Training and Mentoring to Empower the Coastal Community in Saramaake Village, East Halmahera, North Moluccas of Indonesia

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Abstract

Saramaake, as one of the villages in Kao Bey of East Halmahera, is known as a fish-catch production area, with an anchovy (*Stolephorus* spp) as its main catch commodity. These training and mentoring on community empowerment activities were carried out from June 2017 to January 2018, aimed to improve knowledge and skills on lift-net fishery, fish quality, marketing of fish products, and institutional development (cooperative). The training and mentoring were carried out through presentations of theory, discussions and practicals for participants (n = 19 persons; consisting of 9 fishermen and 10 fish processors). Based on the activities conducted, the community has a better knowledge and skills of the lift-net fisheries and were able to process marine products better quality. The marine products are also marketable and distributed to a wider area. Through better knowledge and skills, the fishery activity in this area is greatly enhanced.

Keywords: Training and Mentoring, Coastal Community, Empowerment, Saramaake Village, Indonesia

Introduction

The state of Indonesia lies in the tropics, and most of its territory consists of marine waters and approximately 15,000 of islands. Various biological resources widely contained in the marine waters have the potential to be utilized and developed in the framework of welfare of the community and increase foreign exchange income of the country. One of the marine biological resources is fish that can be grouped into small pelagic fish, large pelagic fish and demersal fish. Anchovy (*Stolephorus* spp), being one of the small pelagic fish is quite abundant in Indonesian waters. Production of anchovy in Indonesia in 2010 reached 175,726 tons (with the production value of about IDR 2,160 billion). The production of the anchovy is the highest after the value of the production volume of the scad of 351,216 tons (with the production value of IDR 2,506 billion), skipjack tuna of 329,949 tons (IDR 3,232 billion), Indian Mackerel of 276,110 tons (IDR 3,394 billion) and herring of 196,067 ton (IDR 1,219 billion) (The Ministry of Marine Affairs and Fisheries, 2011). Anchovy is marketed

to almost all parts of Indonesia as well as to other countries-making Indonesia one of the export countries in the world countries (*i.e.* Singapore, Malaysia, China, Taiwan, America and Japan).

Anchovy has a wide distribution area from the Indo-Pacific region to the Tahiti and Madagascar areas. The fish distribution area in Indonesia is between 95^0 E-140^0 E and 10^0 N-10^0 S, covering almost the entire territorial waters of Indonesia. The fish is usually caught by fishermen using several types of fishing gear, such as surface trawl, Danish seine, purse seine, fixed gill net, three-layered net, stationary lift-net, boat lift-net, and other fishing techniques. The anchovy has a good nutritious, as well as the selling price of the fish is also affordable for the community.

Community empowerment is an effort made by the government and corporate agencies, in order to improve community knowledge, skills, access, and income. The community empowerment activities in Indonesia are traditionally carried out by both government and private companies. These activities are carried out in order to improve the quality of the surrounding community (Ife, 1995). At the time of study, fishermen and fish processors in this village were not yet skilled at processing fish anchovy, which was generally only dried. If the rainy season, the anchovy was also a lot of moldy, because it did not get enough heat. The fishermen also didn't know much about lighting installation. Furthermore, knowledge about the processing, marketing and working together in cooperation of the fishermen and fish processors was still lacking. In order to improve human resources quality, community empowerment in Saramaake Village has been conducted. The village has an area of about 4,000 ha, located in South Wasile District (East Halmahera Regency) and is one of the most important coastal villages in the region. Of the total population of 200 families, 60% are lift-net fishermen using with the main catch being anchovy (Budi, Herawati, Purnomo, Sehabudin, Sulistiono, & Nugroho, 2017). The catch is generally dried and sold in sacks to village collectors, which are then sent and sold to Ternate City of North Moluccas Province.

Community empowerment activities for fishermen in the territory of Indonesia have been conducted quite frequently by some researchers (and community developers) either through cooperation with private companies, or with the government. Some community activities in the coastal area were conducted, i.e. community program evaluation in the Tobelo Sub-district of North Halmahera Regency (North Maluku) that improved coastal community welfare through economic and social institutional approaches (Sipahelut, 2010); empowerment of fisherman through the efforts of traditional processing of presto fish, fish balls, fish noodles, shredded fish (dried fish meat) and fish sauce that has significant influences in improving the welfare of the fishermen families in Lekok District of Pasuruan Regency (East Java) (Nugroho, 2013); increase in the number of communities understanding the method of processing and packing processed fish products, and the partner group, succeeding in making processed fish products in ready-to market packaging in Rao District of Pesaman Regency (West Sumatera)(Yanti & Permata, 2016); empowerment of coastal communities in implementing the catfish culture program, and the fish harvest can be sold in the market and profitable in the coastal area of Indramayu Regency (West Java Province) (Darmansah, Sulistiono, Nugroho, & Supriyono, 2016a); community empowerment in Karangsong Village of Indramayu (West Java Province) to develope milkfish and shrimp policultures (Darmansah, Sulistiono, Nugroho, & Supriyono, 2016b); community empowerment in general fishing activities through training and mentoring in Indramayu Regency of West Java Province (Ma'arif, Zulkarnain, Nugroho, & Sulistiono, 2016); community empowerment through fisheries, livestock-animal husbandry, agriculture, food processing, institutions, and marketing in Gebe Island, North Moluccas Province (Sulistiono, Priyanto,

