

Community Development Through Ecotechnopreneurship Integration Program in Borisallo Village (Unismuh Makassar, Indonesia-Doctor Nueng Intercare Crabi School, Thailand)

Muhamad Ikkal¹, Nur Azmi², Fityatun Usman³, Pichisine Koaloune⁴, Dian Pramana Putra⁵

¹(Aquaculture, Universitas Muhammadiyah Makassar, Indonesia)

²(Physics Education, Universitas Muhammadiyah Makassar, Indonesia)

³(Pharmacy, Universitas Muhammadiyah Makassar, Indonesia)

⁴(Doctor Nueng Intercare Crabi School, Thailand)

⁵(Physics Education, Universitas Muhammadiyah Makassar, Indonesia)

ABSTRACT : The potential of the forest makes Borisallo Village have various natural resources that become commodities for the local community. Forest honey and brown sugar products are typical commodities in Borisallo Village, Borisallo people have been hereditary forest bee honey hunters and brown sugar makers from palm sap where the results are sold directly in roadside huts or sold to collectors who come directly to the location. As one of the palm sugar and honey producing areas in South Sulawesi, Borisallo is expected to become a center for quality palm sugar and honey. From the results of observations and in-depth interviews with honey and palm sugar farmers, community groups, and government officials, 2 community group partners were identified to be the object of the program. This activity aims to assist the forest honey hunter group of Borisallo Village in managing the production of forest honey with good quality and quantity according to standards and in a sustainable manner, providing packaging that has quality standards, making labels on product packaging, and marketing honey to the community. The target to be achieved is to produce forest honey with attractive product packaging and equipped with consumption eligibility from the Food and Drug Administration. The method that will be used in achieving the objectives is training, coaching and mentoring for the business group of forest honey hunters in Borisallo Village. The problem of this palm sugar entering the modern market is that the printing equipment still uses bamboo sticks cut at the base and coconut shells that lack prestige value in the eyes of consumers. This causes relatively limited access to product marketing due to unattractive shapes and packaging. Based on this, we, the proposing team, took the initiative to propose a Community Development Program through an ecotechnopreneurship Integration Program in Borisallo Village (University of Muhammadiyah Makassar, Indonesia-Doctor Nueng Intercare Crabi School, Thailand).

Keywords - ecotechnopreneurship _2; Development_3; Virtual Information

1. INTRODUCTION

The potential of the forest makes Borisallo Village have various natural resources that become commodities for the local community. Forest honey is a local wisdom product that is maintained by the community as a source

of income, Pranandhita, E., Usop, S. R., & Segah, H. (2020). Forest honey and brown sugar products are typical commodities in Borisallo Village, the Borisallo Community has been hereditary as a forest bee honey hunter and brown sugar maker from palm sap where the results are sold directly in roadside huts or sold to collectors who come directly to the location. However, these commodities cannot be processed properly by the community in Borisallo Village.

As one of the palm sugar and honey producing areas in South Sulawesi, Borisallo is expected to become a center for quality palm sugar and honey. This is supported by the commitment of the local government by establishing palm sugar and honey as one of the regional superior products and becoming a regional priority program. Honey processing ideally uses a technological approach in improving quality and benefits for the community, Syarifudin, A., & Prasetyo, A. (2021). In this activity, what will be the target of our program in Borisallo Village is to provide access and organize natural resources and human resources for economic business development activities or business activities involving the community around Borisallo village as target partners. From the results of observations and in-depth interviews with honey and palm farmers, community groups, and government officials, 2 community group partners were identified as the object of the program.

The partner in this program is the Borisallo Village Honey Farmer Group, Parangloe District. The Borisallo Honey Farmer Group initially consisted of only 4 members and then grew to 8 people. The formation of the Borisallo Honey Farmer Group is expected to improve welfare and control the price adjustment of honey in the market, but its existence has not been maximized. The Honey Harvesting Process is carried out by partners at night and uses equipment such as rattan ladders, coconut fiber torches, ropes, buckets, jerry cans, and flashlights. The harvest is sold directly through roadside huts and collectors.

