Ecosystems & Development Journal 6(2): 52-64
October 2016 ISSN 2012-3612

POLICY PAPER

Forest Certification as a Tool for Ensuring Sustainable Management of Forest in the Philippines: Prospects and Challenges

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ABSTRACT

Forest certification is a tool that promotes sustainable forest management. It is a market-based, voluntary instrument introduced in the early 1990s to address mounting concerns related to deforestation in the tropics and improve forest management (Rametsteiner & Simula 2003). Forest certification includes two basic components, forest management certification and chain of custody (CoC) certification. Forest management certification is issued as proof that a forest management unit (FMU) is sustainably managed. CoC certification, on the other hand, is a comprehensive assessment on the whole chain of custody from the processing, manufacturing, storage to the final consumers, to verify the origin of the raw materials involved (Nussbaum and Simula 2005). This paper aims to present the policy proposals on the establishment of a Philippine forest certification system towards SFM developed by the Forestry Development Center, University of the Philippines Los Baños College of Forestry and Natural Resources (FDC, UPLB-CFNR) and the Forest Management Bureau, Department of Environment and Natural Resources (FMB-DENR). The paper discusses the forest certification policies, standards, accreditation process, and the draft Executive Order (EO) and Department Administrative Order (AO) to establish the forest certification system in the country. It also presents the potentials for forest certification as well as the challenges in implementing it.

***Key words**: accreditation, criteria and indicators, forest certification, standards, sustainable forest management*

INTRODUCTION

Sustainable forest management (SFM) is a concept adopted by the Philippines to achieve long-term stability of its forest resources. SFM is defined as the process of managing the forest to realize the objectives of management, taking into consideration the production of a continuous flow of forest products and services without undue reduction in its inherent values and future productivity (ITTO n.d.). It aims to ensure that goods and services derived from the forest are managed to meet present needs while securing their continued availability and contribution to long-term development. The monitoring and reporting of SFM implementation is based on such elements as extent of forest resources, biological diversity, forest health and vitality, productive functions of forest resources, protective functions of forest resources, socio-economic functions, and legal, policy and institutional framework (FAO n.d.).

Sustainable forest management lays the foundation of forest certification. Forest certification is a tool that promotes SFM. It is a market-based, voluntary instrument introduced in the early 1990s to address mounting concerns related to deforestation in the tropics and improve forest management (Rametsteiner & Simula 2003). As a process, it ensures that forest products in the production chain come from legal sources that follow minimum standards of good practice (PEFC 2013). Forest certification includes two basic components, forest management certification and chain of custody (CoC) certification. Forest management certification is issued as proof that a forest management unit (FMU) is sustainably managed. CoC certification, on the other hand, is a comprehensive assessment on the whole chain of custody from the processing, manufacturing, storage to the final consumers, to verify the origin of the raw materials involved (Nussbaum and Simula 2005).

Forest certification is a process of assessing whether certain forest management practices meet the requirements of standards set to attain SFM (Nussbaum and Simula, 2005; PEFC n.d.). The standards are composed of criteria and indicators (C&I) that evaluate the forest management practices of an FMU. The C&I include such aspects as environmental protection, compliance to laws and regulations, and promotion of human well being, among other things.

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Certification is usually done by independent, qualified, and accredited experts called verifiers. If the party being examined is found practicing SFM through compliance to the different criteria and indicators or standards set, a forest management certificate is issued. Forest certification can be obtained by any FMU willing to undergo the rigors of producing proofs of compliance to the standards and bear the cost associated with obtaining a certification (PEFC 2013).

To hopefully attain sustainable forest management in the country and in preparation to ASEAN economic integration, the project "National Forest Certification of the Philippines" was implemented by the Forestry Development Center (FDC) of the College of Forestry and Natural Resources of the University of the Philippines Los Baños (CFNR-UPLB) with funding support from the Forest Management Bureau (FMB) of the Department of Environment and Natural Resources (DENR) from 2014-2016.

This paper aims to present the policy proposals on the establishment of a Philippine forest certification system towards SFM developed by the FDC-UPLB and the FMB-DENR. The paper discusses the forest certification policies, standards, accreditation process, and the draft Executive Order (EO) and Department Administrative Order (AO) to establish the forest certification system in the country. It also presents the potentials for forest certification as well as the challenges in implementing it.

METHODOLOGY

Content Analysis of International Standards, Policies, and Agreements

Several international forest certification standards were reviewed and analyzed in relation to their applicability to the country's situation. These international standards are from the following forest certifying schemes: Programme for Endorsement of Forest Certification (PEFC), Forest Stewardship Contract (FSC), Malaysian Timber Certification Council (MTCC), and *Lembaga Ekolabel* Indonesia (LEI). The Philippine criteria and indicators (C&I) for SFM developed by the DENR in 2004 were also reviewed.

The research project analyzed the content and processes of various policies and international agreements related to forest certification and legality of wood products. Among the national policies and documents reviewed include EO 23 issued in 2011 which declares a moratorium on the cutting and harvesting of timber in the natural and residual forests, creates an anti-illegal logging task force, and mandates DENR to implement forest certification; EO 318 which promotes sustainable forest management in the country; and the Philippine C&I for SFM.
The international policies and agreements reviewed are the ASEAN Economic Blueprint of 2009-2015 which calls for ASEAN member states to develop their respective national standards for forest management certification, the United States' amended Lacey Act of 2008, the Illegal Logging Prohibition Act of Australia, the European Union's (EU) Forest Law Enforcement, Government and Trade Action Plan or FLEGT, the EU Timber Trade Regulation (EUTR), and Japan's Basic Guidelines for Green Purchasing.

Drafting of Forest Certification Standards for FMUs

The joint FDC and FMB technical working group (TWG) held a series of workshops and meetings to thoroughly examine the forest certification standards of PEFC, FSC, MTCC, LEI and Philippine C&I to come up with the draft standards for forest certification in the Philippines. The TWG identified the criteria and indicators that are applicable to the country's national situation based on those listed under the PEFC and FSC. The team adopted more of the PEFC's C&I due to the possibility of the Philippines applying for accreditation under PEFC which promotes the development and use of national forest certification standards. The FSC does not recognize national certification standards but requires the use of its own set of standards in the certification of FMUs and CoCs.

The team also adopted the chain of custody certification standards of PEFC and FSC which are similar. The procedures for accreditation of forest certification bodies (CB) were drafted by referring to such documents as the International Organization for Standardization (ISO), International Electrotechnical Organization (IEO), PEFC, and other relevant international and national accreditation standards. Key informant interviews were held with officials of the Philippine Accreditation Bureau of the Department of Trade and Industry (PAB-DTI) for a clearer understanding of its current role, its needs should a forest certification system be realized, and its inclusion in the Philippine Forest Certification System.

Prior to drafting the forest certification standards, the project team developed a framework for the Philippine Forest Certification System (PFCS).