Saharudin, Adiwirman, Syah, Setiono, & Zulkarnaen, 2012; Sulistiono, Priyanto, Sunarminato, Sumarti, Syah, Priyambodo, Zulkarnaen, & Herawati, 2015); and community empowerment through grouper fish farming activity in Gebe Island, North Moluccas (Insani, Kadir, Utomo, Afandi, Sulistiono, Nugroho, Murhum, & Manan, 2017). In the Saramaake area, several community empowerment activities have also been conducted (cooperation between universities and companies) including the initiation of marine product market development (Sehabudin, Budi, Herawati, Purnomo, & Sulistiono, 2017), improvement of quality and diversification of marine products (Budi et al., 2017), and management of community empowerment activities (Sulistiono, Setiabudi, Herawati, Purnomo, Sehabudin, Nugroho, Handayani, Sudarmanto, & Arisyono, 2018). Nonetheless, there has been no study to gather information on the community empowerment activities focused on training and mentoring conducted in East Halmahera of North Moluccas Province, with the aim at improving the knowledge and skills of the fishermen and fish processors, for the quality of the processed products, marketing of the products and institutional development in order to empower coastal communities.

Methods

Time and Location

Training and mentoring activities for the community empowerment were conducted over 7 months, from June 2017 to January 2018 in Saramaake Village, South Wasile District of East Halmahera Regency of North Moluccas Province, Indonesia (Figure 1).

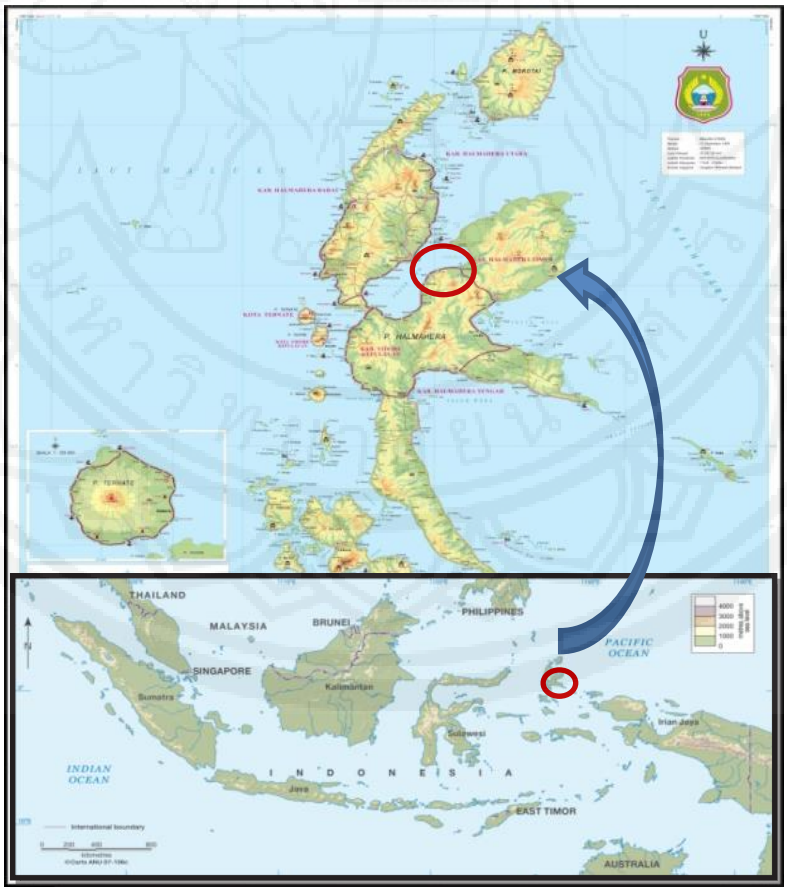

Figure 1 Location of Training and Mentoring for the Community Empowerment Activities in Saramaake Village, East Halmahera of North Moluccas Province, Indonesia

Materials and Equipment

Materials needed for training and mentoring activities included slide materials (for the delivery of theory), anchovy fish and other marine products, various materials for processing and packaging (wrapping materials, plastics, aluminum foil, and labels) (for practical activities). Equipment required for training activities included LCD computer monitors for the delivery of theory and equipment for handling, processing (kitchen utensils), and packaging (sealer) for practical activities.

