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## **Delivery and Performance of Philippine Nonformal Education Service Providers for Agriculture and Natural Resource Management**

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### **ABSTRACT**

The study sought to assess the quality and performance of nonformal education (NFE) service providers in the Philippines. Specifically, it aimed (1) to describe the nature and characteristics of select NFE providers;(2) to determine the contents and the information sources of programs;(3) to identify the learning materials and methods used by select NFE providers;(4) to discuss the delivery and performance of select NFE providers; and (5) to recommend means to develop a policy framework for NFE providers in the Philippines.

The study used a descriptive case research design. Snowball sampling was done to identify groups or organizations for this study. The list of organizations was obtained from online researches and validated through secondary literature, such as books and journal articles, and printed official reports. Only four organizations consented to be included in the study. The research included interviews with key stakeholders of the projects/programs. Data were collected and analyzed qualitatively and quantitatively. Findings show that none of the NFE programs under the organizations included in this study was registered with the Department of Education (DepEd). These programs were implemented by different organizations—government and private—with assistance from other funding institutions. They varied in terms of topic outline, content, duration, and implementation. The NFE providers selected and implement programs based on their own criteria and identification process. They also identified the contents themselves, with assistance from information sources such as experts and specialists. Other sources of information included consultants, specialists, and university professors. There was no mention of assistance from the DepEd nor topic outline constructed from a DepEd program. Programs were delivered using traditional, non-electronic and computer-aided learning materials—all interactive in nature. Finally,

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even without the government's involvement in the monitoring of NFEs' conduct of services, the providers themselves were found to look after the quality of their programs' delivery and performance.

*Keywords: nonformal education, NFE, education, learning methods, agriculture, natural resource management*

# **1. INTRODUCTION**

Filipinos give premium to education. In fact, according to the National Statistics Office, the country's literacy rate improved to 97.5 percent in 2010 (NSO CPH2010). In line with this, the Philippine government signified its commitment to "Education for All 2015" (Arzadon and Nato 2015).

Nonformal education (NFE) has gained a foothold as an alternative approach to educating the poor and the marginalized sector of the Philippine society. When it was first developed in the early 1970s, NFE was recognized as a novel idea that roused educators to develop and distinguish its unique features, to identify its benefit and limitations with the end goal of assessing its capacity to contribute to education in general and more importantly, in the capacity building of individuals and their communities (Hoppers2006)

Given that the Philippine agricultural sector employs almost half of the nation's workforce (World Bank 2015), the United Nations Food and Agriculture Organization (UN-FAO) realized the need to assist the local government in the area of agriculture and thus implemented the Farm Business School concept in the Philippines in 2014 (Lim 2015). Today, government agencies conduct training activities, seminars, and workshops with farmers, fisherfolk, and other community groups to drive improvements in agriculture, which in turn can help address many concerns in food security (FAO 2014). Likewise, nongovernment organizations, too, conduct their own workshops, specifically in training paralegals on forest resource management and intellectual property concerns, such as that given to the Legal Assistance Center for Indigenous Filipinos or PANLIPI.

## **1.1. Review of Related Literature**

Although most studies that measure and assess the quality of education focused on formal education—and is still the norm in society despite the introduction of alternatives (Roger2005, as cited in Hoppers2006)—NFE is gaining popularity as an approach in providing functional skills among learners. These can be seen in the growing number of studies on the characteristics, types, approaches, and applications of NFE in Philippine education.

What is still limited, though, are assessments on the quality of NFE (UNESCO and Hoppers 2006). Neither are there available data on NFE service and performance in the Philippines.

Nonformal education is usually equated to the Alternative Learning System (Guerrero 2007), especially that under the Department of Education (DepEd). Many of the poor, marginalized groups could benefit from other forms of NFE if further research focuses on assessing programs that utilize this approach (Hoppers 2006).

It is about time to profile and map NFE providers and find out how they deliver such services, especially in the agriculture and natural resource management sectors. To better assess the quality of NFE providers' delivery and performance per specific program, there ought to be quality indicators and ultimately, recommended policy reforms. This study aims to add to the current research literature, particularly in the area of NFE service delivery and performance in Philippines social welfare and development.

