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MAY 05 2010

DENR ADMINISTRATIVE ORDER

No. 2010 – 11

SUBJECT: REVISED REGULATIONS GOVERNING FOREST TREE SEED AND SEEDLING PRODUCTION, COLLECTION AND DISPOSITION

Pursuant to Presidential Decree No. 705, otherwise known as the Revised Forestry Code of the Philippines as amended, Executive Order No. 192 reorganizing the Department of Environment and Natural Resources (DENR), Executive Order No. 318 promoting sustainable forest management, and Master Plan for Forestry Development, the revised regulation on forest tree seed, seedling production, collection and disposition is hereby issued for the guidance of all concerned.

Section 1. Basic Policy. It is the policy of the state to ensure the sustainable use, development, management, and conservation of the country's forest resources not only for the present but also for the future generation. The government through the DENR shall promote the use of high quality planting materials in the establishment of tree plantations, tree farms, agroforestry and other forestation activities to promote biodiversity conservation, and to ensure sustainable production and supply of wood and other forest products in the country.

Sec. 2. Objectives. This Order envisions to attain the following:

- 2.1 Ensure the continuous production of adequate supply of phenotypically and genetically-improved planting materials to meet the requirements for high quality seeds and seedlings by the government and private sectors in the establishment and development of tree plantations, tree farms, forest gardens, forestation, agroforestation projects, and rehabilitation of watersheds and coastal areas;
- 2.2 Develop a forest tree seed and seedling documentation and registry system for effective forest tree seed collection, handling and disposition; and sustainable seedling production;
- 2.3 Develop an accreditation system for government, Local Government Units (LGUs), and private seed production areas for the operation of a forest nursery;
- 2.4 Provide strategies and guidelines for the establishment, maintenance and protection of existing and potential Seed Production Areas (SPAs), Seedling Seed Orchards (SSOs), Seedling Clonal Orchards (SCOs) and Seed Sources (SS); and in the determination of quality planting materials; and
- 2.5 Update the seed calendar for each forest tree species to serve as a guide for appropriate seed collection period.

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Sec. 3. Definition of Terms. The following terms shall be understood and interpreted as follows for the purpose of this order:

- 3.1 Clonal Seed Orchard (CSO) - seed orchard originated from cloned planting materials.
- 3.2 Forest Garden - a plantation mix of forest trees, fruit trees, industrial crops, rubber trees, palms, rattan and other economically perennial plants.
- 3.3 Forest Tree Breeding - the application of knowledge of genetics to develop improved trees. The activities are geared to solve some specific problems or to produce a specially desired product, an example of such direct breeding is the development of pest-resistant trees or breeding trees that possess specially desired wood.
- 3.4 Forest Tree Improvement development of the genetic make-up of the tree through selection and breeding in combination with cultural practices.
- 3.5 Forestation - establishment of vegetative cover through the process of reforestation and afforestation.
- 3.6 Genotype - the genetic constitution of an individual plant/ tree.
- 3.7 Germplasm - the collective hereditary materials that are the physical basis for inheritance.
- 3.8 Lesser-known Species / Lesser-used Species – timber which are less known or less accepted by end-users especially in commerce and/or trade both locally and internationally, because they are characterized by incompleteness of information as to species identification, available volume and end-use properties.
- 3.9 Phenotype - the visible characteristics of a plant/tree, the product of the interaction of the plant genes with the environment.
- 3.10 Plus tree - a tree possessing better or superior phenotypic characteristics compared with other trees of the same species grown under the same environment.
- 3.11 Progeny test (trial) - evaluation of parent plant by comparing the performance of their offspring.
- 3.12 Propagule - a plant part such as bud, shoot, tuber, root, or spore used o propagate an individual vegetatively.
- 3.13 Provenance - the original native source of a population or source of seed, pollen or propagules.
- 3.14 Pruning - removal of undesirable branches.
- 3.15 Roguing - systematic removal of trees with undesirable traits or phenotype from a seed orchard or SPAs.



