

Review of Current Nursery Accreditation and Seedling Certification Systems for Forest and Fruit Trees in Leyte and Samar Islands, the Philippines

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ABSTRACT

Forest nursery and seedling production in Leyte and Samar has been an unsustainable development and livelihood undertaking, the focus of which has been solely to serve the usual funded reforestation projects that merely recognize quantity rather than quality of planting materials produced. As a consequence, forest nursery and seedling production has never been established as a sustainable business venture, particularly at the smallholder and local community level. Forest nursery accreditation and planting stock certification is believed to be a sound strategy that can promote high quality forest tree seedling production which would eventually establish the activity as a lucrative livelihood venture especially for smallholders and local communities. The nursery accreditation and planting material certification experiences for fruit and forest trees in Leyte and Samar provide a useful basis and guide in developing and formalizing a system suitable for forest nursery accreditation and planting stock certification. The DA-BPI and DBP accreditation systems can serve as a guide in framing-up the physical standard for a viable and sustainable forest nursery business, with necessary consideration for smallholder operators. Both, however, lack the necessary technical menu and the required best management practices that are crucial in coming up with an improved nursery accreditation and planting stock certification scheme that is achievable and affordable, particularly for smallholder nursery operators.

Keywords: forest nursery accreditation, planting stock certification, smallholder nursery operators

BACKGROUND

During the last three decades forestry nurseries had been established to serve the needs of funded reforestation and other environmental programs in the Philippines. Such programs include those of the Asian Development Bank's Reforestation Program, the World Bank-funded Community Based Resource Management Program, and those programs supported by local and international non-government organizations, private corporations and even commercial banks assisting the Philippine Government's watershed rehabilitation program.

On Leyte Island, experiences from the ACIAR Smallholder Forestry Project show that forest nurseries had been established for tree planting purposes only and not in general as business enterprises. In the local government units at the barangay, municipal and provincial levels, nurseries had been established to serve short-term activities such as roadside tree planting and ecological park establishment. In other areas, nurseries serve just as show cases without any substantial effort towards building them up. In essence, forest tree seedling production merely focuses on quantity without due consideration to the quality of seedlings produced. As a consequence, forest seedlings produced often do not have alternative and sustained markets. It is a frequent observation in the Philippines that the quality of forestry seedlings is low, both in genetic and physical terms, e.g. Gregorio et al. (this issue). This raises questions of both how the germplasm quality and nursery management practices can be improved, and whether this improvement could be institutionalised through some form of certification system. Accreditation of forest nurseries is seen as a sound strategy to promote high quality seedling production not only for funded reforestation and tree planting projects but also as sustainable business enterprises that produce a special product line and has an established market. However, to date no seedling certification has been practiced for forestry trees. It is, therefore, relevant to ask whether experience with nursery accreditation and quality certification for planting materials in other industries and organizations could provide lessons for the introduction of a seedling certification scheme in the Philippines.

Certification of planting materials for fruit trees is widely practiced internationally, and is particularly concerned with the prevention of spread of pests and diseases. For example, Roy (1997) reported that the European and Mediterranean Plant Protection Organization (EPPO) had been working on the development of certification schemes for fruit crops in Europe for approximately 10 years. Similarly, Thompson (undated) reported that the North American Plant Protection Organization (NAPPO) – representing Mexico, the USA, and Canada – ‘produces guidelines for trade in plant material among the member countries and for importation into the NAPPO region with the goal of preventing the introduction and/or spread of serious pathogens’. NAPPO has an ad hoc Fruit Tree and Grapevine Nursery Stock Certification Standards Panel, and is working towards the harmonization of existing and new certification programs.

Nursery accreditation and certification schemes for forest and fruit tree planting stock also exist in the Philippines. This paper reviews the existing forest and fruit tree nursery accreditation and planting stock certification on Leyte and Samar Islands in Region 8 of the Philippines, and draws implications of experiences for the forestry nursery sector in Region 8 and more widely at the national level.

FOREST AND FRUIT TREE CERTIFICATION IN REGION 8

On Leyte and Samar Islands the existing nursery accreditation and planting material certification policy focuses only on high-value fruit trees. According to De la Cruz (2009), there are only two accredited nurseries producing limited volume of grafted fruit trees in Region 8, namely the DA-BPI fruit tree nurseries in Balinsasayao, Abuyog, Leyte, and San Jorge, Samar. De la Cruz also mentioned that the accreditation policy has promoted the production of grafted fruit tree planting material as a lucrative business venture. The accreditation system has built a promotional highway for the producers' product lines and established a market demand for their recognized high quality planting materials.