## **1.2. Nonformal Education Defined**

Nonformal education as defined by UNESCO (2006) is

Any organized and sustained educational activities that do not correspond exactly to the definition of formal education.

Nonformal education may therefore take place both within and outside educational institutions, and cater to persons of all ages.

UNESCO and Hoppers (2006 as cited in Latchem, 2012) stated that NFE may include adult literacy, basic education for out-of-school children, life-skills, work-skills, and general culture. Nonformal education does not subscribe to the "ladder" system and is short in duration. It also may or may not issue a certification of learning. Dib (1988) added two distinct NFE features: It zones in on the identified needs of learners and has immediate utility to learners' personal and professional growth. It also includes components such as correspondence learning, distance learning, and open systems learning.

### **1.3. Assessment of Nonformal Education**

As early as 1975, educators and policymakers have recognized NFE as an alternative or supplement to formal schooling. Nonformal education was seen as the “new force” or strategy to combat poverty, ignorance, and inequality by effecting educational and socioeconomic change at the individual level (Bock 1976, as cited by Hoppers 2006). Bock researched on the institutionalization of NFE in response to conflicting needs and found little evidence to relate how educational systems contribute to social, economic and political development. Conversely, how social and economic development can expand education services was not well understood either.

Coombs (1976) looked further into the myths, realities, and opportunities for NFE. He cited the view that NFE was a “competitor” and would divert funds from formal education. Others considered NFE as the “miracle worker” that will crush the imperial monopoly, elitism, and inequality of formal education. It turned out that educators were confused about NFE and wanted to seek answers about what it really was.

Continued research would, later on, explore other viewpoints on NFE. Local and foreign studies looked into the delivery of, types and approaches to, and tools of nonformal education.

In her book, Srinivasan (1977) described the problem-centered, projective, and self-actualizing approaches to NFE. The study shared potential needs for NFE and explored its other distinct characteristics.

Nonformal education holds great potential but needs to be tested in relation to each country’s culture. Kidd and Colletta (1980) reviewed several studies to explore the culture-based approach to NFE. The study tackled indigenous institutions and processes in different areas such as health, family planning, agriculture, basic education, and conscientization as bases for NFE. It looked into the country experiences on education, specifically in popular theater and folk media in Brazil, Sierra Leone, China, India, Mexico, Jamaica, and Africa.

Kidd (2007) explored popular theater as a tool for NFE in developing countries. He explained that popular theater can be used to bring people together, build confidence,

stimulate discussion, explore alternative options, or build collective commitment to change. The study indicated that the use of popular theater was part of an ongoing process of education to overcome oppression, gain independence, and secure basic rights.

In an unpublished paper, Doronila (1997) explored NFE as it relates to the delivery of functional education and literacy in the Philippines. She proposed that NFE could bridge the gap among social problems, popular demands, state response, adult education provision, and external constraints associated with formal education. She identified seven factors for community-based literacy and functional NFE: (1) the nature of the community; (2) extent of literacy practice; (3) use of locally adapted and indigenous materials; (4) development of a literate tradition; (5) incorporation of livelihood and development programs in literacy programs; (6) use of interagency approach; (7) a system of equivalency and accreditation; and (8) a new role for the government arm in NFE (Bureau of Nonformal Education).

Meanwhile, Librero et al. (2007) studied the use of cellphones for formal and nonformal education in the Philippines and Mongolia. In the Philippines, the Molave Development Foundation Inc. (MDFI) and the DepEd's Alternative Learning Services utilized the cellphone as a component of interactive multimedia learning modules for health education and hygiene promotion in an International Development Research Centre-funded project on information and communication technologies and distance learning (Ramos 2006, as cited in Librero et al. 2007).