- 3.16 **Seedling** - includes all planting materials coming from seeds, wildlings, cuttings and other sources.
- 3.17 **Seed Bank** - a facility for multiplication, collection, distribution (sale) and promotion of the use of genetically improved seeds and propagules. It includes seed processing unit, seed storage chambers, seed testing laboratory and an office.
- 3.18 **Seed Orchard** - an area where superior phenotypes or genotypes are established and managed intensively and entirely for seed production.
- 3.19 **Seed Production Area (SPA)** - A plantation with known origin or stand of a 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 proportional branch size.
- 3.20 **Seed Source (SS)** - the locality where a seed/seedlot was collected.
- 3.21 **Seed Stand** - a group of trees that has been identified or set aside specifically as a seed source. It has been upgraded and opened by removal of undesirable trees and then cultivated for early seed production.
- 3.22 **Seedling Seed Orchard (SSO)** - seed Orchard raised from seedlings produced from selected parents through natural or controlled pollinations.

Sec. 4. Identification, Establishment, Maintenance and Protection of Seed Production Areas (SPAs), Seedling Seed Orchards (SSOs), Seedling Clonal Orchards (SCOs) and Seed Sources (SS). Natural stands, existing forest plantations, private forest and tree plantations which are potential sources of seeds and planting materials of various forest tree species shall be identified, surveyed, delineated, assessed and evaluated using the procedures/processes as mentioned in **Annexes A to B**.

Documentation of identified, established, maintained SPAs, SSOs, SCOs and SS shall be undertaken by the Regional Forest Tree Seed Committees. All information shall be reported and forwarded to NTWG following the format attached in **Annex C**.

Tree cutting within identified and proclaimed areas inside public forest is strictly prohibited except those which form part of the silvicultural treatment such as thinning and rouging operations.

Protection and maintenance of SPAs, SSOs, SCOs and SS shall be the responsibility of the RED/PENRO/CENRO, in coordination with LGUs, academic institutions and other partner organizations. Appropriate signage's and markings shall be installed on the designated areas. For private SPAs, SSOs, SCOs and SS, owners shall be responsible for the protection and maintenance of their respective areas in coordination with DENR at Regional, PENRO and CENRO levels.



Sec. 5. Silvicultural Treatments for Established SPAs, SSOs, SCOs and SS.
The following silvicultural treatments shall be conducted:

5.1 Seed Production Areas

- 5.1.1 Stand Improvement. - Stand improvement, such as thinning, roguing and pruning shall be done in accordance with the Stand Improvement Plan approved by the Regional Executive Director upon the recommendation of the RFTSC taking into account the following technical considerations:
- a. Thinning shall be undertaken based on established timber stand improvement techniques. All trees that do not meet minimum specifications shall be removed. All under storey vegetation that interfere with seed collection and maintenance of the area shall likewise be removed;
 - b. 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 hectare is recommended;
 - c. Thinned out trees and/or pruned branches shall be disposed in accordance with existing rules and regulations.
 - d. All diseased trees and those with undesirable forms shall be removed from the stand. Trees of below-average vigor (based on the dominant and co-dominant trees in the original stand) shall likewise be removed based on "plus" tree selection criteria under **Annex D**.
 - e. Pruning shall be done to improve undesirable branches of selected "plus" trees.

5.2 Seedling Seed Orchards/Seedling Clonal Orchards

Silvicultural management of Seed Orchard. Special care should be given to the plants during the first year of establishment during which they are specially vulnerable.

- 5.2.1. Weeding – the plants should be kept from weed competition during establishment. Complete weeding should be done at least around each plant. Weeds between the plants maybe cut or completely removed. If chemical weeding is applied, care should be taken in terms of time, weather condition, and doses of application.
- 5.2.2. Roguing – once the result of the progeny test is available, the undesired families or ramets are cut and removed.
- 5.2.3 Thinning and pruning – the trees may be thinned and the branches systematically pruned in order to make an open crown with large flower production, and facilitate seed harvest. Pruned and thinned out trees shall be reported to the nearest CENRO Office and shall be disposed in accordance with existing rules and regulations.



