

## Political economy of farmer group empowerment policy to support the achievement of SDGs

### Ekonomi politik kebijakan pemberdayaan kelompok tani untuk mendukung pencapaian SDGs

Siti Aminah✉, Ali Sahab, & Roikan

Departement of Political Sciences, Faculty of Social and Political Sciences, Universitas Airlangga  
Surabaya, East Java, Indonesia – 60286

e-mail of corresponding author: [siti.aminah@fisip.unair.ac.id](mailto:siti.aminah@fisip.unair.ac.id)

#### Abstract

The policy of forming and strengthening farmer groups is not a practical solution for advancing agriculture/improving farmer welfare. Strengthening institutions and empowering farmer groups is not merely a matter of agricultural economics, but of political economy. The problem is, there are many technical and non-technical obstacles that place farmer groups as actors in sustainable agricultural policy and development in accordance with SDGs #2. This study discusses the complexity of agricultural problems in Watu Lanur Village, Poco Ranakan Sub-District, East Nusa Tenggara. The less than optimal natural carrying capacity, the socio-economic conditions of rain-fed farmers and the lack of intensive assistance from the government are among the causes. Empowerment of farmer groups is hampered by subsistence ethics and socio-cultural issues (customs/traditions). This study uses qualitative methods with data collection techniques through in-depth interviews and observations of farmer groups. This study shows that the community is trying to empower itself by helping farmer groups. However, in the process, technical and non-technical obstacles are still found that do not support the community's innovation movement. The conclusion of this study is that farmer group institutions are weakened and less oriented towards implementing sustainable agriculture as a result of the establishment of farmer groups simply to fulfill formal aspects of empowering farmers in order to improve farmer welfare and less use of *local knowledge* in empowering farmer groups.

**Keywords:** farmer empowerment; local knowledge; political economy approaches; SDGs; sustainable agriculture

#### Abstrak

*Kebijakan pembentukan dan penguatan kelompok tani bukan solusi praktis memajukan pertanian/meningkatkan kesejahteraan petani. Penguatan kelembagaan dan pemberdayaan kelompok tani bukan semata-mata persoalan ekonomi pertanian, melainkan ekonomi politik. Problematikanya, banyak kendala teknis dan nir-teknis yang menempatkan kelompok tani sebagai aktor kebijakan dan pengembangan pertanian berkelanjutan sesuai dengan SDGs #2. Studi ini membahas kompleksitas permasalahan pertanian di Desa Watu Lanur Kecamatan Poco Ranakan Nusa Tenggara Timur. Daya dukung alam yang kurang optimal, kondisi sosial ekonomi petani tadah hujan dan kurangnya pendampingan secara intensif dari pemerintah menjadi salah satu penyebabnya. Pemberdayaan kelompok tani terbentur dalam masalah etika subsistensi dan sosial kultural (adat/tradisi). Studi ini menggunakan metode kualitatif dengan teknik pengumpulan data melalui wawancara mendalam dan observasi kepada kelompok tani. Studi ini menunjukkan bahwa masyarakat berupaya memberdayakan diri dengan membantu kelompok tani. Namun dalam prosesnya masih saja ditemukan kendala teknis dan non teknis yang kurang mendukung gerakan inovasi masyarakat. Kesimpulan dari studi ini adalah kelembagaan kelompok tani melemah dan kurang berorientasi pada pelaksanaan pertanian berkelanjutan akibat dari pendirian kelompok tani yang sekadar sebagai pemenuhan aspek formal untuk pemberdayaan petani dalam rangka meningkatkan kesejahteraan petani dan kurang memanfaatkan local knowledge dalam pemberdayaan kelompok tani.*

