

# Empowerment of Coastal Communities Through Sea Fish Processing in Improving The Economy of The Bumi Mangrove Forest Farmers and Fishermen Group Percut Village, Deli Serdang Regency

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## ABSTRACT

The Bumi Mangrove Forest and Fishermen Farmers Group is a group that has been established since 2019 consisting of 38 members in Percut Village, Percut Sei Tuan District, Deli Serdang Regency who are still at the poverty line. The purpose of implementing this program is to invite and empower the Bumi Mangrove fishermen group in improving business management and production skills to make fish crackers, digital marketing training, and mentoring the making of crackers for mothers of the Bumi Mangrove fishermen group in Percut Village, Percut Sei Tuan District, Deli Serdang Regency. The method used is to provide assistance and facilitate the learning of making fish crackers for the Bumi Mangrove Fishermen Group as a business for mothers who still lack access to learning how to make fish crackers so that community knowledge about business management can continue to grow and educate digital marketing as a means of promotion and finding new markets. This program has been implemented for two days, namely on September 26-27, 2024. On September 26, 2024, there was a ceremonial handover of fish cracker processing equipment and materials by the implementation team to representatives of the Percut Sei Tuan Village Head, Farmers and Fishermen Groups, implementation of Production Management and Business Management Workshops delivered by Mrs. Purnama Yanti Purba and workshops digital marketing training delivered by Mrs. Rafida Khairani. Furthermore, on September 27, 2024, assistance in fish cracker processing training activities was carried out by Ms. Naziya. The results of this implementation are that all fishermen group mothers can implement the knowledge they have learned as evidenced by the increase in the quality and quantity of processed crackers from 30 kg to 60 kg per month and have Bumi Mangrove social media account.

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## ARTICLE INFO

### *Article History:*

*Submitted/Received 4 Oct 2024*

*First Revised 11 Oct 2024*

*Accepted 12 Oct 2024*

*First Available online 21 Oct 2024*

*Publication Date 21 Oct 2024*

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### *Keyword :*

*Crackers*

*Fish*

*Fishermen*

## INTRODUCTION

Bumi Mangrove Forest and Fishermen Farmers Group is a group that has been established since 2019 with 38 members in Percut Village, Percut Sei Tuan District, Deli Serdang Regency. Deli Serdang's poverty rate has continued to increase in the last 10 years (Herman, 2023). The current condition of the partners is a lack of access to improve the business they have been doing so far. Previously, partners as fishermen looked for fish in the sea and then the sea products were sold to middlemen. Partners have diversified products by processing seafood such as processed fish crackers, nuggets and salted fish made from fish (Dahlia, Nuraeni, and Hadijah 2019) . However, this business is no longer running for several reasons.

As a side source of income, it seems that it is still not maximized because the process is very simple. The ones who do the entrepreneurial process so far are the wives of the fishermen group. Fish can be processed into a variety of foods that are delicious to consume, not only by frying, smoking, grilling, or boiling. Fish can be processed into different foods, one of which is into crackers. The processing in question is one way to develop innovations for the fish caught by the fishermen, because fish is one of the foods that contains many nutrients that are beneficial to the health of the human body (Susanti, Ritonga, and Zati 2022). This fish is processed when there is an order. However, it seems that orders for the preparations they make have greatly decreased, even none in one month. Bumi Mangrove Fishermen Group has not been equipped with technology, namely digital marketing, so it has not been able to compete with other processed crackers and has not been recognized by the public.



