

Symposium Proceedings

Fisheries extension system in the Philippines: historical glimpse on BFAR-Regional Fisheries Training Center in Aparri, Cagayan and ways forward

Emma L. Ballad^{1*} and Milagros C. Morales²

¹ Department of Agriculture - Bureau of Fisheries and Aquatic Resources Regional Office No. 02, Tuguegarao City 3500 Cagayan, Philippines

² Department of Agriculture - Bureau of Fisheries and Aquatic Resources Regional Office Cordillera Administrative Region, Baguio City, Philippines

Abstract

Training is considered as one of the best methodologies and widely utilized in fisheries extension. The BFAR-Regional Fisheries Training Center (BFAR-RFTC), the training arm of the Department of Agriculture- Bureau of Fisheries and Aquatic Resources (DA-BFAR) served as a major facility to introduce through training, improved technologies in aquaculture, marine fisheries and post-harvest technology based on clientele's identified needs. The BFAR-RFTC Aparri, Cagayan is one of the seven fisheries training centers in the country which promoted the fisheries technologies in the northern Philippines. Trainings were conducted for fisherfolk, fisheries technicians, teachers and students of fishery schools, local officials and other interested stakeholders. Trainings vary in forms such as in-house, on-site, hands-on modular integrated approach, season-long trainings in schools and household-based approach for livelihood enterprise and development. For the last five years (2010 - 2014), the Center conducted 293 training courses participated by about 10,000 trainees. The Philippine government through the BFAR Central Office funds the training programs in collaboration with the Local Government Units (LGUs) and BFAR- Regional Field Offices (BFAR-RFOs). In order to ensure that the trainings conducted and the livelihood projects established were properly implemented, the Center conducts monitoring, assessment and evaluation of its programs. It is expected that after gaining skills and knowledge from the training programs, particularly on sustainable fisheries development, conservation, protection and resource management, the capabilities of rural fisherfolk, farm families, technicians and local officials has been developed and upgraded. However, with the institutional reorganization, training scheme have taken changes recently with each regional unit having its training division to reach more clients all over the country.

Keywords: BFAR-RFTC, Cagayan, extension, fisheries, training

Introduction

Oakley and Garforth (1985) define extension as an informal educational process directed toward the rural population. It is a process that facilitates the dissemination of knowledge and information so it will reach the intended target at the right time. It further aims to increase the productivity of farmers and fisherfolk by developing their abilities and skills.

The Regional Fisheries Training Center (RFTC) is the

training arm of the Bureau of Fisheries and Aquatic Resources (BFAR). The RFTC envisions the empowerment of fisherfolk and other stakeholders through provision of relevant, effective and efficient training services to ensure a sustainable development, utilization, protection, conservation and management of inland, coastal and marine resources in order to achieve food security, job employment and poverty alleviation.

With the increasing numbers of fisherfolk and individuals

* E-mail: elballad@gmail.com

who are interested in fisheries as a form of livelihood, it is proper that the government should provide services in disseminating the right information at the right time. Hence, the importance of the existence of the Training Centers. However, in light of the recent institutional reorganization in BFAR, the Training Centers were merged in its Regional Offices to cater more number of stakeholders interested in the development of their capability on fisheries technologies.

This paper introduces the roles and functions of BFAR-RFTC including its history, mandates and organizational structures. The case of BFAR-RFTC Aparri is discussed in the succeeding sections of the paper highlighting its methods in conducting extension works particularly that of training implementations. It also gives an idea on the new set-up of the training system as the result of the changes in organizational structure in BFAR. The systems presented in this paper may be of use to other people doing extension works.

Brief History of BFAR-Regional Fisheries Training Centers

The creation of the Training Centers is part of the policy of the government for an Integrated Fishery Development Strategy of the country which aims to strengthen its fishery technology and human resources. These were established through the 6th Fisheries Education Project Loan under the World Bank (1786-PH).

The BFAR-RFTCs were operationalized in 1979 through the Ministry of Natural Resources Special Order No. 331, with the Director of Fisheries to exercise over-all control on the operations of the Training Centers. Seven Training Centers were strategically established in the different provinces of the country to include Cagayan, Bicol, Palawan, Samar, Cebu, Davao and Zamboanga. These Training Centers were clustered such that it will be able to cover all regions of the country. Figure 1 shows the distribution of the Training

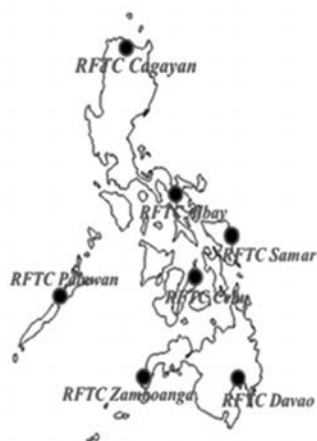


Fig. 1. Distribution of the Seven (7) Training Centers around the country and its respective area coverage.