**Kata kunci:** pemberdayaan petani; local knowledge; pendekatan ekonomi politik; SDGs; pertanian berkelanjutan

## Introduction

The eastern region of Indonesia has complex economic and health problems. According to the Central Statistics Agency (BPS), East Nusa Tenggara (NTT) Province is one of the poorest provinces in Indonesia (BPS 2022). The third poorest Province is occupied by East Nusa Tenggara (NPT) with the

poverty percentage of the population reaching 20,23 percent as of September 2022. This figure has also increased compared to March 2022, believed to be 20,05 percent (CNN Indonesia 2023). This correlates with the emergence of congenital impacts due to poverty, including malnutrition and stunting. BPS in 2021 recorded the ratio of malnourished sufferers in East Nusa Tenggara at 9,7. This means that there are 9 people every 10 thousand residents in NTT who suffer from malnutrition. This ratio is the highest nationally (Rizaty 2021). Given the above phenomena, various efforts are being made to improve the standard of living and public health, especially in the development of agriculture.

Experts believe that the agricultural sector has the potential to eradicate poverty and guarantee local and national food sustainability. This is not only a focus of problems in low-income countries, but is also a global consideration to offer long-term solutions to poverty and food insecurity throughout the world (Nwankpa 2017, Gassner et al. 2019). The challenges of prolonged poverty and food insecurity in Indonesia has become a matter of concern. Agriculture plays an important role in food production, protection, environmental regeneration, rural employment, food sustainability, and poverty alleviation. In several developed and developing countries, the agricultural sector faces increasing challenges due to climate change, degradation of natural resources, depopulation in rural areas, so the government needs to implement sustainable agricultural policies (FAO 2020). Farmer groups are the cornerstone of many agricultural projects in low-income countries (Work Bank 2007, Markelova et al. 2009) and the success of such projects depends heavily on the ability of group members to work together (Nourani et al. 2021). The Indonesian government, as a developing country, pursues sustainable agricultural policies not only through the strengthening of social capital, but also through the institutionalization of the farmer group (Poktan).

The empowerment of farmer groups is an interesting study and shows its significance in development using a political-economic approach. Political economics, as used in the articles included, in many of the current agrarian political economics literature, focuses on the social, political, ideological, and institutional contexts in which capitalism is embedded and emphasizes interfactor power relations (Koch & Buch-Hansen 2021). This study reveals about the institutionalization and empowerment of farmer groups not only to improve their well-being and increase agricultural production, family food sustainability, but more importantly how farmers build ecosystems with local policymakers to have access to credit, seedlings, fertilizers, and market access. This kind of empowerment is then institutionally able to raise farmers' bargaining positions. It means that the institutional strengthening of the farmer group can not only be done by strengthening the functioning of social capital (*bonding, bridging, linking*), but there are approaches that can enhance the capacity of rural groups through a political-economic approach (Sasmi et al. 2023). Apart from that, the farmer groups have a great significance in agrarian countries and the agricultural sector in achieving the Sustainable Development Goals #2, which specifically calls for: "to end hunger, food sustainability and nutritional improvement and promote sustainable agriculture."

Paying attention to the Sustainable Development Goals (SDGs) point #2, the SDGs are a blueprint for changing the world, for the sake of people, planet and prosperity, now and in the future. Compared to other sectors, agriculture is the common thread that unites 17 SDGs. Agriculture is the only effective instrument for alleviating poverty and providing food with a certain level of global influence, whether the countries are industrialized or not. Investing in the agricultural sector can therefore not only address hunger and malnutrition, but also other challenges including poverty, water and energy use, climate change, and unsustainable production and consumption.

Many of the problems faced by farmer groups and the success of empowering rural groups will have an impact on increasing the capacity of farmer groups in agricultural management, especially in terms of using irrigation systems, overcoming institutional obstacles, implementing resource, capital and socio-cultural ecosystem management. The long-term impact of the success of empowering farmer groups can be measured by reducing the poverty level of farmers as members of farmer groups. The formulation of SDGs #2 clearly places farmers as key actors in achieving sustainable development goals (SDGs). Poverty alleviation among farmers has become less focused on the development agenda to achieve SDGs #2.

The agricultural sector does not have much potential to reduce poverty and provide food, especially in low-income countries. The view in this global context is actually misguided because agriculture is universally needed to overcome food insecurity globally (FAO 2012). The problem of poverty must be studied from various perspectives and dimensions including the quantity of goods, services, and incomes as well as the size of farmers' income, the freedom to use them, farmer's behavior, and their living condition (Drèze & Sen 1989).