Method of Program's Implementation and Data Analysis

The method of training and mentoring activities in general was conducted through the delivery of theory and practice. The training activities for fishermen and fish processing communities (n = 19 person) were conducted over the periods June 9-10th, August 11-12th, September, 5-6th, and November 10-11th, 2017. The training materials consisted of the processing activity (June), followed by lift-net fishery training (August), packaging training (September 2017), and human resource strengthening and cooperative management (September 2017), conducted by the experts assisted by the mentors (in the field). Meanwhile, the mentoring was conducted from June 2017 to January 2018 by two locally based mentors.

Pre-testing and post-testing were conducted on some training topics to estimate the knowledge level of the participants in boat lif-net fishery, cooperative management and financial management of a cooperative, while other topics were evaluated descriptively, *i.e.* fish processing (anchovy chili pastes), packaging and labelling and market development. The data obtained were analyzed descriptively and calculated average participant points using Microsoft Excel program for participant points and presented through the figures.

The evaluation of capture fisheries training activity (especially for the lamp installation) was carried out through pre-test and post-test. Some of the questions related to fisheries activities included 1. Definition of capture fisheries using lights in fishing operations, 2. Types of lights used in fishing, 3. Fish species caught in lift-net fishing, 4. Light colors that attract anchovy fish, 5. Light color that attracts the species of Indian mackerel and tuna, 6. Factors that affect the catch of lift-net fishing, 7. Fish species that are not caught in the lift-net-fishing, 8. The number of fishermen who participate in the lift-net fishing, 9. Large investments in lift-net fishing, and 10. Handling of fish caught on the lift-net fishing. In evaluating the cooperative management training, several questions were conveyed consisting of 1. Definition of cooperatives, 2. Objectives of estblishing cooperatives, 3. Cooperatives foundation, 4. Cooperatives member, 5. Cooperative ownership, 6. Benefits of cooperatives, 7. Member requirements for cooperatives establishment, 8. Cooperative models, and 9. The highest power in cooperatives. While some questions related to cooperative finance training consists of 1. job description of the cooperative management, 2. The rights of cooperative members, 3. Cooperative organization tools, 4. Cooperative income obtained in one year, 5. Cooperative owners, 6. The highest power in cooperative organization, 7. Members' meetings, 8. Decision of member meetings, 9. Activities carried out and details of costs for one year operational, and 10. The section of cooperative financial records.

Results and Discussion

Result

The General Condition of the Lift-Net Fisheries in Saramaake

The type of fishery activity in Saramaake generally is a catch fishery (anchovy) which is conducted using lift-net boats. In this village, the lift-net' sizes vary, some of which are small, medium, and reasonably large.

The costs of manufacturing also vary, from approximately IDR 40 million to IDR 100 million. The numbers owned by the fishermen also varies (1-3 lift-net per person) (Budi et al., 2017). Generally, the fishermen catch approximately 09.00 pm, with a catch period per trip of 6 hours (00.00-06.00). In a month, the duration of fishing on average is 14 days, or 21 days at the most. The production of lift-net fishing varies from 50 kg to 150 kg of dried anchovy per night. The catch product (as dried fish) is mostly sold to local collector in the village.

The dried anchovy collected by one collector from January to December 2017 is presented in Table 1. The table shows amounts of anchovy vary considerably, being reasonably high in March (45 tons), but declined in May (20 tons), and rose to reasonably high in June (65 tons) and September (75 tons), and then declined in December (15 tons). The catch of anchovy depends on several factors, such as the sea wave, wind condition and rainy season.

Table 1 Volume Production of Anchovy in Saramaake Village from January to December 2017

Month	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Production (ton)	35	25	45	30	20	65	40	37	75	45	20	15

Training and Mentoring

Training activities were carried out on fishermen and fish processors for several times from June to September 2017, with 9 participants (fishermen) and 10 participants (fish processors), a member of Akesalaka Monge Bahari Cooperative. The training material consists of capture fisheries (boat lift-net fishing focused on lamp instalation), fish processing (anchovy chili pastes), packaging and labeling of the products, market development, improvement of the capacity of cooperative human resources including cooperative management and cooperative financial administration. While mentoring activities are conducted from June 2017 to January 2018.

- **Boat Lift-Net Fishing (Lamp Instalation)**

Training on lift-net fishing was carried out at the Production House of Saramaake Village in August 2017. The training had been carried out, with the materials of the theory (Figure 2), and the practice (Figure 3) as well as the filling out of the questionnaire on fish catching and the pre-tests and post-tests. The theory consisted of 4 topics, namely capture fisheries and their development, boat lift-net fishery, Fish Agregating Devicest/FADs and Lift Net Fish Agregating Devicest/FADs, and squid attractors. The practical training given included simulation of electric installation for the boat lift-net unit. The questionnaire and the pre-test and post-test data were given to the trainees.

This activity involved 7-15 fishermen who are the board members and members of the Akesalaka Monge Bahari Cooperative. This activity was conducted 3 times, on 11 August 2017 (15 participants), on 12 August 2017 (8 participants), and on 12 August 2017 (7 participants).

