

Empowerment of Micro/ Small/ Medium Enterprises in Making Traditional Herbal from Family Medicinal Plants as an Effort to Achieve SDGs

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Abstract: Cikarawang Village, Dramaga District, Bogor Regency has a Merdesa community which engaged in plantations. This community has become micro/small/medium enterprises (MSMEs) but has not been able to significantly improve the welfare of the community in achieving Sustainable Development Goals (SDGs). The purpose of this activity is to be able to develop the home yards of the Cikarawang Village community to be more useful, the second can increase the community's production sector, and the last is expected to increase the birth of MSMEs in Cikarawang Village. This program is also carried out in collaboration with the Kebun Merdesa Community. Herbs are the community's choice in curing diseases, and some even cultivate herbs as Family Medicinal Plants or commonly referred to as Family Medicinal Plants. The Family Medicinal Plants area around the community's yard area can easily obtain medicinal plants which are then processed into herbal medicine. This program will also involve education units. Promotional media in the form of banners, billboards, and banners will be made and installed in strategic locations towards partners to complement this program which is also a means of information for the village community. This activity involved 2 lecturers and 2 students from Pharmacy Bachelor Program with combined the program of Freedom of Learning Independent Campus which oriented towards community service. The formation of micro-business units in Cikarawang Kebun Merdesa Village, increasing the productivity and creativity of Cikarawang Village's youth, and also providing added value economically, socially, and culturally were implemented.

Keywords: Family Medicinal Plants; Herbal; SDGs

1. INTRODUCTION

Cikarawang Village is located in Dramaga District, Bogor Regency with an area of 226.56 ha. This village is one of ten villages included in the campus circle village area of Bogor Agricultural University. Cikarawang Village is bounded by the following areas: 1 North of Cikarawang Village is bordered by Cisadane River, 2 South is bordered by Ciapus River, 3 East is bordered by Situ Gede Village, and 4 West is bordered by Ciaduan River (Desa Cikarawang, 2023).

The community services activity team invites the community to use their own yard or vacant land around

the community's yard to plant medicinal plants which if later can be processed into "Traditional Herbal" which is expected to maintain the immunity of the people of Cikarawang Village itself and be developed into products that are suitable for sale. With this, not only the community benefits in terms of health but also in terms of economy which is expected to become a typical product of Cikarawang Village. The purpose of this activity is to be able to develop the yard of the Cikarawang Village community to make it more useful, the second can increase the community's production sector, and the last is expected to increase the birth of MSMEs in Cikarawang Village.

The team accompanied by the Head of the Merdesa Garden Community (Ade Setaiawan Karsad) explained the business and marketing processes as well as the cooperation of MSMEs. However, during the discussion, it was mentioned that around 30% of Cikarawang village youth were still unproductive and had low incomes. This is also due to the low employment opportunities in the location. The low number of human resources receiving higher education is a factor in the limited ability and skills of rural youth, especially in receiving new technology that can be utilized for the development of household industry products. Low income is also a factor in the limited working capital of partners to develop large-scale and technology-based production of goods.

The limited knowledge and skills about the process of making traditional herbal medicine based on pharmaceutical technology underlie the team to contribute in traditional herbal medicine training and mentoring skills to produce good quality products. It also according with the potential of plants owned by Cikarawang Village as a characteristic of the village. Support for this program proposal is also carried out through collaboration with the Merdesa Garden Community in Cikarawang Village as a partner community of Institute of Research and Community Outreach Universitas Pakuan, becoming one of the villages that has the most significant social impact in the MSMEs Village program in Cikarawang Village, Dramaga District, Bogor Regency (**Figure 1.**).

The use of plants as medicine has long been in demand by the village community, it is characterized by the many places of traditional medicine commonly called herbs. Herbs are plants or plants that have medicinal properties. Herbs can play a role in first aid in health problems and are proven to be effective in curing various



Figure 1. Identification of Natural Material Potential in Merdesa Garden

diseases even diseases that are almost incurable. Herbs are the choice of the community in curing diseases, some even cultivate herbs as Family Medicinal Plants or commonly referred to as Family Medicinal Plants (Pranata, 2013).

