

# Empowerment of housewives group in sabilambo village through training on making catfish meatballs as an effort to increase family income

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## ABSTRACT

Kolaka Regency is one of the regencies in Southeast Sulawesi Province. The pond area in Kolaka marks it as one of the peculiarities of the region, moreover the majority of the heads of their families have jobs as pond farmers. Inland fishery business remains the main business field, because it is a sector that produces local community consumption as well as fishery product distribution channel business for processing industry companies. In Sabilambo Village, most of the women only work as housewives. In general, a housewife has enough free time to do activities that can increase her income. So far, the catch of this fish is only processed as ordinary kitchen preparations by the women of Sabilambo Village with stir-fried spices and yellow gravy. Meanwhile, the fish will have added value if it is used to be processed into diversified food products. Community empowerment service in Sabilambo Village aims to provide housewives with references to make additional income through training in making catfish meatballs. Improving the insight and capability of human resources is the main thing in economic development in a region.

## KEYWORDS

Housewives;  
Meatballs;  
Village;  
Catfish



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## 1. Introduction

Sabilambo Village is one of the villages in Kolaka Regency, Southeast Sulawesi, central part of Indonesia. Kolaka Regency is one of the regencies in Southeast Sulawesi Province which has a total area of 3,284 km<sup>2</sup>. The area of ponds in Kolaka is one of the peculiarities of the area, especially since most of the heads of their families work as pond farmers. Pond is one of the businesses occupied by the people in this area, while marine fisheries are dominated by skipjack, kite and tuna. However, inland fishery business remains the main business field, because it is a sector that produces local community consumption as well as a distribution channel for fishery products for processing industry companies. In daily production, it is directly distributed to traditional markets. Fish suppliers sell around 400 – 1000 catfish per day. This distribution of sales is in line with the determination of fish prices from suppliers to consumers. For several other types of fish, the distribution and sales flow are almost the same, only in certain seasons the sales of fish sometimes experience a decline in sales due to various factors. For example, when feed prices are high and the weather is bad, this applies to pond cultivators because economically it is not good for pond entrepreneurs in Kolaka Regency, especially for pond entrepreneurs in Sabilambo Village. From these problems, this community service refers to previous research on fish pond management. Genetic parameters and genotypes based on environmental interactions for production characteristics and organ weights of white snapper (*Sparus aurata*) reared in cages were studied by Gulzari [1]. The occurrence and trophic transport of organic compounds in sedimentation ponds for road runoff was investigated by Grung [2]. Sustainable wastewater management in the Indonesian fish processing industry: Bringing governance into scenario analysis researched by Gómez-Sanabria [3]. The diet and eating habits of some Nile fish and their relationship to the availability of natural food sources were investigated by El-Naggar

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Microplastic pollution in the terrestrial environment: Lesser-known sources of diffusion and their implications for plants were investigated by Campanale [16]. Hydroacoustics for density and biomass estimation in aquaculture ponds was investigated by Orduna [17]. The economic contribution of fish and fish trade in Bangladesh was investigated by Shamsuzzaman [18]. Optimizing land management strategies for maximum increase in lake dissolved oxygen concentration was investigated by Crossman [19]. The potential of integrated multi-trophic aquaculture (IMTA) in freshwater ponds in Bangladesh was investigated by Kibria [20]. How to improve the sustainability and inclusiveness of smallholder aquaculture production systems in Zambia was investigated by Avadí [21]. Analysis of growth performance, stress, fatty acid profile and amino acids and cortisol in *Tilapia* (*Oreochromis niloticus*), which was cultured at high stocking density using a raceway pond system was studied by Fatima [22]. Fish out of water: Water parasites in a dry world studied by Lymbery [23]. Cultures of *Macrobrachium rosenbergii* using extracts of native flowers in the hilly area of Koraput district in Odisha, India were studied by Khemundu [24]. Isolation and characterization of *Bacillus* sp. Soil strain BC01 showing strong antagonistic activity against fungal and bacterial plant and fish pathogens was investigated by Foyzal [25].

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The role of deforestation and agriculture on water quality: Correlation of long-term physico-chemical subsurface states of lakes with landscape and habitat structure information was investigated by Holopainen [36]. Tracking changes in aquaculture ponds on the coast of China using Landsat imagery over a 30-year study by Duan [37]. The effect of the fish-rice coculture system on growth performance and muscle quality of tilapia (*Oreochromis niloticus*) was investigated by He [38]. Genetic parameters for growth and survival of the rohu goldfish (*Labeo rohita*) were investigated by Gjerde [39]. The survival and growth of fish (*Lates calcarifer*) under an integrated open culture and mangrove culture system was investigated by Venkatachalam [40]. A participatory field evaluation of the feeding approach used by farmers for the production of tilapia (*Oreochromis macrochir*) in northern Zambia was investigated by [41]. An assemblage of seasonal and aquatic metacommunities in three abandoned gold mining pools in the southwestern Amazon, Madre de Dios (Peru) was studied by Araújo-Flores [42]. Fish for food security and nutrition in Ghana: Challenges and opportunities researched by Hasselberg [43]. Fish-Pak: Fish species dataset from Pakistan for visual feature-based classification was investigated by Shah [44]. Modeling the Impact of Aquaculture in the Rural Economy was investigated by Filipski [45].