Increasing institutional capacity means an effort to enhance the role and develop an institutional system at the community level that is capable of responding to every idea, proposal and aspiration of the community for progress in their community. This enhanced institutional capability includes an attempt to raise community awareness to formulate norms and rules regarding patterns of behavior in the community, the outcome of which is the formation of community-based institutions for development in the environment. Capacity building also includes efforts to improve the managerial and organizational capabilities of the community in an effort to create a more participatory and transparent institutional framework. The elements in capacity development are things that must be implemented in achieving the conditions of the capacity of a developing society. There are five main elements in capacity development, namely: building knowledge, including improving skills, facilitating research and development, and learning assistance; leadership; networking, including efforts to form cooperation and alliances; respecting the community and inviting the community to work together to achieve goals; and information support, including the capacity to collect, access and manage useful information (McGinty 2003).

In this context, this study answers the problem. Firstly, how does the Golo Pandang Farmers Group build institutional capacity to empower its members? Second, what strategies have been chosen by the Golo Pandang Farmers Group to advance farmers in carrying out their functions? Lastly, this study contributes to a common understanding of the empowerment of farmer groups in the East Manggarai (Matim)-NTT region. Farmer groups that are not managed with rational and democratic values will fail to increase the supply of agricultural goods (fertilizer, credit, irrigation, market access) and farmer's well-being.

## **Research Method**

This study uses qualitative methods, qualitative research beyond what, where, and when quantitative analysis to investigate why and how behind human behavior and the reasons that govern such behaviors (Merriam & Tisdell 2015). Data collection in qualitative research consists of in-depth interviews with consideration of argumentative considerations related to the number of informants and field conditions (Roller & Lavrakas 2015). This study took the case on the Golo Pandang Farmers Group in Watu Lanur Village, Poco Ranakan District, East Nusa Tenggara. Data was collected through several methods, firstly, secondary (*policy review*) by conducting systematic and planned investigations of policies related to agricultural economic development. Second, primarily with in-depth semi-structured interviews with seven informants, including farmer group administrators, members, academics, policy makers and agricultural extension officers.

The criteria for selecting informants include representation from rain-fed farmers, the Watu Lanur Village community, government officials and traditional elders. Given the life of the agricultural community, Watu Lanur cannot be freed from the customary rules that have been implemented for generations. In-depth interviews were conducted until reaching a certain level of saturation. This means that no new ideas or themes were discovered from new interviews (Strauss & Corbin 1998). Lastly, the primary with observations of several activities including, farmer group meetings with members, intensity of relations between members and farmer groups, PPL, and local government officials, leadership strength, policy reach of empowerment programs carried out by the government and NGOs (*nongovernmental organizations*). These three methods make it possible to obtain representative data so that quality data is obtained (Roller & Lavrakas 2015). The data findings are analyzed and then conclusions are drawn interpretively using a political economy perspective.

## Result and Discussion

Farmers empowerment plays an important role in improving farmers' well-being and achieving SDG #2, in addition to investment in agriculture, rural infrastructure, natural resource management and climate resilience (Neza et al. 2021). This is demonstrated by the presence of Law No. 19 of 2013 concerning the Protection and Empowerment of Farmers as a government commitment. This law is also a proof of the government's political commitment to advance farmers' lives and promote SDGs. In its implementation, the law focuses on programmes capable of empowering farmers with a point of emphasis on synergy between existing policies in the region. The results and discussions in this study are divided into several sub-sections, firstly on the institutional issues of the farmer group and its correlation with the issues of food security. Secondly, the political economy of the rural group with the various obstacles faced and the solutions offered.

### Institution of Golo Pandang farmers group

Farmer groups are formed from farmers by and for farmers based on the need to learn, work together, and as a forum for farming business development. Farmer groups are groups of farmers/breeders/planters formed based on similar interests, similar environmental conditions (social, economic, resources) and close interests to improve and develop the businesses of their members. As the party closest to farmers, extension workers have direct access to provide input and guidance (Listiana et al. 2019).

