Empowerment Pattern of Farmer in Husoak Village, Hubikiak District, Through Strengthening of Farmer Group Resouces

Sumiyati Tuhuteru¹*, Anti Uni Mahanani¹, Rein Edward Yohanes Rumbiak², Yohana Sutiknyawati Kusuma Dewi³

¹ Study Program of Agrotechnology, Petra Baliem Wamena College of Agricultural Sciences, Wamena, Papua, Indonesia
² Study Program of Agribussines, Petra Baliem Wamena College of Agricultural Sciences, Wamena, Papua, Indonesia
³ Study Program of Food Science and Technology, Faculty of Agriculture, Tanjungpura University, Pontianak, Indonesia

* Correspondence e-mail; tuhuteru.umy@gmail.com

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Abstract
Many farmer groups in the community still need legal institutions, especially in the Central Highlands Region of Papua. Thus, this empowerment activity is carried out to optimize the resources of the members of the farmer groups that have been formed and explain the importance of the existence of a farmer group in the development of farming and livestock owned. The community service initiative employs the Community Based Research (CBR) methodology, specifically using the Forum Group Discussion (FGD) technique for training and mentoring. The results of the implementation of this activity were that the Bisimo Etaikena farmer group was required to have an administrative system starting from farming planning, documentation, or recording of group farming processes and results (both agricultural and livestock cultivation), and the ability to process agricultural products that had to be carried out, to help improve welfare—farmers in a structured manner and not only in obtaining government assistance.

Keywords
Assistance; Bisimo Etaikena; Empowerment; Farmers Groups.

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INTRODUCTION

The essence of forming a farmer group is to conduct training for farmers in various forms of productive economic activity, which is a way to increase the productivity of their farming activities (Suadnya, 2020). Because a farmer group is said to be successful in terms of its ability to manage administration, especially in today’s increasingly developing era, for this reason, the demand for a nation is to design a sustainable development strategy in advancing the nation through the existence of an institution such as an agricultural institution which is currently an important and very decisive sector in development (Marina et al., 2022).

Agricultural institutions can contribute to farmers’ access to social and economic growth opportunities and markets. In addition, it is very effective in promoting agricultural development, especially in plant cultivation, as the results of Nasution’s research (2019) stated that farmer groups have a large role in increasing lowland rice production in the research area, namely Sekip Village, Lubuk Pakam District, Deli Serdang Regency. Judging from 1) Group cooperation 100%, 2) Group activity 58%, 3) Status of having a chairman and members, 4) Planning management 72%, 5) Relations with cooperative institutions/KUD no 0%. It is what farmers in Husoak Village, Hubikiak District, Wamena feel, who only form farmer groups without a clear institutional system or are only formed based on the agreement of a few people. It is a problem encountered in the field, even though if it is associated with agricultural information systems, farmer group institutions include a subsystem known as "supporting services", where these institutions must be able to function as "supporters" for the production of inputs, farming, processing, agricultural products, and marketing. If there is no difference of opinion between the supporting organization's agenda and its implementation, agricultural research will be successful (Tedjaningsih et al., 2018). However, the institutional system has yet to be widely implemented by farmers, such as inland areas, which farmers in Husoak Village, Hubikiak District, and Wamena also experience. The conditions encountered relate to farmer institutions such as; farmer groups and combined farmer groups (Gapoktan) which have yet to lead to farmer economic institutions (KEP). The existing institutions are still focused on production and have yet to lead to post-production activities. It does not align with the government's wishes, which wants economy-scale, market-oriented farming based on corporate areas (Efendi & Mustafa, 2020).

Farmer institutions carry out farming activities formed by and for farmers to increase the productivity and efficiency of farming, both those with legal entities and those not yet legal entities (Permentan No. 67, 2016). However, to initiate farmer
institutions into farmer economic institutions, there are obstacles, including low competence of human resources and technological infrastructure, access to financing (lack of capital), quality of farming management, production has not yet met economies of scale, and business management knowledge is not yet professional (Efendi & Mustafa, 2020).

Furthermore, various studies have been conducted to find out the strategies for empowering farmer groups in an area, with various conclusions also being found. Such as the participation of members of farmer groups which is low or only active if there is assistance from the government alone, there are no relevant stakeholders who support the existence of these farmer groups, the low level of counseling or empowerment of farmers in this case (Ruhimat, 2017). The low role of farmer groups is one of the causes of non-optimal farming development, as stated in a study conducted by Puspitodjati et al. (2013) in the Cimuntur Watershed (DAS) and Kuswandoro (2016) in the Cikawung Watershed area.

