

Supporting Independent Creative Village Based on Virgin Coconut Oil (VCO) Production in Coconut Farmer Communities in Horongkuli Village, Toari District, Kolaka Regency, Southeast Sulawesi

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ABSTRACT

Horongkuli Village, Toari District, Kolaka Regency is known as a village that has many coconut trees and is also a producer of Virgin Coconut Oil (VCO) in Southeast Sulawesi. However, in recent years, the production of coconuts into VCO has been hampered because it is not balanced with effective production and good marketing, so that people have switched to other jobs even though the natural resources of coconuts in the village are very abundant. This study aims to increase public understanding of the potential for coconut production while fostering small-scale industries regarding VCO production. This research is a community service research using a descriptive qualitative research method, namely by providing counseling and coaching to the people of Horongkuli village. The results of the study show that through intensive training and ongoing support, residents have improved their VCO and cooking oil production capabilities, as well as their marketing strategies. This initiative has raised awareness of the importance of home industries, encouraging local entrepreneurs to utilize the abundant coconut resources available to them. Ultimately, this program has the potential to strengthen the local economy, improve farmers' livelihoods, and contribute to sustainable agricultural practices, creating a more resilient and prosperous environment for coconut farmers in the area.

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INTRODUCTION

The coconut tree is widely found throughout Indonesia, making it unsurprising that the country ranks second in the world for coconut production, following the Philippines (Dayrit and Newport, 2020). Despite being one of the largest coconut producers globally, Indonesia has not fully translated this into economic advancement. The processing of coconuts in Indonesia still lags behind that of more innovative and creative countries, leading to limited income for farmers, a shrinking market for coconuts, and unstable price fluctuations (Aristya et al., 2013).

Coconuts possess significant potential, as nearly every part of the tree can be utilized. The trunks can be processed into substitutes for wood, boards, and furniture, as well as building frames for walls and roofs. The leaves can be harvested for their midribs, which serve as brooms or materials for woven items. The flesh of the fruit provides raw materials for producing copra, coconut oil, coconut cream, soap, coconut milk, and dried grated coconut, while coconut water can be transformed into vinegar and nata de coco. Coconut milk, derived from pressing grated coconut flesh, is a versatile ingredient used in various dishes that include meat, fish, and chicken, as well as in the preparation of cakes, ice creams, and candies. Additionally, coconuts yield a popular processed product known as Virgin Coconut Oil (VCO).

VCO is pure coconut oil obtained from processed coconut flesh that settles without heating or at low temperatures. In the health sector, VCO has proven highly effective in preventing diaper rash in newborns, as noted by Mustaqimah et al. (2021). Fitriya et al. (2020) further indicate that coconut oil, or VCO, is rich in antibacterial, anti-aging, antioxidant, wound healing, and anti-inflammatory properties, making it beneficial for treating skin wounds and dermatitis. Moreover, Hakim et al. (2020) demonstrate that VCO plays a role in the prevention and treatment of various diseases, including COVID-19, cancer, and diabetes, as well as in beauty and skin health treatments.

This opportunity is particularly promising, as data from the Directorate General of Plantations in Southeast Sulawesi indicates that coconut production in Kolaka reached 3,655,000 tons in 2019 (BPS Sultra, 2022). The Strategic Vision Plan for SMS Berjaya, aimed at enhancing the economic growth of the Kolaka community from 2017 to 2021, highlights Toari District—especially Horongkuli Village—as a region with substantial coconut land and the potential to develop into an agropolitan zone. According to the Statistical Database, coconut commodities are distributed across three districts: Toari (320 hectares), Polinggona (123 hectares), and Watubangga (178 hectares), achieving a total production level of 7,120 tons per year from various products, including copra, young coconuts, and mature coconuts. However, much of the coconut production in this region is sold as whole coconuts, which does not yield adequate profits for farmers. Furthermore, the agricultural sector dominates the community's livelihoods (75%), followed by fishing (4%), household industries (2.3%), services (1.6%), and other sectors (0.8%). The population engaged in coconut plantations has formed several farmer groups in each village, including Anawua, Horongkuli, Lakito, Rahabite, Rano Jaya, Ranosangia, and Toari, with the Ranomentaa sub-district situated at the heart of Toari District.

In light of the above, community service—an essential responsibility of lecturers within the tridharma of higher education—aims to provide support and guidance to the farmer community in Horongkuli Village, Toari District, Kolaka Regency, Southeast Sulawesi, specifically in the fields of research and community service for the year 2020. The goal is to assist and empower local farmers in their activities.