An exploratory study of the empowerment activities of the Golo Padang (Potan) village group carried out in the East Manggarai district proves that political economic approaches can dismantle various empowering programmes that cannot result when their orientation is only pursuing and focusing on economic goals (increasing production, meeting farmers' capital needs, access to credit, and access to product marketing). It requires strength between actors who are able to influence the success of farmer groups in strengthening themselves institutionally. This means placing farmer groups as the center of empowerment activities. The role of farmer group leaders and members as actors in the entire empowerment process. The farmer group leader plays a role in building political relations with other farmer groups, distributors, credit cooperatives and PPL. Thus, the farmer group empowerment model runs top-down (from top to bottom). The farmer groups were established on the incentive and initiative of the government in order to increase food production, food sovereignty at the household and local levels and alleviate farmers' poverty. The farmer group eventually tends to serve as an extension of the government's hand rather than the institution of farmers empowerment.



**Figure 1.**

Golo Pandang Watu Lanur farmers group  
Source: Author documentation

The Tani Golo Pandang Village was formed on October 21, 2013, located in Watu Lanur Village, Poco Ranaka Prefecture, East Manggarai Regency (see Figure 1). This group of farmers has a management structure consisting of the chairman, the secretary, and the treasurer. Regular meetings are held by the



farmer group every 21th located at the head of the group's home. The savings and loan program unit aims to revive the group in the form of an obligation to pay an initial fee of IDR 50,000, a monthly fee of IDR 5,000 and a group social gathering of IDR 20,000 per person. The Tani Golo Pandang group is divided into several sections, including a food crop business section, a plantation crop business section, a livestock business section and a section for information and marketing.

Relations between farmer groups and external institutions such as PPL and credit cooperatives are not yet optimal. The head of the farmer group performs only formal functions, such as attending socialization events for agricultural programs. There has been no effort to establish and build relationships with other institutions which constitute the entire agricultural ecosystem. For example, negotiating with policymakers such as market actors, distributors, local government (Department of Agriculture), agricultural extension officers, customary figures when there is a fertilizer crisis, impaired credit distribution, declining production, and irrigation. Farmers empowerment is not a single policy, but a policy that has many goals that end at the point of improving the welfare of farmers.

Referring to the report on food shelter development activities by the Food Extension and Security Implementing Agency (BP2KP) of East Manggarai Regency in 2015, it was found that the implementation of empowering food shelter groups in 2015 was carried out in two stages. First, the development phases follow the following course: socialization of activities, selection of groups of potential beneficiaries, preparation of support, institutional strengthening, strengthening food reserves, strengthening business capital and training companions. This stage has been implemented for four food shelter groups, namely the Sama Rasa Group, the Mandiri Group, the Waru Group and the Wela Rana Group. Second, the independence stage which includes institutional strengthening activities, developing business networks and partnerships as well as strengthening food reserves and training coordinators responsible for activities. This stage has been carried out by one group of shelters.

### **The institution of food shelter as a fulfillment of food security**

Efforts to enhance the food resilience of a region are determined by the ability of the village communities to fulfill food production periodically and sustainably. This is because the countryside is the primary base of agricultural development which relies on the wealth of natural resources, labor and farmers' institutions. Food sustainability cannot be separated from the existence of food shelter institutions that accommodate and store seeds and harvests before being sold to the market at an adequate price according to farmers' expectations.

The success of farmer groups is a guarantee of meeting minimum human needs in a reliable and stable way, which is the main criterion in combining the choice of seeds, fertilizer, time, rotation, and so on. When farmers experience crop failure, farmers themselves automatically suffer losses. The impact is not only on the lives of farmers but also the safety of the household economy. Therefore, empowering Poktan (farmer group) does not only focus on strengthening the farmer's economy, but also strengthening farmers' purchasing power to participate in the agricultural policy-making process. On the other hand, the failure of farmer groups to increase agricultural production is not solely an institutional problem, but a result of the livelihoods of farmers. This has been a concern that puts critical concerns on the livelihood of farmers' households (Scott 1997).