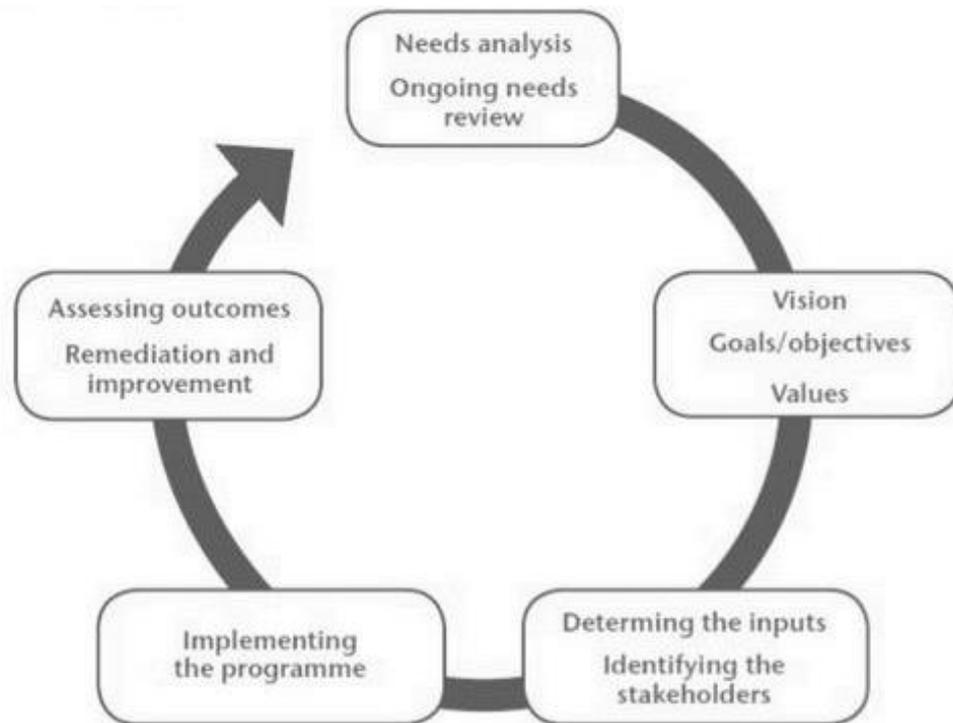
In their study, Ramos et al. (2007) documented the experiences, successes, and lessons from a research at the Maguinda Multipurpose Community Telecenter, a center that aims to provide foreign medical transcription services and online gaming. They studied the effects of the information and communication technologies intervention on the lives of Maguinda residents and found that community development principles played a relevant role in rural distance education.

The quality assessment of NFE appears to have been overlooked and is the least researched topic considering that literature that evaluates NFE is almost nil. Only one particular study on NFE quality assurance was found.

In 2012, Latchem authored the quality assurance toolkit for open and distance NFE. The toolkit started with the importance of NFE and then proceeded to discuss its various types, which included community learning, distance education, eLearning, mLearning, blended learning, flexible learning, and open educational resource.

Latchem then presented the opportunities and challenges of NFE and the various case studies on NFE's applications in literacy programs, gender-responsive and transformative programs, programs for the disabled, agricultural development programs, healthcare, childcare, and welfare programs, peace education programs, civic education and human rights programs, and micro- and medium-enterprise development. He also talked about how to implement quality assurance in open and distance education.

Finally, Latchem presented a quality assurance framework to assess outputs, outcomes, and impacts. Quality assurance consists of five steps. This includes the following: (1) needs analysis and needs review; (2) vision, goals or objectives, and values; (3) determining inputs that include philosophies or premises, strategies, and partners; (4) implementation; and (5) outcomes and improvements (Figure 1).



**Figure 1. Latchem's (2012) Quality Cycle in NFE.**

According to the author, quality assurance in NFE is essential to policymakers, sponsors, the government, agencies, providers, learners, and other stakeholders.

## **2. SIGNIFICANCE OF THE RESEARCH**

Findings in this study are expected to add to the body of knowledge on delivery and performance assessment of NFE services in agriculture and natural resource management. Empirical data can be used as entry points to improve and sustain NFE service delivery and performance for the benefit of poor and marginalized individuals and communities.

The research report shall be easily available to policymakers, educational planners, researchers, and students through print and social media. It will give these users some insights and ideas on how to use NFE in improving Filipinos' standard of living. Academic and research staff may formulate new research problems about NFE from the study results and investigate the problems empirically from hereon.

