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Implementation of Simple Smoke Houses to Increase Community Income in Selayar Village Southeast Maluku Regency

KEYWORDS

Smoking Process, Smoking Facility, Anchovy, Selayar.

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ABSTRACT
The partners in this community service program are a group engaged in processing and marketing grilled/smoked fish in Selayar Village, Southeast Maluku Regency, Maluku Province. The partners are categorized as economically productive community members. The problems faced by the partners include limited technology for anchovy smoking equipment, inadequate sanitation and hygiene in the production process, and a lack of knowledge in financial bookkeeping. Based on these issues, the proposed solutions include the application of a horizontal smoking device made from used drums, metal sheets, and iron materials, which is effective in maintaining the quality of smoked fish, as well as training in preparing simple business financial records. The main objective of this activity is to empower the group and increase their income in the production and marketing of smoked anchovies. The expected outputs of this program are the production of high-quality smoked anchovies and increased income for the partners. Referring to the identified problems, the methods used include discussions and mentoring, demonstrations and training, as well as continuous assistance to ensure effective technology transfer. This community service activity was conducted at the Selayar Village Office. Discussions, mentoring, and demonstrations were provided to improve the partners' knowledge and understanding, training was conducted to enhance their skills, and assistance was provided to strengthen and sustain their capabilities.

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INTRODUCTION

Ohoi Selayar is a village located in Manyeuw District, Southeast Maluku Regency, Maluku Province. Most of its residents have dual livelihoods as fishermen and seaweed farmers, as well as cultivating short-term crops. Ohoi Selayar has the highest number of floating lift-net (bagan) business units in Southeast Maluku Regency, with a total of 27 units consisting of 15 raft-based lift nets and

12 boat-based lift nets (Notanubun et al., 2021). In this village, many community members are engaged in anchovy processing businesses; however, the management practices remain highly traditional. Anchovy processing activities are generally carried out by women, although all family members are involved. Moreover, the smoking process still relies on very simple and traditional equipment, which is considered less hygienic.

Smoking is one of the oldest methods of meat preservation and has been widely accepted by consumers across the world (Amahorseja, 2018; Junianto et al., 2026). The primary raw material, fish, is obtained from local fishermen or suppliers of fresh anchovies in the Ohoi Selayar area. Its availability largely depends on fishing seasons and prevailing weather conditions. In addition, the quality of fish must be maintained in a fresh condition to ensure optimal smoked fish products. Based on field observations conducted at the Tenggiri MSME in Ohoi Selayar, it was found that the partners face several challenges in running their smoked fish production business. The first issue is the disruption of production processes during the rainy season. Furthermore, poor sanitation conditions contribute to the malfunctioning of the drainage system. The second issue is that the smoking process requires a relatively long time and consumes a considerable amount of fuel. The smoking process takes approximately 4–5 hours; therefore, the longer the process, the higher the fuel consumption, which ultimately increases production costs.

According to data from the village government and related institutions, approximately 65% of the community depends on the fisheries sector and its processing activities. The fish smoking business is carried out by home-based industries that are still traditional, with limited production capacity and conventional marketing systems that have not yet utilized technology. In the face of increasing competition, MSMEs are required to adopt various innovations, including product development and business diversification in the food processing sector (Amira & Nasution, 2023; Fitriaty et al., 2026). Based on this condition, community empowerment programs in Selayar Village prioritize the development of smoked/grilled fish processing businesses. Therefore, this program collaborates with one of the local business partners, namely the Tenggiri MSME.

The partner's business focuses on processing and selling smoked anchovies and other related products. Despite having considerable experience, the partner has not been able to significantly improve their business, which remains limited to meeting daily household needs and children's education expenses. The business has not yet adopted modern technology, resulting in various challenges, including raw material handling, smoking equipment technology, sanitation and hygiene in processing, and product packaging.

Research findings (Marasabessy et al., 2022) on smoked/grilled fish products sold openly in public transportation terminals indicate that microbial levels are relatively high (although still safe for consumption), which can affect product shelf life. It is also noted that contamination sources may originate from insects around the selling area and human handling, particularly due to frequent direct contact with bare hands. Furthermore, (AGUSPINA, 2019; Marasabessy et al., 2022) states that the smoking process using proper smoking equipment can be conducted more efficiently and in a more controlled manner, as the fire can be better regulated.

The objective of this activity is to improve the quality of smoked anchovies and increase the income of the partner. The focus of this program is aligned with the Blue Economy approach, emphasizing the use of simple technology to optimize the processing of marine products.