Drafting of EO and AO on Philippine Forest Certification System

A DENR Administrative Order (DAO), "Establishing the Philippine Forest Certification System for sustainable forest management and providing guidelines in the implementation thereof" was drafted to institutionalize the implementation of forest certification in the country. This was later revised to a Joint DAO by the DENR and DTI to include the accreditation function of the PAB-DTI. A Presidential EO was also drafted for the establishment of the PFCS with differentiated roles and functions of other government agencies in the implementation of forest certification.

Several workshops were held by the FDC team to draft the EO and administrative orders. The drafts were then presented to the FMB team for their comments before its presentation during the regional and national consultation workshops. The final draft EO and DAO were then submitted to the FMB which endorsed them to the DENR which in turn submitted the draft EO to the Office of then President Benigno Aquino III for his signature. However, President Aquino's term ended before the EO could be signed into law. The proposed DAO was also not signed by then DENR Secretary Ramon Paje.

Regional and national consultations

Five regional and one national consultations were organized wherein the draft forest certification standards, EO and AO were presented and reviewed. Workshops were conducted to

determine whether the potential FMUs or processors/ manufacturers can comply with the draft C&I on forest certification. The regional consultations were held from June to October 2014 in Regions 2, 3, 4A, 11 and 13 while the national consultation was held last 24 March 2015 in UP Diliman, Quezon City. The regional consultations were held in the five regions where there are private companies and people's organizations (POs) with FMUs or processing plants that have the potential to be certified.

Participants in the consultations included community-based forest management (CBFM) POs, integrated forest management agreement (IFMA) holders, private tree plantation (PTP) owners, wood industry/wood processing plant permittees (WI/ WPPP), non-government organizations (NGOs), other government agencies (OGAs), academe, DENR, local government units (LGUs), socialized industrial forest management agreement (SIFMA) holders, and other private companies. A total of 525 participants attended the regional consultations (Table 1) while the national consultation had 52 participants. The workshops on the chain of custody standards had 40 participants (Table 2) in both regional and national consultations.

Pilot testing of forest certification standards

Pilot testing of the forest certification standards was done to determine the applicability of, and compliance to, the proposed forest certification standards of FMUs and private tree plantation (PTP) developers in Regions 3, 4A, 6, 7, and 13. The pilot test areas were chosen in coordination with the DENR regional offices with jurisdiction over the 14 sites. There were six CBFMA, four IFMA, and two PTP sites. The criteria for selection of pilot test areas include: availability of a management plan or a community resource management framework; site accessibility; peace and order condition; and potential of the FMU for forest certification. The pilot tests were conducted from May to June 2015. Table 3 shows the location and the selected POs, IFMA holders and PTP developers for the pilot test.

Revisions and improvements on the proposed National Forest Certification Standards were done based on the results of the pilot tests.

Table 2. Participants of chain of custody workshops during the regional and national consultations.

Region	WPPP	Government Agencies	LGUs	Private Industries	Total
2	3				3
3	1				1
11	4	6			10
13	10	2	3		15
NCR	2	7		2	11
Total	**20**	**15**	**3**	**2**	**40**

Table 1. Number of participants by sector in the regional consultation workshops on the draft forest certification Standards.

Region	Date	Venue	Number of Participants											
			CBFM -PO	IFMA	PTP	WI/ WPP	NGO	OGA	ACA-DEM E	DENR	LGU	SIF MA	Pri-vate Corp.	Total
4A	June 10-11, 2014	Lucena City	3		1		4		1	4	1			14
3	August 18-20, 2014	Lubao, Pampanga	6	4	11	1	2		8	37	13	1	3	86
2	October 7-8, 2014	Tuguega-rao City	9	13		1	4	3	16	116	8			170
13	October 20-21, 2014	Butuan City	40		11	28	1	3	10	31	18	3	3	148
11	October 23-24, 2014	Davao City	26		2	3	3	4	4	29	2			73
Total			**84**	**17**	**25**	**33**	**14**	**10**	**73**	**217**	**42**	**4**	**6**	**525**

Table 3. Selected pilot test areas and respondents for the proposed forest certification standards.

Region	CBFM-PO	IFMA Holders	PTP Developers
3	Gadwen-Highlanders Primary Multi-Purpose Cooperative (GADWEN-HPMPC), Maria Aurora, Aurora Province	Industries Development Corporation, Casiguran, Aurora Province	
4A	Kapit Bisig Farmers Association (KBFAI), Sta. Catalina, Atimonan, Quezon		
6		Mosser Environmental Corporation, Inc., Negros Occidental	Kooll and Company, Inc., Talisay, Negros Oriental Mrs. Virginia Ga Ma-ao, Negros Occidental
7	Basay Agroforestry Farmers Producers Cooperative (BAFPC), Negros Oriental United Farmers Association of Tayawan (UFAT), Negros Oriental Sicopong United Ecological Rehabilitators for Sustainable Development Association, Inc. (SUERSDAI), Negros Oriental		
8	Mapaga, Sta. Maria and Aurora Forestland Occupants Multi-Purpose Cooperative (MASAU-FLOMP), Prosperidad, Agusan del Sur	Provident Farm Inc., San Luis and La Paz, Agusan del Sur Casilayan Softwood Development Corporation (CSDC), Agusan del Sur	Mr. Raul Karampatana Butuan, Agusan del Sur
Total No.	6	4	4

SCOPE AND LIMITATIONS OF THE STUDY

As required in the Memorandum of Agreement between FDC-UPLB and FMB-DENR, the project focused on the formulation of national forest certification standards, drafting of certification guidelines and guidelines for accreditation of third party forest certifiers. The proposed forest certification standards and guidelines were pilot tested only in CBFMA, IFMA and selected PTP areas. There are other tenure agreements and areas that can be considered for pilot testing such as the socialized industrial forest management agreement (SIFMA), Protected Area Community-Based Resource Management Agreement (PACBRMA), and Certificate of Ancestral Domain Claim (CADC)/Certificate of Ancestral Domain Title (CADT).

RESULTS AND DISCUSSION

Philippine Initiatives on Forest Certification

In 2002, the FMB–DENR (with funding support from the International Tropical Timber Organization or ITTO) formulated the Philippine C&I for SFM for the following reasons: as basis for forest certification; for monitoring and reporting progress towards SFM; for auditing forest management and compliance to standards/norms; as management tool for forest managers; for future use in global protocols and international agreements; and for global and national forest assessments and action planning. The C&I provide means of assessing progress towards the attainment of the objectives set under EO 318 known as "Promoting Sustainable Forest Management in the Philippines" and towards the commitment to ITTO Year 2000 Objective (FMB 2003).

The Philippine C&I for SFM are composed of seven criteria and 57 indicators which were found to be appropriate for the Philippine situation. The seven criteria are: enabling conditions for SFM (11 indicators); extent and condition of forest (6 indicators); forest ecosystem health (2 indicators); forest production (12 indicators); biological diversity (7 indicators); soil and water conservation (5 indicators); and economic, social and cultural aspects (14 indicators). These C&I were developed through a series of consultations with timber producers, people's organizations, academic institutions, non-governmental organizations, local government units, professional organizations, the DENR, and other government agencies. However, there was no legal policy issuance to support its implementation (FMB 2003).