The DA-BPI Accreditation System for Fruit Trees

The accreditation and certification system for fruit trees of the Department of Agriculture (DA), through its Bureau of Plant Industry (BPI), was formalized through DA Memorandum Circular (MC) No. 2, series of 1993 (De la Cruz 2008). The main intent of the circular is to ensure that the production and distribution of planting materials to orchardists and fruit growers are free from major pests and diseases. As an amendment to MC No. 2, DA MC No. 4, series of 1994 has been promulgated to encourage plant nursery operators (PNOs) to produce and distribute only disease-free planting stock among their respective customers. De la Cruz (2008) presented the advantages of accredited over non-accredited nurseries, in terms of government support provided, as follows:

1. Accredited nurseries are entitled to have access to identified scions¹ from government registered scion groves;
2. The DA-BPI creates a network for nurseries to market their produce;
3. DA-BPI provides technical assistance and supervision; and
4. DA-BPI provides them with access to government programs as a market for planting stock.

The DA-BPI guidelines for accreditation

De la Cruz (2008) reported the guidelines for accreditation of fruit tree nurseries as follows:

1. The nursery operator must be a member of a farmers' organization, association or cooperative;
2. The applicant must be the owner, nursery operator or manager;
3. Nurseries must have operated for at least six months prior to application;

¹ A scion is 'an aerial plant part, often a branch tip, that is grafted onto the root-bearing part (rootstock) of another plant' (Helms 1998, p. 161).

4. The applicant must have undergone training on nursery establishment and management, principles on plant propagation and orchard management conducted by DA-BPI and SCUs;
5. The minimum area required is 1000 m², with an inventory of plants valued at PhP100,000 during evaluation;
6. The applicant has established a scion grove of at least 0.25 ha of NSIC-approved and registered varieties/cultivars of fruit crops²;
7. Parent trees should be properly labelled for inspection and re-evaluation for plant material production; and
8. The nursery includes the following facilities: water source; nursery shed; storage for chemicals, fertilizers and other supplies; and propagating equipment or supplies.

Requirements for accreditation

The DA-BPI requirements for accreditation as embodied in Department of Agriculture Memorandum Circular (DA MC) No. 2, are as follows:

1. Barangay clearance as proof of residence in the area where the nursery is located;
2. Business permit from the municipal government where the nursery is located;
3. Certificate of registration from the Department of Trade and Industry;
4. Authenticated recent Tax Clearance; and
5. List of sources of propagative materials indicating quantities, locations and name of owner.

The DA-BPI accreditation process

The DA-BPI accreditation procedure follows a number of steps through which the nursery owner or operator is guided, as in Figure 1. The process commences with the receipt of all applications by the Regional DA Office through its various DA-BPI Sub-Offices in Leyte and Samar. The applications are then assigned to the designated Regional Nursery Evaluator Group for inspection and evaluation of applying nurseries including the owners or operators. The evaluating team then submits the evaluation report to the DA Division Chief-in-charge of the nursery and certification activity, who makes the endorsement to the DA Regional Director for approval and issuance of a Certificate of Accreditation. A designated Regional Accreditation Monitoring Group conducts periodic monitoring and assessment of accredited nurseries which is the basis of evaluation for the renewal of accreditation of already accredited nurseries.

² The NSIC is the Philippines National Seed Industry Council.

