



OPTIMIZATION OF COMMUNITY ECONOMIC EMPOWERMENT THROUGH KELULUT BEE CULTIVATION IN TANJUNG PASIR VILLAGE

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Abstract

Kelulut honey is one of the new commodities in Tanjung Pasir Village sub-district and is starting to be developed by the local community. The development of kelulut honey indirectly affects the income sector for the community and also has an impact on the development of tourism in the village. This study aims to identify and analyze the social capital used by the community in developing kelulut honey commodities. The research method used to conduct this study is a qualitative method that emphasizes the deepening of a meaning and phenomenon. The results of the study show that there is a use of social capital in efforts to develop kelulut honey as a community income sector and tourism sector. The social capital used includes: trust, networks and local community norms, so that the optimal use of social capital makes kelulut honey a commodity in Pantai Labu.

Keyword : *Kelulut honey, Social Capital, Local Community.*

INTRODUCTION

Tanjung Pasir Village is one of the villages located in Pangkalan Susu Subdistrict, Langkat Regency, North Sumatra. The area of Tanjung Pasir Village is 1,065 hectares with a population of 4,293 people. This village has potential in agriculture, palm sugar production, Asoka crabs, duck farming, palm fronds, and kelulut bee cultivation. In the past two years, the village government's focus has been on kelulut bee cultivation. Besides having a high market value, this bee cultivation is considered easy to manage and can be done collectively. There are two honey farming groups in Pangkalan Susu, namely in Tanjung Pasir Subdistrict and Beras Basah Subdistrict. In Tanjung Pasir, there is the "Kelompok Tani Hutan Maju Bersama Trigona" group, which consists of 13 households.

Kelulut bees are a type of honey-producing bee that is different from honey bees. Honey bees have stingers that contain venom and can be quite dangerous if cultivated in residential areas. In Indonesia, there are many types of honey-producing bees, one of which is the kelulut bee, known as the stingless bee. Stingless bees or kelulut are small-sized bees that belong to a group called Meliponini and are closely related to stinging honey bees (*Apis* spp.).

Kelulut bees can be cultivated anywhere, such as in home yards, vacant lands, agricultural lands, and any place as long as there is a food source and a place to put the bee houses. Like honey bees, kelulut bees also produce honey that is valued higher than honey from *Apis* spp. Kelulut bee honey has stronger antibacterial properties compared to honey bee honey. This means kelulut honey can help fight infections and strengthen the immune system. Considering the densely populated village conditions, kelulut bees are deemed more suitable for cultivation in this village to avoid the risk of bee stings to the surrounding residents.

One of the problems faced by the people of Tanjung Pasir Village is the lack of bee colonies. Bee seeds are obtained from chainsaw operators who enter the forest to find tree trunks inhabited

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by bee colonies. To obtain these colonies, it takes several months until the chainsaw operators find colonies in the forest. However, sometimes the chainsaw operators do not find colonies in the forest, and the community lacks sufficient knowledge to multiply bee colonies without having to search in the forest. Additionally, the community's limited knowledge about cultivating honey bees to produce high-quality honey with high market value also hinders the creation of more innovative and quality products, thus having a broader appeal. This is further exacerbated by the lack of economic activities that can support the community's economy.

In an effort to address these issues, this community service program is designed to empower the "Kelompok Tani Hutan Maju Bersama Trigona" group in Tanjung Pasir Village through the need for Human Resource Development (HRD) guidance from experts to provide input, teaching, and solutions to the problems faced. This program aims not only to improve kelulut bee cultivation skills but also to help them produce higher quality products with higher market value. With the presence of experts from UiTM Trengganu, it is hoped that they can assist the farming group in producing kelulut bee colonies and honey, thereby improving the community's economy and becoming a tourist attraction.

Collaboration with UiTM (Universiti Teknologi Mara) Terengganu this collaboration is expected not only to enhance technical skills but also to provide knowledge about kelulut bee cultivation. As known, UiTM Terengganu has successfully cultivated kelulut bees on its campus and produced kelulut honey that can be sold to increase income. Overall, this article will discuss the implementation of the community service program carried out in Tanjung Pasir Village, starting from the problems faced, the solutions offered, the implementation methods, to the results achieved. Through this discussion, it is hoped that this program can become a model of community empowerment that can be adopted in other villages with similar characteristics and problems, and contribute to the literature on economic empowerment through kelulut honey cultivation in Indonesia.

METHODS

This program is implemented through several stages, starting with an initial survey and problem identification. The community service team visited Tanjung Pasir Village to understand the conditions and needs of the local community. Based on the survey results, it was found that the "Kelompok Tani Hutan Maju Bersama Trigona" group had limitations in kelulut bee cultivation. Therefore, as a solution, the community service team provided assistance in the form of kelulut bee houses and bee seeds to the group members responsible for maintaining and cultivating the bees.

Following this, as a form of program sustainability, after conducting the survey and providing the bee houses and seeds, kelulut bee cultivation training will be conducted by bringing in experts collaborating in this service, namely experts from UiTM Terengganu. In addition to training, the community service team will also conduct regular monitoring to evaluate the progress of the participants. Through this monitoring, the team can provide additional input and guidance to improve the quality of production. Ultimately, the community service team hopes that this program will not only enhance the participants' skills but also have a positive impact on the village's economy by increasing local products ready for the market.

