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Evaluation of the Impact of Kosabangsa Activities in 2023 on Increasing Knowledge of Fish Processing from Fishermen of Serangai Village, Batik Nau District, North Bengkulu Regency

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ABSTRACT. This study aims to evaluate the impact of the Kosabangsa 2023 program on improving the knowledge of fishermen's fish processing in Serangai Village, Batik Nau Sub-district, North Bengkulu Regency. Using both quantitative and qualitative approaches, we surveyed the group of fishermen who participated in the Kosabangsa 2023 program and conducted statistical data analysis to assess its impact on the knowledge, skills, and practices of processing fishermen's catch for income generation. The survey results showed that most respondents reported an increase in knowledge of fish processing, packaging and marketing after participating in the kosabangsa program. In addition, there was a significant increase in fish processing productivity due to the adoption of new technologies provided in the kosabangsa program for the communities participating in the program. However, challenges such as frequent power outages made the implementation of the program less successful. These findings suggest that the kosabangsa program is effective in improving the quality of human resources in processing captured fish, and that there is a need to increase the sustainability of the program to achieve more optimal results.

Keywords : *Kosabangsa, fish processing, knowledge, skills, Serangai Village.*

INTRODUCTION

The Directorate of Research, Technology, and Community Service (DRTPM) under the Directorate General of Higher Education, Research, and Technology, Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia has a mandate to optimize the implementation of the Tri Dharma of Higher Education. The Tri Dharma of Higher Education which includes education, research, and community service is the main foundation for universities in contributing to nation building. In this effort, DRTPM is committed to improving the quality and relevance of research and expanding the impact of community service.

Kosabangsa Program (Kolaborasi Sosial Membangun Masyarakat) is one of the flagship initiatives launched by DRTPM to realize the synergy between universities and communities. The program is designed as a collaborative platform where implementing and assisting universities work together in integrating education, research, and community service activities. The goal is to ensure that research results do not just end up on paper, but can be practically applied to meet the needs and solve problems faced by the community.

Villages in Indonesia, such as Serangai Village in Batik Nau Sub-district, North Bengkulu Regency, often face challenges in processing the fish they catch. If the fish is abundant, the catch such as ikan rucah has no price, so many are thrown away or just given to chickens. In this context, the Kosabangsa program comes as a solution to empower rural communities through the application of science and technology. Through this program, universities can provide relevant training and mentoring for village communities, especially in terms of processing fishery products which is an important sector for the local economy.

The synergy between implementing and assisting universities in the Kosabangsa program allows for a more effective transfer of knowledge and technology. Facilitating universities that have experience and excellent track records in certain fields can help implementing universities to improve their capacity and quality. In addition, this collaboration also provides opportunities for lecturers and students to develop their practical skills and apply research results directly in community service activities. The assisting university in this activity is Universitas Jenderal Soedirman Purwokerto and the implementing university is Universitas Ratu Samban Bengkulu.

Serangai Village is one of the villages in North Bengkulu Regency where most of the population depends on the fisheries sector or fishermen. However, limited knowledge and fish

processing technology is one of the main obstacles faced by fishermen in increasing the added value of fishery products. Therefore, the Kosabangsa program is designed to provide training and assistance to fishermen in processing their catches more efficiently and with high economic value.

The implementation of the Kosabangsa program in Serangai Village involves various parties, including the village government, community and academics. This collaborative approach is expected to have a significant impact on improving the knowledge and skills of fishermen. In addition, the program also integrates aspects of marketing and packaging of fishery products, aiming to increase the competitiveness of fishermen's products in local and regional markets.

This study aims to evaluate the impact of Kosabangsa 2023 activities on improving the knowledge of processing fish caught by fishermen in Serangai Village, Batik Nau Sub-district, Bengkulu Utara Regency.

MATERIALS AND METHODS

This research uses a descriptive data analysis approach to gain a comprehensive understanding of Kosabangsa Year 2023 activities towards improving the knowledge of processing fish caught by fishermen in Serangai Village, Batik Nau Sub-district, North Bengkulu Regency. The qualitative method was chosen because it is suitable for exploring complex phenomena and understanding the social and cultural context surrounding changes in human resources. Data were collected through In-depth Interviews, Focus Group Discussions (FGDs), Participatory Observation and Documentation. The collected data were analyzed using thematic analysis techniques, which included Data Transcription, Initial Coding, Theme Grouping, In-Depth Analysis, and Data Interpretation.

RESULTS AND DISCUSSION

This study used a mixed method, i.e. quantitative and qualitative approaches, to evaluate the impact of Kosabangsa activities on improving fishermen's fish processing knowledge. A survey was conducted among groups of fishermen who participated in the program, using a structured questionnaire to collect data on fish processing knowledge, skills, and practices before and after the training. In addition, in-depth interviews were conducted to gain a more comprehensive understanding of fishermen's experiences and perceptions of the Kosabangsa program.