Policy reforms on the delivery and performance rendered by NFE service providers in agriculture and natural resource management sectors can encourage social marketing and mobilization of and advocacy for NFE. These proposed policy reforms are expected to contribute toward NFE's sustainability as a learning approach for the poor and marginalized.

## **2.1. Objectives**

This study sought to determine the quality and performance of NFE service providers in the Philippines. Specifically, it aimed to:

- 1) Describe the nature and characteristics of select NFE providers;
- 2) Determine the content of and information sources on the programs;
- 3) Identify the learning materials and learning methods used by select NFE providers;
- 4) Discuss the delivery and performance of select NFE providers; and
- 5) Make recommendations on the development of a policy framework for NFE providers in the Philippines.

## **3. METHODOLOGY**

The study used the descriptive case research design. Its researchers initially planned to conduct a sampling from a list of NFE providers from the DepEd. However, the DepEd was still in the process of consolidating its list of NFE providers, programs, and organizations in agriculture and natural resource management at the time of the study. This paper, therefore, opted to use snowball sampling to identify more groups or organizations. It obtained its list of organizations from online research works and validated them through secondary literature and printed official reports. Of the organizations this study formally invited to join, only a few consented to be included in the study.

The research included interviews with the projects/programs' key stakeholders. Data were collected and analyzed qualitatively and quantitatively.

The NFE providers engaged in agriculture and natural resource management were categorized as: (1) government, which refers to the government agency on agriculture and environment; (2) civil society, which includes nongovernmental organizations,

community-based organizations, and people's organizations; and (3) an international development organization related to agriculture.

Secondary data about the selected NFE providers consisted of internet-sourced materials, printed documents, photographs, program or project terminal reports, and other related materials.

Meanwhile, key informant interviews and storytelling methods were the sources for primary data on the indicators for NFE delivery and performance. A series of guide questions were prepared to identify the learning approaches.

#### 4. RESULTS AND DISCUSSIONS

Government organizations, civil society, and private sector are engaged in the delivery of NFE services. In the Philippines, several government and private institutions—aside from the DepEd—have NFE programs in the field of agriculture and natural resource management. The country's nongovernment institutions are actively implementing programs for small communities, most of which are externally funded and implemented on a per-project basis.

Four organizations or projects agreed to be part of the study on a voluntary basis. None of these organizations or programs is registered with the DepEd.

Table 1 below summarizes the ownership and type of support of the four NFE providers.

**Table 1. Nature and Characteristics of NFE Providers.**

<b>Organization/Program</b>	<b>Ownership</b>	<b>Support</b>
United Nations-Food Agriculture Organization - Farm Business School	Private, international development organization	Grant from FAO with assistance from local government units
Marine Wildlife Watch of the Philippines – Rescue Response Training	Private, nongovernment	Externally funded with assistance from requesting parties, private

		individuals, and local government units
Department of Environment and Natural Resources - Forestland Management Project	Government	Grant, government project
Rare Philippines, EDF, Sustainable Fisheries Group at the University of California Santa Barbara(SFG-USCB) - Fish Forever	Private, nongovernment	Externally funded

Source: Author's compilation.

### UN-FAO's Farm Business School (FBS)

The Farm Business School (FBS) aims to help farmers gain more knowledge and skills on farm entrepreneurship and business management through various training programs. This project—which was developed by the United Nations-Food Agriculture Organization (UN-FAO)—uses the learning-by-doing method, as the farmers learn at their own pace with help from skilled facilitators.

### Marine Wildlife Watch Philippines (MWWP)

The Marine Wildlife Watch Philippines (MWWP) aims to provide information on marine wildlife in the Philippines. It provides rescue response training to target communities and other organizations. It also conducts research and workshops, and produces publications in partnership with different organizations, such as World Wildlife Fund Philippines, Greenpeace, Save Philippine Seas, National Fisheries Research and Development Institute, and the Department of Environment and Natural Resources-Protected Areas and Wildlife Bureau.

Marine Wildlife Watch Philippines started as a Facebook advocacy and community page in 2009 for providing people information on marine wildlife in the country through news, photos, videos, and other information sources. After gaining recognition and support in their Facebook page, MWWP was registered as the Marine Fauna Watch of the Philippines on September 13, 2010.