Centers around the Philippines.

For the past 35 years, the Training Centers had been under different management of the various agencies of the government. From the time it started in 1979, the BFAR, then under the Ministry of Natural Resources, supervised and controlled the operations of the Centers. In 1986, the People Power Revolution had completely changed the bureaucracy with a Revolutionary-transition government, hence the RFTCs were placed under the Ministry of Agriculture and Food (MAF) Regional Offices until 1988, then from 1989 to 1999, the Centers were transferred to the Agricultural Training Institute (ATI) of the Department of Agriculture (DA).

When the Republic Act 8550, otherwise known as the Philippine Fisheries Code of 1998 was approved and implemented, the RFTCs were transferred back to BFAR from 2000 up to 2014. In 2015, however, internal reorganization within BFAR took place and the Training Centers were merged in the geographic regions where it is located. Since the country is divided into 16 geographic regions (excluding the National Capital Region) and there were only seven existing Training Centers merged in their respective regions, a training division was created uniformly across all BFAR-Regional Field Offices (BFAR-RFOs).

BFAR RFTC in Aparri, Cagayan

Mandates and Training Activities

The Training Center situated in Aparri, Cagayan is in charge of providing fisheries training courses in the northern part of the country. It provided development services to the fishing industry through the conduct of trainings and provision of technical assistance to government and non-government institutions, people's organization and the fisherfolk. It served as a major facility to introduce fishery technology trainings coupled with the establishment of prototype fisheries practicum projects and further provide technical assistance on improved technologies in aquaculture, marine fisheries, post-harvest and social technologies based on clientele's identified needs. It also assisted the BFAR-RFOs on fisheries resource conservation, protection and management programs through the development of capacities of trainees on resource management and law enforcement.

Training types and courses

TRAINING TYPES

The trainings conducted by the Training Center depend on the type of participants. As part of its extension methodologies, trainings were done either in-house (in the Training Center), on-site (in the municipality or villages),

hands-on modular integrated approach or technology outreach promotion approach.

(1) In-house Trainings – In-house trainings are usually conducted for Fisheries Technicians and other municipal officials, fisherfolk leaders, fishery schools teachers and other interested stakeholders such as private entrepreneurs. Participants were nominated by their respective agencies to attend a week-long training courses. Figure 2 shows how a usual in-house trainings are being conducted in the Center’s facilities.

The in-house trainings generally last from three to five days depending on the course title. Lectures/discussions, workshops/group activities and hands-on activities (e.g. water parameter analysis, fish sampling, pond preparation, net mending, gear construction, fish processing activities etc.) were done as part of the trainings. At the end of the training program, a short course evaluation is conducted to determine level of learning and understanding among participants as well as to solicit recommendations and suggestions for the improvement of the course. Participants who successfully completed the training course shall be tapped as resource

speakers in on-site trainings to be implemented by the Training Center in their respective areas.

(2) On-site trainings – Trainings are also done in the municipalities or in the villages to encourage participation of many fisherfolk. Figure 3 shows the flow of activities for on-site trainings. The Training Center coordinates with the concerned BFAR-RFOs and Local Government Unit (LGU). The LGU, having the jurisdiction of the area, facilitate the invitation of target participants as well as arrangements of logistics and training venue. Technical staff from the Training Center and BFAR-RFO act as resource speakers. Participants who will be interested in adopting the technology presented will be provided with technical advisory services by the Training Center and by the BFAR-RFO. Technical Advisory assistance include site evaluation, individual technical advice, provision of fingerlings, monitoring of existing projects etc.

(3) Hands-on modular integrated approach – This training methodology is coupled with a project at the end of the classroom training (Fig. 4). This approach is usually used in aquaculture technology trainings. The production system

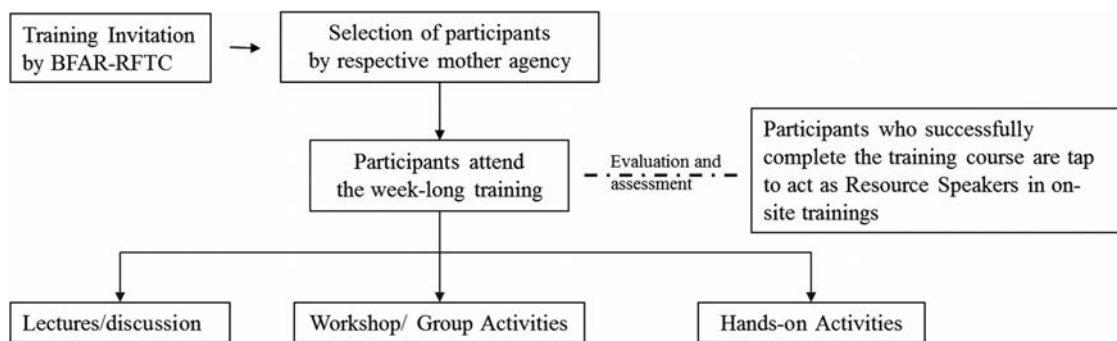


Fig. 2. Flow of activities for in-house trainings in the Center.