The survey results show that most respondents reported improved knowledge on fish processing techniques, such as processing fish with added natural preservatives, making processed products such as rending, peyek, krupuk, terasi and good packaging. This improvement is not only limited to technical aspects, but also includes knowledge on good packaging and effective marketing strategies. This shows that the Kosabangsa program has successfully had a positive impact on the ability of fishermen to process their catch.

Technology transfer and innovation activities are very important in the development of the fisheries sector, especially in terms of processing and preserving fish catches. One innovation that can be applied is the use of natural preservatives in food products such as shrimp paste, rendang, and other wet dishes. Proper preservation is needed to increase the shelf life of fish-based foods as fish is known to spoil easily during storage. In this context, edible coating with the addition of kecombrang flower concentrate as an antimicrobial and antioxidant agent is one of the potential preservation techniques (Naufalin, 2019).

Kecombrang (Etlingera elatior) flowers have long been used by the community as spices for various types of dishes, such as urab, pecel, and sambal. In addition, kecombrang stems are also known to add flavor to meat dishes. The use of kecombrang as a natural preservative not only utilizes local resources but also offers a healthier and environmentally friendly solution compared to synthetic preservatives. Kecombrang has antimicrobial and antioxidant properties that can slow down the deterioration and extend the storage period of processed fish products.

The study by Naufalin (2019) showed that edible coating with kecombrang flower concentrate is effective in preserving processed fish products. The study found that the use of kecombrang can reduce the growth of microorganisms that cause damage and extend the shelf life of fish products. This is important for fishermen and fish processors in Serangai Village, Batik Nau Sub-district, North Bengkulu Regency, as it can increase the economic value of their products and reduce losses due to

spoilage.

The application of this technology in the Kosabangsa program can provide great benefits to the fishing community. Through training and mentoring, fishermen can learn effective ways of processing and preserving fish using edible coating techniques with kecombrang. This not only improves their knowledge and skills, but also helps increase productivity and income. This positive impact is in line with the objectives of the Kosabangsa Program which aims to improve community welfare through the application of superior research results.

In addition, statistical data analysis showed a significant increase in fish processing productivity in the fishermen groups participating in the program. The use of new fish processing technology, introduced through the Kosabangsa program, is proven to improve efficiency and product quality. This has a direct impact on increasing fishermen's income, as well-processed fish products have a higher selling value.

However, the implementation of this program is not without its challenges. One of the main obstacles faced is the frequent power outages in the village, which hampers the fish processing process that requires electrical resources. In addition, limited access to a wider market is also a challenge for fishermen in marketing their processed products.

Nevertheless, the findings of this study indicate that the Kosabangsa program has great potential to improve the quality of human resources in processing captured fish. With the increase in knowledge and skills, fishermen in Serangai Village are able to produce higher quality and economically valuable products. This not only has an impact on increasing income, but also on the welfare of fisher families.

To achieve more optimal results, the sustainability of the Kosabangsa program needs to be considered. Efforts to overcome existing constraints, such as the provision of stable electricity resources and improved market access, should be a priority in the future development of this program. In addition, continued support from the government and various related parties is needed to ensure that fishermen continue to receive assistance and training relevant to their needs.

In the long term, it is hoped that the Kosabangsa program can become a model that can be replicated in other areas with similar characteristics. The success of this program in Serangai Village can be an inspiration for efforts to develop the capacity of fishermen in various coastal areas of Indonesia. Thus, increasing fish processing knowledge and skills can make a significant contribution to regional economic development and the welfare of coastal communities.

Overall, this study underscores the importance of training and capacity building programs in improving the quality of human resources in the fisheries sector. The results of the impact evaluation of Kosabangsa's 2023 activities show that this effort succeeded in increasing the knowledge and skills of fishermen in processing their catches, which in turn increased the added value of fishery products and fishermen's income. By continuing to improve and expand this program, it is expected that the welfare of coastal communities can continue to increase in a sustainable manner.

To ensure the success and sustainability of the Kosabangsa program, there needs to be continuous support from various stakeholders, including the local government and the local community. A comprehensive and continuous evaluation is also important to measure the impact of this program and adjust it to the dynamics of community needs. With a holistic and collaborative approach, the Kosabangsa program is expected to make a real contribution in improving community welfare and promoting sustainable national development.

CONCLUSION

The results of this study show that Kosabangsa activities in 2023 significantly improved the knowledge and skills of Serangai Village fishermen in processing captured fish. The application of preservation technology with edible coating containing kecombrang flower concentrate proved effective in extending the storage period of processed fish products, reducing damage, and increasing the economic value of the product. In addition, the program also succeeded in encouraging the adoption of new technologies and best practices among fishermen, although there are still challenges related to infrastructure such as electricity. With a strong synergy between the university, government, and community, the Kosabangsa program is able to make a real contribution in improving the welfare and productivity of fishermen in Serangai Village.

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