Community empowerment is a theoretical framework within economic development that encompasses and embodies social ideals. This notion embodies a novel framework of development that prioritizes individuals’ well-being and agency, encourages active participation, fosters empowerment, and ensures long-term viability. The scope of this idea extends beyond the simple fulfillment of fundamental necessities or the implementation of measures to avert greater destitution, sometimes referred to as a safety net. Recent scholarly discourse has explored alternate approaches to previous notions of economic expansion (Ridwan, 2015). The notion of "empowerment" has significantly influenced the understanding of development and the approach to poverty alleviation, particularly in rural regions. By implementing a plan that focuses on enhancing the ability of human resources, rural communities may be empowered to address the challenges faced in agricultural settings effectively.

Farmer groups in Husoak Village, Hubikiak District, need to be empowered to have skills related to improving the quality of life of a farmer, starting from studying the climate and soil conditions to using technology. For this reason, efforts to develop farmer groups that are to be carried out must be carried out to create independent farmer groups where farmers have discipline, a strong work ethic, and a positive outlook on life. In addition, they must be more advanced in scientific and financial results and their quality of life, thanks to efforts to develop farmer groups. For this reason, farmer groups have been formed which function as catalysts for interests, environmental conditions (social, economic, and political), and kinship in the context of strengthening and expanding farmer groups who are open-minded, understanding,
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and gifted with a passion for farming, both in terms of customs, settlements, and farmland management (Center for Agricultural Extension, 2012).

For this reason, this community empowerment program was carried out to strengthen the human resource capacity of farmers in Husoak village, Hubikiak District, Wamena, through community empowerment to improve farmers’ welfare. The expected benefits are the creation of adequate human resources, increasing the skills and knowledge of farmers in developing managed farming and being able to manage the applied farmer group system. The anticipated outcomes of this empowerment initiative are poised to be considered by key decision-makers, including the Jayawijaya Regency Government, the Provincial Government of the Papua Mountains, and the central government, aiming to advance agricultural practices among farmers residing in underprivileged regions.

1. METHODS

The empowerment activity was implemented through the Collaboration Together to Build the Nation (KOSABANGSA) program, which involved Petra Baliem Wamena College of Agriculture and Tanjungpura University. This collaboration was initiated in the pilot project phase under the supervision of the Directorate of Research, Technology, and Community Service (DRCS). This activity took place in Husoak Village, Hubikiak District, Jayawijaya Regency, Highlands Papua Province, from October - December 2022, with the participation of 20 farmers who are currently working to form a farmer group that is independent and willing to develop to be more advanced. The location of the activity was chosen deliberately because local farmers need development activities and improvement of farmer human resources to achieve their welfare.

The community service initiative employs the Community Based Research (CBR) methodology, specifically using the Forum Group Discussion (FGD) technique for training and mentoring. FGDs are conducted with the community to find alternative solutions to their problems. This alternative will later be used to solve problems experienced by the community (Harini et al., 2023).

The CBR method is a community-based research study method that aims to provide support, strength, and active contribution in the empowerment process to create a value that benefits the community (International Collaboration for Participatory Health Research) (Hanafi et al., 2015; Septiani et al., 2022). The method of CBR is a participatory method developed to encourage collaboration between devotees (researchers) and respondents, to receive and develop perfect findings, and to become a method for translating research findings into practical changes (Miskiyah
et al., 2023). The method used to improve the quality of farmers in Husoak Village, Hubikian District, is to carry out community service activities, namely training in farmer group management and farming. The stages in the description of the method of implementing training and mentoring activities are:

1. Survey and Research Stages
   This empowerment activity began with a location survey and continued with licensing. Then coordination was carried out with the head of the Bisimo Etaikena Farmer Group regarding the details of the service activities in the form of discussions focused on discussions ranging from preparation for implementation, additional resource requirements, distribution of needed materials to farmer group leaders, and outreach activities to strengthen human resources.

2. Extension Stage
   The socialization activities were carried out for one day, which began with discussions and explanations about the capacity of strengthening human resources, the importance of the existence of farmer groups, the role of farmer group members, the forms of farmer group activities to the Bisimo Etaikena farmer group bureaucracy as a form of management of a farmer group and a successful farming business managed.

3. Evaluation Stage
   The assessment procedure was conducted after the first test during the socialization phase. This included the distribution of questionnaires to be completed by each member of the Bisimo Etaikena farmer group. Evaluation of activities is carried out to determine whether the activities carried out have a positive impact or not on changes in the role of team members in farmer groups, especially those related to their knowledge and dependence on one another during farming. The assessment process is facilitated by a panel of experts who concentrate on certain criteria that participants must satisfy, serving as a standard against which their performance is measured. This stage is carried out a week after the socialization process is complete.

