SUBJECT: Regulation of Forest Tree Seed Production, Collection and Disposition

Section 1. Basic Policy. It is the basic policy of the government thru the DENR to establish well-adapted populations of forest trees which would provide a sustained supply of forest tree seeds and other planting stocks for the country's forestation program. Hence, it is necessary to place the production/procurement, collection distribution and use of forest tree seeds and other forms of planting materials under close monitoring and regulation by all DENR units concerned.

Sec. 2. Objectives. This Order envisions to:

- (a) Ensure that the DENR will be able to regulate collection of forest tree seeds;
- (b) Document properly identified and established seed production areas which are sources of seeds and planting stocks for forest plantations;
- (c) Ensure that the plantations to be established can best meet the objectives of the Country's Forestation Program; and
- (d) Provide implementing strategies and guidelines for the maintenance of existing and potential seed production areas and the protection and preservation of germplasm.

Sec. 3. Areas Available for Seed Production. The following are available for seed production areas:

- 3.1 Natural stands
- 3.2 Government Tree Plantations
- 3.3 Industrial Tree Plantations
- 3.4 Private Forest Tree Plantations

(See Annex A for identified areas for natural stands and established plantations, subject to field validation by the National Forest Tree Seed Committee and Regional Forest Tree Seed Committees. Identification/documentation of the potential SPAs shall be a continuing activity of the Regional Forest Tree Seed Committees.)

Sec. 4. Identification, Establishment, Maintenance and Protection of Seed Production Areas.

4.1 Natural stands, existing forest plantations and private forest tree plantations which are potential sources of seeds and planting stocks of the various reforestation projects shall be identified, surveyed, assessed and evaluated. Except for private lands, areas identified and evaluated shall be delineated and proclaimed as permanent seed production areas following the guidelines attached as Annex B and the identity of such areas shall be maintained.

The following criteria in the identification and selection of seed production areas shall be observed:

- 4.1.1 For established plantations of similar species, the minimum area should not be less than ten (10) hectares.
- 4.1.2 For contiguous natural stands of mixed species, the area should not be less than ten (10) hectares.
- 4.1.3 All identified mother trees shall be tree marked/painted in the site and correspondingly inventoried/recorded in appropriate forms, and charted/plotted in a map.
- 4.2 Buffer zones for pure plantations which shall be one hundred meters radius from the outer periphery of the identified SPAs shall be provided and maintained. Similar species within the buffer zones with undesirable traits shall be treated in accordance with Section 6.1 of this Order.
- 4.3 Documentation of seed sources shall be undertaken by the Regional Forest Tree Seed Committees. All vital information shall be reported and forwarded to the Forest Management Bureau following the format attached as Annex C.
- 4.4 Commercial timber harvesting operation within identified and proclaimed SPAs inside public forest is strictly prohibited.
- 4.5 Protection and preservation of Seed Production Areas shall be the responsibility of the RED/PENRO/CENRO. For private SPAs, owners shall be responsible for the protection and preservation of mother trees within their areas.

Sec. 5. Accreditation of Private Seed Production Areas.

- 5.1 An application for accreditation for private SPAs shall be submitted to the CENRO/PENRO for review and initial evaluation. Said application must be accompanied by the following information:
 - (a) name of owner and proof of land ownership;
 - (b) location of proposed SPA;
 - (c) number of selected mother trees per species;
 - (d) average height, age and dbh per species;
 - (e) estimated seed yield per species per year; and
 - (f) seed collection and storage capabilities.
- 5.2 The CENRO/PENRO shall recommend the accreditation of the SPAs to the Regional Executive Director (RED) thru the Regional Forest Tree Seed Committee (RFTSC). A copy of the accreditation shall be furnished the Secretary thru the National Forest Tree Seed Committee for review. If there shall be no comments from the Secretary sixty (60) days after the receipt of said accreditation, the approval of the RED shall automatically become final.

Sec. 6. Silvicultural Treatments for Established Seed Production Areas. The following silvicultural treatments within established SPAs shall be conducted:

6.1 Roguing

All diseased trees and those with undesirable forms shall be removed from the stand. Trees of below-average vigor (based on the dominant and codominant trees in the original stand) shall, likewise, be removed based on "plus" tree selection criteria under Annex D.

6.2 Stand Improvement

Stand improvement, such as thinning and pruning shall be done in accordance with the Stand Improvement Plan approved by the Regional Executive Director taking into account the following technical considerations:

- 6.2.1 Thinning shall be undertaken based on established Timber Stand Improvement techniques. All trees that do not meet minimum specifications shall be removed. All brush and understorey trees that interfere with the maintenance of the area and with seed collection, shall, likewise be removed.
- 6.2.2 The first thinning shall be conducted until at least two years after canopy closure in order to ensure complete suppression of weed growth before opening up the stand. An initial thinning of at least 50% of fully-stocked stands is recommended. A final stocking of at least 80-100 seed trees per hectares is attained.
- 6.2.3 Thinned out trees and/or pruned branches shall be disposed in accordance with existing rules and regulations.
- 6.2.4 Pruning shall be done to remove undesirable branches of selected "plus" trees.