## Forestland Management Project (FMP) of the Department of Environment and Natural Resources (DENR)

The Forestland Management Project (FMP) of the Department of Environment and Natural Resources (DENR) provides a way to ensure that the country's forest resources espouse the concepts behind sustainable development. The project is also a combination of livelihood/infrastructure development and natural resource management. It makes use of two concepts: (1) integration of conservation and development-oriented activities; and (2) the full participation and capacitation of local communities. It includes different stakeholders: 147 people's organizations in the identified 24 sub-watershed areas in the Philippines, the DENR, local government units in the coverage areas, and other stakeholders (FMP Brief 2014).

## Fish Forever (Rare Philippines, EDF, SFG-UCSB)

Fish Forever is a collaborative project among Rare Philippines, Environmental Defense Fund (EDF), and Sustainable Fisheries Group at the University of California Santa Barbara (SFG-UCSB), all of which work together with small-scale fisherfolk and communities in achieving sustainable fishing practices.

The initiative aims to promote sustainable fisheries in countries with vast marine biodiversity such as the Philippines. They tap marginalized fishing communities in their mission to address overfishing.

Rare Philippines is an organization that works on initiatives anchored on sustainable fisheries. Currently, it conducts collaborative training programs in selected pilot areas in Mindoro and Surigao provinces. One of its initiatives—and now part of the Fish Forever project—is the “*Radyo Serye*” (radio series), a broadcast-based, school-on-the-air format currently in its initial phase of implementation. The program encourages active participation from stakeholders.

Since most NFE programs are implemented with funding support from either government or private entities, participants enjoy free training. Most of the time, training kits (that include pen, notebook, and envelope or bag) and snacks are provided. In the case of FBS, the partner-local government unit has provisions for food and other learning materials. In terms of session or class size, there are about 18 to 20

participants per NFE class. Table 2 presents the session or class size and the fees paid by the participants in an NFE program.

**Table 2. Class Size and Fees In an NFE Program.**

<b>Organization/Program</b>	<b>Session or Class Size</b>	<b>Fee</b>
United Nations-Food and Agriculture Organization - Farm Business School	12 to 18 participants per session	Free, with training kits and snacks often provided by partner-local government unit
Marine Wildlife Watch of the Philippines– Rescue Response Training	15 to 20 participants per session	Free, with snacks included
Department of Environment and Natural Resources - Forestland Management Project	18 to 30 participants per session	Free, with training kits
Rare Philippines, EDF, SFG-USCB - Fish Forever	20 to 30 participants per session	Free

Source: Author's compilation.

#### **4.1. Areas of implementation**

These NFE providers implemented their respective programs in different areas in the Philippines. The selection of areas was based on their own criteria and identification process.

The FBS program was implemented in two parts of northern Luzon: Nueva Ecija and Nueva Vizcaya. In the future, the program will be implemented in other parts of the country with the help of the Department of Agriculture's (DA) Agricultural Training Institute and the Department of Agrarian Reform.

The MWWP, meanwhile, conducted training programs in the coastal areas identified by the funding institutions and requesting parties.

The FMP project covered a total area of 182,400 hectares of forestlands. It consisted of 120,500 hectares of forestland in Upper Magat and Cagayan River basins covering the provinces of Nueva Vizcaya, Quirino, and Ifugao; 25,900 hectares in the Upper Pampanga River Basin; and another 36,000 hectares of forestlands in Jalaur River Basin in Iloilo.

Table 3 summarizes the areas of implementation of the NFE programs in the Philippines. The organizations implemented programs in both coastal (fisheries) and upland communities.

**Table 3. Area Or Location of the Implementation of the NFE Program.**

<b>Organization/Program</b>	<b>Area</b>
1. United Nations' Food and Agriculture Organization - Farm Business School	Luzon (Nueva Ecija and Nueva Vizcaya)
2. Marine Wildlife Watch of the Philippines – Rescue Response Training	Coastal areas in Luzon, Visayas, and Mindanao; location identified by funding partners and requesting parties
3. Department of Environment and Natural Resources - Forestland Management Project	Watersheds and river basins in Luzon (Cagayan Valley, Nueva Vizcaya, Quirino, Ifugao, Pampanga) and Visayas (Iloilo)
4. Rare Philippines, EDF, SFG-USCB - Fish Forever	Coastal communities in the Philippines

Source: Author's compilation.

