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Community Empowerment Strategies Through Organic Farming in Papringan Village, Kaliwungu Sub-district, Kudus Regency

Khoidatul Maulindha Sari
IAIN kudus, Kudus, Indonesia

Alamat: Jl. Conge Ngembalrejo Bae Kudus Jawa Tengah
Korrespondence: maulindasari2005@gmail.com

Abstract. *Organic farming is a cultivation system that prioritizes ecological balance and environmental sustainability by not using synthetic chemicals such as pesticides and artificial fertilizers. In contrast to conventional agriculture which often relies on external inputs to increase production yields, organic agriculture emphasizes the use of natural resources in a natural and sustainable manner. The purpose of this research is to find out the description of organic farming and community empowerment through organic farming activities in terms of economic value or other values. This type of research is Qualitative using Miles Huberman analysis. The results showed that organic farming in Papringan village has been running well with the proof that the types of plants cultivated such as bananas, chilies and longan produce a stable harvest. These crops can have high economic value, but also have good health value. So that this organic farming activity as a form of community empowerment can be a community option to maintain living standards.*

Keywords: *Strategy, Community empowerment, Organic farming*

1. INTRODUCTION

Community empowerment is one of the means by which governments support local communities in solving problems, resolving conflicts, and utilizing their resources, so that they ultimately have the ability and capacity to function economically, ecologically, and socially. Community advancement in this area is therefore closely related to sustainable development, which requires strong economic, ecological, and social indicators for the general well-being of society.

Community empowerment is an economic development concept that embodies people's values to create a new paradigm in development that is people-centered, participatory, empowering, and sustainable (Chambers, 1995). More specifically, Chamber explains that the idea of development using the concept of community development is not just to meet the basic needs of the community, but rather to find alternatives to local economic growth. Community empowerment as an alternative strategy in development has been widely discussed in various literature and literature, but has not been implemented properly. Community development and empowerment is very important for the community, especially if it is related to the lack of community skills, which will greatly hamper economic growth.

Reforms in the field of government reform that began in 1998 showed that there had been a significant change in the government system from a highly centralized power (New Order) to an autonomous system with decentralization. Based on Law No. 5/1974 which is a

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summary of the changes made to the government in Indonesia, Law No. 22/1999 on Regional Government was later amended to Law No. 32/2004. Changes in the implementation of government with Autonomy in Regency / City Regions have brought significant changes, especially related to development activities, decisions in development planning, and implementation of development and maintenance. Based on the reality of the practice of implementing regional autonomy, there are many things that need to be done, such as limiting creativity and community participation in a critical and impartial manner, so that roads must be organized in accordance with the laws and regulations on Regional Government.

As a paradigm for building populism, community empowerment is a means to improve the dignity of a large part of the population that is still very much making people experience poverty. From the point of view of public administration, populism does not explicitly embrace any economic concept, but implicitly incorporates considerations of economic democracy (i.e. economic activities carried out from, by and for the people). Among the various economic concepts discussed are technological advancement, capital ownership, market accessibility and management effectiveness. Therefore, for economic democracy to succeed, the aspirations of the people must be clarified by the government and expressed in the form of public policies to achieve the goals that have been set by the general public.

The fundamental development movement undertaken by the government must be matched by encouraging greater community participation in self-directed activities. This makes it a critical task for development agencies to create, support and formulate a climate that discourages development activities undertaken by the general public. These efforts are made through laws, regulations, and government development projects that are meant to inform, enlighten, and create avenues for community development projects.

Organic farming is a sustainable agricultural practice that prioritizes environmental balance and public health. By using natural fertilizers and avoiding harmful chemicals, organic farming aims to preserve soil richness, reduce environmental impact, and produce uncontaminated food products (Lampkin et al., 2000; Soni et al., 2022; Tripathi et al., 2023; Vara et al., 2022; Zikeli et al., 2017). Organic agriculture research faces challenges and opportunities globally. The challenges include the need for diversification to increase resilience to climate change (Ondrasek et al., 2023), on the other hand, the opportunities lie in the potential expansion of organic agriculture to improve ecosystem services, reduce environmental pollution, and increase food safety (Reckling & Grosse, 2022).

In addition, there is an increasing demand for organic products globally, creating economic opportunities for farmers and communities (Nguyen et al., 2023). To overcome

these challenges and capitalize on the opportunities, it is important to focus on on-farm research to design solutions with farmers, provide financial assistance, and encourage policies that support the development of organic farming.