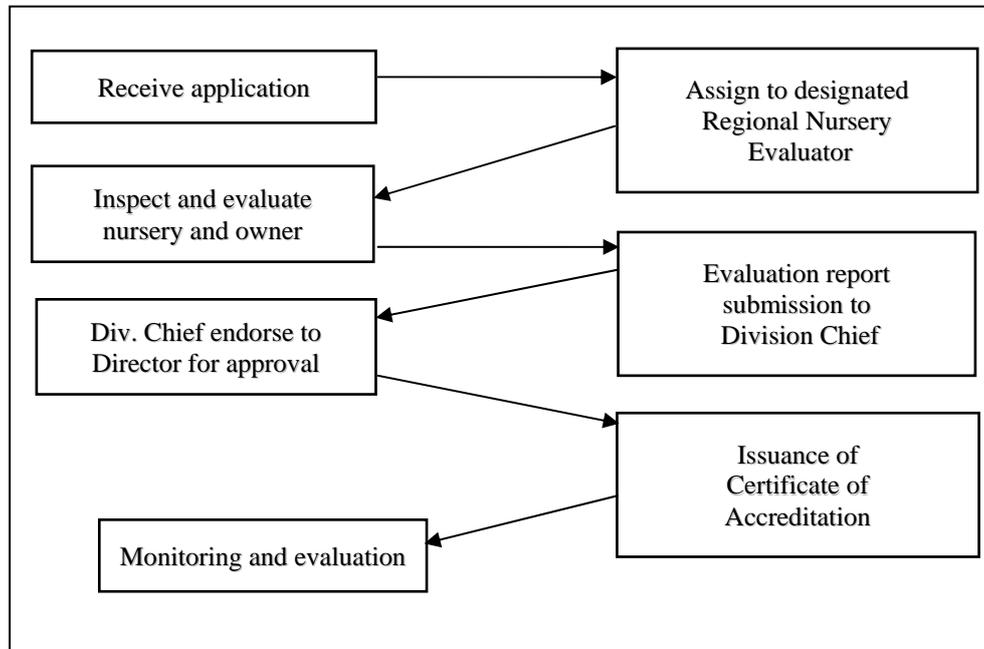


Figure 1. Diagram showing the stepwise accreditation procedure of DA-BPI on Leyte and Samar Islands

The DBP Forest Project Accreditation System for Forest and Fruit Trees

The DBP Forest Project is an initiative of the Development Bank of the Philippines to support the government's program for the rehabilitation and protection of the country's watershed areas. Its long-term vision is to develop downstream industries in the rural areas by supporting and encouraging the forestation of open areas through the planting of high-value fruit trees and other useful species including bamboo and economic tree species (DBP 2008). Another similar undertaking is coastal rehabilitation through planting of mangroves. These tree planting projects lead to improvement of spawning grounds for terrestrial and marine life.

The DBP Forest Project's watershed development activity evolved around the use of high quality planting materials of forest and high-value fruit trees, and other plant species with significant ecological and economic value. To ensure that only high quality planting materials will be used for the project, DBP has imposed a policy for the development partners to source planting stock from DBP-accredited nurseries and suppliers only. DBP has recommended several candidate suppliers where planting stock can be sourced by development partners including the Bureau of Plant Industry (BPI)-accredited commercial nurseries nationwide, state universities and colleges, DA-BPI nurseries, and the DENR-Ecosystems Research and Development Bureau.

The DBP priority plant species include high-value fruit and forest trees with market and economic potential, and those compatible with soil condition, climate and terrain in target development sites.

DBP requirements for accreditation

The following are the requirements which nursery operators applying for DBP accreditation have to satisfy (DBP 2008):

1. Profile and Prequalification Document (Form) of Suppliers of Planting Stock – this form must include data about the supplier’s profile including the Mayor’s Permit, latest tax clearance, BPI certification, data on planting stock, and volume;
2. Updated BPI Certification/Accreditation;
3. Mayor’s permit for current year;
4. Latest tax clearance; and
5. Applicant must operate a nursery.

DBP accreditation and selection criteria

The DBP accreditation and selection criteria is a type of a grading system that provides points for identified items that are reflective of performance or status of the applicant’s nursery. A minimum point standard is set for an applicant to pass and be accredited as a supplier of planting stock for the DBP Forest Project. The criteria are as follows (DBP 2008):

1. Number of years in operation;
2. Number of nurseries operated;
3. Number of nursery branches;
4. Size of nurseries per production area;
5. Number of nursery personnel;
6. Immediate prior year production of planting stock;
7. Immediate prior year sale value of planting stock in pesos;
8. Variety of planting stock produced;
9. Ability to deliver planting stock;
10. Ability to deliver bulk orders of at least 2000 planting stock units;
11. Training of buyers (planters) on planting care; and
12. Other services available without cost, e.g. post sale, plant care.

The DBP forest project accreditation procedure

The DBP has developed a DBP Forest Product Accreditation Scheme for its own project use (DBP 2008), which follows the procedure as set out above. The accreditation steps are illustrated in Figure 2. The process commences with the applicant filling out the DBP accreditation form and submitting it, together with the

supporting documents. The DBP evaluates the application and the supporting documents submitted, which are verified later through the conduct of field inspection and verification. The evaluating team then submits a report to the Accrediting Unit which approves and issues a Certificate of Accreditation to the nursery owner or operator.

