Empowering fisherismen’s wives in diversifying fishery products in Tanjung Medang Village, Bengkalis District, Riau, Indonesia

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Abstract. Tanjung Medang is one of villages which have high fishery potency in Rupat utara district. Some of people in this village are fisherman (235 person) of 95 families. Most of fisherment wives do not have additional job beside as house wives. To accelerate the economic development of people in Desa Tanjung Medang base on local potency is increase knowledge in product diversification of fish products. Method was lecturing and practical work, training, workshop with local people in order to produce qualified and nutritions fish products by appropriate technology, transferring knowledge and instruction to fisherment wives concerning production method in accordance with the standard. Twenty participants of fisherment wives involved were very enthusiasthic and active, 20 participants participated in preparing all fish product. Discussion between participants and trainers was very intens, mainly, if these was problems in preparing the fish products. It was know that 15 participants had never got such training, two of five participants who had been trained before have fish cracker businiss. Most of the fisherment families eat fish everyday, and only one family have fish three times in a week. Seventeen participants said that the training was very usefull and three participants said it was useful.

1. Introduction
Fisheries is one of the resources that can be recovered and a productive economic sector that can be used as a basis for improving people's living standards. The fisheries sector includes fishing activities, fish farming and other biota, as well as processing fishery products. Tanjung Medang Village is one of the villages in North Rupat District. The condition of land toography in this village is rather hard sandy clay and there is also peat soil and swamp land, most of the land is used as oil palm plantation land. The area of Tanjung Medang village is 66 km2. Tanjung Medang village consists of 2 hamlets with a population of 2,575 people consisting of 597 heads of families [1]. Tanjung Medang Village is an area that has potential fisheries that are very prospective to be developed, this is supported by the majority of its territory being coastal. This village is directly face to face the Melaka Strait. This village is a fishing area for people who work as fishermen. Fisheries are a source of livelihood for
most people, especially in the fish catching. Most of the people of Tanjung Medang village work as fishermen, which is 235 people with 95 families, while cultivation is only 5 families. With fisheries production 58,980 kg for export, 59,202 kg of inter-island sales, especially to the city of Dumai. Population growth from year to year will open business opportunities in a variety of food uses, one of which is food derived from derivatives or diversified fish base material. Diversification of processed fish products has good prospects and economic improvement efforts for fishing communities, with higher prices, longer mileage and longer durability. The existence of family members of fishermen (wives and children who are old enough) to develop a diversified fishery product business is a good opportunity in an effort to improve the fishermen's economy in Tanjung Medang Village, Riau Province. Tanjung Medang Village is growing in line with the making of this village as a tourist area. This development was also followed by the increasing number of residents living around the area. But the economy of the fishermen's family still belongs to the weak economy.

In addition, the wives and children of fishermen have time to develop. Until now, there was no business diversification of the catch of fishermen in the village. All catches are sold at relatively cheap prices or if not sold will be consumed by fishermen. This condition will open opportunities for families of fishermen to obtain additional income through diversification of processed products captured by fishermen. One of the efforts made is diversification of fishery products which are expected to be able to improve the economy of fishermen families. Meanwhile processing in essence aims to increase the added value of a catch / cultivation, provide longer lasting power and utilize fisheries resources effectively [2]. In general coastal village communities are traditional communities with very low socio-economic conditions which are generally much lower than other fishing communities [3]. Socio-economic conditions of fishermen were seen in terms of the low quality of human resources which included low levels of formal education, lack of skills among fishermen, low membership in cooperatives, lack of ability to use credit facilities, fishing facilities, still relying on traditional fishing [4].

The socio-economic conditions of fishing communities can be said to be of concern. This happens because of the large physical barriers and erratic climatic conditions that make the economic resilience of fisherman households low. Such conditions require all family members to participate in improving the family's economic level [5]. Coastal communities are open to economic development with their potential. The community that has a lower level economy needs attention.

The aim of the study was to find out the types of fishermen's wife's business activities, the benefits of diversified fisheries product training (processed fish in the form of meatballs, crackers and fish nuggets), had or did not follow training in fisheries product diversification from fishermen. Diversification of processed fish products in the form of meatballs, crackers and fish nuggets can be one of the efforts made to improve the people's economy carried out by wives and children of fishermen. Therefore the community needs to be given knowledge about the efforts to improve the economy of fishing communities through diversification of fishermen's catches.