#### **4.2. Topics or Coverage of Lessons**

Programs vary in terms of content. Collectively, the NFE providers do not have a standard outline for the content. Rather, the outlines are based on the objectives and nature of the respective implementing organizations. Table 4 outlines the programs and the content of lessons or topics covered.

**Table 4. Content or Topics Covered By NFE Providers.**

Organization/Program	Content or Topics Covered
<p>1. United Nations's Food and Agriculture Organization - Farm Business School</p>	<p>The FBS program covered the following specific topics:</p> <ul style="list-style-type: none"> <li>● Rationale of a farm business school and developing group ownership</li> <li>● Farming as a business, farmer as an entrepreneur</li> <li>● Farm business profitability</li> <li>● Understanding marketing and markets</li> <li>● Presenting the market survey report</li> <li>● Assessing current farm situation and translating analysis into action</li> <li>● Developing a vision and goal for the farm</li> <li>● Understanding enterprise profitability</li> <li>● Choosing enterprises for the farm</li> <li>● Components of a farm business plan, Part1: Farm production and marketing plan, components of a farm business plan; Part 2: Financial plan (profitability and cash flow and availability), and risks and risk management</li> <li>● Preparing a farm business plan and action plan</li> <li>● Record keeping</li> <li>● Keeping farm business records, savings and mobilizing finance</li> <li>● Group marketing and buying (group exercise)</li> <li>● Understanding contract farming and appraisal</li> <li>● Assessing and managing business risks</li> <li>● Benchmarking</li> <li>● Characteristics of a successful entrepreneur</li> <li>● Value addition</li> <li>● Assessing the benefits of the farm business school</li> <li>● Assessing the performance of a farm business plan</li> <li>● Choosing farm enterprise for the next season</li> <li>● Preparing a farm business plan for the next season</li> <li>● Developing an action plan for the next season</li> </ul>

<p>2. Marine Wildlife Watch of the Philippines- Rescue Response Training</p>	<ul style="list-style-type: none"> <li>● Marine mammals, sharks and rays, marine turtles, etc.</li> <li>● Identification of different species</li> <li>● Research institutions and organizations in the Philippines that deal with the species</li> <li>● Stranding theories, patterns, response basics, and procedures for the species rescue</li> <li>● Data collection and reporting of incidents encountered</li> </ul> <p>● Introduction to biodiversity and ecosystems</p>
<p>3. Department of Environment and Natural Resources - Forestland Management Project</p>	<ul style="list-style-type: none"> <li>● Building capacities in the technical aspect and organizational management</li> <li>● Securing land tenure rights</li> <li>● Developing enterprise programs for food security and income</li> </ul>
<p>4. Rare Philippines, EDF, SFG-USCB - Fish Forever</p>	<ul style="list-style-type: none"> <li>● Fisheries design</li> <li>● Identifying and prioritizing fisheries challenges</li> <li>● Setting fisheries goals</li> <li>● Selecting species and habitat to prioritize based on best available science and local ecological knowledge</li> <li>● Evaluating the size and location of existing marine reserves</li> <li>● Setting boundaries, fishing rules and determining access rights to the TURF</li> <li>● Determining roles and responsibilities for successful co-management between the fishers, municipality, and barangay</li> </ul>

Source: Author's compilation.

Programs vary in duration. For FBS, its 26 program modules take three to six months to complete. The Fish Forever and the FMP programs take about two to three months

to complete. However, sessions may be extended depending on participants' performance in the session activities. These three programs provide leeway in the conduct of sessions. That is, their facilitators and program implementers may make adjustments in each session's time as long as the objectives are met at the end of the program.

The MWWP's Rescue Response Training conducts sessions for three days only. These are scheduled on an as-requested basis and designed as short-duration courses only.

#### 4.3. Sources of Information

Experts, consultants, specialists, and university professors serve as the sources of information on all programs featured in this study (Table 5). Contents of the learning materials in the NFE programs are based on the inputs from reputable institutions and organizations involved. For instance, the UN-FAO sought information on their FBS from experts from the Department of Agriculture's Agricultural Training Institute, and consultants of FAO's Regional Office for Asia and the Pacific.