5.2.4 Fertilization and watering – water and fertilizer should be applied whenever necessary to give the trees optimal growth conditions. Conditions are especially important during flowering and fruit development. The amount and type of fertilizer differs from species to species.

5.2.5 Flower condition – if flowering fails or is unsatisfactory, it may be induced by applying treatments.

5.3 Seed Sources

5.3.1 Removal of undesirable vegetation up to 5m beyond tree periphery.

5.3.2 Removal of trees of similar species with poor stand that will promote inbreeding.

Sec. 6. Seed Collection. Collection of seeds from selected trees within established SPAs, SSOs, SCOs and SS shall be done by trained individual duly authorized by the DENR. Seed collection within private forest tree plantations identified as SPAs shall be done by the owner and/or seed collector trained by authorized DENR personnel. The necessary information on the seeds collected shall be recorded in a Seed Record Form attached as **Annex E**.

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

Sec. 7. Seed Storage and Testing Centers. In each region, Seed Storage and Testing Center(s) shall be established for the storage and testing of seeds collected in their area. The said center shall be managed and maintained by RFTSC in collaboration with ERDS.

Seed testing shall be done by the authorized DENR personnel at their respective Testing Centers following the germination test as shown in **Annex F**. The Seed Storage and Testing Centers shall provide a periodically updated list of seeds sourced from certified SPAs, SSOs, SCOs and SS.

Sec. 8. Seed Disposition. Seeds collected from government SPAs, SSOs, SCOs and SS shall 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 zonation system to be prescribed by the NFTSC upon recommendation of TWG, provided further that the needs of said regions shall be mutually satisfied. Seeds from identified private SPAs shall only be disposed after having been tested and certified by the Center. Likewise, for seeds collected from DENR managed SPAs, SSOs, SCOs and SS shall undergo seed testing and the necessary certification shall be issued before it shall be disposed or deposited at the nearest DENR offices.



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Sec. 9. Collection of Wildlings. Collection of wildlings within identified and established SPAs, SSOs, and SS shall be allowed provided that appropriate and acceptable collection techniques shall be followed. For protected areas, collection of wildlings shall not be allowed.

The collected wildlings shall be planted only within the natural range of the species to enhance its wild population.

Sec. 10. Accreditation of Private SPAs, SSOs, SCOs and SS. An application for accreditation for private SPAs, SSOs, SCOs and SS shall be submitted to the CENRO/PENRO for initial evaluation and field verification. Said application must be accompanied by the following information:

- a. Name of owner and proof of land ownership;
- b. Business permit;
- c. Location of proposed SPAs, SSOs, SCOs and SS;
- d. Number of selected and marked mother trees per species;
- e. Height, age and DBH per species;
- f. Estimated seed yield per species per year; and
- g. Seed collection, testing and storage capabilities

The CENRO/PENRO shall recommend the accreditation of the SPAs, SSOs, SCOs and SS to the Regional Executive Director (RED) thru the RFTSC for review and approval. The accreditation document shall be signed by the RED. Copy of accreditation shall be furnished to the NFTSC.

The accredited association/organization/corporation or cooperative may enter into a co-management agreement with DENR through the Regional offices for the maintenance, management and protection of SPAs, SSOs, SCOs and SS.

Sec. 11. Accreditation of Forest Nurseries. An application for accreditation for forest nursery shall be submitted to the CENRO/PENRO for initial evaluation and field verification following the format attached as **Annexes G to I**. Said application must be accompanied by the following information.