2. Materials dan Methods
The research method used is a qualitative method. By taking 20 samples of fishermen's wives from 95 populations of fishermen's wives as research objects. The parameters observed were the types of business activities of fishermen's wives, Benefits of training, never or not following training. Material enrichment is done by lecturing methods and direct practice. That is the way to diversify the business of fishing catches in Tanjung Medang Village, North Rupat District, Bengkalis Regency. This counseling activity is carried out through three stages, namely lectures, the practice of making nuggets, fish crackers and meatballs and evaluation.

Activities have been carried out in 3 visits to the village of Tanjung Medang. First visit location survey, problem identification, Village leaders meet the determination of trainees, Determination of service time. The second visit was a lecture on the importance of improving nutrition for the community, analyzing the economic business of diversifying fishermen's catch products. Training on
making meatballs, nuggets and fish crackers. Third visit Establishment of making crackers, fish meatballs and nuggets and asset surrender.

3. Results and Discussions
Tanjung Medang village has a vast sea and is directly adjacent to Malaysia so that there are many fish with high economic value. In addition, it also has a very long beach and is a good potential for tourism to be used as land for fish and seaweed cultivation. Tanjung Medang Village is an area that has potential fisheries that are very prospective to be developed, this is supported by a large part of the area being coastal areas and directly facing the Melaka Strait so that this area is a fishing area for people who work as fishermen. With the potential that exists is a source of livelihood for a portion of the fisheries community, especially in the form of fishing business.

At present, most of the people of Tanjung Medang village are fishermen, which are 235 people with 95 families, while the cultivation business is only 5 people with 5 families. Fisheries production 58,980 kg for export. 59,202 kg of inter-island sales, especially to Dumai city with a total production of 118182 kg [1]. The UPTD has set the price of fish caught which varies between Rp. 15,000 - Rp. 80,000. Prices are relatively low when compared to prices in urban areas. Even important non-economic prices are not included in the table at a very cheap price of IDR 5,000 / kg, namely thorn fish, sea urchins and shark fish. This condition makes, how to increase fishermen's income through fisherman's wife by diversifying fishery products.

Tanjung Medang Village has a number of fishermen of 95 people, to facilitate the program, the activity of taking 20 wives of fishermen who attended the training as participants. The training program was held at the Fisheries Technical Implementation Unit office in North Rupat District which coincided in Tanjung Medang Village. From the questionnaire circulated to the participants, it was seen that the participants' education was spread between elementary schools and senior high school graduates (in Table 2). All participants can read well. This situation makes it easy to provide training material to participants. [7] The food crop farming community, socio-economic problems among coastal village communities can be said to be more complex, phenomena of poverty, backwardness, ignorance are more significant among coastal village communities.

The fishermen have small families, most have children 2-5 children, and only 1 family has 5 children (Table 1). The fisherman's wife 3 people have a side business (Figure 1), which is making two fish crackers, and one person as a bride. And 17 people are housewives. The fisherman family loves fish 19 families every day to eat fish and only 1 family eats fish 3 times a week. The fish eaten is the catch of the husband, and set aside for daily food, especially fish that are not economical.

| Fish spesies   | Prices in the UPTD work area/Kg |
|---------------|---------------------------------|
| Big Kurau     | Rp. 80,000,-                    |
| Big Senangin  | Rp. 35,000,-                    |
| Mackerel      | Rp. 35,000,-                    |
| Parang A      | Rp. 30,000,-                    |
| Snapper       | Rp. 35,000,-                    |
| Prawn         | Rp. 70,000,-                    |
| Big Mackerel  | Rp. 40,000,-                    |
| Parang B      | Rp. 15,000,-                    |
| Jenak         | Rp. 15,000,-                    |
| Small Kurau   | Rp. 50,000,-                    |
| Senangin Kecil| Rp. 15,500,-                    |
Small shrimp         Rp. 50,000,-