Sales results through roadside huts, able to sell 30 - 50 bottles per month while during the covid 19 (Corona Virus) pademi can reach 100 bottles per month. Meanwhile, sales to collectors are made on a per liter basis at a relatively cheaper price. Therefore, this business is considered less profitable because the price of raw honey is not as good as the price of processed honey. The increased demand for honey during the Covid 19 pandemic did not significantly increase the profit of Borisallo honey sales. This is due to the packaging process using used syrup bottles and then covered with plastic and rubber. The packaging model gives a negative image of the quality of the honey being marketed. In addition, marketing is done through huts on the side of the Malino - Makassar route, which results in a low price/sale value compared to honey marketed in mini markets.

The next group partner in this program is a farmer who processes palm sap into palm sugar using a simple method, namely with coconut shells as a mold so that the resulting product cannot compete in the market because the shape of coconut sugar is not attractive. Another weakness of this method is that one piece of coconut sugar is too large when consumed by housewives, it is not durable to be stored in the open, less practical in the eyes of consumers, and the market share is only in small shops around the village or traditional markets. The results of observations made by the Team With the form and packaging that is still simple, marketing access is limited, which is only distributed in traditional markets. Whereas in the current era of globalization, traditional markets are starting to be eroded by modern markets or mini markets and the potential for digital marketing-based product marketing is growing. The problem with this palm sugar entering the modern market is that the printing equipment still uses bamboo sticks cut at the base and coconut shells that have less prestige value in the eyes of consumers. This causes relatively limited access to product marketing due to unattractive shapes and packaging. Based on this, we, the proposing team, took the initiative to propose a Community Development Program through an ecotechnopreneurship Integration Program in Borisallo Village (University of Muhammadiyah Makassar, Indonesia-Doctor Nueng Intercare Crabi School, Thailand).

2. HEADINGS

Village community development is an effort made to provide support, guidance, and capacity building to communities in rural areas, Kurnianingsih, (2022); Pradana & Fitriyanti, (2019). The purpose of this coaching is to improve the quality of life, welfare, and empowerment of rural communities. Village community development aims to increase the economic potential of village communities through skills training, micro-

enterprise development, increasing access to markets, and providing business capital. By doing so, village communities can develop productive businesses, increase their income, and reduce poverty levels. Village community development also involves the development of basic infrastructure, such as roads, bridges, clean water, sanitation, and electricity. In addition, the program also aims to improve villagers' access to basic services, such as education, health, and public services.

According to Saleh, (2022) Capacity and Knowledge Development of village communities ideally involves training and capacity building of communities in various fields, such as agricultural skills, natural resource management, entrepreneurship, village governance, and community participation. By improving knowledge and skills, village communities can optimize local potential and deal with changes that occur around them. In addition, village community development also involves strengthening institutions at the village level, such as the village government, community groups, and customary institutions. This aims to increase the carrying capacity and participation of the community in the decision-making process and implementation of development in the village.

Program Integrasi Ecohealthpreneurship merupakan program yang menggabungkan aspek ekologi, kesehatan, dan kewirausahaan dalam konteks pembangunan berkelanjutan. Program ini bertujuan untuk mengintegrasikan praktik-praktik berkelanjutan dalam pengelolaan sumber daya alam dengan upaya pemberdayaan ekonomi masyarakat lokal. Konsep "Ecohealthpreneurship" mengacu pada pendekatan yang menggabungkan prinsip-prinsip ekologi dan kesehatan dengan kegiatan kewirausahaan untuk mencapai keberlanjutan, Hadijah et al, (2021); Sungkono, (2022); Bawono, (2023). Ecohealthpreneurship menekankan pentingnya menjaga keseimbangan ekosistem, kesehatan manusia, dan aspek sosial-ekonomi dalam pengembangan usaha dan kegiatan ekonomi.

The concept of the ecotechnopreneurship integration program is carried out by combining sustainable practices in forest honey cultivation with economic development efforts of local communities. These sustainable practices include environmentally friendly management of bee colonies, use of safe natural ingredients, protection of natural bee habitats, and good hygiene practices. In addition, the program also provides training in managerial and marketing skills that will assist local communities in developing sustainable forest honey farming businesses and generating sustainable income, Herliana, (2020).

