
TRAINING ON PROCESSING MARINE PRODUCTS AND PLANTATION PRODUCTS IN THE FORM OF DRY FOOD AND VARIOUS SNACKS IN OMBO VILLAGE, SIRENJA DISTRICT, DONGGALA REGENCY

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Abstract: *Ombo Village, Sirenja District, Donggala Regency, is an area with significant natural resource potential, particularly in the fisheries and plantation sectors. Various commodities such as sea fish, seaweed, coconut, banana, cassava, and cassava are available and have the potential to be developed into economically valuable food products. However, some of these products are still marketed as raw materials, so the added value obtained by the community is relatively limited. Other problems include limited knowledge and skills in food processing technology, sanitation and food safety, packaging, labeling, production cost calculations, and digital marketing. This community service activity aims to improve the knowledge, skills, and independence of the Ombo Village community in processing marine and agricultural products into dry foods and various snacks that are high quality, safe, attractive, and have a market value. The target group includes women administrators and members of the Family Welfare Movement (PKK). This activity was implemented and attended by 20 people through a participatory approach with stages of preparation, socialization, counseling, demonstrations, direct practice, mentoring, and monitoring and evaluation. The products practiced included fish crackers, corn crackers, banana oreos, and cassava lopis. Evaluation results showed that participants were very enthusiastic about the improvement. Practical observations also showed that more than all participants were able to practice the production process according to procedures and produce good quality products. This activity demonstrates that practice-based training can increase community capacity while opening up opportunities for the development of MSMEs based on local potential.*

Introduction

Indonesia boasts a rich diversity of marine, agricultural, and plantation resources. This wealth represents a crucial asset for improving public welfare if managed through appropriate technology and focused on increasing added value. One strategy that can be implemented is diversifying production into various processed food products.

Donggala Regency is a region in Central Sulawesi with potential coastal and plantation resources. Ombo Village, Sirenja District, is characterized as an area where the community relies heavily on fisheries, plantations, and home businesses for their livelihoods. Potential marine products available include pelagic fish, demersal fish, anchovies, squid, and various other fish species. Meanwhile, available plantation products include coconuts, bananas, cassava, and cassava.

The problem facing the community is that some of these commodities are still sold fresh or raw. This situation results in relatively low economic value for the community and is heavily influenced by market price fluctuations. Furthermore, limited knowledge of processing technology, sanitation, hygiene, packaging, labeling, production cost calculations, and digital marketing is a barrier to the development of local food businesses.

Processing seafood and agricultural products into dried foods and various snacks is one alternative to address these issues. Products such as fish floss, fish crackers, crispy fish, seaweed sticks, banana chips, cassava chips, and coconut cookies offer potential for development because they are easier to store, package, and market than fresh produce.

Based on these conditions, community service activities were carried out with the theme "Training in Processing Marine and Plantation Products in the Form of Dry Food and Various Snacks in Ombo Village, Sirenja District, Donggala Regency." This activity was aimed at improving the community's ability to transform local commodities into food products that have added value and have the potential to be developed as micro-enterprises.

Social Problems

Based on the results of observations, interviews and discussions with the village government and community groups, several main problems were found, namely:

1. The potential of marine and plantation products has not been optimally utilized.
2. Public knowledge about food processing technology is still limited.
3. Skills in making dry food and various snacks still need to be improved.
4. The implementation of sanitation, hygiene and food safety is not optimal.
5. Product packaging and labeling is still simple.
6. Business groups that develop products sustainably are not yet optimal.

These problems indicate that the interventions needed are not only production training, but also strengthening entrepreneurial skills, packaging, costing, and marketing.

Activity Objectives

This activity aims to:

1. Increasing public knowledge about processing marine and plantation products.
2. Improve skills in making dry foods and various snacks based on local ingredients.
3. Increase understanding of sanitation, hygiene and food safety.
4. Introducing digital marketing strategies.
5. Encourage the development of micro-enterprises based on local potential.

Method

The activity was carried out in Ombo Village, Sirenja District, Donggala Regency. The implementation used a Participatory Rural Appraisal (PRA) approach, which positioned the community as active partners in problem identification, activity implementation, practice, evaluation, and business development.

The event took place on Saturday, August 22, 2026, at the Ombo Village Learning Center Building in Sirenja District, Donggala Regency, which served as a food processing practice location. Twenty participants, consisting of PKK administrators and members, attended the event, witnessed by the Ombo Village Head and the Sirenja District Head.

The activity stages include:

1. Preparation

The preparation phase includes coordination with village governments, site surveys, identification of community needs, interviews with potential participants, module development, provision of tools and materials, and development of evaluation instruments. Local potentials identified include marine fish, coconuts, bananas, and cassava.

2. Socialization and Counseling

During this outreach, the community service team had extensive discussions with the village head of Ombo and the sub-district head, thus obtaining information regarding the economic potential of marine and plantation products, food diversification, business opportunities, food security, sanitation and hygiene, packaging, and digital marketing.

3. Demonstration

The community service team demonstrated the manufacturing process for four products: fish crackers, sweet corn crackers, banana Oreos, and cassava lopis. The demonstration then covered the steps of raw material selection, weighing, formulation, processing, drying or frying, and packaging.

4. Hands-on Practice

Participants were divided into four groups and conducted hands-on practice sessions with team guidance. The practical stages included ingredient preparation, processing, drying or frying, cooling, packaging, and labeling.

5. Mentoring and Evaluation

Mentoring is provided after training through consultations on production processes, packaging assistance, and product formulation improvements. Evaluation is conducted using pre- and post-tests, skills observations, satisfaction questionnaires, and activity documentation.