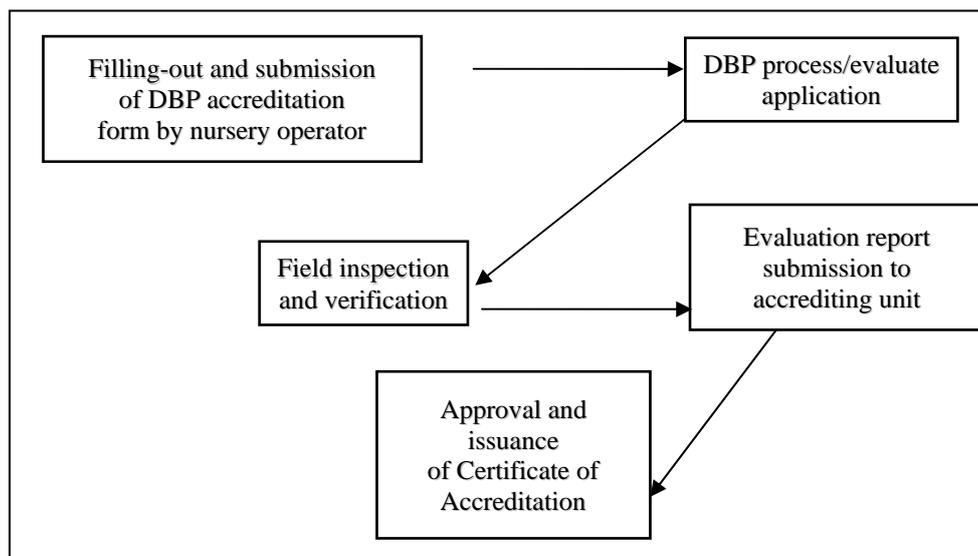


Figure 2. Steps in the DBP Forest Project accreditation procedure

SOME INSIGHTS FROM EXISTING ACCREDITATION SYSTEMS INTO FORESTRY NURSERY CERTIFICATION

The review of accreditation and certification systems on Leyte and Samar Islands provides some interesting insights as follows:

- The DA-BPI accreditation system for fruit trees could be used as a guide in framing-up an accreditation system or policy for forest tree seedling nursery.
- The DBP Forest Project accreditation system seems to be applicable to fruit trees alone and not to forest or timber trees.
- The DA-BPI and DBP Forest Project accreditation systems lack the necessary technical requirements (e.g. best management practices) that are crucial to nursery accreditation and planting stock certification.

- There would seem to be advantages in setting-up just one accreditation standard, or varying standards for various levels of nursery operators such as big commercial nurseries, smallholder private nurseries, and community, provincial, municipal and barangay nurseries. The DA-BPI and DBP forest accreditation requirements seem unsuitable for smallholder nurseries that are usually resource-poor.
- The likely need exists to identify accrediting units and teams for accreditation of nurseries at various levels.
- Simplifying requirements and processes but ensuring a quality standard would tend to encourage nursery operators to engage in the accreditation process, particularly those operating forest nurseries, for which accreditation is now being initiated and promoted by the ACIAR Seedling Enhancement Project.
- Promoting the production of high quality forest tree seedlings through an improved, adoptable and affordable nursery accreditation and planting stock certification system is seen to build-up the market for improved planting stock which could lead to creating nursery ventures as lucrative business enterprises, particularly for smallholders.

CONCLUSION

A review of the existing nursery accreditation and planting stock certification activities in Leyte and Samar Islands conveys a message of the possibility of formalizing an improved accreditation and certification system for forest tree nurseries. The experiences are examples that can serve as a guide in creating and formalizing an improved accreditation and certification system for forest tree seedlings for DENR. Apart from the DA-BPI accreditation system which focuses solely on fruit trees, the DBP has an accreditation system for forest trees. This is exclusive to the DBP for their watershed rehabilitation project, and not necessarily adopted by other agencies. Both the DA-BPI and the DBP accreditation and certification schemes lack the necessary technical requirement reflecting the need for best management practices which is a crucial consideration in coming up with an improved, adoptable and affordable forest and fruit tree nursery accreditation and planting stock certification scheme, particularly for smallholder nurseries.

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