**Table 5. Organization/Program and Sources of Information.**

Organization/Program	Sources
1. UN-FAO - Farm Business School	<ul style="list-style-type: none"> <li>● Experts from DA-Agricultural Training Institute</li> <li>● Consultants of FAO-United Nations Regional Office for Asia and the Pacific</li> </ul>
2. Marine Wildlife Watch of the Philippines - Rescue Response Training	<ul style="list-style-type: none"> <li>● Local government officials of the program's covered areas</li> <li>● MWWP veterinarians and specialists, experts</li> </ul>
3. Department of Environment and Natural Resources - Forestland Management Project	<ul style="list-style-type: none"> <li>● Officers from the Bureau of Small and Medium Enterprise Development of the Department of Trade and Industry</li> <li>● Staff and experts from the Department of Agrarian Reform</li> <li>● Specialists from the Forest Products Research and Development Institute</li> </ul>

	<ul style="list-style-type: none"> <li>● Foresters and professors from the UPLB College of Forestry and Natural Resources</li> <li>● Professors from the UPLB College of Economics and Management</li> <li>● Staff and experts from the Philippine Food Security Information System</li> <li>● Experts from the DENR's Forest Management Bureau</li> <li>● Members of the local government units of the areas of implementation</li> <li>● Experts and staff from the National Commission on Indigenous People</li> <li>● Stakeholders of NFE Program (participatory)</li> <li>● Secondary sources: Philippine laws and policies</li> </ul>
4. Rare Philippines, EDF, SFG-USCB - Fish Forever	<ul style="list-style-type: none"> <li>● Experts from the University of the Philippines Marine Sciences Institute</li> <li>● Members of stakeholder communities</li> </ul>

Source: Author's compilation.

The MWWP has stakeholders' local government officials as the sources of information. So are its own veterinarians, specialists, and experts.

Meanwhile, the FMP's sources are the:

- officers from the Bureau of Small and Medium Enterprise Development of the Department of Trade and Industry, staff and experts from the Department of Agrarian Reform;
- specialists from the Forest Product Research and Development Institute, foresters and professors from the UPLB College of Forestry and Natural Resources;
- professors from the College of Economics and Management;
- staff and experts from the Philippine Food Security Information System, experts from the DENR's Forest Management Bureau, members of the local government units, experts and staff from the National Commission on

Indigenous People, and other stakeholders of the NFE Program. The Philippine laws and policies are FMP's secondary sources of information.

For the Fish Forever program, experts from the University of the Philippines Marine Sciences Institute and the members of stakeholders' communities are the identified sources.

In these projects, there was no hint of assistance of nor topic outline constructed from a program from the DepEd.

#### 4.4. Learning Methods

The FBS applies the learning-by-doing method and schedule training activities. For MWWP, the organization used training activities in the form of practicum and framework-based activities, and does presentations. The FMP made use of face-to-face learning methods, participatory workshops, and training activities. Likewise, Rare Philippines, EDF, and SFG-USCB used participatory workshops and discussions for Fish Forever. Table 6 summarizes the learning methods used by the different programs.

**Table 6. Organization/Program and Learning Methods.**

<b>Organization/Program</b>	<b>Learning Method</b>
UN-FAO - Farm Business School	Learning-by-doing Training activities
Marine Wildlife Watch of the Philippines - Rescue Response Training	Training activities (Practicum, framework-based) Presentations
Department of Environment and Natural Resources - Forestland Management Project	Face-to-face method Participatory approach Training activities
Rare Philippines, EDF, SFG-USCB - Fish Forever.	Participatory workshops Discussions

Source: Author's compilation.

#### 4.5. Learning Materials

A combination of both the traditional, nonelectronic learning materials, and computer-aided materials were used in the delivery of the different programs.

Farm Business School utilized modules, pencil and pens, meta cards, and flipcharts as learning materials, while MWWP used Powerpoint presentations, manuals, modules, posters and infographics. The FMP uses modules, presentation materials, training designs, and audio visual presentations while Fish Forever opts for Powerpoint presentations and printed materials (Table 7).