Giving attention to the food shelter in East Manggarai involves not only farmer groups, but also other actors, namely fertilizer distributors, PPL, farmers, cooperatives, public figures (*tetua adat*). Food poverty and vulnerability in East Manggarai, has made many parties aware that the food shelter has once saved people from the food crisis caused by global climate change, natural disasters, pest attacks, the displacement of agricultural land due to increased settlement needs and other more profitable crop choices. More importantly, with the presence of food shelters will further nurture the sense of family and "*gotong royong*" (mutual cooperation) society which embark the characteristic of this nation.

The food barn group in East Manggarai is striving to remain active with the institutional structure, working mechanisms, enthusiasm and commitment needed to be enhanced. It continues to be pursued in accordance with the evolution of the times and is continuously developed because it has great potential as a basis for the economy and food sustainability. All through a systematic, integrated and continuous empowerment process involving cooperation between communities and all related elements, both central and local governments. It is expected that the number of food reservoirs in East Manggarai district will increase significantly from year to year for food sustainability that ends with food sovereignty.

### **The political economy of empowering farmer groups**

The increasing centralization of economic activities, increasing interdependence between agricultural and non-agricultural sectors, the rise of world trade, and global fuel crises are common features of contemporary political economy. This study discusses the position of farmer groups in the political economy. Farmer group empowerment programs in East Manggarai tend to involve farmer groups driven by the leader. The heads of farmer groups are generally customary, so that the decision-making of the countryside still depends on traditional considerations (*local knowledge*). Several policy makers, especially the private sector/BUMN which are part of the agricultural industry ecosystem, provide training on corn cultivation on *good agricultural practice* models to PPLs and heads of farmer groups. The participation of farmers and farmer groups in taking part in training and taking part in field practices held by agricultural policy makers or the private sector is very beneficial in increasing agricultural production, thereby having a positive impact on increasing farmers' incomes. Farmers can increase their production of crops such as rice, soybeans, corn and beans (Ropo 2023). Farmers hope for government participation in the development of agriculture, as stated by informants.

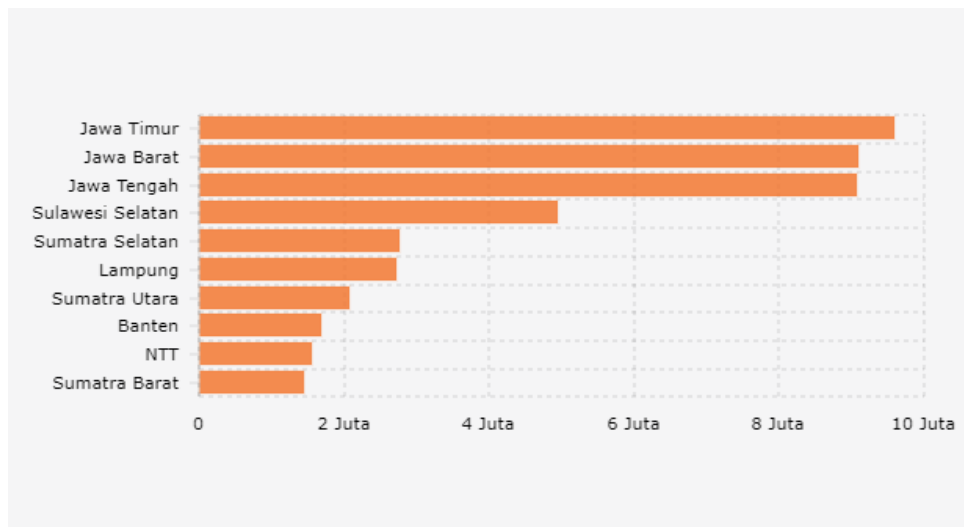
"The government is also expected to be able to provide facilities needed by farmer groups such as fertilizer and tractors as well as freshwater fish seeds. Apart from that, farmers in villages must be continuously trained in agricultural land management in order to be able to produce quality agricultural commodities...the program development pattern is based on the main components of agricultural development, namely water availability, technology, optimal technical recommendations, access to agricultural financing and market access by increasing the value of farmers' products." (Informant MAR).

