

Selection of the Appropriate Extension Methods for Small-Scale Fishers

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In an attempt to develop a model for selecting appropriate extension methods that could work well with small-scale fishers, the 17 participants from 12 countries in the International Training Course on Coastal Fisheries Management and Extension Methodology organized by the SEAFDEC Training Department (SEAFDEC/TD) from 24 November to 17 December 2009, were asked about their opinions on the appropriate extension methods and the reasons why, and also on the problems that they had encountered during the implementation of the various extension methods. The average age of the participants was 35.9 years old and eight of them have completed their Bachelor's degrees. The participants were holding fishery officials' positions, had been working for an average of 7.6 years in their present job, and on the average, have had handled about 8.9 extension programs. The participants also had experience in adopting the individual, group and mass extension methodologies.

Small-scale coastal fisheries had been widely recognized for their importance in ensuring food security for people, more particularly in the Southeast Asian region. However, the sustainability of coastal fisheries could not be ensured due to various underlying problems of over-fishing, environmental degradation and habitat destruction. Responsible coastal fisheries management is one component of integrated coastal management with extension methodology that has been promoted in relevant human resource development (HRD) activities. Such HRD activities are envisaged to ensure that fisheries extension officials would be able to expand their knowledge and skills in the concepts and methods of fisheries management and work effectively with small-scale fishers, briefly defined by SEAFDEC (2000 and 2003) as fishers using small boats, fishing gear and equipment.

In this regard, SEAFDEC/TD conducted the International Training Course on Coastal Fisheries Management and Extension Methodology from 24 November to 17 December 2009 to strengthen the capability of extension workers in the principles, concepts and methods of coastal fisheries management and methodologies in extension, communication and media production. Seventeen trainees involved in fisheries extension work from 12 countries attended the training which was aimed at ensuring that the change towards co-management in fisheries would be applied in their respective works after the training program.

During the training, the researchers who served as the resource persons in fishery extension had the opportunity to discuss with the participants their experiences in extension methods. The participants' views and ideas were gathered through a survey questionnaire which was conducted during the training.

The questionnaire consisted of closed- and open-ended questions that focused on three main issues, namely: the kind of extension methods used while working with small-scale fishers in rural fishing communities; the appropriate methods based on the feedbacks and the reasons why; and the mode of implementation used for the selected extension methods. The population used in the survey was the 17 participants in the training course, representing 12 countries, namely: Brunei Darussalam, Cambodia, Indonesia, Japan, Lao PDR, Malaysia, Maldives, Myanmar, Philippines, Sri Lanka, Thailand, and Vietnam. The collected information was confirmed through focus group discussions and the survey results are reported in this paper, in descriptive form and expressed through percentages and means.

Characteristics of the Respondents

The participant-respondents were between 20 to 54 years of age (average 35.9 years old), 47% received Bachelor's degrees, while the rest received either vocational certificate (29%) or diploma (6%) or Master's degree (12%). The current positions of the participant-respondents varied from assistant extension officer to fisheries officer, assistant



Discussion with participants in the International Training Course on Coastal Fisheries Management and Extension Methodology about the type of extension methods used in their respective countries

director, fisheries HRD staff, fisheries biologist, project evaluation officer or training specialist. Most of the participants (70%) had worked in their current positions for 1-8 years while the remaining 30% had worked for more than 8 years, the maximum being 22 years and the minimum is one (1) year. Moreover, 65% had been involved in fisheries extension program while 35% were working with related programs. During their respective period of assignment, 53% were involved in 1-8 extension programs while the rest were involved in other related programs except for one who was responsible for the implementation of almost 100 programs.

Extension Methods Commonly Used in Rural Fishing Communities

In rural fishing communities, three extension methods, *i.e.* individual, group and mass methods are popularly used by extension workers, where extension methodologies refer to the teaching and learning approaches that extension workers adopt while working with their target clients. **“Individual method”** refers to the method where face-to-face contact between an extension worker and client is involved, *e.g.* farm and home visits, office visits, telephone calls, informal discussions and discussion through the internet and e-mail. Individual method could help in planning an extension program especially when the direct involvement of an extension agent is required. **“Group method”** refers to the activity where an extension agent and group of clients (*e.g.* fishers) could meet and discuss about common issues of

interest, *e.g.* training, group meetings, field demonstrations, study tours, and field days. The group method would be useful when there is a need for local people to directly seek audience with government authorities. **“Mass method”** refers to the channel of communication and information dissemination that would enable the extension worker to communicate with large number of target audience, *i.e.* fishers, the same information at the same time through sound, moving pictures and printed materials. Such channels could include the radio and television, VCD, computer and internet, publications, newsletters, campaigns, exhibitions, and displays (Behrens and Evans, 1984; Severs *et al.*, 1997; Rangsiaphat, 2009).