Based on initial observations, farmers in Papringan Village, Kaliwungu Sub-district, Kudus District received regional resilience coaching. Residents were invited to work on rice fields in RT 4 RW 1 of the local village as an effort to achieve food self-sufficiency. “The activity carried out aims to accelerate the rice planting process, especially now that it has entered the planting season, so that farmers prepare their land in preparation for rice planting,” said one of the Papringan Village officials. ”In addition to providing assistance, in the future the village will also assist farmers in preparing agricultural irrigation facilities, planting care until harvest time.

This will be done continuously and sustainably, until farmers help create food self-sufficiency nationally,” said one of the village officials. One of the farmers, Mrs. Suyati, revealed that her party welcomed the assistance provided by the village “We welcome, thank and follow the instructions given to jointly cultivate the land, the results will also be for us as people who use it,” she said. The problem in this study is how the organic farming process is then the second is how the sales strategy of organic agricultural products. Through the explanation above, the author wants to examine further research with the title “Community empowerment strategy through organic farming business in Papringan Village, Kaliwungu District, Kudus Regency”.

2. MATERIALS AND METHODS

This type of research is descriptive research with a qualitative approach, which is a type of research that seeks to explore information in depth, and is open to responses and not just yes or no answers. This research was conducted in a farmer group located in Papringan Village, Kaliwungu Sub-district, Kudus City. The determination of the research location was done purposively with the consideration that to the best of the author's knowledge this farmer group is the only one that runs a vegetable farming business based on organic farming in Papringan Village. The research was conducted from November 2024 to February 2025.

The data used in this study used primary data and secondary data. Primary data was obtained by conducting direct interviews using questionnaires to key respondents. The key respondents in the study were five people consisting of Farmer Groups and organic product facilitators and academics who are involved in organic farming. Secondary data was obtained from agencies related to the research, namely the Kudus Regency Agriculture Office, and the

Central Bureau of Statistics, other library materials such as books and journals as a source of previous research results. In this research, there are three stages of data analysis using the milles hubermam model, namely; data collection stage, data reduction stage and conclusion drawing.

3. RESULTS AND DISCUSSION

Organic Farming Process

Organic farming is a holistic and integrated agricultural production system that optimizes the health and productivity of agro-ecosystems naturally, so as to produce sufficient, quality, and sustainable food and fiber. Organic farming is an agricultural system that uses natural ingredients without chemicals.

There are several types of Indonesian crops that have the potential to be developed with this technique, including rice, horticulture which includes vegetable, fruit, flower, and medicinal plants (for example: broccoli, red cabbage, oranges, etc.), plantation crops (coffee, tea, coconut, etc.), and spices.

Organic farming is based on the principles of health, ecology, justice, and protection. Organic farming is carried out by, among others:

a. Avoiding the use of genetically modified seeds (GMO = genetically modified organisms).
b. Avoiding the use of synthetic chemical pesticides. Weed, pest and disease control is done by mechanical, biological, and crop rotation.
c. Avoiding the use of growth regulators and synthetic chemical fertilizers. Soil fertility and productivity are improved and maintained by adding crop residues, manure, and natural mineral rocks, as well as planting legumes and crop rotation.
d. Avoiding the use of growth hormones and synthetic additives in animal feed.

Organic farming is influenced by several factors. Environmental factors are one of them that are very influential in the success of organic farming.

Environmental factors that affect the success of organic farming are:

a. Soil Quality. Maintaining good physical, chemical and biological properties of soil is important in organic farming. For this reason, organic farming prioritizes soil management methods that minimize erosion, increase soil organic matter content and encourage the quantity and diversity of soil biology. In organic farming, soil fertility improvement is done without the use of synthetic chemical fertilizers. Instead, the following techniques are used: Appropriate crop rotation, mixed

cropping and integration of crops with livestock. Increasing the population of soil microorganisms through the use of organic fertilizers. Minimizing tillage that disrupts soil biota activity. Keeping the soil covered with organic mulch. Avoiding excessive tillage on sloping soils to prevent erosion. Using crops in strips and intercropping. Avoiding overgrazing. Not using synthetic chemicals that poison soil microorganisms and damage soil structure.

b. Energy saving. Studies show that organic production systems use only 50-80% of oil energy to produce each unit of food compared to conventional agricultural production systems. However, this does not apply to all vegetable and fruit production systems.