Figure 2 Training Activities on Boat Lift-Net Fishing in Saramaake Village, East Halmahera

Figure 3 Practical Training Activities on Boat Lift-Net Fishing (Repair of the Lamp of the Boat Lift-Net) in Saramaake Village, East Halmahera

During the training activities, the participants were engaged in active discussions on the training materials provided, both in theory and in practice. Practical training approach was focused on lamp maintenance to improve longevity on the boat lift net. Some alternative solutions that can be a reference for the installation of lift-net lamps include:

1. Use of voltage stabilizer with a certain capacity that can provide stable current power from the boats diesel generators.

2. Use of lampshade made of aluminum for the lift-net with a cable safety sealer to protect the lamp from water and maintain the strength and durability of lamps for longer use

3. Use of cable with minimum size of 2 x 1.5 with steel wire (not fiber) with a stronger cable connection system.

4. Use of an independent diesel-fueled generator is recommended to obtain a stable output power of electric current.

In the training activities, some matters related to the strengths and weaknesses of the fishermen were identified. The fishermen generally have good knowledge of fish behavior related to light and catching technique. However, there are some weaknesses including the electrical installation, handling of catches, and marketing price point (Table 2).

Table 2 The Existing Condition of Fishermen Using Boat Lift-Nets in Saramake Village

Strengths	Weaknesses
1. Knowledge on the behavior of fish catch to light color.	1. Techniques on the handling of the fish catch (without using ice or directly boil them)
2. Knowledge on the fishing techniques	2. Technical electricity installation - Voltage stabilizer has not been used - Ineffective use of lampshade (using pails/plastics) - Use of Diesel generator fuel (bensin)
3. Reasonably good amounts of catches (10-50 kg/trip)	3. Ineffective fishing operation (6 hours)
	4. The selling price of dried anchovy from the fishermen to the local collectors (the middlemen) (IDR. 21,000-IDR 23,000/kg)

Evaluation activity to the training participants for the repair of the lamp installation was conducted by filling out the questionnaire for the catching technique and by doing the pre-tests and post-tests on lamp fishery

knowledge. The size of the boat of lift-net varied *i.e.* a LOA boat size of 5 to15 m, and it was not equipped with a main engine. The movement and displacement of the boat lift-net were exmined using a boat with a 40 HP (Horse Power) outboard motor engine. The size of the boat lift-net depends on the construction of the reinforcing wood on the deck. The size of the boat lift-net also varies, in which the size of the deck side of the lift net is between 12 m and 20 m. The size of the net will follow the size of the deck side of the lift net with a net depth between 15 m and 17 m. The diesel generator has an electrical power output between 3,500 watts and 5,000 watts. The type of lamp used was a TL (tubular lamp) lamp (energy saving) using 42 watts-50 watts of power, and the number of lamps used ranged from 30 lamps-90 lamps/boat lift net.

The evaluation result of the pre-testing and post-testing of the training shows that the participants have better knowledge on capture fisheries specially boat lift-net lamp installation (Figure 4). It shows on the values of both tests that is around 5.1 and 6.9 points, on average, respectively.

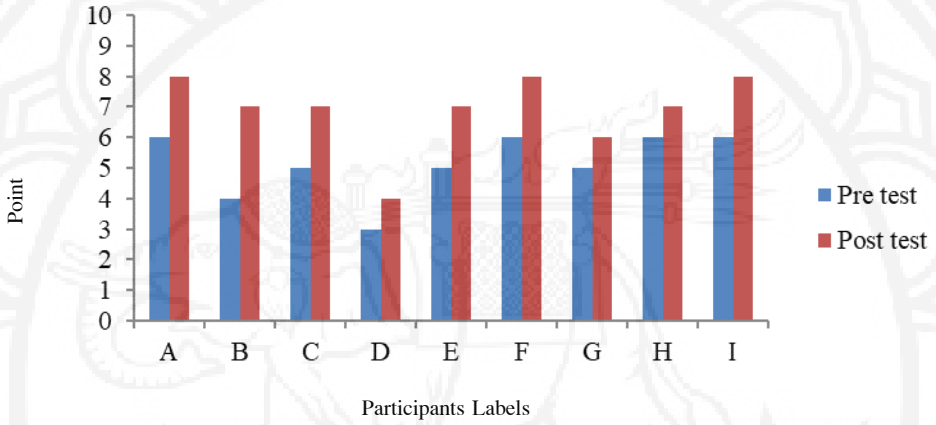

Figure 4 Evaluation Results of the Pre-Tests and Post-Tests on the Capture Fisheries Training

- **Fish Processing (Anchovy Chili Pastes)**

Training on the processing of anchovy (making chili anchovy pastes) was conducted at Saramaake Village Production House from 9 to 10 June 2017. This activity was followed by some participants, especially the wives of fishermen in the village. This training activity was conducted by giving materials in the form of theory and practice.