- a. Name of Nursery;
- b. Name of owner and proof of land ownership/tenure;
- c. Address;
- d. Area, location and capacity of forest nursery;
- e. Membership in association;
- f. Sources of seeds, wildlings and cuttings;
- g. List of available facilities such as water system, potting and hardening sheds, among others;
- h. Accessibility and disposal of planting materials produced;
- i. Capability of nursery operator (training attended, employment of nursery consultant, or three (3) years experience on nursery operation);
- j. Photograph of the Nursery;
- k. Business permit
- l. Certificate of Registration from DTI.
- m. Authenticated Tax Clearance

The CENRO/PENRO shall recommend the accreditation of the Forest Nursery to the Regional Executive Director (RED) thru the RFTSC for review and approval. The accreditation document shall be signed by the RED. Copy of accreditation shall be furnished to the NFTSC.



Any Local Government Unit, Academe, Government and Non-Government Organization, Private individual, Corporation or Cooperative engaged in managing a forest nursery are subject for accreditation. An administrative fee shall be collected for nursery accreditation.

For government plantations, only seedlings coming from accredited nurseries shall be used in tree plantation development, tree farms, agroforestry, urban forestry and other related reforestation activities, using the criteria and checklist as shown in **Annexes J and K**. For private tree plantations, the use of seeds/seedlings coming from accredited nurseries shall be encouraged.

Sec. 12. National Forest Tree Seed Committee (NFTSC). A NFTSC shall be created and composed of the following:

- Chairman - Undersecretary for Staff Bureaus and Project Management
- Members - Director, Forest Management Bureau (FMB)
Director, Ecosystem Research and Dev't Bureau (ERDB)
Director, Protected Areas and Wildlife Bureau (PAWB)
Representative, Philippine Wood Producers Association (PWPA)
Representative, Society of Filipino Foresters, Inc. (SFFI)

The NFTSC shall have the following responsibilities and functions:

- 12.1 Act as the oversight and policy making body governing forest tree seed collection, handling and disposition; and high quality seedling production;
- 12.2 Assess the national situation regarding the production of planting materials and recommend measures to ensure that planting stocks of sufficient quantity and high quality are made available in the various regions;
- 12.3 Review and recommend for approval of the Secretary a national framework for tree improvement;
- 12.4 Recommend to concerned/authorized agencies measures to regulate and monitor the exportation and importation of forest tree seeds and other materials ; and
- 12.5 Generate and/or source funds for the implementation of this Order.

The NFTSC shall be supported by a National Technical Working Group (NTWG) composed of representatives from the ERDB, PAWB and FMB, as follows:

- Chair - Assistant Director, ERDB
- Co-Chair - Assistant Director, FMB
- Members - Chief, Reforestation Division, FMB
Chief, Grassland and Degraded Areas Ecosystem Research Division, ERDB
Chief, Forest Seed and Tree Improvement Section, FMB
Chief, Forest Nursery and Plantation Section, FMB
Chief, Land Rehabilitation Section, ERDB
Representative, PAWB



The NTWG has the following functions:

- a. Review and assess the state-of-the-art of planting stock production and assess the feasibility and appropriateness of such technologies under Philippine conditions;
- b. Evaluate and update the status of all seed production areas in the country and recommend measures for the permanent establishment management and protection of such areas;
- c. Recommend a forest tree seed and seedling documentation and registry system for effective forest tree seed collection, handling and disposition; and sustainable seedling production;
- d. Develop and recommend an accreditation system for government, LGUs, and private seed production area and nursery operator;
- e. Update and maintain the forest tree seed calendar to determine what species are available for collection in a certain location or region at a certain period; and
- f. Formulate and recommend to the NFTSC a National Framework/Program on Tree Improvement for review and endorsement to the Secretary for his approval.
- g. Prepare Work and Financial Plan for the implementation of this Order. approval.

The NFTSC and NTWG are hereby authorized to call on any DENR official and/or Office, and may invite resource persons from other agencies and/or institutions in the performance of its functions and responsibilities. A Support Staff from the ERDB and FMB shall provide secretarial services to the NFTSC and NTWG.