The data above shows that the government is trying to meet the food needs of farmers and at the same time increase food production at the local level. Providing technical guidance and socializing agricultural programs and equipment to farmers is an urgent need to face climate change like this. Without technical assistance from the government, it causes farmers difficulties in managing land and increasing crop production (corn, rice, secondary crops). To overcome the climate change crisis, the government is focusing on agricultural technology innovation by improving modern and rational farming methods.

However, when technological innovations and various policy breakthroughs are implemented and accepted by farmer groups and all their members, there are things that escape the attention of farmer groups, farmer group leaders and the government. For example, the role of fertilizer distributors in allocating subsidized fertilizer is not based on farmers' real needs. There was a large shortage of fertilizer. This was stated by the non-subsidized fertilizer distributor for the East Manggarai (Matim) region who only implemented policies or provided subsidized fertilizer in accordance with government applications and regulations: "The total allocation of subsidized fertilizer for 6 types in Matim in 2022 is 4,069.11 tons. Includes 1,564 tonnes of Urea, 1,027 tonnes of NPK, 0.11 tonnes of SP-36, 1.00 tonnes of ZA, 900 tonnes of SP36, NPK, 900 tonnes of organic granules and 577 tonnes of liquid organics. The allocation of subsidized fertilizers for Urea and NPK types in 2022 will be reduced by 10,880,612 Kilograms (Kg) or approximately 10,880 tons. The government's obligation is to allocate 13,471,612 kg or 13,471 tons of subsidized fertilizer. The Matim region received 2,591,000 Kg of subsidized fertilizer for the Urea and NPK types, while what the Matim Agriculture Service proposed was 13,471,612 Kg (Runggat 2022).

In this context, there is no role for farmer groups to obtain fertilizer according to its allocation. The economic relationship between the government and farmer groups is asymmetric, as is the case between farmer groups and fertilizer distributors. This kind of interpretation appears as a dramatic interpretation, where the government is committed to intensifying technological innovation and modern agriculture, while in the field, there is a policy gap that cannot be overcome by farmer groups. This is in contrast to the policy of empowering farmers and farmer groups. In fact, here it can be seen that farmer groups are limited to formal functional groups that accommodate farmers. Not as a farmer group that fights for the aspirations and needs of farmers.

Synergy and strengthening networks for farmer groups need to be built. This is a finding of the study conducted by that: "it is time for farmer groups to collaborate with agricultural industry players and increase cooperation with other farmer groups or agricultural industry players including distributors of agricultural equipment, fertilizer, etc. that are spread across the region in geographical areas adjacent to each other" (Anil et al. 2015).



**Figure 2.**  
The province with the largest national rice production  
Source: Muhammad (2023)

The need for rice has become a priority for the adequacy of family-based food reserves. Especially farming families who are rice producers from the community level to their contribution to the national sphere. East Nusa Tenggara Province is included in the 10 provinces with national rice production (see Figure 2). According to 2023 data, the largest national rice production is still produced from the island of Java, namely East Java, West Java and Central Java. East Nusa Tenggara Province is in ninth place after Banten Province and is superior to West Sumatra Province. This production potential can be a reference in developing agriculture, especially rainfed rice in the East Nusa Tenggara area in the form of innovation in planting patterns and farmer institutions.

The general description of the problems faced by the Golo Pandang Farmers Group, like other farmer groups, is that they do not yet have strong institutional adaptability and supporting capacity to advance the interests of their members. Farmer groups have not been able to carry out the functions in the interests of their members, such as access to credit assistance, pesticides, fertilizer, irrigation, marketing, etc. which are still low. This is due to the participation factor of members who are also not yet adequate. Internally, the Golo Pandang Farmers Group has not yet become a learning structure for farmers in discussing aspects that can play an important role in influencing the effectiveness of the group. Ideally, farmer groups can function more effectively in influencing member involvement in group activities and are ready to serve members' specific information needs. Socio-culturally, the Manggarai traditional law community cannot be separated from the fields of agriculture, land, gardens and nature which also influence ritual aspects (Lon & Widyawati 2020).