There were 10 participants present (1 group) in this training activity. Prior to the training, each was given a questionnaire related to the material used. The result showed a wide range of level of competension. Because of this, uniform material was given to provide knowledge that can add insights. Product development (processed fish) needs to be done in order to diversify fish products. With this processed product, the sale of anchovy is expected to increase and the profit margin is also expected to become reasonably large.

The target group of Akesalaka Monge Bahari Cooperative was given training to develop anchovy chili paste products in order to diversify the processed fish products. The process of making anchovy chili paste was according to Karim, Susilowati, & Saokani (2013). There are two variants of anchovy pastes produced, namely, hot anchovy paste and extra hot anchovy paste. The anchovy pastes are packed in large and small packing sizes of 165 g and 150 g, at the prices of IDR. 25,000 and IDR. 20,000, respectively. Therefore, there is diversity of processed fish products so that consumers have a choice when they are interested in buying

the products. This anchovy chili paste product is made from small or medium size of anchovy fish that has been fried and then a mixture of fine spice condiment is added during cooking. This pasta-shaped paste product is more suitably packaged using jar-shaped packaging made of a PET plastic material. The jar-shaped packaging is selected on the basis of consideration that the paste products are easily put into the packaging, and it is also easy to take the paste from the packaging because it has a wide opening.

The training on the making of anchovy chili paste (Figure 5) was conducted at the Akesalaka Monge Bahari Cooperative room in Saramaake. Anchovy preparation was carried out by sorting small anchovies to be used for paste and separated from the medium and large sizes of anchovies. The heads of the small anchovies were removed, and the headless fish were soaked with 10% of salt solution per weight/volume. During the soaking, the anchovies were expected to taste a little salty so that they could be combined with a spicy paste. The anchovies were then drained and fried dry with medium heat. Preparation of paste ingredients was done by removing the chili stalks, peeling the onions and garlic, cleaning the tomatoes and washing them clean. The paste ingredients were then steamed until they became soft (10-20 minutes). The ingredients consisting of chilies at the bottom with the onions, garlic and tomatoes on top of the chilies which were then steamed in the pan. Following this, all the ingredients were ground using a blender and then cooked in a frying pan.

Figure 5 Discussions on Product Diversification (Chovy Chili Pastes) by the Saramaake Community

The cooking was done at medium heat until the chili ingredients for anchovies were boiling, and the stirring was carried out continuously until the liquid evaporated and the paste thickened. Then, some vegetable oil was added to fry the paste until it was further thickened, and some sugar and salt were mixed with the paste. The fried anchovies were put into the paste in the final stage of frying. By the time the chili ingredients were to be removed from the stove, the anchovies were added into the paste, and they were constantly stirred. The packaging of the anchovies was done when the chili paste was warm and put into the plastic bottles that had been sterilized beforehand. Paste of anchovies with cayenne pepper produced 9 (150 ml) bottles, and with curly chili, it produced 11 (150 ml) bottles (Figure 6). In this activity, participants did not understand well about anchovy chili pastes (but know commonly about chili pastes) before training. The trainees understand the anchovy chilli pastes process after training, included chili pastes formula, taste level, and market prospects.

- **Packaging and Labeling of the Products**

The training of processed fish packaging involved the fishermen wives in Saramake Village, and there were 15 participants who attended this training. Implementation of the training was arranged according to the drying schedule of anchovies. This training activity was held from 5 September to 6 September, 2017. The participants were very enthusiastic to follow the training. Training activities were undertaken by the processed product development group were carried out to obtain the optimal product composition. After having found the

right composition and dosage for the production of processed products, the group prepared an SOP (standart operational procedure) to produce anchovy processed products whose quality and taste did not deteriorate.

Packaging not only serves to wrap the products of anchovy but also to protect the products inside the packaging so that they have a long shelf life (Marsh & Bugusu, 2007). Therefore, it is necessary to provide knowledge on the characteristics of products to be packed and on the characteristics of packaging material to be used. In this regard, the fishermen in Saramaake Village were trained in the introduction of packaging materials and labels.

Packaging also serves to inform the consumer. A regulation that obliges the manufacturer to provide information on products it sells on the packaging label is regulated by the government through BPOM (The National Agency of Drug and Food Control of Republic of Indonesia). Therefore, a label provides information on products sold in a packaging, brand, ingredient composition, nutritional value (AKG-Indonesian), expiration date, number of License for Household Industry (PIRT-Indonesian) and so on. During the training, the fishermen were asked to design labels, define brands, and conduct proximate and nutritional value analyses, and expiration tests to make the information available to retailers and consumers. The packaging and labeling were new and important topics for the participants who gained knowledge, to produce anchovy chili pastes and then package and label the product.