METHOD

The methods applied in the Community Service activities are as follows: (1) Strengthening education to enhance understanding and build perceptions of the production potential of coconut raw materials, (2) Training in the utilization of small industries as a production innovation to increase quantity and produce derivatives such as VCO, cooking oil, soap, and others, (3) Intensive and sustainable support for coconut farmer groups through regular and targeted meetings with community members, and (4) Guidance in building distribution market networks within Sulawesi and Java, as well as exploring potential for international export distribution. The method applied in this program is Asset Based Community Development (ABCD) (Afandi & et al., 2022), which utilizes the abundant coconut natural resources in Horongkuli Village. This program involves various approaches, including counseling, Q&A, and direct practice in VCO production. This community service activity was carried out in Horongkuli Village, Toari

District, Kolaka Regency, to ensure active participation and sustainability of the program. Thus, it is hoped that this program can have a positive impact on improving the welfare and economy of the farming community in Horongkuli Village through the utilization of local resource potential. The activities carried out can be seen in the following flow diagram (Setyagustina et al., 2022):

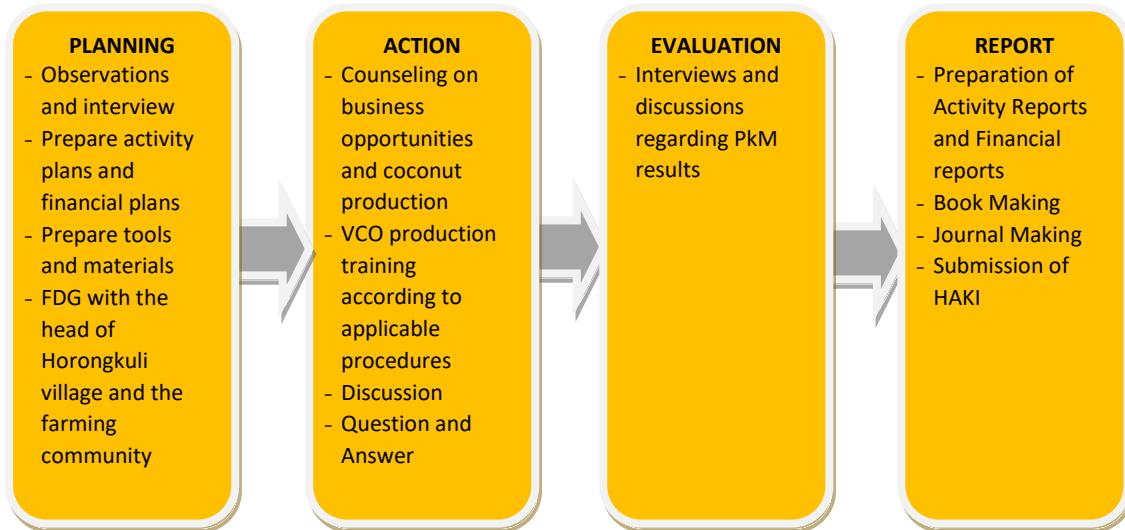


FIGURE 1. Community activities

RESULTS AND DISCUSSION

Before carrying out the core community service activities, namely training and outreach related to the utilization of coconuts, the service team first coordinated with stakeholders from the district and village, as well as several coconut farmer communities. This coordination was conducted by organizing an open meeting with the village head, village officials, and the chairman of the coconut farmer group at the residence of the village head. The goal was to establish a partnership with the Research and Community Service Institute (LPPM) of the Al Mawaddah Warrahmah Islamic Institute (IAI) in Kolaka, along with the Community Service Team, led by Masri Damang, SEI, MA, as the Team Leader, and Dr. Munadi Idris, SHI, ME, and Sutrisno, S.Pd, M.Si, as members, along with Hikma, S.Pd, as the Head of Horongkuli Village. This resulted in an agreement to continue supporting and empowering the creative economy, including the following points:

- Agree to designate Horongkuli Village as a partner village of LPPM IAI Al Mawaddah Warrahmah Kolaka.
- Establish a productive Village-Owned Enterprise (BUMDes) in Horongkuli, supported by the Faculty of Economics and Islamic Business at IAI Al Mawaddah Warrahmah Kolaka.
- Develop Horongkuli into a creative economy with superior VCO production variations.
- Assist the community in promoting the production of natural cooking oil while raising awareness of home industries in every household for both personal consumption and for sale to the BUMDes of Horongkuli.
- Support creative farmer communities in the sustainable production of VCO and cooking oil, focusing on production strategies, labeling, and marketing.

After coordinating with the parties and reaching an agreement, the service team, along with the stakeholders, prepared the land and production materials, as well as the utilization of production tools.

Purchase of Coconut Seeds

The training requires basic materials, and efforts were made to procure and purchase 5,000 coconut seeds to be prepared for the training and for ongoing support directly to the coconut farmers. The coconuts were purchased by the service team from coconut farmers in the surrounding village. Below are some photos of the coconut gardens and the coconuts ready for production.