Community empowerment of forest honey producers is a process that involves various activities and strategies to increase the independence, knowledge, skills, and income of communities involved in forest honey production. The main objective of this empowerment is to create conditions where communities can optimize the potential of forest honey in a sustainable manner, improve their quality of life, and reduce poverty levels. Through the empowerment of forest honey producing communities, it is expected that communities can develop their local potential, increase their income, and become the main actors in the management and utilization of natural resources in a sustainable manner.

3. INDENTATIONS AND EQUATIONS

The method used in the implementation of the Program is a participatory method which means that the proposing team and the Method used in the implementation of the Program is a participatory method in the sense that the proposing team and partners are proactively involved in each activity, Bergold & Thomas (2012); MacDonald, (2012); Syahwati, et al., (2021). The proposing team and partners will collaborate directly where partners and the implementing team will carry out development in Indonesia and be actively involved in identifying the needs or solutions to the problems to be solved. The program will involve local communities in coaching and mentoring through several participatory approaches that actively involve them. Some of the ways this program will involve local communities are as follows:

Identifying community needs and aspirations: Before the program starts, the needs and aspirations of the local communities related to wild honey cultivation will be identified. The program team will conduct dialogues and discussions with community group members to understand their challenges, expectations, and goals. This will ensure that the program will match the real needs and be relevant to the local community. Participation in Program Planning: Local communities will be invited to participate in program planning. They will be given the

opportunity to provide their input, suggestions, and ideas related to the content, methods, and activities to be carried out in the program. Thus, the program will reflect the needs and desires of the community and ensure their involvement from an early stage.

Training and Workshops: The program will organize trainings and workshops involving local communities as active participants. They will be given the opportunity to learn first-hand about wild honey cultivation techniques, bee management, honey processing, and managerial and marketing skills. These trainings and workshops will be conducted in an interactive and practical format, allowing local communities to practice and apply the knowledge they gain.

Mentoring and Guidance: Following the training, the program will provide mentoring and guidance to the community groups in the application of the learned practices. The program team will regularly visit the villages and work together with local communities on bee colony management, honey processing, and related business activities. This mentoring and guidance will enable local communities to overcome the constraints and challenges they face, and improve their skills through hands-on experience. **Establishment of Working Groups:** The program can assist in the establishment of a working group or association of forest honey cultivation communities in Borisallo Village. This group will be a platform for sharing knowledge, experience, and resources between community members. The program can provide guidance in the formation of working groups and assist them in developing business plans, accessing markets, and developing networks.

According to Markley et al. (2015); Hunter et al. (2018); Suswanto et al. (2019), a service program should ideally involve local communities in coaching and mentoring. Involvement in this program will provide an opportunity for them to play an active role in the development of forest honey cultivation businesses. The participation of local communities will also ensure that the program is sustainable and relevant to their needs and support the strengthening of their capacity and independence in this sector.

Core activities as a solution in the program are carried out through a stage by determining the areas and solutions that are the targets of community service implementation. In this case, the target to be achieved is that this program aims to increase the production of honey produced by forest honey cultivation communities, develop the skills and knowledge of local communities in the field of forest honey cultivation, increase the income and economic independence of local communities and increase community participation in the development of forest honey cultivation businesses. The solution offered in this program is training and mentoring based on ecotechnopreneurship with this approach will have a significant impact on increasing the capacity and ability of the community to utilize the local potential of their area, Suheryadi et al., (2021); Syafi'i et al., (2021); Hambali et al., (2021). The advantage of this research is that the approach provided is able to have a direct influence on the target community in terms of economic, environmental and social aspects.

4. FIGURES AND TABLES

Based on information and observations that have been made during the service process carried out on June 10 to 12, 2023 in Borisallo Village, Gowa Regency, it illustrates that Borisallo Village has rich natural potential, especially in terms of forest honey production. The Honey Bee Hunter group in the village is involved in traditional forest honey collection. However, they face constraints in terms of knowledge and skills required to optimize this potential. Therefore, coaching is needed to empower these groups in managing the forest honey business. Local people may have limitations in terms of knowledge and skills in sustainable beekeeping practices, bee colony management, good honey collection techniques, honey processing and packaging, and product marketing. These limitations may hinder the development potential of their forest honey business. Therefore, through a coaching program, this group can be provided with the necessary knowledge and skills to improve the quality and productivity of forest honey. Therefore, the empowerment and mentoring activities of the Community Development Program through the ecotechnopreneurship Integration Program in Borisallo Village were carried out with the following activities:

- **Identification of Needs and Potential:** The initial stage was to identify the needs and potential of the Honey farmer group and Borisallo Village as a whole. This involved surveys and interviews with group members, community leaders, and other relevant parties to understand the challenges faced by the group and the

potential that could be developed.