Farmer groups are the closest and only institutions that provide goods and services to farmers. Farmer groups help them get out of the circle and cycle of poverty. Small farmers' incomes tend to fluctuate seasonally and this can easily plunge them into poverty. By providing financial services, farmer groups reduce the risks that individual farmers face during seasonal shocks. Farmer groups also help mobilize capital and contribute to local economic growth. By forming farmer groups, it is possible for farmers to increase household food security and agricultural/food business production (Rahmadanah et al. 2018). From the institutional aspect, namely the moral economy of farmers, members of the Golo Pandang Farmers Group are still not functioning and could even be said to be non-existent, because farmers prioritize traditional values which are guidelines and references for action. How farmers organized in farmer groups play a role in increasing food security and farmers are able to increase their diversified income. Successfully strengthening farmer group institutions will have a positive impact on several aspects, namely: increasing food security, sources of income, developing rural areas, mitigating migration from rural to urban development and resilience in facing climate change.

Governments and development institutions can create more appropriate and sustainable agricultural and rural development policies and programs, to identify and benefit small and poor farmers more effectively, by cooperating, supporting and involving farmer organizations in planning, design, and implementation of agricultural and rural policies and programs, and by supporting them in implementing farmers' agendas and agricultural industrial development. Although the establishment of this farm group was formed by the government, it does not mean that the function of farmer groups is formal. Farmer groups continue to function as farmer groups that carry out political economic functions, namely facilitating credit distribution and credit payments. These credits are usually for fertilizer, seeds, pesticides or agricultural equipment, or for the construction of boreholes and irrigation structures, as well as other facilities (Oxby 1983). Farmer groups are farmer organizations that are very important institutions for empowerment, poverty alleviation, and the progress of farmers and poor communities in rural areas.

**Table 1.**  
Matrix of positive aspects of farmer groups empowerment

<b>Empowerment</b>	<b>Social and Economic Benefits</b>	<b>Goals</b>
I. Awareness, knowledge and information	1. Access to agricultural production and input factors; collective procurement/supply for members; which leads to lower costs and/or better quality	a. Overcoming challenges
	2. Access to technology, advice and sharing of experience leading to improved production, productivity and quality as well as reduced production costs	b. Taking advantage of opportunities
	3. Access to credit and financial services	c. Improving livelihoods
II. Capacity and skills	1. Value creation for own production (storage, processing, branding) and value chain development	
	2. Collective action to improve market access, sales and competitiveness	a. Profit and income
	3. Lobbying and advocacy - expressing the interests and needs of farmers; Increased influence in policy and business environment	b. Autonomy, resilience and independence

Source: Adopted from the guideline 'Optimizing the performance of producers and their organizations', Wageningen Centre for Development Innovation (2020)



Empowering farmer groups has an impact on increasing farmers' knowledge and skills (see Table 1). Likewise, the Golo Pandang farmer group was formed because of the needs of its members, namely achieving economies of scale in providing services, assets or grants to its members. Additionally, some people may feel more ethically comfortable providing technical assistance to a group rather than to an individual. Furthermore, the ethos of communal ownership of land for collective comfort is widespread among farmer groups even when direct observation of the management of plantation crops and assets belonging to the group being managed has not gone well. The decisions of the farmer group leaders are still far from the principles of governance of farmer groups as farmer organizations. This means that farmer groups have not become entities built based on farmers' needs, but rather as a way for the government to provide incentives to farmers to advance farmers. However, this farmer group is trapped in not helping its members much, it could be said that this farmer group has a false function. Therefore, achieving sustainable development and sustainability of farmers' lives is still far from expected.

