEMENTS

SECTION 5. For upland reforestation contracts, not more than sixty percent (50%) of total contract costs shall be disbursed during the first twelve (12) months of a contract. Thus, the maximum amount that may be disbursed for the first twelve (12) months shall not exceed **TWELVE THOUSAND TWO HUNDRED FORTY PESOS (P12,240)** per hectare which is 60% of the P20,400 ceiling.

Twenty five percent (25%) of the total cost of the contract, or a maximum of **FIVE THOUSAND ONE HUNDRED PESOS (P5,100)** per hectare shall be disbursed during the remaining years of the contract. However, any portion of the sixty percent (60%) permitted for expenditure in the first twelve (12) months, which were not scheduled or disbursed during that period, may also be scheduled and disbursed along with and in addition to the twenty five percent (25%).

The balance of fifteen percent (15%) of the total cost of the contract or fifteen percent (15%) of all previous disbursements (whichever is the lower amount) or a maximum of **THREE THOUSAND SIXTY PESOS ((P3,060)** per hectare shall be disbursed at the conclusion of the contract; **provided** an eighty percent (80%) survival

rate has been attained; and provided further that the surviving trees satisfy DENR's technical standards as to height and vigor. If 60% survival is not attained, or if the surviving trees do not meet DENR technical standards, the 15% balance shall be obligated and re-programmed for other contracts.

SECTION 6. For mangrove reforestation contracts. Seventy percent (70%) of total contracts costs may be obligated and disbursed during the first twelve (12) months of the contract, provided an eighty percent (80%) survival rate has been attained at the end of the first twelve (12) months.

Fifteen percent (15%) of total contract costs may be obligated and disbursed during the remaining years of a mangrove reforestation contract. However, any portion of the seventy percent (70%) permitted for expenditure in the first twelve (12) months, which was not scheduled or disbursed during that period, may also be scheduled and disbursed along with and in addition to the fifteen percent (15%).

Fifteen percent (15%) of total contract costs, or fifteen percent (15%) of all previous disbursements (whichever is the lower amount), shall be disbursed at the conclusion of the contract provided an 80% survival rate and DENR's technical standards have been attained.

SECTION 7. All disbursements referred to in Sections 5 and 6 (above) of this Circular shall be subject to compliance with the terms and conditions set forth in the contract and to the standards and criteria prescribed by DENR for monitoring, evaluation and certification of performance. In particular, progress payments scheduled after outplanting and during the maintenance and protection phase of implementation, shall be subject to reduction pro-rated to survival rates as described in DENR's monitoring and evaluation guidelines.

ARTICLE IV

SECTION 8. Duration of Contracts:

- 8.1 As a general rule, reforestation contracts shall have a duration of three (3) years. This is premised on the following objectives:
- a. all planting will be accomplished in the first year of the contract;
 - b. by the third year after planting, seedlings will grow to a height that overtops competing vegetation such as grass and weed (i.e. around two meters).

8.2 There are two (2) important pre-conditions for attaining the foregoing objectives:

- a. contracts must be awarded and funded in advance of the rainy season (i.e. the planting season) in the first year of the contract to allow adequate lead time for site preparation and for seedlings to grow to the appropriate size and age for outplanting;
- b. planting must be completed not later than three (3) months before the end of the rainy season so that seedlings become firmly established before the beginning of the dry season.

8.3 If contracts are awarded late, it may not be practical or advisable to plant during the first year of the contract because there may not be adequate lead time to (i) grow seedlings of the proper size/age for outplanting and (ii) complete outplanting three (3) months before the end of the rainy season. For example, under Type I climatic conditions where the rainy season usually begins in June and ends in December, all outplanting should be completed in August (i.e. 3 months before the end of the rainy season). If a contract is awarded later than February under Type I climatic conditions, there will not be adequate time to raise seedlings of the proper size/age before onset of the rainy season. Most species require at least three (3) months in the nursery and many require more than three (3) months. Outplanting of undersized/underaged seedlings (e.g. less than 3 months old) and/or late outplanting (e.g. later than August under Type I climatic conditions) is not advisable.

8.4 To cope with unavoidable delays that upset planting schedules (e.g. delayed release of funds) any or all of the following options may be applied:

- a. first year activities may be confined to ANR, covercrop planting or other site amelioration treatments, seedling production, trail construction (etc), with outplanting postponed to the rainy season in the second year of the contract.
- b. fifty percent (50%) of outplanting may be completed in year 1 (YR. 1) and the balance of outplanting in YR. 2.
- c. the duration of the contract may be extended to a maximum of four (4) years with outplanting in YR 2 and maintenance covering YRs 2, 3 and 4;

- d. disbursement schedules may be adjusted accordingly, provided that the fifteen percent (15%) final payment shall only be disbursed at the conclusion of the contract.

**ARTICLE V
REPEALING CLAUSE**

SECTION 9. Any provision of DENR Administrative Orders, Memorandum Circulars or other official issuances not consistent herewith are hereby repealed or amended accordingly.

**ARTICLE VI
EFFECTIVITY**

SECTION 10. This Order takes effect immediately.

FULGENCIO S. FACTORAN, JR.
Secretary

NOTE: Annex K-1 omitted.