Based on the results of the questionnaire survey and confirmed during the focus group discussions, the most commonly used extension method is the group method as it could serve a large number of fishers at certain given time. In addition, the concerns of the fishers could also be drawn out through the group discussions especially those related to their needs and requirements, problems, resource availability, socio-economic conditions, ways of life and livelihoods, and even the methods of fishing and fishing gear used. Through the group method, the unity of the farmers and establishment of a local farmers’ association could also be promoted. However, prior to the selection of the appropriate extension method, it is necessary to analyze the geographic conditions of the area and the available resources of the target audience (**Fig. 1**), and also to evaluate the advantages and disadvantages of the method

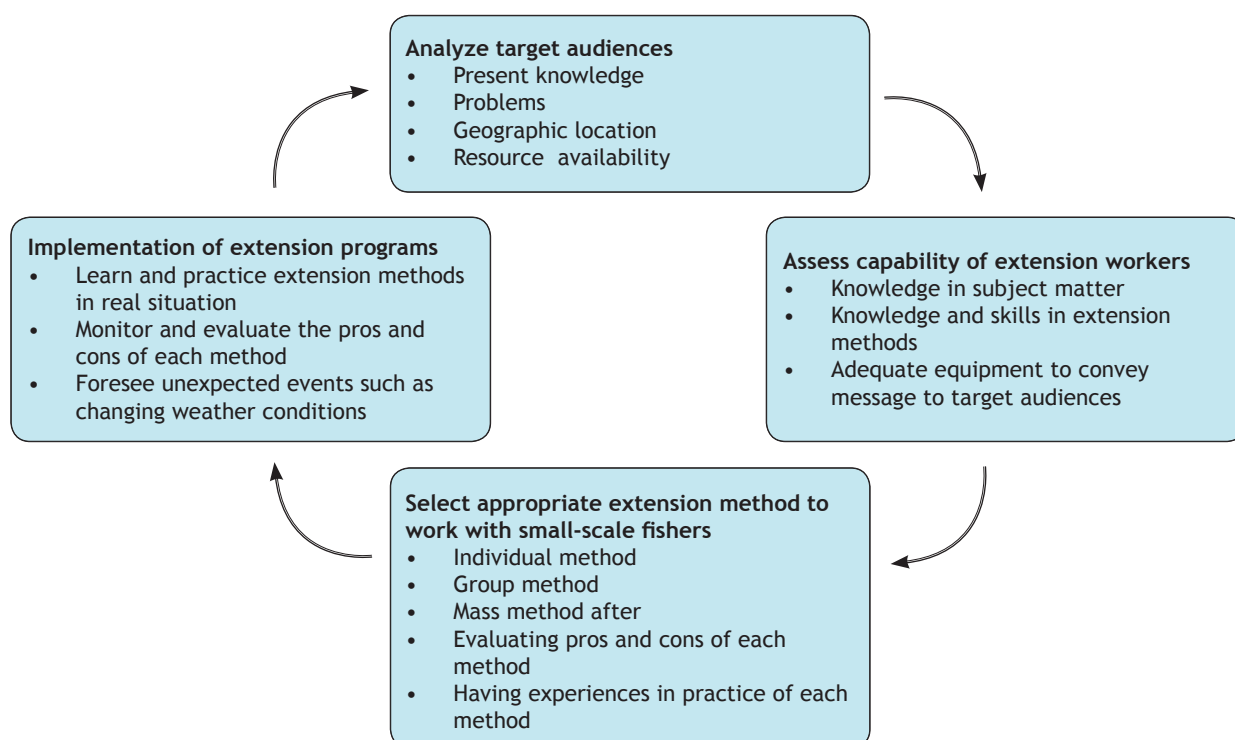


Fig. 1. Model on selection of appropriate extension methods to work with small-scale fishers

that would be applied as well as examine the problems of the clients or those of the fishers, as the case may be. In the process of implementing the extension method, the participant-respondents cited that the most common problems encountered were lack of appropriate equipment and learning materials, e.g. audio-visual and multi-media aids that could convey the intended messages to the target audience. The other problems identified were: inadequate knowledge and skills on the part of some extension agents in understanding the extension method, inability to foresee changes of the weather conditions, and insufficient skills in increasing the awareness of the fishers in issues and concerns related to sustainability of fisheries.

Moreover, in selecting the particular extension methods, the participant-respondents also cited the need to assess the characteristics of fishers, their socio-economic background, type of fishing gears and geographic location of fisherfolk and their family, conforming to the findings of the study conducted by Ingle (1974) on “Communication Media and Technology: A look at their role in Non-formal Education Campaign”. The study emphasized that the use of extension methods depend on the purpose of the learning activities, target audiences, existing conditions of the areas and availability of resources. Thus, the respondents indicated that the group method was the most appropriate extension method to work with small-scale fishers. These findings could be further explained by the TDRI (2009) findings that most developing countries conduct training programs that are designed to help the rural communities improve their standard of living, and that the main objective of the extension work is to help the target audience in helping themselves. After the extension workers leave the communities, it is important that the stakeholders should be able to follow up and go on with the program on their own.