The impetus for the formulation of the PFCS includes the ASEAN economic community (AEC) commitments and the issuance of EO 23. The AEC Blueprint of 2009-2015 had set the year 2014 for ASEAN member states to develop their respective national standards for forest management certification (ASEAN Secretariat 2008). Then President Aquino issued EO 23 in February 2011 to ban timber cutting in natural and residual forests and mandated the DENR to implement a national forest certification system to ascertain the sustainability of legal sources of timber and wood products. The FDC was commissioned by the FMB-DENR to assist in formulating policies and appropriate mechanisms for forest certification in the country. The FDC also made use of the Philippine C&I for SFM as one of the references in drafting the standards for forest certification.

Global and National Policies Requiring Forest Certification

Forest certification is an off-shoot of international agreements (Table 4) that address the worsening deforestation in tropical forests and are aimed at instilling good forest governance through SFM, promoting the use of appropriately produced forest products, and curbing illegal logging (PEFC 2001). The proposed PFCS recognizes and adheres to these international agreements and commitments. Among these is the FLEGT action plan signed by the EU in 2003, which ensures that only legally harvested timber is imported into the EU from countries agreeing to take part in this scheme (EU FLEGT Facility n.d.). This was followed in March 2013 by the European Union Timber Regulation (EUTR) No. 995/2010 requiring timber importers and traders in the EU to trade only legal timber products and adopt due diligence procedures to ensure that their supply chains are legal (European Commission 2013).

Table 4. Policies and measures adopted by countries leading towards forest certification.

Country	Policy/Year	Description
United States	Lacey Act, as amended in 2008	Penalizes the importation of any timber species illegally obtained in the country of origin and any product including wood, paper, or pulp containing illegally obtained tree material
Australia	Illegal Logging Prohibition Act No. 166, 2012	It is a criminal offense to import timber and processed timber products containing illegally sourced timber into Australia
Japan	Basic Guidelines for Green Purchasing, 2013	Use of wood products with certified legality and sustainability in government procurements and engaging in publicity activities that encourage private companies and general consumers to use legal wood products
European Union	Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan, 2003	Aims to reduce illegal logging by strengthening sustainable and legal forest management, improving governance, and promoting trade in legally produced timber. A key element of the FLEGT Action Plan is a voluntary scheme to ensure that only legally harvested timber is imported into the EU from countries agreeing to take part in this scheme.
European Union	EU Timber Regulation No. 995/2010	Prohibits illegally harvested timber or timber products with-in EU markets and places traceability obligation on traders throughout the supply chain. The regulation requires timber importers and traders in the EU to trade only in legal timber and adopt due diligence procedures to ensure their supply chains are legal. It requires EU member states to have legislation, procedures, and penalties in place to enforce the regulation.
ASEAN Community	ASEAN Economic Community (AEC) Blueprint, 2009-2015	Calls for the implementation of common ASEAN market by 2015 with free flow of goods and services that includes the timber sector as one of the priorities. The AEC blueprint calls for the following: development of legality standards of timber by 2008 and development of regional conference framework on phased approach to forest certification by 2015. ASEAN Member States have to develop the following: (1) national standard for forest management certification; (2) national standard for chain of custody for legal and sustainable timber; and (3) national standard for verification of legal timber by 2014.
Philippines	Executive Order No. 23, February 2011	Declaring a moratorium on the cutting and harvesting of timber in the natural and residual forests and creation of an Illegal Logging Task Force. It mandates the Implementation of a forest certification system in accordance with international standards.

The United States has the Lacey Act as amended in 2008 which penalizes the importation of any timber species illegally obtained in the country of origin and any product including wood, paper, or pulp containing illegally obtained tree material (Asner & Ghilain 2013). Australia came up with a similar law with the Illegal Logging Prohibition Act No. 166, 2012 which makes the intentional importation or processing of illegally logged timber or timber products a criminal offense (Federal Register of Legislation 2012). Likewise, Japan came up with policies to promote green purchasing through comprehensive and planned procurement of materials, components, products and services with low environmental impact (Ministry of Environment, Japan 2016).

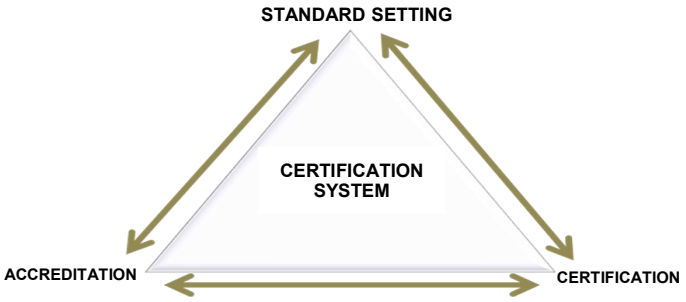

Figure 2. Major processes in forest certification (adopted from PEFC 2013)

The Proposed Philippine Forest Certification System

The development of the Philippine Forest Certification System (PFCS) is on-going and will be finalized by the National Governing Body (NGB) once it is established. The activities in the formulation of the proposed PFCS involved the following: identification of proposed forest certification standards for evaluating the forest management units (FMUs), the Chain of Custody (CoC) standards, accreditation process for certification bodies (CBs), and formation of an NGB.

A framework was developed by the project team for the PFCS for SFM as reflected in Figure 1. Forest certification involves an assessment by an independent third party such as an accredited expert who verifies in writing that the forest management practices comply with a series of collectively agreed performance standards for sustainability (PEFC 2013). There are two types of certification, one for the forest management unit (within public forestlands or in alienable and disposable (A&D) lands or titled lands) and one for the chain of custody for processed wood products.

a. Forest Management Certification Standards

There are three major processes in forest certification: standard setting, accreditation, and certification (Figure 2) which were adopted from the PEFC standards (PEFC 2013). Standard setting is the process of defining certification requirements in collaboration with stakeholders and is coordinated by a standardizing body such as the national governing body which will be created once the PFCS is implemented (PEFC 2013). The forest certification standards will be registered and approved by the Bureau of Product Standards (BPS) of the DTI. Accreditation is the process of assessing the competence of a certification body and is carried out by an Accreditation Body, which in the country is the Philippine Accreditation Bureau of the DTI since it is mandated as the national accreditation body (by virtue of DTI AO 04-2006) and is already a member of the International Accreditation Forum. Certification is the process of checking whether an organization fulfills the certification requirements and is carried out by an Accredited Certification Body (ACB).