Climate change and forest management on federal lands in the Pacific Northwest, USA: Managing dynamic landscapes researched by Gaines [46]. Elodeids, but not helophytes, increase community diversity and reduce trophic status: A case study with a rotifer index in field ponds studied by Kuczyńska-Kippen [47]. MSR-YOLO: Method to Improve Fish Detection and Tracking in Fish Ponds was studied by Mohamed [48]. The methodology to assess the role of individual fish, oysters, phytoplankton and macroalgae in the ecology of integrated production in soil ponds was studied by Cunha [49]. Ovarian development and histological observations of the endangered pygmy snakehead, *Channa gachua* were studied by Milton [50]. In Sabilambo Village, most of the women only work as housewives. In general, a housewife has enough free time to do activities that can increase her income. Because based on observations, most housewives only rely on their husband's income. However, there are also some housewives who have small businesses. But basically a housewife does the main job such as completing housework (cooking, washing, ironing, cleaning the house and so on), then relaxing like watching television or just chatting with relatives and neighbors. The production of land fish in Sabilambo village is quite diverse, such as catfish, tilapia, and tilapia. Fish. So far, the catch of this fish is only processed as ordinary kitchen dishes by the women of Sabilambo Village with stir-fried spices and yellow gravy. Meanwhile, fish will have added value if it is used to be processed into various food products such as meatballs, so that it becomes an idea to empower decent and decent housewives in Sabilambo Village.

In essence, empowerment is a process where individuals or groups are able to increase their capacity and ability to understand, interpret a phenomenon they face and then be able to determine needs and translate them into action by actively participating in the implementation of activities. In the context of empowerment service in Sabilambo Village, this contribution is made so that housewives get references to increase their income through training in making catfish meatballs. Improving the insight and capability of human resources is the main thing in economic development in a region. From the brief explanation, it can be seen that the subject and target of empowerment efforts, as well as the important role of the assistant from academic institutions as facilitators, have been carried out well. In an integrated manner, the independence of residents in Sabilambo Village needs to be explored and developed for their potential. This activity is a training in making meatballs made from catfish. With basic cooking skills in their respective home kitchens, the remaining housewives are equipped with knowledge of processing technology so that this becomes the basis for training to take advantage of the great potential to be empowered. On the other hand, this is an effort to increase added value and optimize the utilization of inland water products by developing products with good added value.

## 2. Method

In the implementation of this program, housewives from Sabilambo Village were given guidance such as lectures first to broaden their horizons, after that training on making catfish meatball products was carried out. Field lectures were provided in the form of training on the use of catfish to diversify fishery products as ingredients for making catfish meatballs. This training was held at the village hall of Sabilambo Village. A total of 20 housewives received training in making meatballs. The training provided to the residents of Sabilambo Village uses the basic method of active participation through integrated learning guidance and training. Every citizen has the same opportunity so that they can get training on how to make catfish meatballs. The training is carried out at the village level so that it can be focused in an integrated manner in an effort to provide guidance and insight as well as competence in processing fishery product diversification.

The data from the training results for the residents of Sabilambo Village are the basis of thoughts and facts for evaluating the insight and competence of processing diversification of fishery products, namely the manufacture of fish balls made from catfish. Obtaining data using interview and observation methods to residents of Sabilambo Village who work as housewives. In order to carry out the program of activities and achieve the planned output targets, the following activities have been carried out:

### 2.1. Material Supply

This method is carried out using lectures and discussions, the interactive process is carried out using power point media. The materials given to residents are as follows: (a) Fishery Products, (b) Processing of Fishery Products, (c) Marketing of Diversified Fishery Products, (d) Community Empowerment, (e) Importance of empowering housewives.

### 2.2. Catfish Meatball Making Training

After the material debriefing was carried out and given to the residents of Sabilambo Village, then a training or direct practice of making meatballs made from catfish was carried out. In the provision of fishery products that are devoted to the manufacture of meatballs is catfish. Based on the background of the selection of fishery products, namely catfish. The catfish was chosen because of the fish pond fish produced by many pond farmers in Kolaka Regency. Catfish were also chosen because of the lack of variety in processing and the low value of catfish products processed on a household scale. The tools and materials used in making catfish meatballs are: (a) catfish, (b) tapioca flour, (c) eggs, (d) sp meatballs, (e) flavoring, (f) shallots and garlic, (g) meat grinder (grinder), (h) basin, (i) spatula, (j) pan.

### 2.3. Activity Evaluation

In an effort to apply the competence of processing diversification of fishery products and achieving the success of activities, an evaluation of activities has been carried out in the following ways. The level of active participation in discussion activities during the presentation of the material, the level of success is the enthusiasm of citizens to ask or give opinions in each material session at least 1 participant. The main target of achieving this activity is to increase insight and competence in processing fishery products and the active participation of housewives in Sabilambo Village in an effort to increase household income through processing and marketing catfish meatball products.