FIGURE 2. Coconut gardens

Preparation of Production Tools

In the training, the most essential aspect of the production process is the production equipment. Therefore, the service team collaborated with various parties to procure the necessary tools, including: 1) Coconut Belt Separator Machine, 2) Coconut Grater Machine, 3) Coconut Pressing Machine, 4) Filtering Hose for separating coconut milk and water, 5) Clear White Buckets for coconut milk, 6) Fermentation Heating Box for oil, 7) Water Pump, 8) Temperature-Controlled Lighting for effective monitoring, 9) One bottle of VCO as a production stimulus, and 10) Cleaning soap branded "Sunlight," which is the only brand used to ensure the cleaning process of production tools. Additionally, ready-to-use packaging bottles were provided to support the packaging of VCO and coconut oil production.



FIGURE 3. Packaging of VCO

Implementation of Outreach on VCO

Here is the process for implementing the outreach on VCO:

- **Training/Outreach Model:** The training was conducted on Saturday, December 9, 2022, as a full-day event from 08:00 to 16:00, consisting of three sessions: the first session from 08:00 to 11:00 focused on material presentation; from 11:00 to 13:00 was a break for prayer and meals; and the final session from 13:00 to 16:00 involved a hands-on simulation workshop for the production process of VCO.
- **Training Location:** The training took place in an open field surrounding the workshop/production area, rather than in the village office, allowing participants to engage directly in the coconut plantation under the trees.
- **Material Presentation:** The presentation utilized a PowerPoint format, supported by an LCD projector, and included video testimonials highlighting the production and benefits of VCO, both economically and in terms of health, shared through the training participants' group.
- **Training Material:** The content included: a) Various types of coconut-based products such as VCO, cooking oil, soap, and consumables like nata de coco; b) Strategies and types of production and their market value; c) Marketing strategies; and d) Testimonials recommending health benefits and community immunity enhancement.
- **Resource Persons:** The training featured experts recommended by LPPM for the marketing strategies of VCO production and its derivatives, namely Andi Pasewang, SE, and Taufiq Maknun, S.Pd, M.Pd, who served as the main trainers, with Mrs. Sumarni, S.Pd, acting as the training moderator.



FIGURE 4. Training activities

Training and Support for VCO and Cooking Oil Production

Here are some steps for the Training and Support for VCO and Cooking Oil Production:

- **Training Model:** The training was conducted as a full-day event on Sunday, December 10, 2022, from 08:00 to 16:00. It consisted of three sessions: the first session from 08:00 to 11:00 focused on material presentation; from 11:00 to 13:00 was a break for prayer and meals; and the final session from 13:00 to 16:00 involved a hands-on simulation workshop for the VCO production process.
- **Training Location:** The training took place in an open field surrounding the workshop/production area, rather than in the village office. This allowed participants to engage directly in the coconut plantation under the trees.
- **Material Presentation:** The presentation utilized a PowerPoint format, supported by an LCD projector. Video testimonials showcasing the production and benefits of cooking oil, both economically and in terms of health, were shared through the training participants' group.
- **Training Content:** The material covered several topics, including: a) Various types of coconut-based products, such as VCO, cooking oil, soap, and consumables like nata de coco; b) Strategies and types of production and their market value; c) Marketing strategies; and d) Testimonials on health recommendations and community immunity enhancement, for example, [this video](#).

- Resource Persons: The training featured experts recommended by LPPM for the marketing strategies of VCO production and its derivatives. Taufiq Maknun, S.Pd, M.Pd, served as the main trainer for VCO production, with Mrs. Sumarni, S.Pd, acting as the training moderator.

Here are some photos of the activities (Simulation) for the support in VCO and Cooking Oil production:



FIGURE 5. VCO and cooking oil production

Packaging and Labeling of Production Results

Labeling support focuses on designing attractive food labels. By definition, a label is any information regarding food presented in the form of images, text, a combination of both, or other formats that are included on, attached to, or are part of the food packaging. Labels serve as a means of communication with consumers. Through labels, producers can provide information, offer, and promote their products in a way that appeals to consumers. For consumers, it is essential to pay attention to, read, and understand the information on labels included on packaging to ensure that the products they purchase meet their expectations. This information should consist of:

- Name of the processed food
- Net weight or net content
- Name and address of the producer
- List of ingredients used
- Food registration number
- Home industry product registration from the health department (Dinkes P-IRT)
- Expiration date
- Production code
- Storage instructions
- Warnings

By ensuring these elements are clearly presented, both producers and consumers can benefit from effective packaging and labeling practices. Here is the packaging and labeling for VCO products:



FIGURE 6. Packaging and labeling for VCO products

Market-Based Support Stages

After several processes, including training, outreach, and support for cooking oil and VCO production, the service team attempted to distribute these products in collaboration with various parties and stakeholders. They proposed to obtain permits and test the nutritional content through the relevant authorities, as shown in the image below.