Sec. 13 Regional Forest Tree Seed Committee (RFTSC). A RFTSC shall likewise be created in the different regional offices of DENR to be composed of the following:

Chair	-	Regional Technical Director for Research
Co-Chair	-	Regional Technical Director for Forestry
Members	-	Chief, Ecosystem Resources Research Division (ERRD), ERD Sector Chief, Technology Transfer Division, ERDS Chief, Forest Resources Development Division (FRDD), FMS Representative, Protected Areas, Wildlife and Coastal Zone Management (PAWCZM) Representative, Private Sector Representative, Local Government Unit (LGU)

The RFTSC shall implement and carry out the plans and programs as mandated by the NFTSC at the regional level, specifically on the assessment and verification of the source, collection and handling of seeds and planting materials; and in the accreditation of government/LGU and private SPA, SSOs, SCOs and SS, and forest nurseries. The RFTSC shall train extension workers, LGU staff, forest guards and other personnel in the Region, PENRO and CENRO on the above-mentioned activities.



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Sec. 14. Fund Support. The DENR shall allocate funds out of the yearly General Appropriation under appropriate budget line item to pursue the activities and program of NFTSC and RFTSC in carrying out the mandates as indicated in this Order.

Sec. 15. Penal Provisions. Any person, group of persons or organizations cutting, mutilating and damaging trees within SPAs, SSOs, SCO and SS without any permit or not in accordance with the prescribed silvicultural treatment shall be punished in accordance with Sections 68 and 69 of P.D. 705, as amended, and P.D. 953.

Sec. 16. Supplementary Guidelines. The NFTSC is hereby authorized to issue specific and supplementary guidelines relative to this Order.

Sec. 17. Repealing Clause. The provisions of DAO 9, Series of 1995 and other related issuances which are inconsistent with this Order are hereby revoked or modified accordingly.

Sec. 18. Effectivity. This Order shall take effect upon acknowledgement by the Office of the National Administrative Register (ONAR), and fifteen (15) days after its publication in a newsletter of general circulation.


HORACIO C. RAMOS
Secretary



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SEN027537

Publication: Malaya

May 7, 2010

Acknowledgement: ONAR, U.P. Law Center

May 13, 2010

ANNEX A. PROCEDURE ON HOW TO VALIDATE SEED PRODUCTION AREA/ SEED SOURCES

I. From the field office, obtain:

- a. Map of the SPA.
- b. Location map of the SPA in relation to existing plantation/natural stands.
- c. Basic Information: Fill up **ANNEX B** (Detailed Information on Identified Seed Sources).

Plantation or natural stand

1. Accessibility
2. Species
3. Origin of the seeds/planting materials used in the plantation
(If the seed source is not known, hold in abeyance the certification of the SPA till the source is verified from reliable records)
4. Date of Establishment
5. Size of stand
6. Silvicultural treatments so far applied to the plantation
7. Pests and diseases problem
8. Man made damages (if any)
9. Approximate number of trees per hectare (present stocking)
10. Flowering and seed maturity period (non-flowering and non-fruiting plantations should not be considered as SPA) ----(fill up **ANNEX C**- Phenological Calendar)
 - Seed collection history
 - Year of first seed collection
 - Average annual seed production/collection (in kg)
11. Other pertinent information

II. In the field, perform the following:

Establish corners of the plantation by markers of brightly painted colored posts.

- a. From a strategic point, start moving in a straight direction (from this point towards another point at the end of the plantation) with your vision "trained" to 10 meters wide on your left and 10 meters wide on your right. Along this strip (20 meters wide) count the number of trees from among the dominant and co-dominant classes (disregard the suppressed and the intermediates because all of them will be included to the undesirable trees to be rouged anyway) which are "good looking" (straight bole, big diameter, tall, healthy and balanced crown) Refer to: **Annex D. Guide to Assessment of Trees**. Simultaneously, mark the "good ones" with a strip/band perpendicular to the stem using white paint. Make a summary of the evaluation for this strip (**ANNEX D1 - Assessment Table/Specific Location of Selected Trees**).
- b. Move to another strip that could be 30 meters away from the former strip and conduct the same evaluation as in (a). Make the summary of the tally of the "good looking" trees and compute for the total number of seed trees per hectare.