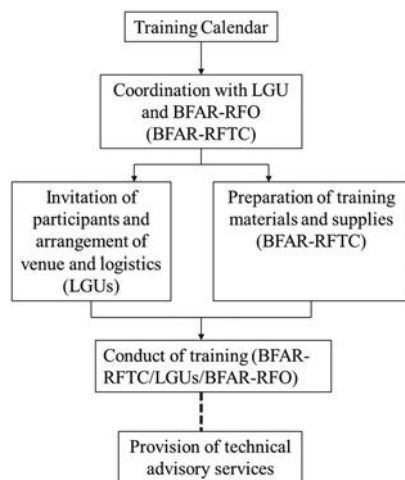


Fig. 3. Flow of activities for on-site trainings conducted by the Center.

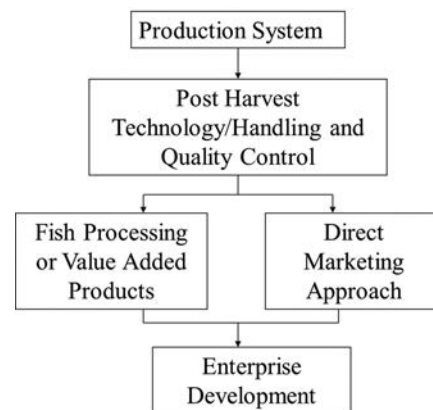


Fig. 4. Hands-on modular integrated approach for trainings conducted by the Center.

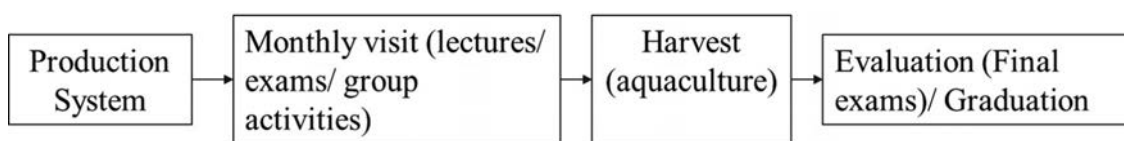


Fig. 5. Flow of season-long training methodology with students as participants.

covers modules on project design and construction followed by the project operation and management. After five months, the training continues on post harvest technology/handling and quality control which deals on the importance of post-harvest technology, handling, including the principles of Hazard Analysis and Critical Control Point, quality control and food safety. This is followed by training on actual fish processing or direct marketing approach and enterprise development. This kind of training is commonly participated by fisherfolk associations and other organized groups.

(4) Season-long training methodology – Almost the same in the above-mentioned training approach, this activity is also a modular style but is usually done in schools and is participated by students. It is incorporated in their school’s subject/class (Fig. 5) hence exams are expected every after lectures. Participants who attended the required number of hours will receive certificate of completion at the end of 5 -6 months training.

(5) Household-based approach for livelihood enterprise and development – Another training methodology done by the Center is focused on a per household basis. This style is likened to a one-on-one (household – trainer) and is time consuming, but the direct impact is considered to be better because family members operate the project themselves. Figure 6 shows the flow diagram of this approach. After the conduct of the training (participated by interested households), the household who will signify interest to join the season-long training will be subjected to evaluation and assessment of their qualifications. The identified beneficiary should have completed the training on the particular technology, willing to devote time and adopt technical recommendations and should be an owner of a fishpond in case of aquaculture project. The Center then provide all the inputs while the labor cost is counterpart of the beneficiary. At the end of the operations (approximately 5-6 months), a field day will be conducted and the household will share their experiences to the other interested household.