The proposed forest certification standards drafted through the FDC and FMB project considered the standards set by the PEFC and the Philippine C&I for SFM which are applicable to the national situation. Standards may be performance-based with requirements for specific actions, practices, or outcomes (like limits on clearcutting). Standards may also be systems-based such as specifying criteria for a landowner to design a personalized management system for tracking environmental performance (Fischer *et al.* 2005). Both performance-based

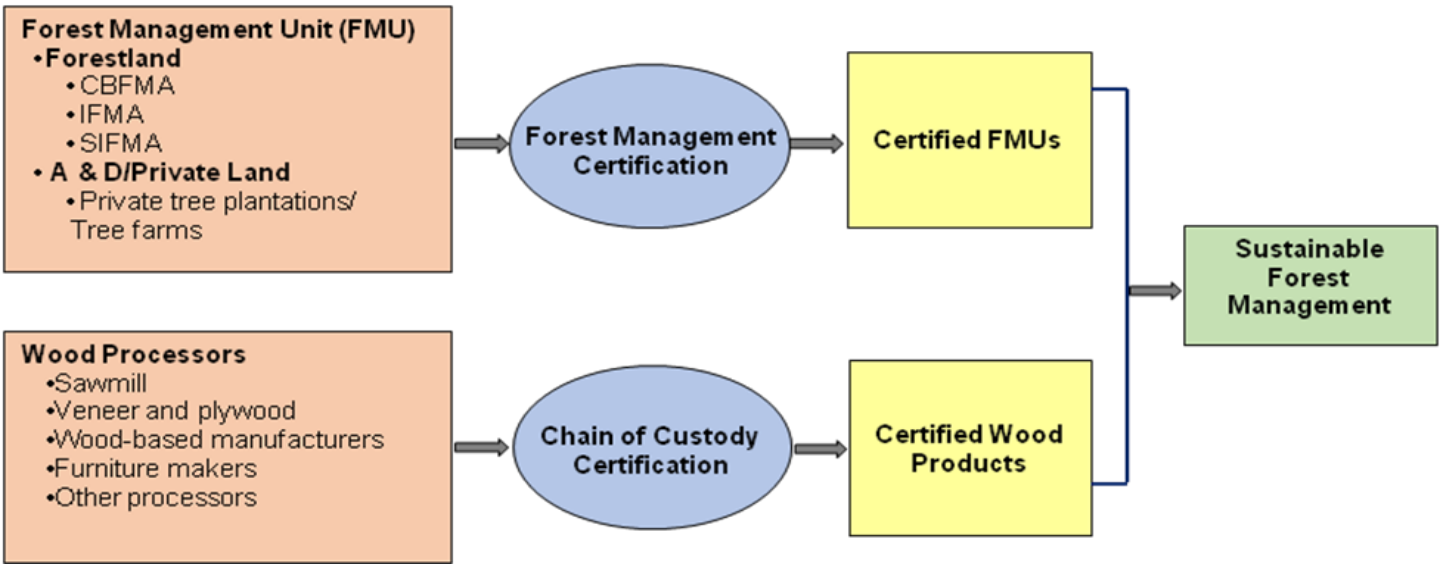

Figure1. Framework for the proposed Philippine Forest Certification System (PFCS)

and system-based standards are used in developing the C&I and verifying evidences for the PFCS.

While being compliant to international standards was considered, the applicability, measurability and attainability of these standards to the Philippine setting was also taken into account for the following management units: 1) community-based forest management; 2) industrial forest management; and 3) private tree farms/plantations.

The proposed certification standards for forest management consist of six criteria and 38 indicators. From the results of the regional and national consultation workshops, the initial seven criteria and 48 indicators were reduced. In particular, the participants recommended the merging of criterion 1 (enabling conditions for maintenance and appropriate enhancement of forest and forest resources for SFM) with criterion 7 (compliance with forestry laws, rules and regulations) since they both pertained to the enabling policy for forest certification. Likewise, the indicators for each criterion were reduced based on their applicability, measurability, and attainability when tested in the selected FMUs using the verifying evidences (proofs of compliance) for each indicator.

The criteria and indicators are summarized in Figure 3 and are discussed below.

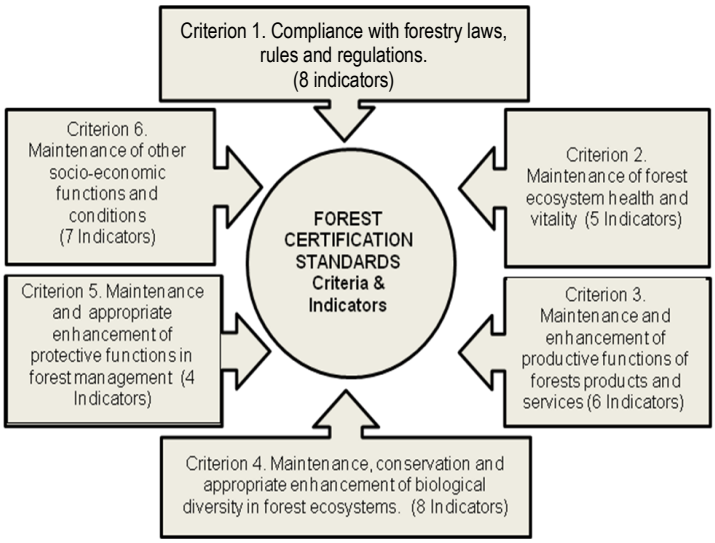

Figure 3. The criteria and indicators for the proposed PFCS

Criterion 1. Compliance with forestry laws, rules and regulations. Forest management shall comply with all applicable national and local laws and administrative requirements. This criterion establishes the policy framework for sustainable management of forests. It establishes the: existence of national and local policies which are compliant with international agreements; awareness and understanding of the FMUs and private tree plantation (PTP) developers on the existence of these policies; and compliance with the requirements of these policies on forest management planning, practices and environmental protection, tenure and land use rights, workers' rights, and payment of fees and taxes.

This criterion has the following indicators: (1) availability of up-to-date national and local laws, rules and regulations related to forest management; (2) availability of forest management plans, land use plans, community resource management framework plans, or resource use plans; (3) implementation of such plans; (4) forest management strategies to develop denuded/degraded/ open areas to productive forest; (5) application of appropriate technology on SFM and the efficient utilization of forest products; (6) amount and source of funding in forest management, administration, research and human resource development; (7) availability of current list of legally prescribed fees, taxes and charges; and (8) protection of forest from unauthorized activities such as illegal logging, illegal land use, illegally initiated fires, and other illegal activities.

Criterion 2. Maintenance of forest ecosystem health and vitality. Forest management planning shall aim to maintain, monitor and increase the health and vitality of forest ecosystems and to rehabilitate degraded forest ecosystems, whenever this is possible by silvicultural means. This criterion ensures the sustainability, stability and security of production and protection forest through planning, appropriate forest management practices, maintenance and protection, risk (natural and man-made risks) mitigation and monitoring.