Sec. 7. Seed Collection. Seeds shall be collected from selected trees within established SPAs. Collection shall be done by trained/qualified and authorized DENR personnel. If seed collection shall be undertaken within the identified private forest tree plantations, the owner/s of same shall inform in advance the concerned DENR Regional Office in order to supervise the above activity. Owners of Private SPAs shall be trained by DENR experts in seed collection and handling. Upon request, DENR employees may be sent to render technical assistance. The necessary information on the seeds collected shall be recorded in a Tree Seed Register form attached as Annex E.

Seeds collected from government SPAs shall be brought to the nearest Seed Storage and Testing Centers before further disposition. Samples of seeds collected from private SPAs shall be tested and certified at the nearest Seed Storage and Testing Center.

- **Sec. 8.** Seed Storage and Testing Centers. Initially, the following Seed Storage and Testing Centers shall be located in the following Regional Centers and shall service the corresponding areas:
 - a. DENR Region 1
 San Fernando, La Union
- Region 1 and CAR
 (except for Pinus, alnus and other
 species indigenous in CAR).
- b. DENR Region 2 Tuguegarao, Cagayan
- Region 2

c.	DENR Central Office	- Regions 3, 4 and 5
d.	DENR Region 7	- Regions 6 and Cebu City
e.	DENR Region 8 Tacloban City	- Region 8
f.	DENR Region 9 Zamboanga City	- Region 9 and ARMM (Sulu and Tawi-tawi)
g.	DENR Region 10 Cagayan de Oro City (Lanao del Sur & Maguin	- Region 10, 12 and ARMM ndanao)
h.	DENR Region XI Davao City	- Region XI

Periodic seed testing or as the need arises, shall be undertaken by the Centers. The Seed Storage and Testing Center shall provide a periodically updated list of seeds sourced from certified SPAs.

Sec. 9. Seed Disposition. Seeds shall only be disposed at the Seed Storage and Testing Centers. Prior to any disposition, however, the needs of every region shall have to be identified by the concerned Regional Offices. Exchange of tree seeds from one region to another must pass the requirement imposed by the Seed Storage and Testing Centers and shall consider the seed zonification system to be prescribed by the National Forest Tree Seed Committee, provided, further, that the needs of said regions shall be mutually satisfied.

Sec. 10. Penal Provisions.

- 10.1 Any person, group of persons or organizations who shall sell uncertified forest tree seeds shall be punished as follows:
 - 10.1.1 If the value of the seeds sold is P500.00 or less, one (1) year suspension of DENR Accreditation, if any, and confiscation of the seeds sold in favor of the government.
 - 10.1.2 If the value of the seeds sold is P500.00 and above, cancellation of the DENR accreditation, if any, confiscation of the sold seeds in favor of the government and a fine equal to the amount of the sale.

- 10.2 DENR personnel who shall violate any of the provisions of this Order shall not preclude the DENR Secretary from filing appropriate administrative sanctions as may be warranted by Civil Service Regulations without prejudice to the filing of criminal action pursuant to existing laws.
- 10.3 Any person, group of persons or organizations caught cutting, mutilating and damaging Seed Production Areas shall be punished in accordance with Sections 68 and 69 of P.D. 705, as amended and P.D. 953.

Sec. 11. Definition of Terms.

- (a) Germplasm germ cells viewed as the bearers of hereditary characters and at all times fundamentally independent of other body cells.
- (b) Mother tree a tree selected from among the forest stand from which to gather seeds for propagation purposes.
- (c) Phenology study of the growth and development especially the flowering and fruiting of plants in relation to the climatic and site factors.
- (d) Plus tree a tree or any species possessing better or superior phenotypic characteristics compared to other trees of the same species grown under the same environment.
- (e) Phenotypic characteristics outward appearance of a tree resulting from its genetic expression and influence of its environment.
- (f) Pruning removal of undesirable branches.
- (g) Roguing systematic removal of trees with undesirable traits or genotype from a seed orchard or SPAs.
- (h) Seed Production Area is a plantation with known origin or stand of natural forest with superior phenotypic characters selected on the basis of its maturity and capacity to produce abundant seeds, majority of the trees are healthy, tall, big in diameter, straight bole, balance crown and proportionate branch size.
- (i) Seed Source the locality where a seed/seed lot was collected;
- (j) Selection a process in which original trees or stand with certain desirable traits or characteristics are favored for certain purposes.

- (k) Stand a group of plants growing more or less in a homogeneous and contiguous area.
- (1) Thinning cutting of young stand to reduce the number of trees, per unit area for the purpose of giving space for faster growth of the desired species or increased in seed production.
- (m) Tree Improvement development of the genetic make-up of the tree through selection and breeding.
- Sec. 12. Issuance of Supplementary Guidelines. The Undersecretary for Field Operations and Programs is hereby authorized to issue the necessary supplementary guidelines relative to this Order.
- Sec. 13. Repealing Clause. The provisions of DAO 31, Series of 1991 with respect to the option of buying tree seeds from accredited SPAs, MC No. 11, Series of 1991 and other related issuances which are inconsistent with this guidelines are hereby repealed and/or modified accordingly.
- Sec. 14. Effectivity. This Order shall take effect upon acknowledgment by the UP Law Center and after 15 days from publication in two (2) newspapers of general circulation.

ANGEL C. ALCALA Secretary

Recommending Approval:

JOSE D. MALVAS JR.
Director
Forest Management Bureau