Example:

$$\begin{aligned} \text{Total area sampled} &= 20\text{m} \times 100\text{m} = 2000 \text{ sq m} \\ \text{Total number of seed trees in area sampled} &= 50 \text{ trees} \\ \text{Estimated number of seed trees per hectare} &= \frac{50 \times 1000}{2000} \\ &= 250 \text{ trees} \end{aligned}$$

Note: at least 200 seed trees per hectare preferably evenly distributed must be available for optimum seed production.

- c. If the plantation/stand validated does not qualify for SPA, mark with ST those acceptable/ "compromise" seed trees widely spaced from where to collect seeds, if nothing better is available in the area.
- d. A plantation/stand can qualify for SPA if the following conditions are fulfilled:
 - It is a proven good provenance/seed source and the seeds for the plantation/stand were collected from at least 20 widely spaced trees preferably 25-50 trees.
 - It contains at least 200 good seed trees per ha.
 - The plantation has been rouged before flowering and seed collection so that only 100-150 good seed trees are left.
 - It is easily accessible and of reasonable size preferably > 2 ha.
- e. Provide other vital information/observations in the area.

III. Seed Technology – REFER TO GUIDE TO FOREST PLANTATION

Fill up ANNEX E - Seed Record

Fill out ANNEX F - Germination Test

ANNEX B. DETAILED INFORMATION ON IDENTIFIED SEED SOURCE

LOCATION: _____

SPECIES (botanical): _____ SPECIES CODE: _____

(vernacular): _____

OWNER/CONTACT PERSON: _____

DATE: _____

LOCATION:

Latitude: _____ Longitude: _____

Altitude: _____

Detailed description of how to _____

Reach the area _____

Map Ref.: _____

ACCESS ROAD DESCRIPTION: _____

NATURAL BOUNDARIES: _____

SITE DESCRIPTION:

Topography/Aspect: _____

Soil: Type: _____

Drainage: _____

General/Description: _____

Climate: Rainfall (mm): min. _____ mean _____ max. _____

Month of dry season: _____

STAND DESCRIPTION

Total area: _____ Establishment Year: _____

Establishment method: Natural/ Plantation: _____

Associated important species: _____

Trees per. hectare (all species): _____

Description of uniformity of spacing or grouping of trees: _____

PROTECTION AND MANAGEMENT NEEDS: _____

Remarks: _____

ANNEX C. PHENOLOGY CALENDAR

Location: _____

No.	Common Name	Scientific Name	MONTHS											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

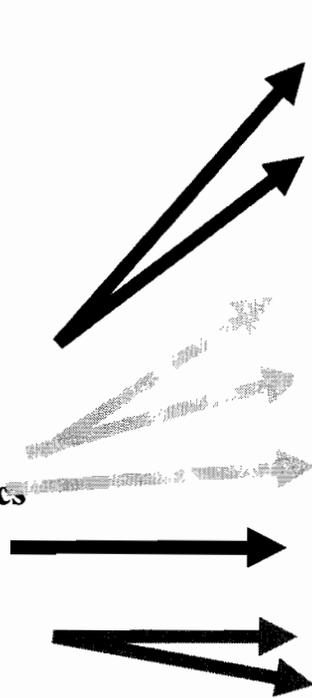
Note:

Leaf legends	blue line
Flower legends	red line
Fruit development	green line
Maturity/collection	brown line

Annex D. Guide in the Assessment of Trees

9 tests measured

- 2 stem growth
- 3 stem form
- 1 health
- 3 branching characteristics



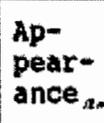
- total height (cm)
- diameter at breast height (DBH) (cm)
- stem straightness (1-6)
- forking (1-6)
- circularity (1-6)
- tree health (1-6)
- branch angle (1-6)
- branch thickness (1-6)
- branch persistence/ pruning characteristics