Figure 6 (a) Anchovy Pastes with Chili; (b) Anchovy Pastes with Cayenne Pepper; (c) Labelled Anchovy Chili Pastes' Bottles

- **Market Development**

Anchovy from the village of Saramaake Village is marketed by 4 main lines: sold through the local collectors or the inter-island collectors, sold directly by fishermen at Saramaake and sold to small traders visiting this place (Sehabudin et al., 2017). Prices applicable to the local collectors for the big size, medium size and small size of anchovies are IDR 25,000/kg, IDR 30,000/kg, IDR 40,000-50,000/kg, respectively. The local collectors deliver the anchovies to Ternate City by truck with a capacity of 6 tons per shipment.

In one month, the delivery to Ternate City is conducted as much as 3 to 6 times. The shipping costs IDR 3.5 million/trip, and the margins obtained by local collectors are between IDR 3,000 and IDR 5,000/kg. As much as 80% of the production of dried anchovy is sold to the local collectors who are agents of wholesalers on inter islands, and their warehouses are located in Ternate. A small number of the fisherman sell their anchovy directly to the area around Saramaake or to small traders who come to the village. The anchovies are sold in markets in the East Halmahera area like in Buli market and Maba market. In Buli market, the price of medium size of fish is IDR. 5,000/500 g., and for the small fish, it costs IDR 8,000/500 g., or about 2 times higher when compared to the price of anchovy.

The processed fish in the form of anchovy chili paste is sold in several areas and shops including Buli mart (Buli), Antam Cooperative (Buli), and shops at the ferry port (Ternate). The production of anchovy has been carried out since the completion of the training activities (around June 2017). The first anchovy chili pastes production was carried out by a group of cooperative members on July 17, 2017, producing 71 bottles (with the value of IDR 2,016,000). The second production was done on August 17, 2017, producing 47 bottles (with the value of IDR 1,932,000). The third, fourth and fifth production was respectively conducted in September, October and November 2017, producing 102 bottles (IDR 2,856,000), 31 bottles (IDR 11,200,000) and 15 bottles (IDR 420,000). Therefore, for 5 months of production in 2017, as many as 266 bottles of anchovy chili paste products were produced with the total value of IDR 8,344,000. The general condition of chili paste production is presented in Table 3. The production of anchovy chili paste in 2017 was a trial production with the limited production facilities and still in the certification process. The data shown in Table 3 are sufficient and indicate potentials. However, the production capacity in 2018 needs to be improved because PIRT and "halal" (permitted by Islamic Rule) certification have been obtained so that there is no longer any limit to develop the market. Increasing production and sales capacity is expected to increase the incomes of the cooperative and its members. The incomes of members of cooperatives are expected to increase because these will be able to improve their welfare.

Table 3 Anchovy Chili Paste Production of Akesalaka Monge Bahari Cooperative in 2017

Month	Production (Bottles)
Jul.	71
Aug.	47
Sept.	102
Oct.	31
Nov.	15

- **Improvement of the Capacity of Cooperative Human Resources**

  a. Training on Cooperative Management

The knowledge, understanding and skills of the management, supervisors, and members on cooperatives are still limited, so that there is a need for capacity building of cooperative human resources through training and mentoring. Capacity building activities of human resources of managers and members of Akelasalaka Monge Bahari Cooperatives included the trainings on cooperative management, administration and financial reporting. The training was conducted at the Secretariat of Cooperatives attended by the management, supervisors, and members of the cooperative.

Cooperative management training aims to provide understanding and skills to the cooperative management and members regarding the procedures for running cooperatives (cooperative management) in accordance with the applicable Statute (AD-Anggaran dasar-in Indonesian) and Bylaws (ART-Anggaran Rumah Tangga-Indonesian). The training of cooperative management was attended by 14 people consisting of board members, supervisors and members. The training began with a discussion on bylaws of Cooperatives whose draft had been prepared beforehand. The issues discussed and agreed upon in bylaws included member requirements, member meetings, annual member meetings (AMM), election of the management or supervisors and their term, distribution of the remaining income from the operations, and applicable sanctions in case of violation.

In the training, bylaws discussion, explanation of Cooperative Organizational Structure of Akesalaka Monge Bahari Cooperative, duties and roles of the management and supervisors, members' rights and obligations, cooperative capital, member meetings, work and business plans, and member's participation were also conducted. Regarding the member participation problems, there are several problems that have been mapped out; the objectives of the cooperative may not be in accordance with the wishes of some members, and the existence of cooperatives can potentially be a competitor to members own business activities.

According to the pre-testing and post-testing result, results show that participants have a better knowledge on the cooperative as shown from the average of the pre-test and post-test values (6.2. to 7.0 from a maximum 10 point) (Figure 7).