This criterion has five indicators which include: (1) environment friendly forest management practices to maintain and enhance health & vitality of FMU areas; (2) measures to conserve and protect the genetic, species, and ecosystem diversity in the FMU; (3) ways and means to minimize risk of degradation & forest damages due to natural factors (climatic- typhoons, floods, drought; biophysical/geological - landslides, earthquake, volcanic, pest & diseases); (4) Ways and means to minimize risk of degradation & forest damages due to anthropogenic factors (uncontrolled fire, damage from operations); and (5) monitoring the effects of naturally occurring fire, pest, and other disturbances to maintain the health and vitality of forest ecosystems.

Criterion 3. Maintenance and enhancement of productive functions of forests (timber and non-timber forest products and services). Forest management plans and practices shall maintain and improve the forest resources and encourage a diversified output of goods and services over the long term. This criterion is concerned with forest management for the production of wood and non-wood forest products and services. Such production can only be sustained in the long-term if it is economically and financially viable, environmentally sound and socially acceptable. Forests earmarked for timber production are able to fulfill a number of other important forest functions, such as environmental protection, carbon storage and the conservation of species and ecosystems. These multiple roles of forest should be safeguarded by the application of sound management practices that maintain the potential of the forest resource to yield the full range of benefits to society.

The indicators for this criterion are: (1) forest management plan to maintain the capability of the forest to produce goods and services on sustainable basis through the use of policy instruments; (2) implementation of forest management plan including inventory and mapping of forest resources, and periodic monitoring and evaluation; (3) sustaining the level of harvesting of both timber and non-timber forest products over the long term; (4) monitoring, controlling and regulating

exploitation of timber, non-timber forest products and services including hunting, fishing, encroachment, charcoal making, timber poaching, mining and similar acts; (5) establishment and maintenance of adequate infrastructure (such as roads/trails, skid tracks or nursery, bunkhouse, lookout tower, processing centers) to ensure efficient delivery of goods and services while minimizing negative impacts on the environment; and (6) total amount of carbon stored in forestlands.

Criterion 4. Maintenance, conservation and appropriate enhancement of biological diversity in forest ecosystems. This criterion relates to the conservation and maintenance of biological diversity, including ecosystems, species and genetic diversity. This can be ensured by effective land-use policies and systems for choosing, establishing and maintaining the integrity of protected areas in consultation with and through the involvement of local communities.

This criterion includes the following indicators: (1) Forest management planning, inventory and mapping to identify production and protection areas for biodiversity conservation; (2) Measures including traditional/ indigenous management systems for in situ and/or ex situ conservation of the genetic variation within commercial, endangered, rare and threatened species of forest flora and fauna that help create or maintain valuable ecosystems; (3) Forest management to ensure successful regeneration through natural regeneration or, where not appropriate, planting that is adequate to ensure the quantity and quality of the forest resources; (4) Number of native species and local provenances including introduced species used in reforestation and afforestation known to have minimal negative environmental impacts; (5) Maintain and restore landscape diversity through a diversity of both horizontal and vertical structures such as uneven-aged stands and diversity of species such as mixed stands; (6) Appropriate tending and harvesting operations that does not cause lasting damage to ecosystems and improve or maintain biological diversity; (7) Well planned infrastructure construction to minimize damage to ecosystems, especially to rare, sensitive or representative ecosystems and genetic reserves, and that takes threatened or other key species– in particular their migration patterns –into consideration; and (8) Measures to protect old groves and special rare tree species against retrieval to safeguard biological diversity, taking into account the potential effect on the health and stability of forests and on surrounding ecosystems.

Criterion 5. Maintenance and appropriate enhancement of protective functions in forest management (notably soil and water). This criterion has a two-fold importance. First, it has a bearing on maintaining the productivity and quality of soil and water within the forest and its related aquatic ecosystems, and second, it also plays a crucial role outside the forest in maintaining downstream water quality and flow in reducing flooding and sedimentation. The four indicators of this criterion are: (1) forest management plan to maintain and enhance protective function of forests for society such as protection on the impacts of infrastructure development, protection from soil erosion, protection of water resources, and from adverse impact of water from floods; (2) extent of forest area managed for the protection of soil and water; (3) measures to protect soil productivity and water retention capacity within production forest to assure the protection of downstream catchment values; and (4) measures to minimize bare soil exposure, avoiding the introduction of soil into watercourses, and preserving the natural level and function of water courses and river beds in the construction of roads/trails and other infrastructure.

Criterion 6. Maintenance of other socio-economic functions and conditions. This criterion deals with the economic, social and cultural aspects of the forest. A well-managed forest is a constantly self-renewing resource and it produces a host of benefits, ranging from high quality timber to satisfying the basic needs of people living in and around the forest. It also contributes to the well-being and enhances the quality of life of the population in providing opportunities for recreation and ecotourism, as well as generating employment and investment in the processing industries. Hence, if sustainably managed, the forest has the potential to make an important contribution to the overall sustainable development of the country.

The indicators for this criterion include: (1) forest management plan considers multiple functions and roles of forests to society in rural development, and new opportunities for employment in connection with the socio-economic functions of forests; (2) forest management promotes the long-term health, well-being, and rights of local communities and forest workers; (3) property rights and land tenure arrangements are clearly defined, documented and established for forest and plantation areas; likewise, legal, customary, and traditional rights related to the forest land are clarified, recognized and respected; (4) provision of adequate public access to forests for the purpose of recreation and aesthetic value taking into account respect for ownership rights and the rights of others, the effects on forest resources and ecosystems, as well as compatibility with other functions of the forest; (5) important archaeological, cultural, and spiritual sites are identified and protected; (6) number of trainings, capacity building, and manpower development programs and activities; and (7) effective communication and consultation with local people and other stakeholders relating to sustainable forest management and mechanisms for resolving disputes between FMUs and local people are provided.

b. Chain of Custody Certification

The Chain of custody certification is issued to all wood processors that manufacture, process, trade or sell timber or timber-based products. Wood processors include sawmill, veneer and plywood, pulp and paper, wood-based manufacturers, and furniture, among others. Chain of custody is a comprehensive assessment of the whole chain from the processing, manufacturing, and storage to the final consumers, to verify the origin of the raw materials involved (Nussbaum and Simula 2005). It is envisioned that CoC will contribute to the achievement of sustainable forest management because wood processors produce certified wood products that carry a certification seal as proof that the raw materials come from a sustainably managed forest and legal sources.

In the regional and national consultations conducted, the CoC standards presented were adapted from the PEFC ST 2002:2013, Requirements for PEFC scheme users (CoC of Forest Based Products – Requirements) and PEFC GD 2001:2014, and PEFC Guide (CoC of Forest Products – Guidance for Use). The project team presented the CoC standards and requirements to the participants and the discussions revolved around determining their applicability, acceptability, and attainability if applied in the country.

The discussions centered on the following: requirements in identifying the source of the wood supply and raw materials used; identification of the forest products to be sold; compliance of the applicant to the relevant existing laws on trading and legal source; physical and percentage based method of chain of custody; requirements on the sale and communication of the claimed products; usage of logo or seal; minimum management systems requirement (organization, documentation process, record keeping, human resource management); social, health and safety requirements; and minimum due diligence system requirements.