- **Training and Education:** The program involves a series of training and education to enhance the knowledge and skills of the Honey Bee farmer group in the field of ecotechnopreneurship. Training can cover aspects such as bee colony management, good honey collection techniques, honey processing and packaging, business management, and product marketing. This training can be delivered through in-person training sessions, workshops, or online training.
- **Mentoring and Consultation:** In addition to training, individual or group mentoring and consultation can be provided to Honey Bee farmer group members. This mentoring aims to help them apply the knowledge they have learned in their daily activities, solve problems that arise, and provide advice for their business development.
- **Business Model Development:** The program can also involve developing a sustainable business model for the Honey Bee farmer group. This involves market analysis, marketing strategies, financial planning, and the development of a comprehensive business plan. This approach helps the group to manage their business more effectively and sustainably.
- **Environmental Management and Conservation:** As part of the ecotechnopreneurship approach, the program may also involve coaching and training in good environmental management practices and conservation of natural resources. This includes sustainable beekeeping practices, maintenance of biodiversity, and good forest management. Honey Bee farmer groups are taught about the importance of maintaining a balanced ecosystem and environmentally responsible practices.
- **Network Development and Collaboration:** The program encourages Honey Bee farmer groups to engage in networking and collaboration with relevant parties, such as government, non-governmental organizations, and the private sector. This may involve participation in community meetings, exhibition events, or cooperation in product marketing. These networks and collaborations help the group to expand their access to resources, markets, and information.
- **Monitoring and Evaluation:** During and after the program, monitoring and evaluation are conducted to measure the impact of the coaching program. This involves collecting data on the development of the Honey Bee farmer group, improvements in skills and knowledge, income generation, and social and environmental changes that occur. The results of this evaluation are used to improve the program and develop future strategies.

In the overall coaching program, the goal is to empower the Honey Bee Hunter group through training, mentoring, business development, and sustainable practices. In this way, it is hoped that the group can improve their standard of living, contribute to environmental conservation, and become an agent of economic change in Borisallo Village.

The final result of community service activities is the existence of cooperation as evidenced by the signing of the MOU and MOA as the basis for cooperation with partners, namely Muhammadiyah Makassar university and Doctor Nueng Intercrabi School (Thailand) with joint roles responsible for the implementation of further mentoring activities for participants of the Community Development Program through the ecotechnopreneurship Integration Program for Honey Bee farmer Groups in Borisallo Village (Muhammadiyah Makassar University, Indonesia-Doctor Nueng Intercare Crabi School, Thailand).



(The atmosphere of MOU and MOA signing by service partners from Doctor Nueng Intercrabi School (Thailand))



(The atmosphere of the training and mentoring process of the community program partners)

5. CONCLUSION

The conclusion of this activity is that the limitations of the local language, namely Indonesian, from the representatives of the Doctor Nueng Intercare Crabi School Team, Thailand are the main obstacles in the process of implementing the service, during the process of presenting the material to students also experienced a few obstacles because the material presented used English and some people still have limitations in English. However, assistance from partners in this case the companion as a material translator made it easier during the process of implementing the activity.

6. REFERENCES

- [1] Bawono, S. A. T., Maharani, A. M., Meysyaroh, A. M., Rachma, A. V., & Syahputri, T. M. B. (2023). Economic Empowerment Through Klanceng Bee Cultivation In Joglo Urban Village, Surakarta. *Wikuacity: Journal of Community Service*, 2(2), 81-88.
- [2] Bergold, J., & Thomas, S. (2012). Participatory research methods: A methodological approach in motion. *Historical Social Research/Historische Sozialforschung*, 191-222.
- [3] Hadijah, S., Amin, A. H. K., & Putra, D. P. (2021). Coastal Community Development through Ecosmarthealth Preneurship-Based Integration Program in Tamasaju Village, Takalar Regency. *IPMAS Journal*, 1(3), 110-117. <https://doi.org/10.54065/ipmas.1.3.2021.96>
- [4] Herliana, O. (2020). Development of Apiculture-Based Agritourism through Thematic Real Work Lectures in Darmakradenan Village, Ajibarang District, Banyumas Regency. *Journal of Community Service and Development*, 3(1), 356-364.
- [5] Hunter, L., & Lean, J. (2018). Entrepreneurial learning-a social context perspective: evidence from Kenya and Tanzania. *Journal of Small Business and Enterprise Development*, 25(4), 609-627.