## 3. Results and Discussion

The concept of diversification takes a concept that needs to be expanded from various products to be sold or marketed as well as a strategy to increase added value. Then according to the results of, women's empowerment efforts can help develop their social and economic scope, such as helping to increase business insight and competence and provide additional income. These efforts need to be realized by

methods of counseling or debriefing, training and practice also said that from an economic point of view, the products sold increase a person's standard of living due to an increase in income. Furthermore, the product resulting from the processing activities is the object of sales or marketing. The people of Sabilambo Village are given insight to package and market products. There are several factors that affect product sales, namely product packaging, product quality which has implications for consumer assessments of the products offered. The community service team provides the material in an integrated manner by adjusting it according to the level of acceptance of community understanding.

Community service activities in the Sabilambo Village are divided into 2 major agendas, namely the provision of material for the delivery of material and training in processing diversified fishery products in the form of catfish meatballs. The explanation of each activity is as follows:

### 3.1. Debriefing Activities

The material debriefing activity used a thorough lecture method and the active participation of the Sabilambo Village community shown in Fig. 1. The Fig. 1 shows that the purpose of this sub-activity is to increase insight and competence in processing fishery products to produce diversified products and form a participatory community character. This briefing activity provides understanding and counseling about the entire community service program, this counseling is flexible in nature so that it can develop individuals, groups and nations. Implemented using power point media. The description of the contents of the extension material in the material debriefing activity is as follows:

- Fishery Products,
- Processing of Fishery Products,
- Marketing of Diversified Fishery Products,
- Community Empowerment,
- The importance of empowering housewives.

### 3.2. Training Activities

After the debriefing and counseling was carried out for the Sabilambo Village community, then training was carried out for the Sabilambo Village Housewives group. The training is given directly by the community service team. In the manufacture of catfish meatballs, there are stages that have been carried out to obtain diversified products for processing quality fishery products. The stages are as follows:

- For grinding catfish that have been separated from the spines, the tool used is a food processor
- Mixing ingredients, ground fish with other ingredients such as salt, ice cubes, tapioca flour, white pepper, flavoring and STPP still using a food processor
- Printing the patin fish ball dough by making the dough into a round shape by taking a handful of dough, then pressing squeezing towards the thumb
- The dough that comes out of the treatment will form a circle, then the meatball is put into hot water and let it float
- The cooked meatballs are removed and drained

As for the results of this activity, housewives agreed to create a group of productive housewives to produce fish balls in Sabilambo Village. After all residents understand the material about diversification of fishery product processing products, the next step is to practice making catfish meatballs according to the steps described previously. The practice of making catfish meatballs also uses catfish raw materials

from the Sabilambo Village area. This product diversification processing activity was used as an initiator to form a productive and participatory group of housewives in Sabilambo Village.



**Fig. 1.** Debriefing of materials

Processed meat that has long been known and is very liked by the people of Indonesia is Bakso. Meatballs are processed meat products that have previously been pulverized, then mixed with spices, flour and then shaped like small balls. The urgency of fulfilling the nutritional needs of the Indonesian people has been seen from the distribution of meatballs which has been very wide. Regarding the nutritional aspect, meatballs are one of the foods that contain high animal protein components, carbohydrates and vitamins and minerals. The practice of processing fishery products in the form of catfish meatballs in Sabilambo Village received a very positive response from residents who work as housewives shown in Fig. 2. The Fig. 2 shows that in general, this activity focuses on diversified fishery products including processing and marketing systems.

Empowerment of housewives in Sabilambo sub-district is very useful to improve the economy and change the mindset of village women. The results of this activity show that housewives in Sabilambo Village are very enthusiastic about receiving guidance and training. In its implementation it is necessary to maximize the involvement of women in the group because this activity is expected to empower housewives. Increasing the potential of human resources and bringing in additional income is an output concept from training activities for making catfish meatballs. According to, meatballs are food products that can be mass-produced and are profitable because they are very popular with the Indonesian people. In addition, if the production and marketing processes have been running, it can improve the performance and empowerment of the community.



**Fig. 2.** Patin fish meatballs

#### 4. Conclusion

Based on the achievements that have been carried out from the diversification of processed fish products into meatballs in the group of housewives in Sabilambo Village, it can be concluded as follows: 1) The enthusiasm of housewives in Sabilambo Village can be seen from the fulfillment of the invitation quota as a form of high citizen participation in activities guidance and training program for diversification of processed catfish products in Sabilambo Village, Kolaka Regency, 2) Increasing the knowledge and ability of housewives in processing fishery product diversification in the form of catfish meatballs, 3) creating a community or group of productive housewives in Sabilambo Village for increase their household income. The basic competence in processing food ingredients that housewives have to support the skills they show in diversifying fishery products at a high level such as catfish meatballs. This activity has exceeded the targeted output, it is hoped that this activity can continue and get support so that it can be improved.

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#### Author Contribution

In the implementation of this program, housewives from Sabilambo Village were given guidance such as lectures first to broaden their horizons, after that training on making catfish meatball products was carried out.

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#### Conflict of Interest

The authors declare no conflict of interest.

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