Based on the consultations and pilot testing done in the project, the requirements for CoC certification of imported and local products are attainable based on the verifying evidences in compliance with PEFC certification standards. The participants said that the operation, management, and documentation requirements are already being implemented by their companies and these can be adjusted to conform to the CoC requirements.

In a parallel action, the DTI conducted a series of workshops and consultations sometime in 2015 to develop a guidebook for chain of custody. The guidebook was drafted jointly by Food and Agriculture Organization (FAO), DTI-Export Marketing Bureau, FMB-DENR, Chamber of Furniture Industries of the Philippines (CFIP), and Philippine Wood Producers Association (PWPA). The guidebook is designed to help companies to purchase legal raw material from inside and outside the Philippines and to trace the material used in production to finished goods that can be verified as legal timber products. The guidebook has two versions; the short version contains basic information, key questions and documents that determine legality of wood products in the Philippines while the extended version provides some context and background to legal verification and the requirements of international markets (FAO *et al*. 2015).

Though the legal basis, technical requirements, and the institutional mechanism are almost in place, CoC stakeholders are yet to be fully informed and capacitated particularly in the requirements for management of systems and due diligence system.

c. Accreditation Process

Accreditation is the process of assessing the competence of a Certification Body and is carried out by an Accreditation Body such as the Philippine Accreditation Bureau of the DTI. It is oftentimes described as 'certifying the certifiers'. While certification verifies the compliance of the forest manager or forest-product seller, accreditation verifies the competence of the certifying bodies to undertake the process of certification (Nussbaum & Simula, 2005). Accreditation bodies independently evaluate the work of certification bodies and assess them to demonstrate their competence, impartiality, and performance capability (PEFC 2013). Accreditation can assure governments, businesses, and consumers that certification bodies have the competence and impartiality to provide certification, testing, calibration, and inspection services since they have complied with international standards and requirements. Accreditation also strengthens the credibility and performance of goods and services (PAB Brochure 2015).

The process of accreditation of CBs involves such activities as: application; evaluation; reporting; addressing non-compliances; accreditation decisions; and surveillance. A reassessment or reaccreditation of the CB may be done every five years after the accreditation certificate was issued. The accreditation process also has a complaints and appeals mechanism. It defines the reporting system, inquiry, investigation, and resolution processes. The mechanism documents complaints, appeals, disputes, and how they were resolved; and also serve as evidences of the CB's conformity with accreditation and certification requirements.

The Philippine Accreditation Bureau of the DTI is the country's main body responsible for accrediting conformity assessment or certification bodies (PAB 2015). It is mandated through DTI-DAO 04-2006 to accredit inspection, testing, and certifying bodies and other bodies offering conformity assessment services. PAB is a member of the International Accreditation Forum, which is a requirement for endorsement by the PEFC. PAB has currently no section on forest certification but their officials have signified interest in addressing this gap once the PFCS becomes operational.

The proposed accreditation standards for forest certification bodies were presented and discussed during the regional and national consultation workshops. There were only minor comments since the participants that were interested to become certifying bodies already have undergone some forms of accreditation. For instance, members of the academe have experienced the rigors of accreditation under the Commission on Higher Education (CHED) for various classifications (i.e., as centers of excellence). Some participants from the private sector also mentioned that they usually comply with requirements for membership and accreditation in industry or trade organizations related to their product standards. The PAB-DTI also provided useful comments for aligning the proposed accreditation guidelines with existing accreditation standards of the PAB and BPS.

However, there is clamor from the participants for more information and training or capacity building for potential certification bodies on forest certification so that they can apply for accreditation with PAB.

d. Legitimizing the PFCS through an EO and DAO

The need to legitimize the operationalization of the national forest certification system led to the drafting of an Executive Order titled "Establishing a Philippine Forest Certification System (PFCS) for Sustainable Forest Management and Guidelines in the Implementation Thereof" for endorsement of the DENR Secretary to the President. The EO was formulated since the PFCS establishment and implementation will involve several government agencies such as the DENR, DTI, Department of Interior and Local Government (DILG), Local Government Units (LGUs), and other government agencies. As a parallel initiative to fast track the establishment of the PFCS, the project team also drafted a Department Administrative Order (DAO) for the DENR to implement the PFCS. However, recent developments led to the drafting of a joint DAO for the implementation of PFCS by the DENR and the DTI to handle the accreditation aspect.

In drafting the proposed EO and DAOs on forest certification in the country, the project team developed an organizational structure showing the major bodies and their roles and relationships as reflected in Figure 4.

The draft EO has the following provisions: declaration of policy, establishment of a Philippine Forest Certification System for sustainable forest management, bodies comprising the PFCS, the Philippine Forest Certification Advisory Committee, the accreditation body, accreditation of certification bodies (CB), implementing guidelines, budgetary support, transitory budget, repealing clause, separability clause, and effectivity clause. The draft DAOs have similar provisions.

The draft EO provides that the PFCS will be established as the forest certification system in the country. The PFCS outlines the rules, procedures, and guidelines for carrying out certification in the country. It establishes a third party to ensure a transparent certification process consistent with international standards.

In the proposed PFCS, there will be four bodies, namely (1) the National Governing Body which is tentatively named the Philippine Forest Certification Council (PFCC), (2) the Philippine Forest Certification Advisory Committee, (3) the Accreditation Body which will be the Philippine Accreditation Bureau of the DTI, and (4) the Certification Bodies.

The PFCC that will be formed will serve as the chief governing body of the PFCS and will be governed by a Board of Trustees (BOT) that will have policy oversight and decision making functions. The NGB will have such functions as the development of written standard setting procedures on forest management standards, group forest management certification requirements (optional), chain of custody standard, certification and accreditation procedures, administrative procedures, complaints and appeals mechanism, and logo usage rules. The NGB shall be registered with the Securities and Exchange Commission (SEC) as an independent, private and non-profit organization.

The PFCC will implement the national forest certification system and will endeavor to be accredited or endorsed by the PEFC. It will be responsible for finalizing, reviewing, and amending the Philippine forest certification standards (including criteria and indicators and implementing mechanisms for forest certification) on a regular basis. This will be done in coordination with the Bureau of Product Standards and the Philippine Accreditation Bureau of the DTI. The PFCC will also have the roles of (1) issuing the certificates for certified FMUs and CoC certificates for forest-based products manufacturers based on the recommendation of accredited certifiers; and (2) reassessing them for the renewal of the said certificates. The PFCC will have a secretariat headed by an Executive Director that will be responsible for the day-to-day operations of the NGB.