Family Medicinal Plants are home-grown plants that are efficacious as medicine, used in efforts to improve health both in preventive, promotive and curative efforts. Parts of plants that can be used as medicine are leaves, bark, fruits, seeds and roots (Kemenkes RI, 2011). The presence of Family Medicinal Plants in the home environment is very important, especially for families who do not have access to health services. From the Family Medicinal Plants area around the yard area of the house, people can get medicinal plants easily. These medicinal plants can be processed into herbs and mixed (Harefa, 2020). Jamu is a traditional Indonesian drink that has properties for the health of the body and can be used in the process of preventing a disease (Sukini, 2018). Jamu as a traditional herbal medicine has been practiced for centuries in Indonesian society. Although there are many modern medicines, herbal medicine is still widely consumed by people in rural and urban areas (Elfahmi *et al.*, 2014).

The use of medicinal plants as self-medication will help save on medical costs. However, this must be based on the ability and adequate knowledge in processing existing medicinal plants. The public often gets drug information through drug advertisements, both from print and electronic media and this is the most memorable information, very easy to capture and commercial in nature. Thus, if there only rely on this type of information, people will lose very important information, namely the type of medicine needed to overcome the symptoms of pain. Therefore, an effort is needed to equip the community to have the skills to find

information appropriately and correctly by utilizing information sources that are available in the community.

In order for the independent use of drugs to be carried out appropriately, the public needs to get information about the active ingredients of the drug, indications, dosage and method of administration, side effects and contraindications. Self-medication that is done appropriately and correctly can support health maintenance efforts. The ability of community members to live healthy lives creates a healthy village environment in accordance with the topology of health-caring villages in achieving SDGs.

2. METHOD

This Community Services Activity was carried out in Cikarawang Village, Bogor Regency. The activities carried out are empowering and training in making traditional herbal medicine from Family Medicinal Plants.

The methods carried out include:

1. Providing socialization and skills training on how to make affordable traditional herbal medicine so that it is hoped that mothers can make their own at home for their own use or sale to improve the community's economy.
2. The activities applied include 3 stages of implementation, namely 1) Observation and collection of raw materials (ginger, turmeric, sand ginger, lemongrass), namely collecting preliminary data related to the potential of family medicinal plants in Cikarawang Village. 2) Socialization, namely the delivery of material related to benefits, manufacturing techniques, and how to choose good and healthy herbal ingredients. 3) Demonstration, which is an activity of making traditional herbal medicine with the village community. Furthermore, assistance will be carried out in utilizing quality Family Medicinal Plants in the form of traditional herbal medicine making skills. Village youth will be divided into several groups based on natural commodities to be processed, then the practice of processing raw materials into quality traditional herbal medicine. Education on the selection of packaging materials will also be carried out so that village youth can determine the best packaging for the commodities they will produce. Assistance in the packaging of traditional herbal medicine will be carried out in the division of youth groups based on the packaging material model.

3. The next stage is the labeling of finished products with product names as a result of decisions with partners. The label content is adjusted to the official label content of natural ingredient pharmaceutical products that are worthy of being marketed. Marketing is carried out in the form of an online market with assistance in mastering internet-based technology in marketplace applications. Assistance in improving community welfare will also be continued until the socialization stage of sales bookkeeping so that partners can analyze real production increases and income increases. Facilitation of marketing cooperation will be carried out for local governments, the private sector, and education units.

Partners in this program will contribute in facilitating activities in Merdesa Gardens and also prepare raw materials that will be used as processed commodities. The community is not only know about planting and utilization of medicinal plants, but also knowing to process medicinal plants as well (Qamariah et al., 2022). The establishment of the Freedom of Learning Independent Campus curriculum involving partners, lecturers, and students will be a solution to sustainability problems with an orientation to community service activities.