4. Advanced Discussion Stage
   This stage simulates problems and suggestions as a form of feedback from the implementing team.

5. Monitoring Stage
   The monitoring of the operations of the Bisimo Etaikena farmer group is conducted as part of this procedure. This monitoring was carried out to determine whether the Bisimo Etaikena farmer group can improve, whether the
administration is orderly or not, the level of knowledge and skills has increased, as explained at the socialization stage.

The community service team carried out four main activities: licensing, outreach, assisting partners, and providing composting kits and irrigation technology packages for dry land. Tools are adjusted to the needs and core problems in the cultivation system, which aims to empower natural resources, such as the processing of livestock manure and rainwater collection based on joint wells. Livestock manure is processed into compost, while irrigation technology packages are used as rainwater reservoirs. Training and assistance are provided to Partners in terms of strengthening farmer resources.

2. FINDINGS AND DISCUSSION

Efforts to develop, empower and strengthen agricultural institutions must involve farmer groups, input provider institutions, output institutions, extension institutions, and capital institutions to jointly integrate in solving agricultural problems, where the expected solution can provide partiality protection to farmers as agricultural producers (Holle, 2022). The findings in the field when this empowerment activity was carried out were the need for knowledge of farmers even though they had been formed in a farmer group. Furthermore, the lack of knowledge also impacts the mastery of the skills of each member of the farmer group, which could be much higher. It affects the mastery of modern technology or innovation, which causes farming systems such as the cultivation process that is carried out to be conventional. A real example in the field that can be seen is that the crop cultivation system is carried out only during the rainy season. The existence of the Bisimo Etaikena farmer group is only a symbolic vessel for obtaining government assistance alone. Meanwhile, the development of farmer groups has yet to be carried out.

The process of empowering individuals is implemented via a series of steps, including the socialization of institutional management, training, and providing aid in administering farmer groups (Nugrahaniingsih et al., 2021). Using socialization, the acquisition of scientific knowledge about farmer groups’ development system is facilitated with an expert informant’s aid. Through training and assistance, the Bisimo Etaikena farmer group members can acquire the necessary skills to effectively and efficiently manage their farms, thereby attaining optimal and high-quality outcomes (Harini et al., 2023). Furthermore, the promotion of micro and small businesses is pursued, wherein support is extended to farmer group members in developing such enterprises utilizing their harvested products as marketable commodities.
Additionally, guidance and input are provided to aid in formulating and managing effective farming strategies. The implementation of this strategy has the potential to enhance competitiveness and facilitate the exploration of new market segments.

Strategies for strengthening the capacity of farmers’ resources are provided through assistance and processing compost made from livestock manure and using an integrated irrigation system through the rainwater harvesting method based on multiple wells (Tuhuteru et al., 2023). This activity occurred by providing a compost processing technology package, such as the tools and materials needed to process livestock manure into compost (Figure 1). Furthermore, an irrigation technology package using the rainwater harvesting method is based on multiple wells formed and a 2200 L profile tank as a rainwater reservoir equipped with pipe installation leading to multiple wells in the middle of agricultural land (Figure 2).

![Figure 1. Processing of Livestock Manure Compost](Image1)
*(Source: Private Property, 2022)*

![Figure 2. Package of Rain Water Harvesting Irrigation Technology Based on Joint Wells](Image2)
*(Source: Private Property, 2022)*

Servants provide the technology package with the hope that the limited constraints of fertilizer and water for plants can be fulfilled and aims to help plant cultivation businesses that are carried out. Servants hope that the managed agricultural system will continue to be developed without any reasons for the limited
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Availability of fertilizers and drought to increase the income of farmer group members, especially for participants who participate in the training. The Implementation Team facilitated the transfer of machinery and tools to the Head of the Bisimo Etaikena Farmers Group.

Furthermore, another approach taken in this community service activity is to encourage active community participation and build their capacity to achieve sustainable farming development, namely:

1. Provision of material through the socialization of sustainable farmer group management along with farmer group legality requirements that must be met. The socialization material presented was human resource management material in farmer groups and the development of farmer groups in improving welfare, such as structuring cultivation systems and introducing modern forms of agricultural innovation. Furthermore, the results of reflection on the material provided, then open discussions and interviews were carried out to find out the understanding of each group member.

