



## Implementation of community economic empowerment by utilizing yards based on organic vegetable planting with an environmental perspective

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### ABSTRACT

Community empowerment is one of the strategies in efforts to implement community development based on the principle of democracy, in which the community is encouraged to place itself proportionally and become the main character in improving their own standard of living by accessing and utilizing available resources on a sustainable basis. Empowering the community through the use of yards program activities are one of the efforts that can be made to increase accessibility and availability of food independently and sustainably, and is oriented towards increasing community's income. RT 32 RW 07 Sawah Lebar Village in Bengkulu City is one of the potential areas for the development of organic farming-based yard utilization program, but it has not been optimally implemented due to several constraints, including the lack of knowledges, lack of facilities and infrastructure in producing their own fertilizer. Therefore, through community service activities, it is expected to be able to support and increase food self-sufficiency and the community's economy. This activity was carried out on October 8 2022 at RT 32, RW 07, Sawah Lebar Village, Bengkulu City. In this activity several stages of activity were used, namely planning and preparation, socialization about optimizing the use of yard land, and demonstrations of making compost and liquid organic fertilizer, as well as assistance in planting good commodities to be planted in the yard. This program was attended by residents and the local village government. Activities carried out concurrently between socialization and training in making compost and liquid organic fertilizer through presentation of material accompanied by discussions related to optimizing yards. From the results of the implementation of this activity it can be concluded that community economic empowerment can be carried out through optimizing the yard by planting vegetables and medicinal plants as an effort to support the availability of food and family medicines, as well as being useful for adding environmental aesthetic value, family hobbies, as well as the preservation of biological resources and the environment.

**Keywords:** Compost, Community Empowerment, Yard, POC

## 1. INTRODUCTION

Poverty alleviation is still a global issue that continues to be considered today. In the PPRA 64 national seminar held by LEMHANNAS RI in 2022, the Indonesian Minister of Foreign Affairs Retno Marsudi considered that the number of food crises in the coming years was quite alarming. In addition, he also estimates that 179 to 181 million people in 41 countries will face a food crisis as a result of the fertilizer crisis which will have an impact on world food security, including Indonesia. This has become the focus for government institutions and universities to actively play a role in efforts to accelerate poverty alleviation which was previously stated in PERMENDAGRI NUMBER 42 of 2010.

Community empowerment is one of the strategies in efforts to implement community development based on the principle of democracy, in which the community is encouraged to place itself proportionally and become the main actor in improving their own standard of living by accessing and utilizing available resources on an ongoing basis. Yunus et al. in the book "Integrated Community Empowerment Model" (2017) states that in its implementation, community empowerment places individuals and community groups as the center of development (people or community centered development) which is closely related to sustainable development and is believed to bring the community towards economic, social, and economic independence. and dynamic and sustainable ecology.

Empowering the community through the use of the yard land program is one of the efforts that can be made to increase the accessibility and availability of diverse, nutritious, balanced and safe community food independently and sustainably, and is oriented towards increasing people's income. Community service activities related to the use of yards have also been carried out by Sukenti et al. (2019) in the village of Sukarema, East Lombok Regency, Thesiwati (2020) in Nagari Sungai Liku, Ranah Pesisir District, Pesisir Selatan district, Firdaus et al. (2021) in the village of Bandarkedungmulyo, Jombang Regency, and Nashirudin et al. (2021) in Karangdatangan Jombang Village.

Organic-based agriculture is a production management system that as a whole aims to improve and develop agro-ecosystem health including biodiversity, biological cycles and soil biological activity. This is stated in the regulation of the Minister of Agriculture Number 64/Permentan/OT.140/5/2013. Organic farming, one of which can be applied to the use of natural materials that are easily found in the environment around where people live as fertilizers and pesticides to limit the use of synthetic chemicals, with the aim of optimally utilizing resources and also to provide agricultural products (foodstuffs) safe for public health. RT 32. RW 07 Kelurahan Sawah Lebar, Bengkulu City, is one of the potential areas for the development of an organic farming-based yard utilization program, but it can be said that this activity has not been optimally carried out due to several obstacles, including, lack of public knowledge, lack of facilities and infrastructure in producing fertilizer itself, as well as the lack of outreach and assistance to the community. Therefore, the role of higher education institutions through community service activities is expected to be able to support and increase food self-sufficiency and the community's economy.