**FIGURE 1.** The Women of Nelayan Bumi Mangrove in making the fish crackers



**FIGURE 2.** The step of making the fish crackers produced simply



**FIGURE 3.** Ms. Herlin with the fishermen in Percut

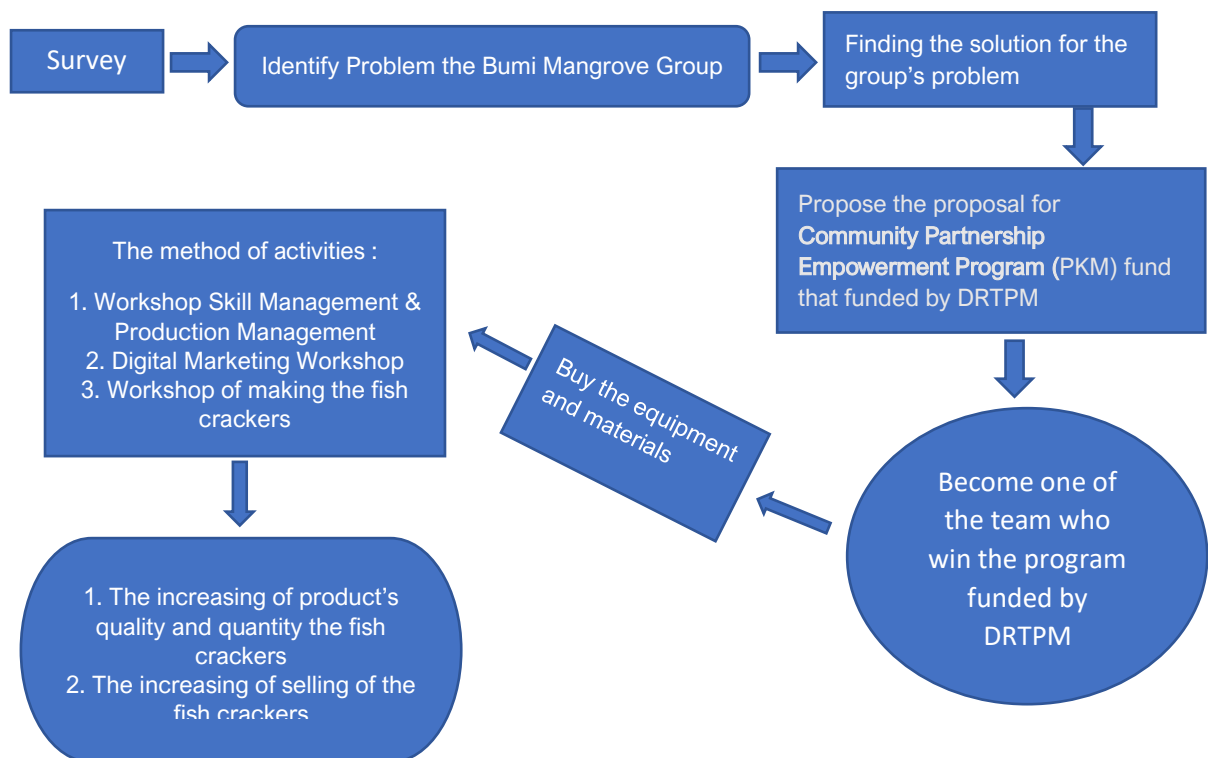
The purpose of this service is to generally reduce the poverty level of fishermen by continuing to be able to develop the business so that it can sustain the economy of Percut Village, Percut Sei Tuan District, Deli Serdang Regency. The link between this proposed field and the focus of service is the blue economy from the government is the production and improvement of the village economy. Natural resources and human resources have not promised an equitable economic improvement without the lack of knowledge and skills of the villagers in the utilization of their resources (Rochdiani et al. 2018).

The purpose of the implementation of this service activity is to improve the economy of the fishermen group by improving the skills of making fish crackers by conducting education, digital marketing training and providing assistance to the mothers of the fishermen group in Percut Village, Percut Sei Tuan District, Deli Serdang Regency. The wives of the fishermen group are mostly housewives so they are always active in trying to help supplement the family economy (Novianti, Wahyuni, and Heriningsih 2022).

The Implementation Team provides a solution to fulfil the broken fish cracker making equipment into new equipment so that the fish cracker business can resume operations again. The reason for this solution is because this is one of the biggest obstacles faced by the Bumi Mangrove Farmers and Fishermen Group. In addition, conducting business management and production management workshops as an effort to increase the production skills of fishermen groups followed by digital marketing workshops and training in an effort to introduce the processed fish cracker business to a wider range. This solution became the Appropriate Technology (TTG) of this Community Partnership Empowerment Program (PKM).

The lack of awareness of the fishing community to carry out fish processing activities to be sold or marketed is the reason for choosing a solution that suits their needs (Kelautan et al. n.d.). The selected method has been carried out by the implementing team of the head of the coastal farmer group in improving the economy of the group community by training the coastal group partner business with mangrove processed products from what they can develop based on the resources they have. (Purba et al. 2022)

### Implementation Method of Community Partnership Empowerment Program (PKM)



PICTURE 4. Flow chart of Community Partnership Empowerment Program Method (PKM)

## RESULTS AND DISCUSSION

### Location and Time of Implementation of the Community Partnership Empowerment Program (PKM)

The location of the implementation of this program is Percut Village, Percut Sei Tuan District, Deli Serdang Regency, North Sumatra. The implementation time of this program starting from the location survey is from February 2024 then implementation in September 2024 and continued in October to meet the outcomes and reporting stages.

### Participants involved

TABLE 1. Participants

Name	Position
Herlin Munthe S.Pd., M.Pd., M.Ak	head of the PKM program
Rafida Khairani, S.E.I., M.Si., M.M	member of PKM program
Purnama Yanti Purba S.E., M.M	member of PKM program
Brambir Kaur	accounting student
Rudianto	MC/field helper
Eko Wahyudi	field helper
Rizki Radhifan	field technical personnel
Riswanto	field technician

### Activity Results

The activities carried out in the implementation of this program have several steps. The steps of implementation that will be carried out by the PKM implementation team are:

1. 26 September 2024

- a. Ceremonial handover of equipment and materials for making processed fish crackers by the implementation team to representatives of the Percut Village Head and the Bumi Mangrove Farmers and Fishermen Group.