FIGURE 7. Collaboration with various parties and stakeholders

In addition, to market the VCO products, the company partnered with supermarkets in the Kolaka area, Southeast Sulawesi, as shown in the following photo.



FIGURE 8. VCO products in Supermarket

Based on the results of the study above, show that the Horongkuli Village community has positive respect for this PkM activity, starting from coordinating with the parties and reaching an agreement, the service team, together with stakeholders, preparing land and production materials, and utilizing production tools. With high enthusiasm, the team and the community prepared several aspects which together included purchasing coconut seeds, preparing production tools, and implementing socialization about VCO. The training and support process for VCO and coconut oil production is carried out through training models, training locations, presentation materials, and packaging of production results. This is because coconut natural resources have a positive effect that can improve the economy of a village, as in the study conducted by Sari & Wibowo (2020) that coconut has good potential if utilized properly so that it can develop a creative economy in a village which is in line with the efforts made in Horongkuli Village.

In addition, research by Astuti & Prasetyo (2019) also provides information on empowering coconut farmers through training and socialization of processed coconut products, also providing a positive effect on the Village community which is relevant to the approach taken in this paper. In addition to counseling and training, this study also teaches the community about the importance of labeling and packaging of production results which are part of marketing. Attractive and informative labeling is very important to communicate with consumers and promote products well. In this case, the information that must be included in the product packaging includes the name of the processed product, net weight, name and address of the producer, list of ingredients used, food registration number, expiration date, production code, storage instructions, and warnings that need to be considered. This is one form of innovation carried out by the Horongkuli village community, as in the study by Rahayu & Santoso (2016) which highlights the importance of innovation in processed coconut products as an effort to increase added value in developing the local economy, which is relevant to the context of developing the creative economy in Horongkuli Village. In addition, research by Wardhani & Subagyo (2019) provides a valuable perspective on the impact of technical training on the productivity of coconut farmers, which can be a reference in supporting coconut farmers in the village. In addition, the article by Siregar & Simamora (2018) on marketing strategies for processed coconut products in the international market provides an important perspective related to the expansion of the market for processed coconut products from Horongkuli Village to the global market.

On that basis, the processed coconut products in the form of VCO in Horongkuli Village are distributed to traditional markets, cooperatives and also modern markets, including cooperation with supermarkets in the Kolaka area, Southeast Sulawesi. Efforts to obtain permits and test the nutritional content of the products are also carried out to ensure the safety and quality of the products marketed. In addition, training and mentoring for the production of VCO and coconut oil are also carried out to support farming communities in developing their creative economy. This is in line with the research of Susanto & Hidayat (2020) which tried to analyze the feasibility of coconut processing into processed products, which turned out to be able to provide a more detailed view of the financial and economic aspects of the

coconut processing business. In addition, according to Pratama & Utami (2017), apart from the market, the role of coconut farmer cooperatives in increasing market access and added value of processed coconut products can be an important basis for considering cooperative cooperation as a strategy for developing a creative economy at the local level. According to Utomo & Kartika (2018), the marketing strategy for VCO and coconut oil products can provide valuable insights related to marketing efforts for processed coconut products from Horongkuli Village. Then according to Hartono & Susilo (2017), marketing of VCO and coconut oil products can also provide significant perspectives on production support for improving the economic welfare of coconut farmers, which is in line with the goal of developing a creative economy in the village.

Based on the discussion, the utilization of coconut potential in the development of the creative economy is a topic that has significant relevance in the context of local development, especially in Horongkuli Village. Various studies that have been conducted highlight various important aspects, ranging from innovations in coconut processed products, the impact of technical training on coconut farmer productivity, to marketing strategies for coconut processed products in the international market. Thus, it is expected to provide a significant positive contribution to local economic development, especially in Horongkuli Village, namely by continuing to maintain the spirit of collaboration, innovation, and sustainability, so that the potential of coconuts which are economic resources can be optimized optimally to create a sustainable impact for the village community and the surrounding environment.

CONCLUSION

The community service described in this document was conducted in remote areas as part of a creative economy empowerment program, serving as a solution to enhance the economic empowerment of the community, the strategic role of home industries, and creative industries. This community service activity is expected to highlight the uniqueness of Horongkuli Village, particularly its abundant coconut resources, drawing attention from both the local community and government for further action. The training in VCO and cooking oil production aims to inspire a business mindset among the community members, enabling them to understand superior marketing systems. This knowledge can enhance the marketability of their products in local supermarkets and even on a national scale.

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