The Development of Organic Agriculture in Indonesia Historically, environmentally friendly agriculture has been practiced since hundreds of years ago by our ancestors. This agricultural system is carried out without the use of production facilities from outside the land and only relies on nature by returning all crop residues to the soil as organic fertilizer.

This is based on the philosophical consideration that:

a) All objects and creatures in nature are good and useful;
b) Things that grow and develop in nature follow natural laws; and
c) All creatures in nature will grow and develop well if there is a balance in nature itself.

However, there are many obstacles in organic farming. Problems in organic farming include: The area of land that applies organic farming systems is relatively small and is located around non-organic (conventional) cultivation land. Existing water sources have been polluted by fertilizers, pesticides and other chemicals. The cultivation area is far from transportation access.

The process of organic farming, Mrs. Suyati said:

"First we use good fertilizer for good quality such as green manure, manure and compost and can also avoid chemicals. To control pests, we can use food scraps or traps, barriers and sound or light, and avoid using chemicals that can damage and less water in the soil so that it is not too humid. Regarding the selection of plants in rotation or locally, the important thing is to match the soil. Introduction to existing soil conditions such as soil fertility and also the character of the soil is how. Regarding the source of water used, it is ensured that the water can be free from other water contaminants. The types of plants on the farm are bananas,

chilies, cassava and longan. These three crops are popularly cultivated in Indonesia."

Figure 1. Chili pepper plants

Chili is a vegetable crop that has a high economic value. The high economic value is evidenced by the government's focus on handling fluctuating chili prices that trigger inflation (Abrori et al., 2021). In addition, the potential for chili exports also increased by 7.42% during 2000-2019 so it is not wrong if the government classifies chili as a strategic commodity (Center for Agricultural Data and Information Systems, 2020; Ministry of Agriculture Strategic Plan 2020-2024, 2020). Seeing the potential economic value and the threat of inflation, special attention is needed to the factors that trigger the increase in chili prices. According to Nurvitasari et al. (2018), one of the factors affecting the increase in chili prices is the production capacity that depends on the season and the threat of disease disorders.

The chili agricultural intensification program is one of the solutions in increasing production, but if in practice it is not strictly regulated, negative impacts such as pollution due to chemical fertilizers and pesticides in chili production will arise briefly, encouraging farmers to use excess synthetic chemicals. The use of synthetic chemicals in high doses for a long time can have a negative impact. The negative impacts include water pollution, soil pollution which results in decreased soil fertility, low biodiversity, increased pest, disease and weed attacks. The many negative effects of using synthetic chemicals have opened farmers' awareness to implement organic farming systems. Organic farming is an effort to optimize the use of organic materials on agricultural lands to maintain soil health and fertility (Darmadji & Suwarta, 2018). The high and low production of chili plants is certainly influenced by the quality of the soil where it is cultivated. There are many obstacles in increasing crop production including soil fertility, availability of essential nutrients such as phosphate, the presence of phosphate solubilizing microbes that play an important role in the process of dissolving phosphate in the soil (Reda et al., 2019). Reducing the use of synthetic

chemicals and switching to organic fertilizers in agriculture brings many benefits to improve soil properties, especially the biological aspects of the soil. Some ways to care for chili plants:

1) Watering. Water chili plants regularly, according to soil and weather conditions. When it rarely rains, water the chili plants every day. During the dry season, water the chili plants twice a day. Avoid over-watering which can cause the roots to rot. Make sure the water penetrates to a depth of 15-20 cm.
2) Fertilization. Apply organic fertilizer, such as manure or compost, once every two weeks. Place the fertilizer on the soil surface near the roots.
3) Weeding. Clear the plants of weeds, garbage, and decaying plants. Do weeding regularly, once every two to three weeks.
4) Pruning. Cut the tops of the plants slowly and periodically with pruning shears. Prune regularly, about once a month.
5) Protection from pests. Protect chili plants from pests such as red mites, gophers, and aphids.

Field analysis on chili plants is an analysis of planting area, production costs, and revenue. The average farmer's red chili planting area is 0.16 ha. The cayenne pepper planting area of 0.25 ha costs Rp. 8,500,000. In the analysis of production costs. Labor costs are the highest cost component in cayenne pepper farming. The cost of production facilities is the second highest cost component in cayenne pepper farming. While analyzing acceptance. Revenue is the amount of production obtained in one growing season multiplied by the selling price per kilogram. Receipts of curly red chili farming per season can be calculated by multiplying the average production amount by the selling price per kilogram. In addition, the analysis of chili plants in the field can also include: Analysis of business feasibility, Analysis of Return On Investment (ROI), Analysis of factors affecting the growth of chili plants, Analysis of pest and disease control.