The role of each team member in this program is divided into 2 areas. Member 1 is tasked with reviewing literature, analyzing partner conditions in the form of problems and also solutions to partner problems, conducting training in making traditional herbal medicine and assisting in the sale of production products. Member 2 is tasked with providing education on the content and benefits of traditional herbal medicine from Family Medicinal Plants, conducting training on packaging traditional herbal products and preparing reports.

This program also involves 2 students from Pharmacy Bachelor Program. As for this Community Services Activity, students are given assignments to make service projects in making traditional herbal medicine making technology designs from the potential of Family Medicinal Plants in Cikarawang village. Packaging and marketing models of finished products digitally. In this activity, students involved have the potential to be recognized by Freedom of Learning Independent Campus in the Natural Material Technology course as many as 2 credits and are given a Certificate of Competency Accompanying the Diploma. Students are expected to be able to apply natural material technology, especially in making good quality simplisia.

3. RESULT AND DISCUSSION

This Community Services Activity can increase the knowledge of Cikarawang residents in terms of utilizing, processing, packaging and marketing various family medicinal plants into traditional herbal products. Traditional herbal medicine has been shown to have significant benefits for human health. Utilizing natural wealth and valuable traditional knowledge (Atmojo and Darumurti, 2021), traditional herbal medicine is still an attractive option to maintain and promote health naturally. There are society this time still need herbal medicine to promote health in order to avoid infection by Covid-19 Virus (Pertiwi et.al., 2020).

The implementation of Community Services Activity has been published on the FMIPA UNPAK online media published on September 29, 2023 and on Jabar Online published on October 3, 2023 with the hope that the wider community can get to know and get information that Cikarawang Village residents have received training on how to make traditional herbal medicine from raw materials for Family Medicinal Plants and become a promotional media for marketing residents' production. Knowledge participants about Family Medicinal Plants is increasing, and they are very enthusiastic about planting Family Medicinal Plants on their land or yards at home and produce these plants as traditional medicine (Sari and Thomas, 2023). The publication on the media can be seen in **Figure 2**.



Figure 2. Media Publication (a) FMIPA UNPAK Website (b) Jabar Online

The results of traditional herbal products that are packaged with attractive packaging and sold with certain brands and with publications through West Java Online media and the FMIPA UNPAK website are solutions to the problems faced by the community. The resulting products can be marketed with a higher selling value, so that people's income increases and can improve the family economy by utilizing Family Medicinal Plants as traditional herbal products. The process of making traditional herbal medicine and the results of traditional herbal medicine products can be seen in **Figure 3**.



Figure 3. (a)Traditional Herbal Making Process; (b) Traditional Herbal Products

The stage of this activity that must be completed is the final evaluation to the training participants regarding the calculation of increasing the income of traditional herbal medicine selling prices from raw materials for Family Medicinal Plants. In raw form, the price of each kilogram of Family Medicinal Plants raw materials ranges from Rp. 15,000 – 20,000,-. There will be increasing the value if Family Medicinal Plants is sold in the form of traditional herbal medicine, the price per 250 mL bottle is Rp. 10,000,-.

4. CONCLUSION

Based on the results obtained from this Community Services Activity, a temporary conclusion can be drawn that there are increasing knowledge and skills during the discussion on community that will be impact for the outcome in improving the health status of the people of Cikarawang Village by processing various Family Medicinal Plants into alternative herbal medicine products in the form of traditional herbal medicine that has good benefits for health, high selling value, long shelf life and better marketing techniques. Documentation during training published through the FMIPA UNPAK and West Java Online websites can also be a promotional media and initial information that Cikarawang Village residents will produce traditional herbal

medicine from raw materials of Family Medicinal Plants. The processing of Family Medicinal Plants into traditional herbal medicine which is then packaged in attractive packaging and sold with certain brands is a solution to the problems faced by the community. The resulting products can be marketed with a higher selling value, so that people's income increases and can improve the family economy by utilizing Family Medicinal Plants around the environment as traditional herbal products.

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