TRAINING COURSES

The training courses offered by the Center vary from aquaculture, post-harvest, municipal fisheries and social technology. Freshwater, brackishwater and mariculture

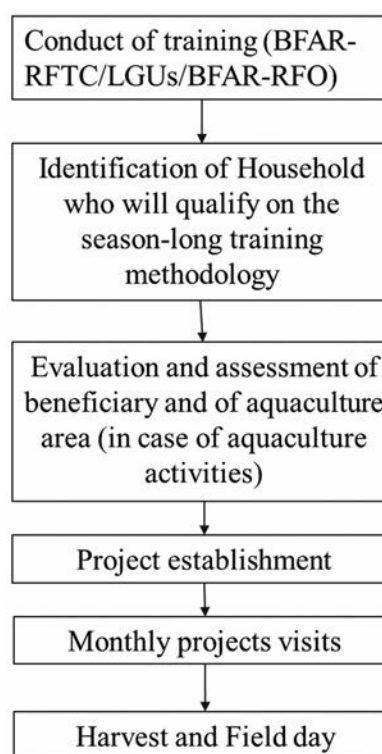


Fig. 6. Flow of Household-based approach for livelihood enterprise and development.

technologies of different species are available in aquaculture. Fish smoking, fish and seaweed processing and production of value-added products are some of the courses under post-harvest technology. Fishing gear construction, operation and maintenance are among the trainings under the municipal fisheries. The Center, being an accredited training provider of the Cooperative Development Authority, also conducts trainings for registered cooperatives. Special training courses such as Package of Fisheries Technologies and Fish Examiner’s Course were also available for fisheries technicians.

Training Accomplishments

For the last five years of its existence (2010-2014), the Training Center conducted 293 training courses with 10,043 participants (Table 1). Aquaculture tops the sectoral trainings because of the program on promoting Aquaculture for Rural Development which aims to reduce fishing pressures in the municipal waters. The post-harvest trainings were normally

Fisheries Extension in RFTC Aparri

Table 1. Training implementations of BFAR-RFTC Aparri, Cagayan by Sector from 2010-2014.

Sector	2010		2011		2012		2013		2014	
	No. of Trainings Implemented	No. of Participants	No. of Trainings Implemented	No. of Participants	No. of Trainings Implemented	No. of Participants	No. of Trainings Implemented	No. of Participants	No. of Trainings Implemented	No. of Participants
AQUACULTURE	34	1,042	26	763	25	747	25	871	24	752
POST HARVEST	10	364	13	416	10	449	18	886	23	839
MUNICIPAL FISHERIES	9	282	5	117	5	151	7	291	6	191
REGULATORY	8	340	7	160	1	15	1	12	-	-
SOCIAL TECHNOLOGY	4	321	4	122	5	117	9	318	14	477
TOTAL	65	2,349	55	1,578	46	1,479	60	2,378	67	2,259

participated by women who are members of the Rural Improvement Club (RIC), a village-based, non-government organization which has a goal of uplifting the living conditions of rural women through livelihood operations. Municipal fishing technologies involved the construction and operation of fishing gears particularly of gill nets. Gill nets constructed were distributed to participants who are members of fisherfolk associations for their fishing activities. The BFAR-RFOs conduct trainings on fishery law enforcement and resource management (e.g. deputy fish warden course, organization of bantay dagat and other fishers' association, establishment of fish sanctuaries, etc.) in collaboration with the training center. Fisheries technicians, vocational teachers and other stakeholders participated in the social technology trainings.

Impacts of training programs

With all the training courses implemented by the Training Center, the following impacts were realized:

- Developed and upgraded the capabilities of rural fisherfolk, farm families, technicians, and local officials on sustainable fisheries development, conservation, protection and resource management;
- Increased participation and involvement of LGUs and community-based fisherfolk organizations in the planning, implementation, and management of fisheries programs, conservation and resource management;
- Increased LGU investment and financial support for training, alternative livelihood, and fishery law enforcement activities;
- Minimized illegal fishing activities through active participation of bantay dagat and strong support of LGUs;
- Reduced fishing activities or pressures in municipal waters through promotion of Aquaculture for Rural Development program.

Towards a New Step

With the internal reorganization of BFAR, the Training Centers were merged in the respective regions where it is located. From the seven training centers, there are now 16 Training Divisions strategically located in the BFAR RFOs all over the country. This strategy made the training services more accessible to stakeholders. With this, the Bureau is strengthening its National Fisheries Extension Program to look into different updated methodologies which could address the needs of times as well as to accommodate more numbers of trainees. As recorded in the Fisheries Registration System, there is an estimated 1.7M fisherfolk in the country of which 48,980 fisherfolk is registered in the region. The new training mechanism now give a better access to these fisherfolk to be given assistance for updated technologies.

Concluding Remarks

The Training Center in Aparri operated for almost 35 years and has trained several stakeholders on the different fisheries technologies using various kinds of training methodologies. While the system was in place and working, internal reorganization compelled the restructuring and rearrangements of training implementations such as area coverage and other interventions. The fisheries training programs in every regions of the country is presently managed by the respective BFAR-RFOs Training Division. The new set-up is expected to expedite the dissemination of fisheries technologies through trainings.

Reference

- Oakley, P. and Garforth, C. 1985. Guide to Extension Training. Agriculture Extension and Rural Development Centre, School of Education, University of Reading, UK.
Food and Agriculture Organization of the United Nations, Rome.