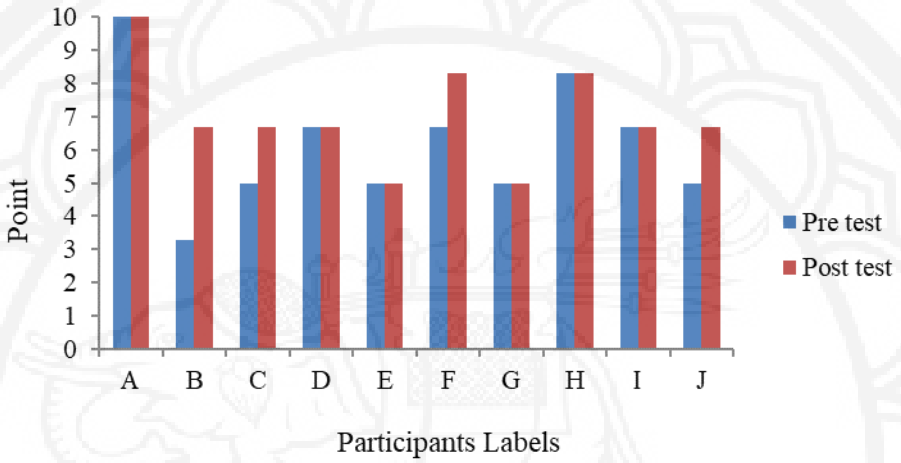

Figure 7 Evaluation Result of Pre and Post Testing on the Cooperative Management Training

b. Training on Cooperative Financial Administration

Financial administration training was initially devoted only to the managers, especially the treasurers, but it turned out that the interest of members in the training was high enough to attract six participants. The administrative training was conducted at the Secretariat of Akesalaka Monge Bahari Cooperative. Training began with an explanation of the importance of recording of all financial activities undertaken. In addition to the records by the treasurers, it is necessary to provide evidence of every transaction made. In this training, the forms for proof of transactions commonly carried out by cooperatives such as proof of cash receipt, evidence of payment of raw materials or services were given.

After material on recording for all transactions which were conducted and completed with receipts being given, the training was continued by filling in the financial records. Formats ranging from journals, ledgers, income statements, and cooperative balance sheets were prepared. The documents were created and prepared in order to facilitate management, especially that by the treasurer in reporting cooperative financial records. In an effort to fill out the financial forms, the field facilitator was also provided with sufficient cooperative knowledge on the form on the previous visit.

According to the result of the pre-testing and post-testing, we can see that participants have a better knowledge about the cooperative financial system as shown from the average of pre testing and post tgesti values (5.2. to 7.0 from a maximum 10 point) (Figure 8).

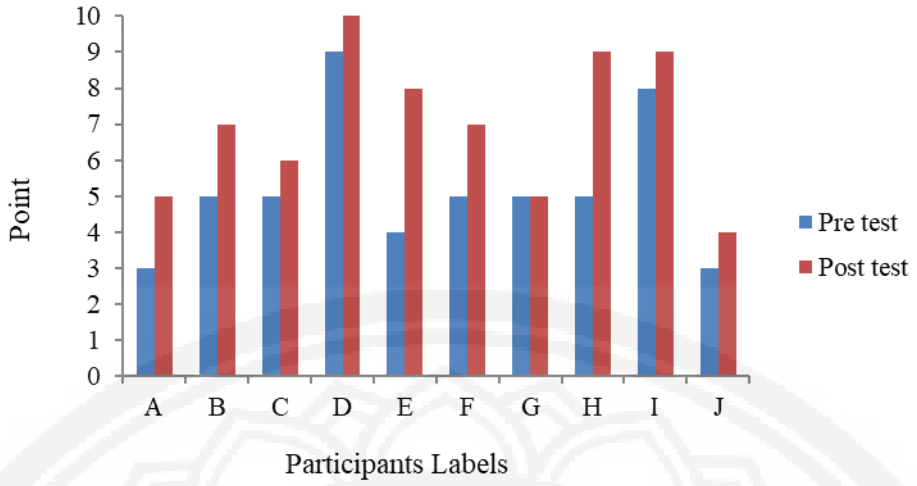

Figure 8 Evaluation Result of Pre and Post Testing on the Cooperative Financial Administration Training

Discussion

Community empowerment can be interpreted as an effort to encourage the community to be able to participate actively in all aspects of their development. Community empowerment can only occur when the citizens participate. An empowerment can be considered successful as an activity of community empowerment if the community becomes the development agent as the subject, not the object. Community empowerment activities can be interpreted as a planned process to increase the scale of the target being empowered. Therefore, community empowerment is an effort to continuously improve the dignity of the lower sector of society which is unable to escape from the poverty trap and backwardness. Corporate Social Responsibility (CSR) program is a form of corporate responsibility to the society and the environment. Every company has a responsibility to develop the community and its surrounding environment through social programs, including the programs in education, economy, health and environment.

Empowerment through CSR activities is not philanthropy but seeking solutions to social, economic and environmental challenges that ensure the sustainable of development (Vasilescu, Barna, Epure, & Baicu, 2010). The CSR activities reflect the need to protect local values and promote a sense of solidarity and cohesiveness through collaborations with relevant stakeholders and proactively promote public interest by promoting economic growth and development (Pop, Dina, & Martin, 2011).