2. Provide an understanding of how to manage farmer groups so that they are legal and sustainable. This session found internal and external obstacles, including:
a. Existing farmer groups are usually built on technical requirements to facilitate coordination when there are government projects or programs, making them more program-oriented and less able to ensure the continuity and progress of existing farmer groups.

b. Participation and involvement of members in rather expensive group activities can be seen from the threshold of member involvement in all but the largest group activities, which is set at 50%.

c. Productive teamwork among group members is mostly individual. As a result, it is understood that farmer groups are a form of cooperative work but have yet to be able to form formal cooperative work groups that can answer the needs of all group members at once. As a result, the productive work of one farmer is more different from that of other farmers. Activities or members of productive business groups face price volatility problems and limited marketing channels.

d. Institutional Farmer Groups Formed and Developed Temporarily with the Principle of Local Independence, achieved through the Principles of Autonomy and Empowerment.

e. Institutional Farmer Groups Formed and Developed Top-Down Based on the Scary Blue Print Approach. External recognition of institutions only partially recognizes existing local institutional structures and networks and the ongoing economic, social, and political crises.

f. Institutional formation and development of barriers to community participation is a top-down approach.

g. Institutions formed are only intended to handle horizontally, not vertically, tie. Organizational members are divided into individuals who engage in similar types of activities. The aim is to work together so that, in time, it can increase its bargaining power. Market trading mechanisms are used for vertical binding; government observers need help tinkering with them.

h. Despite the establishment of an institution, the coaching program remains limited to individual coaches, lacking broader accessibility. The affordability of coaching for farmer groups is undoubtedly a notable advantage. However, it is important to acknowledge that the absence of a social learning approach and the lack of guidance on enhancing group performance are significant limitations.

i. The use of structure-based language in the context of institutional growth consistently takes precedence, whereas cultural factors are often
A group (group effectiveness) is said to be effective if it can achieve group success, such as circumstances or changes (physical or non-physical) that satisfy group members (Hubeis, 2000). Team effectiveness must be determined by: (1) productivity, or the ability to meet team goals; (2) morale, or the well-being and competence of the individuals who make up the team; and (3) satisfaction, or individual ability to meet personal goals (Slamet, 1978). Furthermore, with the findings of problems from the results of discussions and interviews conducted by the implementation team, several questions were raised from participants who were present during the socialization, which were more directed toward how to develop the farmer groups that had been formed. In addition, what is the strategy for managing farmer agribusiness in managing yields and dealing with imported products from outside Wamena, such as Jayapura, Timika, and Merauke. In addition, farmers hope that by having an institutional farmer group, they can realize government programs such as the procurement of subsidized fertilizers, superior seeds, or seeds to other production inputs. In the opinion of Kures et al. (2017), there are several benefits of forming farmer groups, including the following:

1) Strengthening the interaction between members in the group and fostering group leadership,
2) The aim of a rapid improvement program regarding the spirit of cooperation between farmers,
3) improve the process of diffusion of innovation implementation,
4) increase its ability
5) Increased market orientation, either responsible or product produced, and
6) More can help the efficiency of the distribution of irrigation water as well as supervision by the farmers themselves.

In general, this community service initiative would benefit the skills and knowledge of members within the farmer group. This initiative serves as a means of community empowerment by enhancing the resources available to farmers, hence facilitating the development of their agricultural enterprises. With better adoption of various agricultural innovation technologies, it is hoped that members of the Bisimo...
Etaikena farmer group will be able to face the challenges of today's modern agricultural development and gain greater profits in a competitive market. Because all related activities and tasks with farming are done cooperatively, group farmers are considered members of an important society. According to this region, the destination program empowerment of the farmer group is for development no more imaginative, independent, and better at arranging communication among the Extension Team (Mutmainah et al., 2016).

Then, the activity also continued with the delivery of farming planning materials, in which the members of the farmer group chose the products to be developed, which were processed products, namely sweet potato-based flour, which is known to be a local product of farmers and is a staple food for mountain communities before rice. In addition, the selection of sweet potato flour products is also based on the principle of local food diversification. Submission of material using lecture and discussion methods and conveying theory and understanding of the importance of planning to farm (agro-production, agro-input, agro-industry) so that the implementation of the business is more focused and transparent as a joint effort of all members of the farmer group.

It is usually never done by members of farmer groups, so they never know the advantages/disadvantages of doing business/farming. Ultimately, the farmer group members needed help with evaluations to improve their business/farming activities.