METHOD

The community service activity conducted by the research team from the Tual State Fisheries Polytechnic was carried out in December 2025. The activity took place at the Selayar Village Office,

with the target group being the MSME partner group, namely the Tenggiri Group. The methods used in implementing the technology transfer to the partners included extension (socialization), training, and mentoring.

RESULT AND DISCUSSION

The outreach, training and mentoring activities began with coordination with partners which was carried out at the BUMN Telkom Tual house.

Figure 1. Coordination with Tenggiri MSME Partners

After coordination was carried out, the team then created a simple smoking house design and equipment for smoking anchovies produced by the Tenggiri MSME in Ohoi Selayar.

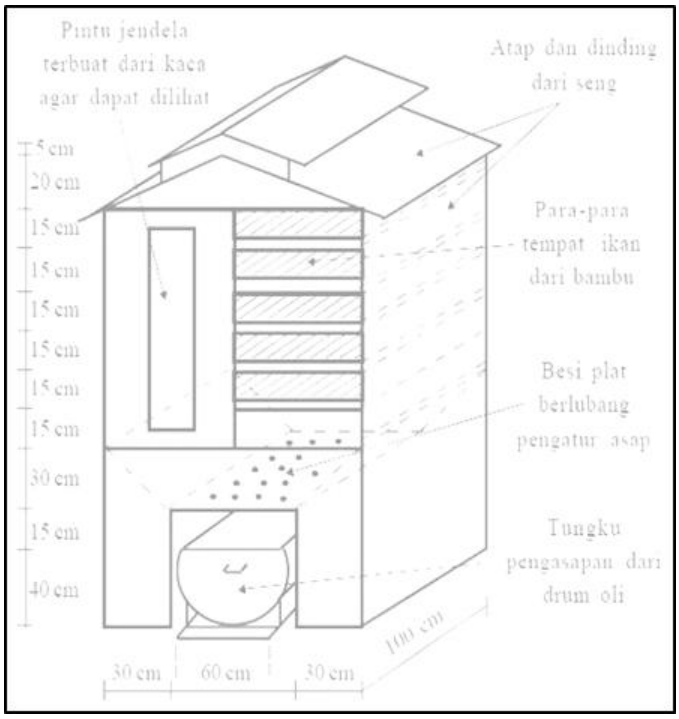

Figure 2. Design of the Smoking House

The extension and training activities were conducted in the meeting hall of Ohoi Selayar and were attended by 20 participants consisting of members of the Tenggiri MSME group. The event was officially opened by the Head of the Planning Division. The activity was well received by both the Ohoi government and the members of the Tenggiri MSME group. Through this activity, the MSME members gained new knowledge regarding anchovy smoking techniques using a smoking facility. As a result, the smoked anchovy products produced using the simple smoking house demonstrated very good organoleptic quality.

Figure 3. Implementation of Anchovy Smoking Extension and Training

The implementation of science and technology (IPTEKS) for the Tenggiri MSME in Ohoi Selayar is expected to enhance the production of smoked anchovies and generate positive impacts

on community empowerment, particularly in utilizing and managing local fishery resources. This initiative aims to transform these resources into value-added local products, especially for the Tenggiri MSME group. The expected outputs of this program indicate that the partner has the potential to produce hygienic smoked anchovy products with good organoleptic quality.

Figure 4. Implementation of Smoking Activities with a Simple Smoking House

In general, the partners showed strong interest in adopting the simple smoking house due to its practical use and its ability to produce less pollution compared to traditional smoking methods.

Based on the presentation of the trial results on the use of the simple smoking house for processing smoked anchovies during the monitoring stage, it was found that the product has a longer shelf life compared to traditionally processed smoked fish (1–4 days). The use of a simple smoking house in anchovy processing within the Tenggiri MSME serves as an efficient and economical alternative to improve product quality, maintain hygienic processing conditions, and support the sustainability of the business. With technology that is easy to adopt and relatively affordable, this method is expected to increase the economic value of anchovies while enhancing their competitiveness in the market.

CONCLUSION

Based on the implementation of the community service program in the YTR Letman tourism area, Southeast Maluku, it can be concluded that the community service activities conducted by the research team from the Tual State Fisheries Polytechnic were carried out through extension and training methods involving students and the Tenggiri MSME group in Ohoi Selayar, Southeast Maluku Regency. The program focused on providing knowledge and practical skills related to the utilization of a simple smoking house, which contributed to improving the production process and increasing the income of the Tenggiri MSME group in the production and marketing of smoked anchovies.

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