Implementation of the Group Method

For the implementation of the group method, the extension workers usually collaborate with concerned agencies or other stakeholders interested in fisheries, after which the needs and the potentials of the fishers are identified. The extension program is then developed which could comprise lectures, demonstrations and field visits. The program should also include monitoring and evaluation to determine the changes in knowledge, skills and attitude before and after the implementation of the program. An example of the best practice of a training program, demonstrated by the participant-respondents was the one organized by the Regional Fisheries Training Center (RFTC) of the Philippine Bureau of Fisheries and Aquatic Resources (BFAR), which focused in improving the skills and livelihood, providing employment opportunities, and ensuring food security for

fishers. In the implementation of such program, the RFTC worked closely with Local Government Units (LGU) in the planning and implementation as well as in monitoring and evaluation of the programs. In 2009 for instance, the RFTC conducted a program on Small-Scale Fish Processing (BFAR-RFTC, 2009) in the RFTCs in Palawan, Tabaco (Albay), Catbalogan (Samar), and Panabo (Davao) for bangus deboning, drying and bottling; tilapia lamayo/fillet; and other viable fishery products involving a total of 332 participants. The results was the production of more than 5,600 kg of processed products (bangus, tilapia and others), which generated an income of more than P669,600.00 for the concerned fisherfolk.

Conclusion and Recommendations

Although the respondents described that individual, group and mass methods are necessary to assist small-scale fishers in rural fishing communities, the group method is considered the most appropriate. The model of selecting the appropriate extension methods illustrates the necessity to analyze the target audience and the capability of the extension workers, and then select the appropriate extension method and implement the extension programs. The respondents suggested that learning the extension methods should also be coupled with practicing them in the real situation. Moreover, it was also deemed necessary to conduct regular HRD workshops on extension methodologies and that monitoring and evaluation of the impacts of the extension method used in the rural fishing communities should also be regularly conducted.

Furthermore, it would also be necessary that extension officers should be able to understand and practice each of the extension method, which are introduced and explained in details during the International Training Course in Coastal Fisheries Management and Extension Methodology



organized by SEAFDEC/TD. Under the training course, practical work on the organization of a training program or plans for the conduct of a training program integrating all experiences learned should be given more emphasis and that workshop on audio-visual equipments should also be given more focus considering that use of audio-visual aids is very crucial for the effective the implementation of program trainings.

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Analyzing the Use of Advanced Information Technology to Boost the Sale of Fishery Products in Japan

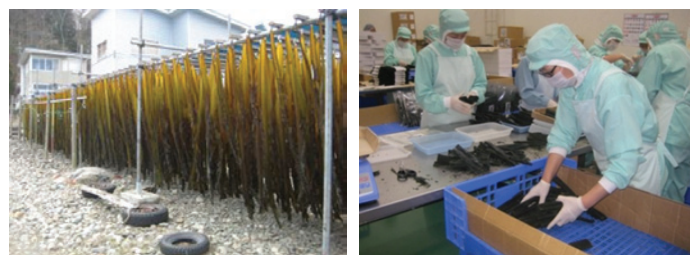
Satana Duangsawasdi

An analysis of the Konbu Owner's Website was made during the training of the author under the project of Prof. Dr. Akira Nagano at the Future University of Hakodate in Hokkaido, Japan in November 2009. The result indicated that using advanced information technology such as the Konbu Owner's Website introduced here, there would be a possibility to increase the income of fishers and constantly supply fish products to the consumers.

Value adding of fishery products by fishers and direct selling through the use of information technology can raise the income of fishers as well as reduce the purchasing costs on the part of consumers because no middlemen are involved in this form of marketing system. In Japan, the young fishers group at Minamikayabe, Hakodate City, Hokkaido has been efficiently promoting the direct sale of fishery products by establishing a website. Known as the "Konbu Owner's Website", the main objective of this website is to increase the sale of Konbu.

Kelp or "Konbu" in Japanese is the edible seaweed *Saccharina japonica* (*Laminaria japonica*) of the family *Laminariaceae* which is widely eaten in East Asia. Konbu is usually cultivated on ropes in the seas of China, Japan and Korea. In Japan, Konbu from Hakkodate is very well known to be the best in terms of quality and taste.

Introduced via various types of promotional materials, the "Konbu Owner's Website" (**Box 1**) has been used and utilized by many fishers to advertise their products, facilitate



Drying, processing, and packaging of Konbu in Japan (clockwise)