RESULTS AND DISCUSSION

This community service program is carried out with the aim of improving the skills of advanced forest farmer groups with trigona in Tanjung Pasir Village.

A. Activity Results

After the implementation of the community service program in Tanjung Pasir Village, several significant results have been achieved. First, in collaboration with UiTM Terengganu, the Maju Bersama Trigona Forest Farmers group received training on kelulut bee cultivation, including



techniques for creating new colonies. With this, the breeders can increase the number of their colonies without relying on hunting in the forest.

Second, the service team provided 10 bee houses and 15 bee colonies taken from Aceh Tamiang. This gave a direct boost to the number of colonies owned by farmer groups, which were previously very limited. This new colony is expected to accelerate the production of kelulut honey and increase the income of group members. Third, this training program with experts from UiTM Terengganu produced new knowledge about kelulut bee maintenance and management techniques. This training includes aspects of disease control, good maintenance, and efficient honey harvesting.

B. Discussion

The increase in production capacity is evident from the increase in the number of colonies and the knowledge gained by the farmer group. Before the program was implemented, the production of kelulut honey was only about 10 liters per month. However, after the training and the addition of colonies, the production is expected to increase to 30 to 50 liters per month, depending on the season and feed availability. The economic impact of this increased production is also very significant. Kelulut honey has a higher selling value than honey from ordinary bees, reaching around Rp 500,000 per liter. With the increase in production, the farmer group's income, which was originally around Rp 5,000,000 per month, has the potential to increase to Rp 15,000,000 per month. This will certainly have a big positive impact on the village economy.

In addition to the economic impact, the program also had an impact on the social capital of the farmer groups. The training and cooperation established during the program has increased trust between members, creating a stronger social network. The norm of sharing the harvest also further strengthens the social bonds among community members, encouraging more solid cooperation. On the other hand, the development of kelulut honey as a superior commodity in Tanjung Pasir Village also has the potential to support the tourism sector. With the increasing production and quality of honey, the village can market its honey products as a tourist attraction. This program can be integrated with local tourism activities such as agro-tourism, where tourists can learn about kelulut bee cultivation as well as taste the honey produced.

To maintain the sustainability of the program, this service will continue to conduct regular monitoring and evaluation of the development of farmer groups. Thus, the knowledge and skills that have been acquired can continue to be applied and developed. In addition, the relationship with experts from UiTM will be maintained to ensure that the farmer groups continue to get the necessary guidance for the sustainability of their business.

C. Future Expectations

The success of the community service program in Tanjung Pasir Village has provided a strong foundation for further development. The hope is that this program will not only have a short-term impact, but can also be a driving force for economic sustainability and social development in the village. In terms of production scale development, it is hoped that kelulut honey production can continue to grow and not only depend on the 15 colonies that have been given. With new knowledge on management techniques and the creation of new colonies, the farmer group is expected to be able to multiply colonies independently. The ultimate goal is to achieve consistent kelulut honey production throughout the year, so that Tanjung Pasir Village can become a widely known center for kelulut honey production.

Product diversification is another expectation. Farmer groups are expected to develop derivative products other than pure kelulut honey, such as honey soap, beeswax, or kelulut honey-based beauty products. This diversification will provide added value to kelulut honey products and open up a wider market, both at the national and international levels. Another hope lies in the development of the creative economy and tourism. By making kelulut honey a superior product,

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Tanjung Pasir Village is expected to attract tourists who are interested in agro-tourism. Education about kelulut bee cultivation and the supporting natural ecosystem can be used as a special attraction. This agro-tourism program is expected to not only increase the income of farmer groups, but also have an economic impact on the village community at large, including in the accommodation sector, local culinary, and souvenir products. Going forward, independence and sustainable innovation are also an important part of the program's expectations. Farmer groups are expected to be able to stand independently, not only in production aspects, but also in marketing and business development. Continuous innovation in beekeeping technology and business management is expected. With continued collaboration between UiTM and other experts, farmer groups can continue to get updated knowledge and technology to support the sustainability of their business.

Another expectation is the strengthening of social capital and community empowerment. Strong social capital among farmer group members is expected to not only increase economic income, but also strengthen social ties. The training and cooperative experiences that have been established are expected to inspire other communities in the village to participate and empower themselves in joint ventures. This program is also in line with several goals in the Sustainable Development Goals (SDGs), especially SDG 1 (No Poverty) and SDG 8 (Decent Work and Economic Growth). With an increase in income up to three times what it was before, villagers can improve their economic welfare. In addition, this program contributes to SDG 12 (Responsible Consumption and Production) by teaching sustainable and environmentally friendly beekeeping practices. It is hoped that this program can continue to run independently and create a wider impact, including product diversification, tourism development, and improving the quality of life of the community. Thus, Tanjung Pasir Village is expected to become a sustainable village model that supports the achievement of SDGs as a whole.

Acknowledgment

Empowerment of forest farmer groups advancing together with Trigona through the provision of houses and bee seeds, as well as bringing in experts from UiTM Trengganu, has shown potential to increase household income. The new products produced by the participants have the potential to strengthen the village's identity and attract more visitors. However, further efforts are needed to address supply chain challenges and improve market access, especially through digital marketing channels.

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