Table 2. Characteristics of Training Participants

| No. | Parameter                        | Result                      |
|-----|----------------------------------|----------------------------|
| 1   | Age (year)                       | 23-29 (3)                  |
|     |                                 | 30-39 (10)                 |
|     |                                 | 40-49 (5)                  |
|     |                                 | >50 (2)                    |
| 2   | Education                        | SD (4)                     |
|     |                                 | SMP (12)                   |
|     |                                 | SMA (4)                    |
| 3   | Number of children (people)      | 2(4)                       |
|     |                                 | 3(10)                      |
|     |                                 | 4                           |
|     |                                 | 5(1 families)               |
| 4   | Husband's income (Rupiah / month)| 300,000-500,000            |
|     |                                 | 500,000-1,000,000          |
|     |                                 | 1,000,000-2,000,000        |
|     |                                 | >2,000,000(3/families)     |
|     |                                 | (3 families)               |
|     |                                 | (10 families)              |
|     |                                 | (4 families)               |
| 5   | How many times do you eat fish   | 19 families every day      |
|     |                                 | 1 families 3 times a week. |
| 6   | The most preferred activity      | Most likely nuggets, fish  |
|     |                                 | meatballs 20 people        |
|     |                                 | Most likely 17 fish        |
|     |                                 | crackers                   |
|     |                                 | Preferred for 3 fish       |
|     |                                 | crackers                   |

Figure 1. Participant profile according to the business

The number of samples was 20 fishermen's wives and 5 of them had participated in training in fish processing, so 2 of them had tried to make fish crackers as additional income. The training results of 20 participants and stated that they were very useful and wanted to be used at other times (Figure 2), the most preferred were making meatballs and fish nuggets, all participants were very fond, while making fish crackers was only 17 people who were very fond and 3 of them liked only (Figure 3).

The development of community skills improvement programs must be in accordance with the needs and characteristics of the community itself, if the program wants to succeed well [8]. So it's not a program that is completely unknown or new. Furthermore, [9] The benefits of training activities for mothers of households can be motivated to create new fishery products with good and nutritious taste.
These processed products can be used as regional superior products. This will increase the added value of fish and can increase people's income.

![Figure 2. Profile of participants who have attended training](image)

![Figure 3. Profile of participants who feel the benefits of training](image)

In the second training, lectures were held on the importance of eating fish, and the efforts to increase the economy of the fishermen's family and then practice making fish crackers, nuggets and fish meatballs. All guided participants do well.

From the results of the training that has been carried out there are some inputs from participants:

1. Further training is needed
2. Other fishery product training
3. Need to be given capital to open a business
4. Better packaging training
5. Marketing of fishery products

Consolidation of knowledge about making 2 products, which have been done, then the selected product is fish meatballs and nuggets which are truly new products for participants. The participants were divided into 3 groups and the competition for making the two products was made, at the end of the session an assessment was carried out by the team and the winners were given prizes based on the
sense of appearance and the product structure made by each group. To attract the attention of fishermen's wives, economic addition is unavoidable. According to [10] after training there was an increase in the selling value of fishery products from fresh fish at low prices to ready-to-eat products at higher prices, thus affecting the income of fishermen families.

Fishermen's wife has an important role in increasing household income. Women work is to help the family economy. Right now the wife of fishermen has a small contribution in increasing income and realizing family welfare [11].

Fisheries production in good coastal areas will make it possible to develop fishery products as a livelihood [12]. To improve the situation, the Ministry of Maritime Affairs and Fisheries (KKP) through the Directorate General of Processing and Marketing of Fishery Products has carried out and continued various pro-people programs through increasing supply chain and value chain management, in the form of increasing production of high value-added fish products through increased business capacity Small and Medium Enterprises (UKM) and processing industrialization. As is known, that the value of national exports of Indonesian fisheries in 2011 amounted to US $ 3.5 billion, up by 22.95 percent from the value of exports in 2010 (KKP, 2012).

4. Conclusion
The results of the study show that most fishermen's wives do not have a side business in an effort to increase the income of the fisherman's family. The fishermen's wives benefit from the training on diversifying fishery products (nuggets, fish and meatball crackers). Most of the wives of fishermen have never participated in training in diversification of perikanan products. Of the 3 products introduced only fish crackers they have ever known. To improve the fishermen's economy, the training program for fishermen's wives is one of the good programs to increase community knowledge, and efforts to improve the economy of rural communities. From the results of this study, we recommend that the Bengkalis government be able to conduct an extension program and practice of processed products for fishermen's wives in an effort to improve the economy of fishermen families through a side-effort of catches by fishermen.

Acknowledgment
Authors express gratitude to the Ministry of Research, Technology and Higher Education of Indonesia for financial support under research grant, through the Chairperson of the Research and Community Service Institute at the University of Riau who has funded contract service activities No. 535 / UN. 19.5.3.1 / PT / 01.03 / 2019

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