The PFCC will have three committees, namely the Standard Setting Committee, Certification Committee, and Oversight or

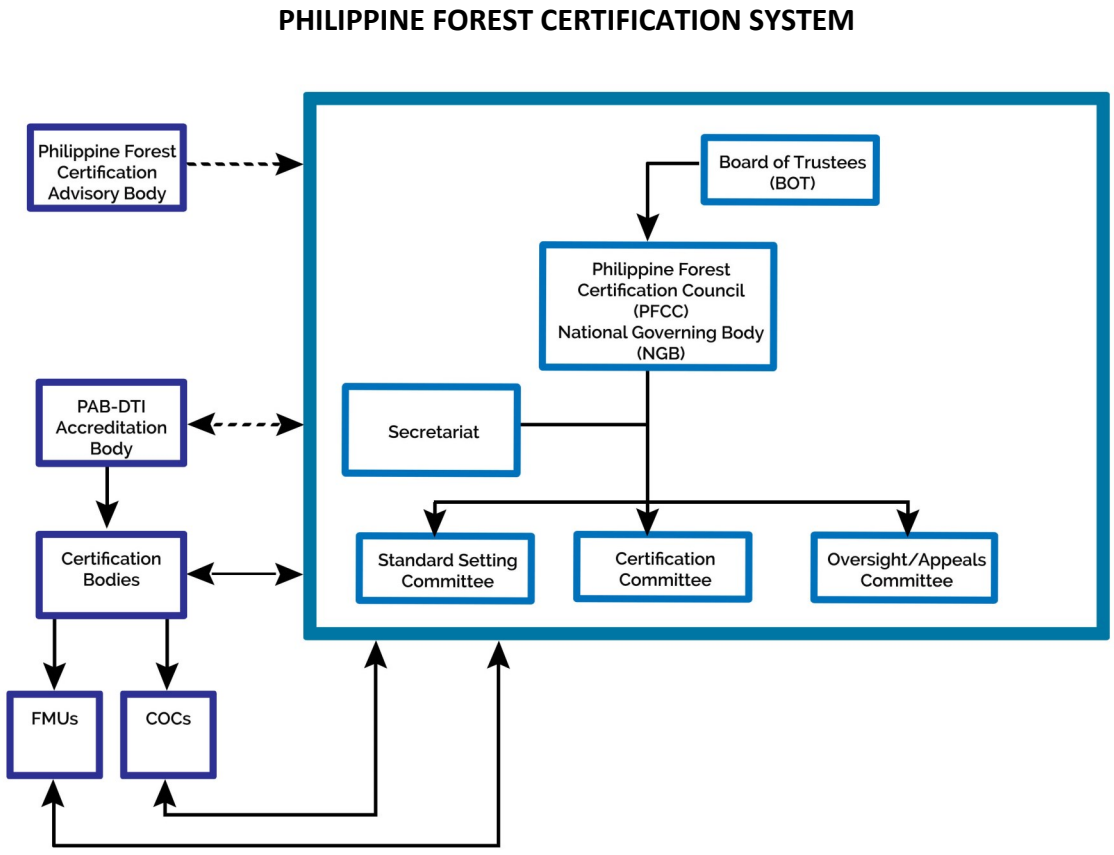

Figure 4. Organizational structure for the proposed Philippine forest certification system (adapted from PEFC 2013)

Appeals Committee. The Standard Setting Committee will facilitate the finalization, review, and amendment of the forest certification standards (with appropriate consultations with stakeholders) at regular intervals (i.e., every five years) and having them approved by the NGB. The Certification Committee will have the task of processing the applications for FMU or CoC certification, referring them to accredited certification bodies, reviewing the ACBs' assessment reports, and forwarding the recommendations for certification to the NGB. The Oversight or Appeals Committee will be in charge of appeals by FMU or CoC applicants and other stakeholders regarding aspects of the forest certification system.

The PFC Advisory Committee will have as its members the heads of the DENR, DTI, other agencies that will be identified by the President as well as representatives of the forestry industry, professional forestry organization, community-based forest management people's organizations, academe, and other relevant stakeholders. The Advisory Committee will provide policy and technical advice and support to the NGB on forest certification matters. As member of the Advisory Committee, the DENR will provide financial support for the establishment and initial implementation phase of the PFCS. After the initial phase when the PFCS bodies are established and the system becomes operational, then financing of the system will come from other sources, primarily investments from members of the NGB and income from forest certification operations.

The PAB-DTI as the Accreditation Body will formulate the accreditation standards for forest certification bodies in coordination with the PPSB. The PAB will also be responsible for implementing the accreditation process for forest certification bodies and auditors. The accreditation standards will be reviewed and amended if necessary at regular intervals.

Certification Bodies will seek accreditation for forest certification from the PAB-DTI before they can provide assessment and audit services for FMU and CoC applicants for forest certification. As independent third party entities, forest certification bodies will have to provide proof of their training, expertise, experience, and other qualifications such as non-participation in standard setting, non-involvement in the operations or activities of FMU or CoC applicants, and financial independence from the applicants or NGB, among other requirements. This is to ensure that ACBs remain free from bias as independent third party in their assessment of FMU or CoC applicants.

e. Recent Developments on the Establishment of the PFCS Certification

The proposed EO was endorsed by the DENR Secretary to the Office of then President Benigno Aquino III however his term ended before it can be signed into law. The team plans to submit the draft EO to the DENR for endorsement to the Office of the new President Rodrigo R. Duterte. For purposes of fast tracking the establishment of the PFCS, the draft DAO will be submitted to the DENR and DTI as a joint administrative order.

An interim national governing board (INGB) was formed by the stakeholders last 20 April 2016 as a determined step towards sustainable forestry and in adhering to the country's commitment as a member of the AEC that targeted 2014 for the development of national forest certification standards. Representatives that signed the memorandum of understanding (MOU) for the INGB are the: Society of Filipino Foresters, Inc. (SFFI), Chamber Furniture of the Philippines (CFIP), National CBFM People's Organization of the Philippines, Inc. (NCBFM POPI), Forest Management Bureau (FMB), National Commission on Indigenous Peoples (NCIP), Philippine Accreditation Bureau (PAB), Philippine Wood Producers Association (PWPA), Philippine Center for Environmental Protection and Sustainable Development, Inc. (PCEPSDI), Forestry Development Center (FDC), and Industrial Forest Management Agreement Organization.

The SFFI serves as chair of the INGB with the FMB as co-chair. Among the functions of the interim national governing board are: formulate guidelines and procedures required for the forest certification scheme; establish the PFCS organizational structure which shall be composed of a standard setting body, a certification body, and a secretariat; facilitate and provide for the need of technical experts that will assist the implementation of the scheme; approve the developed guidelines, procedures and criteria standards for certification; approve the certification applied from potential subscribers; provide guidance to the secretariat, standard setting body and certification body in the performance of their functions; seek partnership with other institutions in promoting sustainable forest management; and perform such other functions, as it may deem necessary for the effective performance of its duties and responsibilities.

The interim NGB will facilitate the transition to the final NGB once the PFCS is established through the EO or DAO.