Results and Discussion

Participant Characteristics

The activity was attended by 20 participants, consisting of the head and members of the PKK group in Ombo Village, Sirenja District, Donggala Regency. The high level of involvement of housewives (PKK members) indicates that household food processing has the potential to be developed as an additional economic activity. The involvement of fishermen, farmers, MSMEs, and youth also opens up opportunities for the formation of business chains ranging from raw material procurement, production, packaging, to marketing. Participants showed high enthusiasm. The attendance rate was recorded at over 90%, accompanied by active participation in discussions and practical exercises.

Implementation of Training

The training was conducted in a participatory manner. The event began with an opening and presentation of material on the economic potential of marine and plantation products, followed by food safety, sanitation and hygiene, demonstrations, production practices, packaging, and evaluation.

The practical approach is an important part because participants do not only listen to theory, but directly process raw materials into products ready for sale.

Diversification of Marine and Plantation Products

The seafood products that are practiced include sweet corn crackers, fish crackers, banana oreos and cassava lopis.

1. Sweet Corn Crackers

Material : ½ Kg Tapioca Flour, 2 Corn Cobs or 150 Gr, 2 Sachets of Masako, 4 Cloves of Garlic or 1 Sachet of Garlic Powder, Salt to Taste, MSG to Taste (You Can Use or Not) 3 Medium Glasses of Water, Curly Red Chilies

How to make: Combine the grated corn, garlic and blender until smooth with enough water, then put it in a container, add tapioca, masako, sugar, MSG, stir well, add water little by little until it reaches the desired consistency, stir well and add the sliced chilies, stir again, heat the steamer and pour the mixture into the mold, cook for 10 minutes over medium heat, then remove and let cool, remove from the mold and the crackers are ready to be dried for up to 3 days, ready to be fried or can be stored with a shelf life of 1 year if stored in a closed container and room temperature.

2. Dried Anchovy Crackers

Material : as much as $\frac{1}{2}$ kg tapioca flour, 2 sachets of flavoring, 2 tablespoons of granulated sugar, 100 g of dried anchovies, 1 sachet of garlic powder equivalent to 4 cloves of raw garlic, and 3 glasses of water.

How to make : Soak the anchovies that have been washed clean for 15 minutes, then put them in a blender, add garlic, and enough water then blend until smooth, put them in a baking pan, add tapioca, sugar, salt, masako, add enough water, stir well until thickened, prepare a steamer, pour the mixture into the mold then steam for 10 minutes, remove and cool, then separate the crackers from the mold and are ready to be dried for 3 days or completely dry, so they can be stored at room temperature and in a tightly closed container

Notes: The shelf life of crackers can be 1 year if they are completely dry and at room temperature, not exposed to sunlight, they can be fried at any time if you want to consume them.

3. Banana Oreo

Material: 10 ripe/yellowing Kepok bananas, 10 Oreos, 5 tablespoons of flour, 3 tablespoons of granulated sugar, vanilla to taste, salt to taste.

How to make:

1. Remove the bananas from the skin, then cut them into cubes, and steam them until cooked. Remove them and store them in a baking pan, then mash them using a glass or mortar. Add flour, granulated sugar, vanilla and salt to taste, stir well.

2. Take enough dough, flatten it, then add Oreo/chocolate bars, form a ball, dissolve enough flour, then dip the dough and coat it evenly with breadcrumbs.

3. Heat the oil and the dough is ready to be fried, serve with condensed milk, glaze or grated cheese topping.

Notes Oreo Bananas Can Be Frozen and Stored for Up to 3 Months at Certain Temperatures

4. Cassava Lopis

Material : 1 kg grated cassava, salt to taste, vanilla to taste, 5 tablespoons granulated sugar, $\frac{1}{2}$ kg brown sugar, 1 grated coconut, young banana leaves for wrapping.

How to make : Prepare grated cassava then squeeze the water using a soft cloth, then put it in a baking pan, add enough water, salt and vanilla to taste, stir well and take enough dough wrap it with banana leaves, steam for 15 minutes / until cooked, for the topping steam the grated coconut for 15 minutes so that it can last longer, melt the brown sugar, with enough water then boil, and add 5 granulated sugar to taste and boil until slightly thickened, remove and strain to separate from the dirt. Take Cassava Lopis, Rub it with coconut until smooth, then pour the melted brown sugar, ready to serve.

Packaging and Labeling

The training doesn't stop at the production process. Participants are also taught how to use food-grade plastic packaging and standing pouches. Product labels are instructed to include the product name, composition, net weight, production date, expiration date, manufacturer's identity, and contact information.

Packaging serves two important functions: protecting the product and enhancing its appeal. Products previously marketed simply are being redesigned to have a more professional appearance, making them more readily accepted by consumers.

Economic and Social Impact

The activities have several positive impacts. Economically, the community will gain skills to increase the added value of marine and plantation products and gain alternative home-based businesses. Socially, the activities encourage collaboration among participants, enhance creativity, and foster an entrepreneurial spirit.

Dried food products also have marketing advantages because they are easier to package, store, and distribute than fresh raw materials. Therefore, this activity has the potential to reduce the community's dependence on raw material sales.

Conclusion

The training on seafood and plantation product processing in Ombo Village, Sirenja District, Donggala Regency, is a community empowerment activity that leverages local potential to increase

economic value. Twenty PKK leaders and members participated in the training and successfully provided the community with skills in processing fish, bananas, and cassava.

This activity also introduces other important aspects, such as sanitation and hygiene, food safety, and packaging. Thus, the training focuses not only on product-making skills but also on community readiness to develop products into sustainable businesses.

The sustainability of the program requires continued support, particularly in increasing production capacity, strengthening brands, business legality, product certification, developing packaging designs, accessing financing, and expanding marketing.

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