Traits measured

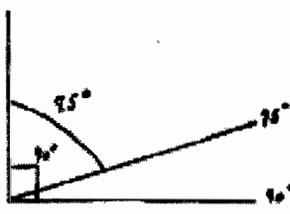
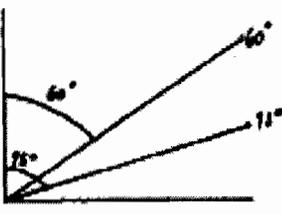
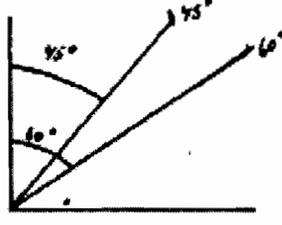
- Diameter
- Height
 - measured using a clinometer
- Stem straightness

Class	Straight		Fair		Unacceptable	
Grade	6	5	4	3	2	1
						

• Stem forking

Class	Good		Fair		Unacceptable	
Grade	6	5	4	3	2	1
Appearance 						

• Branch angle

Class	Good		Fair		Unacceptable	
Grade	6	5	4	3	2	1
						
Note	90° - 75°		75° - 60°		60° - 45°	

• Stem circularity

Class	Good		Fair		Unacceptable	
Grade	6	5	4	3	2	1
Cross sec-						

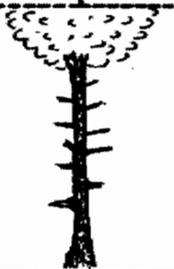
• Tree health

Class	Good		Fair		Unacceptable	
Grade	6	5	4	3	2	1
Note	Green-lush vigouros crown		Intermediate		Thin yellow crown	

• Branch thickness

Class	Good		Fair		Unacceptable	
Grade	6	5	4	3	2	1
Note	Thin branches rel. to tree size		Intermediate		Thick coarse branches rel. to tree size	

• Branch pruning

Class	Good		Fair		Unacceptable	
Grade	6	5	4	3	2	1
Appearance						
Note	Dry branches shed rel. fast after canopy closure		Intermediate		Dry branches remain on the stem for several years after canopy closure	

ANNEX G.

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

APPLICATION FOR ACCREDITATION OF FOREST NURSERY

Name of Applicant : _____

Name of Establishment or Business Name: _____

Address : _____

Region : _____

Location of Forest Nursery : _____

Area (sq.m.) : _____

I hereby certify that I will abide and follow the guidelines/policies of the Department of Environment and Natural Resources in proper forest nursery management.

Signature of Applicant

INSPECTED BY:

CERTIFIED BY:

PENRO/CENRO Representative

Chair, RFTSC

**ANNEX J. ASSESSMENT AND VERIFICATION OF QUALITY
PLANTING MATERIALS (Planting Stock)**

Species : _____

Criteria :

- A. Source (SPA or Natural Stand)
- B. Type
 - Seedlings (from seeds)
 - Wildlings
 - Asexually propagated
- C. Quality Control
 - Free from pests and diseases
 - Color (nutrient deficiency determination)
 - Size (height and diameter)
 - Stem form
 - Root form
 - Sturdiness
 - Age of seedling
 - Hardened

INSPECTED BY:

PENRO/CENRO/REPRESENTATIVE

ANNEX K. CHECKLIST OF QUALITY PLANTING MATERIALS

Species: _____

1. Type: Seedling
 Wildling
 Asexually Propagated
2. Morphological Characteristics
 - a. Form
 Straight
 - b. Leaves
 Green
 - c. Health Status
 Absence of Pest and Diseases
 No abnormalities
 - c. Size

Height (cm): _____

- Fast-growing species: 30 cm and above
- Slow-growing species: 50 cm and above

Diameter (cm): _____ (0.5 cm and above)

INSPECTED BY:

PENRO/CENRO REPRESENTATIVE