- [6] Kurnianingsih, F., Putri, R. A., Mahadiansar, M., & Valentina, A. (2022). Capacity Building of Village Institutions in Coastal Areas: Experience in Busung Panjang Village, Lingga Regency. *Alfatina: Journal of Community Services*, 2(1), 6-18.
- [7] Markley, D. M., Lyons, T. S., & Macke, D. W. (2015). Creating entrepreneurial communities: Building community capacity for ecosystem development. *Community development*, 46(5), 580-598.
- [8] MacDonald, C. (2012). Understanding participatory action research: A qualitative research methodology option. *The Canadian Journal of Action Research*, 13(2), 34-50.
- [9] Pranandhita, E., Usop, S. R., & Segah, H. (2020). Local Wisdom of Forest Honey Harvesting in Muara Ripung Village Community, South Hamlet District, South Barito Regency. *Journal of Environment and Management*, 1(3), 194-203.
- [10] Pradana, H. A., & Fitriyanti, S. (2019). Empowerment and acceleration of the development of village-owned enterprises (bumdes) in improving the community economy and increasing village original income. *Journal of Development Policy*, 14(2), 133-146.
- [11] Syarifudin, A., & Prasetyo, A. (2021). Improving the Business of the Klanceng Barokah Honey Forest Farmer Group in Kalipoh Village, Ayah District, Kebumen Regency. *LOGISTA- Scientific Journal of Community Service*, 5(1), 67-75.
- [12] Saleh, S., Muhsin, A., Anas, L., Putra, D. P., & Basir, B.. (2022). Institutional Strengthening and Marketing of Bumdes Mandiri Production in Pitusunggu Village, Ma'rang District, Pangkep. *IPMAS Journal*, 2(1), 17-24. <https://doi.org/10.54065/ipmas.2.1.2022.106>
- [13] Sungkono, S. E. (2022). *Civil Enclave Airport Based on Sustainable Development: Concept and Ethnomethodology Study in Indonesia*. UB Media Printing.
- [14] Syahwati, U. M., Putra, D. P., & Istiqamah, N. (2021). Creative Business Incubation Class Solution for the Birth of Young Entrepreneurs on Lae-Lae Island during the Covid-19 Pandemic. *IPMAS Journal*, 1(2), 67-74. <https://doi.org/10.54065/ipmas.1.2.2021.34>
- [15] Suswanto, B., Windiasih, R., Sulaiman, A. I., & Weningsih, S. (2019). The Role of Village Facilitators in Sustainable Community Empowerment Models. *JUSS (Soedirman Social Journal)*, 2(2), 40-60.
- [16] Suheryadi, B., Luqman, E. M., & Shubhan, M. H. (2021). Empowerment of Farmer Groups in Cultivating Forest Honey Bees in Bareng Sawahan Village, Nganjuk Regency. *JMM-Journal of Independent Society*, 3(2).
- [17] Syafi'i, M., Amartani, D., Irianto, H., & Sutarman, S. (2021). Forest Honey Bee Cultivation in Farmer Groups in Wonosalam Village, Jombang. *Journal of Community Services: Sustainability and Empowerment*, 1(02), 25-33.

INFO

Corresponding Author: **Dian Pramana Putra**, *Physics Education, Universitas Muhammadiyah Makassar, Indonesia*.

How to cite this article: **Muhamad Ikbal, Nur Azmi, Fityatun Usman, Pichisine Koaloune, Dian Pramana Putra**, *Community Development Through Ecotechnopreneurship Integration Program in Borisallo Village (Unismuh Makassar, Indonesia-Doctor Nueng Intercare Crabi School, Thailand)*. *Asian. Jour. Social. Scie. Mgmt. Tech.* 2023; 5(6): 67-73.