3. Activity Evaluation Stage

In this stage, an evaluation is carried out regarding the level of knowledge and skills of farmers and checking the requirements for farmer groups who will take care of their legality at the local Agriculture Service and other institutional arrangements. For example, in implementing the administration (bookkeeping) of farmer groups, a farmer group must own several kinds of administrative books. Including Inventory Book, Arable Land Book, Management Book, Attendance Book, Cash Book, Member Dues Book, Member Savings Book, Inventory Book, Meeting Agenda Book, Guest Book, Meeting Minutes Book, Production Results Book, Meeting Agenda Book, Inventory Book, and Expenditure Book. However, this condition cannot be fulfilled and will be fulfilled by the Farmers Group,

In addition, other administrative requirements that must be owned by farmer groups such as Determination of the Secretariat of the Farmer Group, Nameplates (Plank) of Farmer Groups, Stamps of Farmer Groups, Archives of Incoming and Outgoing Letters, Files of Minutes of Formation of Farmer Groups, Archives of
Documents of Benah Events Farmer Groups, Group Work Plans or Farmer Group Definitive Plans (RDK), Farmer Group Needs Plans (RDKK), Joint Business Groups (KUB), Data boards (Monography) of Farmer Groups, and Map of Farmer Group Areas. Farmers' groups can only fulfill some of this equipment because there are too many, and it takes time to prepare them. That way, the implementing team continues to monitor activities related to the requirements needed to register owned farmer groups so that they have an official institution.

4. Monitoring Stages

This monitoring aims to determine whether the group is currently carrying out administrative procedures, as previously informed to members. In addition, checking and filling in each administrative tool needed to determine the level of success of the farmer group empowerment project was also carried out.

It can be understood that the success of this empowerment activity is seen from the conditions that occur in social change before and after the socialization of empowerment. Have the skills or knowledge and ability to meet their needs to increase farmers' productivity with indicators of an empowered community. This process is carried out within a month after the activity takes place. According to Pradiana & Anantanyu (2022), farmers' implementation of technical breakthroughs may be facilitated by the empowerment of farmer group members.

Community empowerment assistance in improving the village economy is based on several theories that can be used to design activities and strategies for building a region's economy. Several relevant theories are (1) Community Empowerment Theory, which argues that community empowerment is a process in which people are empowered to overcome their problems. The empowerment process involves the active participation of the community in solving problems so that they can take control over their own lives (Habib, 2021). In the context of the village economy, community empowerment theory can be applied by involving the community in planning and developing profitable businesses. (2) Local Economic Development Theory; states that the local economy can be developed by optimizing local resources and building partnerships between communities, government, and the private sector (Huda, 2020). (3) Social Entrepreneurship Theory suggests that entrepreneurship can be used to achieve social and economic goals (Indarto et al., 2020). In the context of the village economy, this theory can be applied by designing mentoring programs and activities to develop entrepreneurial skills and build social enterprises that benefit village communities. (4) The Theory of Sustainable Development suggests that development must be carried out by considering
economic, social, and environmental aspects (Kharisma, 2020). In the context of the village economy, this theory can be applied by developing environmentally friendly businesses that pay attention to social aspects, such as empowering women and marginalized groups. Considering these theories, community empowerment assistance activities can be designed and implemented holistically and sustainably. It can help build an inclusive and sustainable village economy and improve the welfare of the village community as a whole.

The success of community empowerment assistance activities in improving the economy through strengthening the capacity of farmer resources in Husoak Village, Hubikiak District, Wamena, is challenging to achieve. Several factors that may influence the success of these activities include support and cooperation between related parties, availability of adequate resources, and adequate understanding and participation of the community. Therefore, mentoring activities must be designed and implemented holistically and sustainably and involve the active participation of members of farmer groups and village officials as the local, regional government.

3. CONCLUSION

Based on the discussion above, a community empowerment strategy through strengthening human resource capacity can effectively improve the farmer’s economy. Assistance can be carried out by applying various relevant theories, such as the theory of sustainable farmer group development and farmer group management. In practice, the community empowerment strategy must be carried out in a participatory manner by involving the village community, specially selected farmer groups, in planning and developing their farms, such as making livestock manure compost and utilizing rainwater harvesting irrigation technology based on multiple wells, which is a form of solution to the problems faced in the field. It can also train the skills of farmer groups in utilizing modern agricultural innovations. In addition, assistance must also pay attention to local social, cultural, and environmental aspects, as well as build partnerships with the private sector and government to increase market accessibility and strengthen local economic networks, especially in managing the institutional legality of farmer groups which so far has not been achieved. Through community empowerment support, it is anticipated that the Bisimo Etaikena farmer group members would enhance their skills and capabilities in fostering the growth of their agricultural enterprises and enhancing their economic circumstances by creating legitimate farmer group institutions. It can help improve the overall welfare of farmers.
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