## 2. IMPLEMENTATION METHOD

This activity was carried out on October 8 2022 at RT 32, RW 07, Sawah Lebar Village, Bengkulu City. In this activity several stages of activity are used, including the following: Planning and preparation stage which includes literature study, preliminary survey to identify problems, arrange permits for activity implementation, and outreach of activity plans to the community. Counseling/socialization on optimizing the use of home gardens with vegetable and medicinal plants, accompanied by interviews and discussions. Demonstration and implementation of compost and liquid organic fertilizer production, as well as assistance in planting good commodities to be planted in the yard.

Making compost and liquid organic fertilizer is carried out by utilizing household organic matter that is no longer used, as well as EM4 which will be used as a decomposer. The equipment used included buckets, knives, hoes, 1.25 inch PVC pipes, Plastic Tong Vol. 60 Liter, Water Faucet and Filter.

The stages of making compost begin with 1. preparing a soil excavation with a depth of half the height of the bucket, 2. Chop all the vegetables (compost material) that has been prepared and put it in a bucket then pour EM4. 3. Put the compost mixed with EM4 into the prepared bucket, then 4. Close the bucket in the excavation and let it sit for 4-6 weeks until the decomposition process occurs and the compost can be used. The steps for making liquid organic fertilizer include: 1. preparing a container for POC by installing a water faucet and connecting it with a pipe in a plastic barrel. 2. Install the filter into the plastic barrel so that when the faucet is turned on, the organic material that is put in does not come out later. 3. Chop all the vegetables that have been prepared and put in a bucket and poured EM4. 4. Close the plastic bin tightly and let it sit for 4-5 weeks.

The last 4 stages of activity are evaluation as well as coaching after seminars and training have been carried out. The goal is that the people of RT 32, RW 07 Sawah Lebar Bengkulu can discuss directly if they are faced with problems in the process of implementing coaching activities.

## 3. RESULT AND DISCUSSION

This program began with socialization at RT 32, RW 07, Kelurahan Sawah Lebar, Bengkulu City, which was attended by residents and the local village government. Activities carried out simultaneously between socialization and training in making compost and liquid organic fertilizer. The socialization was carried out in the form of presentation of material accompanied by questions and answers and discussions related to optimizing yards, the use of vegetable and medicinal plants and their procedures.



Figure 1. Submission of Socialization Materials

On this occasion, examples of success in utilizing yards have been shown to be able to meet family food needs independently in order to motivate participants (Figure 1). The benefits that can be felt from optimizing home gardens include food self-sufficiency and the availability of medicines by planting commodities that have certain properties, which can directly reduce household consumption expenditures.

Training on making compost and liquid organic fertilizer begins with demonstrations and direct assistance to participants, using household waste materials and used vegetables that are easy to find in everyday environments and simple tools that are easy to prepare. The demonstration of making compost and liquid organic fertilizer aims to enable participants to apply the knowledge they have acquired, and independently be able to provide planting media and organic fertilizer to meet the family's food needs for safe and healthy food obtained from the yard. In addition to increasing family income, the yard can guarantee the availability of food and household medicines, channel family hobbies and creativity, create a comfortable and healthy environment, and support ecosystem preservation efforts (Amruddin & M. Iqbal, 2018).



**Figure 2. Demonstration of Making POC**

The demonstration of making liquid organic fertilizer was carried out by demonstrating in general how to prepare a simple plastic barrel that will be used as a liquid organic fertilizer storage container, installing a faucet until the application of EM4 on organic matter which is then ready to let POC rest for 4-5 weeks before use (Figure 2). The achievement of the activity objectives can be seen from the enthusiasm of the residents who are quite good in participating in each stage of socialization and training (Figure 3). The types of vegetables or plants used can be adapted to the wants and needs of the community, or adapted to market needs if indeed one day this cultivation will be continued until it has economic value for the community. Suitable types of plants generally have high economic value but are short-lived, for example seasonal crops such as celery, caisim, lettuce, and various types of mustard greens (Kusmiati & Sholikhah, 2015). The choice of plant species for each household sometimes depends on the choices of other households, because people basically need real examples before making decisions (Haryati & Sukmaya, 2016).



**Figure 3. Enthusiasm of the training participants**

## 4. CONCLUSION

From the results of the implementation of this activity it can be concluded that community economic empowerment can be carried out through optimizing the yard by planting vegetables and medicinal plants as an effort to support the availability of food and family medicines, as well as being useful for adding environmental aesthetic value, channeling family hobbies, as well as the preservation of biological resources and the environment. Community service activities in the form of outreach, training and mentoring provide additional insight and skills to the community regarding the use of yards and management of kitchen waste as compost and liquid organic fertilizer.

### Suggestion

Enthusiasm in optimizing the yard should not be enough only when community service activities are carried out, but can continue on an ongoing basis to create a strong and independent community economy.

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