The activities on training and mentoring of community empowerment in Saramaake Village can be run by involving various parties that are related and support each other. PT Antam as a company has its social responsibility to the surrounding community in cooperation with IPB in realizing its CSR program. The success of the program was influenced by the level of participation of the participants in the overall implementation of the program. According to Nasdian (2014), participation is an active process where initiatives are taken by the citizens of their own communities and guided by their own way of thinking using the means and processes (institutions and mechanisms) where they can assert control effectively.

Capture fisheries using lift-net is quite common in some areas of Indonesia. Lift-net fisheries in some locations become the major source of income for the local fishermen. In Java Island, there are many lift-net fisheries found in the areas of Jakarta Bay and Pelabuhan Ratu Bay. In other areas, they are also found in the waters of South Sulawesi, Southeast Sulawesi, Moluccas and North Moluccas. Although this type of fishing is

largely operated in some areas, it is seasonaly dependent. In the Pelabuhan Ratu region, fishing seasons are different to those in Jakarta Bay, Sulawesi, Moluccas and North Moluccas.

The lift net fisheries of the Saramaake are the major fishing activity. The income of the fishermen (not the owner) in Saramaake is relatively high. Based on the observations in the field, the income per fisherman was around IDR 300,000 or IDR 350,000 per night. If the fishing operations using lift-net is last for 20 days (in a month), then the fishermen's income is estimated to reach between IDR 6,000,000 and IDR 7,000,000 per month. Compared to the previous year (2016) (Sehabudin, Budi, Herawati, Purnomo, & Sulistiono, 2017), these fisheries have increased significantly, especially in the number of lift-net, the number of people involved, and level of production

In the processing of anchovy, in 2017, the community had been trained to make some products such as squid cracker, herring jerky meat, and anchovy chili paste. Of the three materials presented, the anchovy chili paste is the product chosen to be developed in the Saramaake region. The situation was based on the level of constraints that the people could master in making a product. The Akesalaka Monge Bahari Cooperative develops anchovy chili paste products in order to diversify the products of processed fish. This is done by the community so that there is a diversity of processed products of anchovy the consumers can choose from. In addition, product diversification can also increase sales that will ultimately increase the income of the cooperative.

Implementation of the production process of processed products that has been running well shows that the processing agents have mastered the technology of turning anchovies into paste products. Therefore, the production process of the products must follow the Appropriate Way of Food Production for Household Industry by paying attention to hygiene condition of the production site and equipment so that the quality and safety of the anchovies produced can be guaranteed, and they can be consumed free from contaminants of microorganisms or other unwanted foreign objects and so as to increase the shelf life and retain quality.

Anchovy pastes products produced by the members of Akesalaka Monge Bahari Cooperative have been sold to the public. The products obtained their authorized license from the institution. In accordance with Decree of Drug and Food Supervision Bodies (BPOM-Indonesian) (No. HK.03.1.23.04.12.2205) Year 2012 on Guidelines for the Provision of Food Production Certification of Household Industries, the distribution permit was given in the form of PIRT (in Indonesian) certificate by Health Department of East Halmahera Regency based on the authority obtained from Drug and Food Supervision Bodies (Badan Pengawas Obat dan Makanan (BPOM), 2012). Another product certification that the Akesalaka Monge Bahari Cooperative needs to obtain is a halal certificate. Halal certification of food products is not required by the government (BPOM-Indonesian) such as PIRT distribution permit for household food industry but halal certification of food products is highly recommended. Through the meeting at the commission of fatwa of LPPOM, MUI Ternate decided to give halal certification to the processed fish products produced by Akesalaka Monge Bahari Cooperative and for the anchovies with chili paste was assigned the number 26200002971117.

From the training and mentoring activities conducted, there are a number of changes related to community knowledge on capture fishing using lift-nets, processing, marketing and institution (cooperative). In addition, the target skill level is also better, especially in the capture fisheries (installation of lamp for the boat lift-net), and product processing. Nevertheless, these activities still contribute little to general revenue, because the products produced are still small scale. In the future, processing activities can be developed with larger levels of production.

Conclusions

The training and mentoring of the coastal communities in Saramaake Village were implemented from June 2017 to January 2018. Based on the activities undertaken, the fishermen and fish processing communities have better knowledge and skills, especially in lift-net fishing, fish processing (anchovy paste), marketing, and institution operation (Cooperative). In capture fisheries, the fishermen have been able to improve the lamp installation of the boat lift-net with a better system. In processing products, the communities have succeeded in producing a processed product *i.e.* anchovy paste with packaging and labeling, and halal certification labeling, so that these products can be traded safely to the general community. The marine products are also marketable and distributed in a wider area. Through good knowledge and skills, the fishermen and fish processor communities can better manage their businesses independently.

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