Figure 2. Banana Plant

How to care for banana trees so that they thrive can be done with a series of techniques. One way is to fertilize regularly. In addition to fertilization, there are ways to care for banana trees that also need to be considered. Taking care of banana trees is one of the ways that tree owners can do so that the banana trees planted can produce quality harvest quality. Some ways to care for banana trees include:

1) Fertilization. In order for the banana plant to grow well, it needs to be fertilized. The type of fertilizer that can be given to banana trees is basic fertilizer in the form of compost or manure. This fertilizer can be applied 23-30 days before the soil is planted with seedlings. This fertilizer can be adjusted to the type of soil used.
2) Weeding for pests. Weeding is done by uprooting and cleaning the weeds that grow around the banana plants. With weeding, banana trees can grow better and without worry.
3) Loosening the soil. Loosening the soil is done so that the roots and stem of the banana can grow well.
4) Watering. Watering the banana tree regularly is a way that can be done so that the water intake for the mango tree can be fulfilled. Watering the banana tree is also very necessary because banana trees are very susceptible to water shortages, especially during the dry season.
5) Pruning dry leaves. To keep the tree free from the risk of disease transmission, we need to prune dry leaves regularly.
6) Regulate the growth of new shoots. The growth of new shoots on the tree needs to be limited so that the banana tree can grow properly. Shoots that need to be removed can be removed by separating the bulb from its parent.
7) The type of fertilizer that can be given to longan and banana plants is manure with a period of application of about once a month. After giving enough nutrients and water, you cannot just leave it alone. In order for longan to bear abundant fruit when harvesting, then also pay attention to routine maintenance that must be done.

The analysis obtained in this study is the farmer's business income on banana trees, with the first indicator used is the total business revenue of banana farmers using the parameters of the amount of production and the selling price of banana leaves. The second indicator used is the total cost of banana farmer's business which includes all production activities of banana farmer's business with the parameter of input costs of banana farmer's

business in the village. From this banana farmer's business revenue can be calculated by means of the selling price of banana leaves multiplied by the amount of production within the first year and the second year of harvesting banana fruit and banana leaves.

Banana farmers' business costs include: fixed costs and income of banana farmers. Fixed costs. Fixed costs consist of investment costs and depreciation costs of agricultural equipment. Investment costs include the cost of production facilities incurred in the activities of banana farmers from the beginning of planting until the harvest of banana leaf production. The investment cost in this study is the purchase of seedlings where the investment charge is made every year considering that banana farmers only buy seedlings at the beginning and the following year there are saplings that continue to grow until the plant is five years old. Investment cost of seedlings. Other fixed costs include the cost of taxes paid annually, and the cost of depreciation of agricultural tools such as hoes and sickles. The cost of depreciation of agricultural equipment used for banana farming is calculated using the straight-line method. This method is used under the assumption that the agricultural equipment used in banana farming shrinks at the same rate each year. Banana farmer's income. Banana farm income can be calculated by subtracting the total revenue of the farmer minus the total cost of being a banana farmer.

Figure 3. longan plant

Longan (Dimocarpus longan L.) is not native to Indonesia, but comes from China, so it is classified as a subtropical land. Longan fruit has many properties ranging from the fruit skin, pulp, and even the seeds. Since ancient times until today, dried longan fruit pulp is used in Chinese medicine techniques (Yunchalad et al., 2008). Water extract of longan fruit peel contains anti-oxidant and anti-inflammatory compounds Huang & Jiang (2012) while longan fruit seed extract contains anti-microbial compounds derived from phenolic compounds (Tseng et al., 2014). Longan in Indonesia has been cultivated for a long time. Longan is

widely found in Java Island spread across several districts, including Ambarawa, Magelang, Temanggung, Wonogiri in Central Java, and Tumpang in East Java (Purnomo et al., 2015). Recently, some planters/farmers have successfully developed longan in the lowlands such as in the Selarong area, Bantul Regency known as the Selarong variety (Sutopo et al., 2017). Organic farming in Papringan village has generally understood the application of appropriate agricultural technology application of longan through organic fertilizer technology in longan cultivation starting from land processing (making planting holes), maintenance, to watering technology (water and organic fertilizer) using natural materials. With the full support of the partner farmer group, tree planting can be done properly and quickly bear fruit. To care for longan plants, here is how:

1) Loosen the soil. Regularly loosen the soil around the longan plant so that the roots can move more freely and absorb nutrients well.
2) Pruning. Regular pruning of leaves and twigs can increase plant productivity.
3) Weeding. Weeds that grow around longan plants can take up a lot of nutrients that plants need.
4) Pest eradication. Pests that attack longan plants include beetles, mites, fruit flies, stem borers, leaf-eating caterpillars, and rats.
5) Watering. When newly planted, water the longan plants regularly twice a day in the morning and evening. Adjust the watering to the environmental conditions and the needs of the plant.
6) Sunlight. Try to expose the plants to sunlight for 5 hours a day.
7) Temperature. Longan is sensitive to cold and needs protection from frost.
8) Humidity. The ideal air humidity for longan plant growth is between 65 to 90%.
9) Rainfall. The ideal rainfall for longan plant growth ranges from 2500 to 4000 mm/year.

In the field analysis, longan is one of the sources of new agricultural growth and plays an important role in supporting the local economy. Longan is one type of fruit that is favored by all social levels. Longan fruit has good prospects for development. One of the varieties of longan that is currently in great demand by consumers is longan. The high market demand for longan fruit motivates farmers to cultivate it.

Longan plants have high economic value and can provide employment opportunities for rural communities. Longan cultivation is an activity of combining various production factors to plant and maintain longan plants and generate income (results) from these cultivation activities. The production of longan achieved by 4,444 farmers will be sold at a certain price.

A total of 4,444 farmers will receive compensation in the form of money from the sale proceeds. The money received by farmers is called income or gross income. Net profit is the amount of revenue or gross profit minus the cost of production from the use of factors of production in agricultural activities. In every farm, every farmer wants income and profit. Longan cultivation requires a project analysis to determine whether litchi cultivation is profitable.

Community Empowerment Through Organic Farming Sales Strategy

Community empowerment is a very important concept in many social and economic development efforts. It refers to the process by which individuals, families and communities gain more control over the conditions and decisions that affect their daily lives. The ultimate goal of community empowerment is to create communities that are self-reliant, that are able to make informed decisions, and that have access to the resources necessary to achieve greater well-being.

The theoretical foundations of community empowerment encompass a variety of perspectives that help explain the processes and mechanisms behind empowerment itself. Examining the theoretical foundations of community empowerment is a very important step towards understanding and implementing effective strategies in an effort to improve community welfare. Community empowerment is a multidimensional concept, encompassing social, economic, political and cultural aspects. Therefore, reviewing both general and specific theoretical foundations of community empowerment is critical to developing a comprehensive understanding and to ensuring effective implementation. Empowerment theories provide clear conceptual frameworks, reliable evidence-based approaches, and evaluation tools needed to design and run successful empowerment programs.

After conducting interviews with organic farm owners in Papringan village, the results show that there are 4 ways of empowerment in the community, namely:

a. Provide training to the surrounding community
b. Encourage active participation in the community
c. Building partnerships with other parties
d. Monitoring and evaluation to the community
e. Building local awareness and leadership

In addition, the way to market some organic agricultural products can be done through social media promotions including WA or other online media or it can also be through word

of mouth or personal communication and can also be stored in the nearest market-process. As the business progresses, there are factors that can cause a decrease in sales:

a) Changing market trends
b) Increased competition
c) Product or service quality issues
d) Price changes
e) Changes in the macro economy
f) Inefficient business operations
g) Changes in marketing strategy

4. CONCLUSIONS AND SUGGESTIONS

Based on the results of the above research, it can be concluded that organic farming in Papringan village has been running well. Cultivated plants such as bananas, chilies and longan are successfully cared for and planted properly. These plants produce a stable harvest so that they can be sold and get real economic value. The yield can reach 10 kg per month for chili plants and bananas can bear fruit every 4 months producing several bunches of bananas, for longan trees in the harvest when the season arrives can produce 8 kg per harvest. Of course, the harvest is a tangible form of community empowerment activities through organic farming.

There are several factors that cause the farm to grow well, namely by using organic fertilizers, selecting good seeds and proper care. Besides that, there is economic value because it is a form of community empowerment in increasing the economic value of the community. Plants that are successfully cultivated include banana trees, chilies and longan.

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