Prospects for Forest Certification

Forest management units in the Philippines include those found in public forestlands and those in titled lands or in alienable and disposable lands. Forestlands are allocated through an agreement entered into by the DENR and a qualified person or entity to occupy and possess in consideration of a specified rental, any forestland of the public domain in order to manage the resources in the FMU. The tenurial instruments include IFMA, SIFMA, CBFMA, or tree farm lease agreement (TFLA), among other types of tenure.

The Philippine Forestry Statistics (PFS) reports that as of 2014, there are 140 IFMAs with a total area of 1.006 million hectares (M ha); 1,529 SIFMAs covering 32,217 ha; 61 TFLAs with 6,128 ha; and 1,884 CBFMAs in 1.615M ha (FMB 2014). These FMUs under tenure have the potential for forest certification as well as those within titled or A&D lands.

With regards to chain of custody certification, the DENR issues wood processing plant permits to private entities for the conversion of logs and other wood raw materials into lumber, veneer, plywood, block board, pulp and paper, or other finished wood products. The PFS shows the number of active WPPPs in the country (FMB 2014):

- 22 active regular sawmills with daily rated capacity (DRC) of 999 cu m;
- 65 active mini-sawmills with DRC of 903 cu m;
- 67 veneer plants and 37 plywood plants with DRCs of 3,021 and 2,514 cu m, respectively; and
  8 block board plants with DRC of 652 cu m.

Meanwhile, the CFIP estimated that in 2005, there were 15,000 local furniture manufacturers comprising the furniture sector

(Abad 2008). Among the challenges that the furniture industry had to contend with is the chain of custody and timber legality assurance system requirement of the international markets particularly those in the EU and the USA (CFIP 2015).

The same is true with wood-based manufacturers (i.e. plywood, pulp and paper, etc.) that have no choice but to import certified wood raw materials in compliance to CoC certification of their finished products. As of 2016, there are 18 forest-based companies with CoC certificates under the Forest Stewardship Council (FSC 2016) and three CoC certified companies under the PEFC (PEFC 2016).

Hence, it will be advantageous for the country to establish the PFCS to ensure that our forest-based sector can comply with the market requirements for certified wood products from certified FMUs.

Challenges in Forest Certification Implementation

Since the country has no policy yet on forest certification, there is urgent need to advocate for the issuance of either a Presidential EO or a joint DAO by the DENR and DTI. It is foreseen however, that current conflicting and overlapping forest policies and mandates of different agencies might hinder implementation of forest certification. Hence, it is also imperative to review and if necessary, to amend existing laws, rules and regulations as incentives for the forestry sector. The policy environment for forestry has been unstable and constantly changing for the past decades and is a barrier not only to the industry players but also for the communities engaged in CBFM. The participants in the regional and national consultations on the proposed PFCS raised the following issues that continue to beset the forestry sector.

*Outdated forest policies***.** Presidential Decree (PD) 705 (1975) otherwise known as the Revised Forestry Code of the Philippines is still the national forest policy. Many of its provisions are outdated and no longer consistent with the provisions of the 1987 Philippine Constitution which replaced the timber licensing system with the three modalities for natural resources utilization, namely joint venture, co-production and production sharing agreement. The process of legislating new policies in Congress such as the Sustainable Forest Management (SFM) Bill has been very slow. The SFM Bill that will replace PD 705 was filed in Congress since the late 1980s but it has not yet been passed into law.

Shifting policies of the DENR. Regulations are changed frequently and uncoordinated with other agencies of the government and stakeholders of the forestry sector. The changing regulations mentioned were mostly on the issuance and approvals of cutting or harvesting and transport permits and issuance of tenurial instruments. The participants also raised the issue of non-consultation with stakeholders before government agencies formulate and institute policy changes affecting the forestry sector.

*Overlapping of cross-sectoral policies***.** The policy environment of the forestry sector is characterized by overlapping and sometimes conflicting policies on development, utilization and protection of forest areas. Aside from DENR, other government agencies such as the NCIP (National Commission on Indigenous Peoples), NIA (National Irrigation Authority), DOE (Department of Energy), DAR (Department of Agrarian Reform), DA (Department of Agriculture), DTI, DOF (Department of Finance), LGUs, etc., now have mandates on the allocation, management, and utilization of natural resources particularly forests and the permitting and taxation of forest-based industries. This will have implications in the implementation of the forest certification system. This further highlights the need to have a legislated policy on forest certification.

Operational issues in implementing forestry-related policies. The enforcement of forest policies continue to be affected by governance and operational inconsistencies. Among these are the differing interpretations of policies, bureaucratic red tape as well as graft and corruption within the ranks of government agencies.

Readiness of stakeholders on forest certification. There is a dearth of trained, experienced, and accredited local certification bodies and auditors involved in forest certification in the country. Many local certifiers have track records in certification of other products or systems but they will need to be trained in forest certification and this entails time and financial investments.

Likewise, FMUs and wood processors need to be prepared if they are to comply with the forest certification standards. Firstly, their forest management operations need retooling to encompass the various aspects and principles of sustainable management of forests, environmental protection, and socio-economic well-being of their employees and immediate communities, among other things. Secondly, the changes to be made for them to be compliant with forest certification standards will entail additional costs that might be a barrier for small tree plantation developers and community-based managers. For the bigger companies, the additional costs will just be added to the price of their products. This will however, make their certified products more expensive and may not be competitive with the cheaper imported wood products.

Forest certification will also impact the consumers and general public as certified wood products are expected to be more expensive. There is a possibility that local buyers will prefer the cheaper imported wood products or those from illegal sources. The challenge is in educating the general public about the advantages of using certified wood products as it will redound to sustainably managed forests and the achievement of environmental, social, and economic sustainability.

CONCLUSION AND RECOMMENDATIONS

Forest certification can help achieve sustainable forest management as a self-regulating tool of the forestry sector. However, there is urgent need to support the establishment of the PFCS through a policy issuance that provides initial funding support for its operationalization. For forest certification to take root in the country, concerted efforts are essential to raise awareness and capacitate the stakeholders on forest certification especially in the beginning. Readiness of the forestry industry, the consumers and general public as well as the concerned government agencies should be paramount during the initial phase of the PFCS.

Once the PFCS is established, it needs to be mainstreamed through policy shifts and operational changes. Since forest certification will be implemented through an independent and private third party, government needs to overhaul its regulatory function and focus more on its supportive function. Government should enhance its capacity to provide policy and technical support to encourage private investors and local communities to engage in forestry business. It has to provide an investment-friendly and stable policy environment to attract more long-term investments in the forestry sector.

ACKNOWLEDGMENT

The authors acknowledge the Forest Management Bureau of the Department of Environment and Natural Resources headed by its Director, Forester Ricardo L. Calderon and the members of his executive committee and technical working group, for commissioning the FDC-UPLB and providing funds to conduct the project "National Forest Certification of the Philippines". The authors recognize and appreciate the comments of the FMB-DENR team towards the refinement of the proposed Philippine Forest Certification System and their endorsement of the draft Executive Order and Administrative Orders to the DENR.

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