PICTURE 5. The Ceremony of giving the equipment and Materials in helping the Group & Signing the Mangrove

- b. The implementation of production management and business management workshops by Ms. Purnama Yanti Purba S.E., M.M which aims to achieve production efficiency by optimizing the use of resources such as labor, machinery, raw materials, and also time. By doing this, organization can reduce wastage, control production costs, and even increase overall productivity.



**PICTURE 6.** Business Management Workshop by Ms. PurnamaYanti Purba S.E., M.M.

- c. Implementation of workshops and digital marketing training by Mrs Rafida Khairani S.E.I., M.Si., M.M which aims to provide marketing knowledge and open the community's insights about the importance of entrepreneurship by becoming a good and responsible entrepreneur and being able to market products both directly and digitally so that their products can be known and able to compete with fish cracker products on the market.



**PICTURE 7.** Workshop *Digital Marketing* by Ms. Rafida Khairani, S.E.I., M.Si., M.M

## 2. 27 September 2024

The training event on making mackerel fish crackers was followed by training on the use of cracker processing equipment by Ms. Naziya. The training included education on the benefits of fish crackers, ingredients for making fish crackers and training on making crackers from grinding the ingredients, mixing the dough, drying and frying the fish crackers.



PICTURE 8. Training of making fish crackers by Ms. Naziya

There are several steps of making mackerel crackers by Ms. Naziya, namely:

- Grind shallots, garlic and coriander.
- Prepare 1 mackerel fish then fillet the meat and grind it.
- Prepare tapioca flour, flour, 1 egg, salt and msg to taste then mix the mixture until evenly distributed.
- Put the onion seasoning and fish that has been mashed into the flour mixture.
- Then the dough is stirred until evenly mixed
- Make the dough according to taste, you can use Ampia tools according to taste
- Dry in the sun for 1 - 2 days to dry so that the crackers will crisp faster when fried
- Fry the dried crackers
- Crackers are ready to be packed and sold



PICTURE 9. Processed results of Tenggiri Crackers of Nelayan Bumi Mangrove Women

## Discussion

The result of the implementation of this empowerment program is that the Bumi Mangrove Fisherwomen's group can follow the stages of implementation that have been running. This group has knowledge about skill management and production management from discussions and questions and

answers that have been carried out. Being able to understand the importance of digital marketing in the current technological era can no longer only rely on word of mouth marketing and just waiting for messages (Effendi et al. 2022). With supporting factors for community empowerment such as the facilities provided by the government and related agencies, while inhibiting factors are changes in mindset, availability, raw materials dominated from outside the area, and lack of understanding of digital marketing can be overcome by the agreed solution method (Sudirman and Ardiansyah 2020)

Some previous implementations have been carried out by Dahlia (2019) by providing the same solution, training in making increased knowledge of mothers' groups in processing fish crackers (2). Research conducted by Hilyana 2018, increased community knowledge increased after training in shredded fish processing (Hilyana, Amir, and Nurliah 2018). Another study by Armid et al 2022, through the socialization of knowledge transfer about the importance of community empowerment and mentoring or training in fish processing (Armid et al. 2022). Study of Antryandarti in 2022, the empowerment carried out includes providing material,(Antryandarti et al. 2023) equipment training in making tuna processed products which aims for community independence and self-sufficiency (Febriansyah 2023).

In contrast to the selection of methods provided by Putra 2022 in empowering coastal communities by emphasizing Community Based Fishing System Management, namely by maintaining environmental conditions (Putra, Darmawan, and Wahyudi 2022). Meanwhile, Hasanah carried out empowerment by developing a fish cluster in Kilensari Village, Panarukan (Hasanah 2019).

## CONCLUSION

During this program it can be concluded that the implementation team of the Community Partnership Empowerment Program has been implemented in Percut Village, Deli Serdang Regency. Handed over new and appropriate equipment to all Bumi Mangrove Farmers and Fishermen Groups. Then the handover of equipment and materials for making crackers and workshops was carried out on 26 September 2024, namely a workshop on production management and business management by Mrs. Purnama Yanti Purba S.E., M.M followed by a workshop and digital marketing training by Mrs. Rafida Khairani S.E.I., M.Si., M.M. on 27 September 2024 training in making mackerel fish crackers was carried out followed by training in the use of cracker processing equipment by Ms. Naziya.

## ACKNOWLEDGEMENTS

Great thanks to :

- DRTPM KEMDIKBUDRISTEK (Ministry of Education, Culture, Research and Technology) for facilitating this program as the organizer of Community Partnership Empowerment (PKM) 2024.
- Universitas Prima Indonesia (UNPRI) who helped a lot to make this event successful.
- Farmers and Fishermen Group of Bumi Mangrove, Percut Village, Deli Serdang Regency.
- All parties who helped.

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