**Table 7. Organization/Program and Learning Materials Used.**

<b>Organization/Program</b>	<b>Learning Materials Used</b>
1. UN-FAO - Farm Business School	Modules Pencils and pens Meta cards Flipcharts
2. Marine Wildlife Watch of the Philippines (MWWP) - Rescue Response Training	Powerpoint presentations Manuals Modules Posters Infographics
3. Department of Environment and Natural Resources - Forestland Management Project	Modules Presentation materials Training designs Audio-visual presentations
4. Rare Philippines, EDF, SFG-USCB - Fish Forever	Powerpoint presentations Printed materials

Source: Author's compilation.

All programs evaluated the performance of the participants per activity or session. The conventional written quizzes or practical outputs were carried out at the end of each session or module. However, the long-term effects or impacts of the programs were undocumented. The NFE providers were able to evaluate the participants' performance in the sessions but not the overall effects on the industry. One reason stems from the

fact that each program was a short-term one or had objectives that did not require an evaluation of impacts on its industry.

In summary, all the above organizations used interaction as their communication-based methods. For their activity-based methods, The activities of UN-FAO FBS and MWWP were experience and practice based. That of Rare Philippines were participation-based while the DENR relied on practice. For their socially focused methods, UN-FAO FBS uses partnership, while the other organizations relied on partnership and networking. All organizations use responsibility as their self-directed method, although MWWP and Rare Philippines also bank on discovery as a method (Table 8).

**Table 8. Summary of Methods Used by the Four Organizations.**

	<b>UN-FAO's Farm Business School</b>	<b>Marine Wildlife Watch Philippines' Rescue Response Training</b>	<b>DENR's Forest Management Project</b>	<b>Rare Philippines - Fish Forever</b>
Communication-based methods	Interaction	Interaction	Interaction	Interaction
Activity-based methods	Experience, Practice	Practice, Experience	Participation	Practice
Socially-focused methods	Partnership	Partnership, Networking, Partnership	Partnership, Networking	Partnership, Networking
Self-directed methods	Responsibility	Responsibility, Discovery	Responsibility	Responsibility, Discovery

Source: Author's summary.

Organizations in this study had internal quality and assurance mechanisms. Aside from the needs analysis conducted at the start, different assessment and evaluation activities were done all throughout each program. However, these activities varied per organization as they have their own framework and implementation guidelines.

The NFE providers submitted reports to their funding institutions and partner agencies. Since the programs were not registered with DepEd, no reports were made available to the latter. Although no government institution monitored the NFE services, the different

organizations could certify the quality of the delivery and performance of their programs.

## **5. CONCLUSIONS AND RECOMMENDATIONS**

None of the programs in this study was registered with the DepEd. These programs were instead implemented by different organizations—government and private—with assistance from other funding institutions. They varied in terms of topic outline, content, duration, and implementation. The NFE providers could conduct and implement programs in areas chosen based on their own criteria and identification process.

Program contents were identified by their lead organizations, with assistance from information sources such as experts, consultants, specialists, and university professors. There was no mention of assistance from the DepEd, nor topic outline constructed from a DepEd program.

The programs were delivered using a combination of traditional, non-electronic learning, and computer-aided materials. They also used different methods in the conduct of the NFE services, all of which were interactive in nature.

Although no government institution monitored the conduct of the NFE services, the NFE providers themselves ran an internal quality and assurance system on their programs.

The NFE providers were able to evaluate their participants' performance in the sessions but not its effects on a specific industry: agriculture, fisheries, or natural resource management. The government should thus provide evaluation parameters and mechanisms on how the outcomes of an NFE program can contribute to economic growth directly or indirectly.

Based on the data gathered, the following are recommended:

- The government should provide a mechanism that will drive the NFE providers to register with and report to the DepEd;
- DepEd must provide equivalency and accreditation of programs conducted by NFE providers;
- Monitoring of certain areas of project implementation may be done to provide everyone equal access to the NFE services in the country;
- DepEd and other government agencies may invite NFE providers to form a framework for the registration and reporting of project activities; and
- Future studies should include more organizations and programs in their research.

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