### **Technical and non-technical challenges**

There are technical challenges faced by farmers in East Manggarai. The socio-economic condition of rain-fed farmers in Watu Lanur Village, Poco Ranaka District is that the planting season is limited to only the rainy season and the environmental carrying capacity is less than optimal for agricultural development. The problem that occurs in the Golo Pandang Farmers Group is the lack of guidance, training and outreach from PPL and agricultural instructors from related agencies who work in Watu Lanur Village. There is minimal attention from the East Manggarai Regency Agricultural Service to farmer groups in this region in the form of development, guidance, financing, procurement of agricultural facilities, empowerment and increasing the capacity of farmer groups. This is a technical and non-technical obstacle for the Golo Pandang Farmers Group to make the farmer group a functional group. Lack of awareness among group members also affects the role of small farmers in relation to the Sustainable Goals (SDGs). Farmers as individuals and farmers as members of farmer groups. These are the two functions and roles that are a dilemma for farmers. Their dual function in the adoption of the SDGs and their socio-economic limitations have made it difficult for them to fulfill expectations as promoters of sustainable development.

The issues faced by farmers in farmer groups are (a) limited knowledge of farmers about modern technological innovations (b) lack of innovative education and training options for farmers; (c) new organizational forms such as cooperatives and farmer groups along the value chain from production to logistics and marketing are still weak; (d) financial support; (e) access to agricultural information; (f) appropriate, cheap and simple technological solutions and innovations and which are in accordance with their local knowledge; and (g) a supportive institutional environment, this is related to the role of customs which cannot be ignored in farmers' daily lives.

“The water problem is an urgent matter for society, both for daily life and for agriculture. Early in the morning, people have to struggle hard to fetch water, especially during the dry season. The place for water is in a well or water source that is far from settlements and passes through steep terrain. Productivity and the economy are hampered by water problems.”  
(Informant KAS).

These technical and non-technical obstacles when raised into this macro theme are issues of "social," "environmental," "economic," and "governance," of the farmer group. Therefore, all relevant policy makers need to develop approaches that can portray the potential of small farmers as the backbone of sustainable development. Seeing from an economic perspective at the farmer's level, developing the sustainability of the farmer group is still difficult, as farmers tend to have not yet considered how the community benefits from the activities of the village group and how those benefits continue in the future. The farmer groups' performance in resource management, governance, and marketing strategies has not shown any current benefits. An emergency farmer group is proposed to start directing to address the problems of family-level food insecurity, household poverty, climate pressure and biodiversity loss in development agency programmes and policies. The existence of farmer groups plays an important

role in increasing productivity and farmers' well-being (Khanal & Maharjan 2015). Development of the institutional capacity of the farmer group, is one of the approaches in empowering farmers collectively. The farmer groups become social drivers, forums of discussion and media empowerment for the development of production (Prasetyono 2019).

Farmer groups are not yet functional, this is also supported by the lack of member participation to innovate and carry out transformative changes through empowerment and learning based on experience. Farmers need empowerment and farmer groups need strong institutionalization because institutionalization is the process by which new ideas and practices are adopted by individuals and organizations and become part of the 'norm' (Jonfa & Waters 2005). This farmer group faces problems because of the unstable level of institutionalization of farmer groups and services from the government or countrymen who are tasked with helping farmers cope with these challenges (supporting the formation of groups) are often unable to carry out their accompaniment due to the location of the farm groups that are in the depths, difficult access due to limited means of transportation and inadequate infrastructure conditions.

Farming groups consisting of small farmers often face difficulties in interacting with market farmers due to high transaction costs or small transaction sizes, poor organization and communication, and a lack of understanding of the needs of these small farmers. Farmers often appear to face challenges in finding markets for their products or face poor trading conditions or limited access to credit. Studies in Bogor show that there is an influence of strengthening farmer groups on farmer participation and motivation in agricultural businesses, but this does not happen in the Golo Pandang Farmer group, East Manggarai (Nazaruddin & Anwarudin 2019). This is a problem for farming groups, farmers, and also for the government which continues to strive to improve farmer welfare.

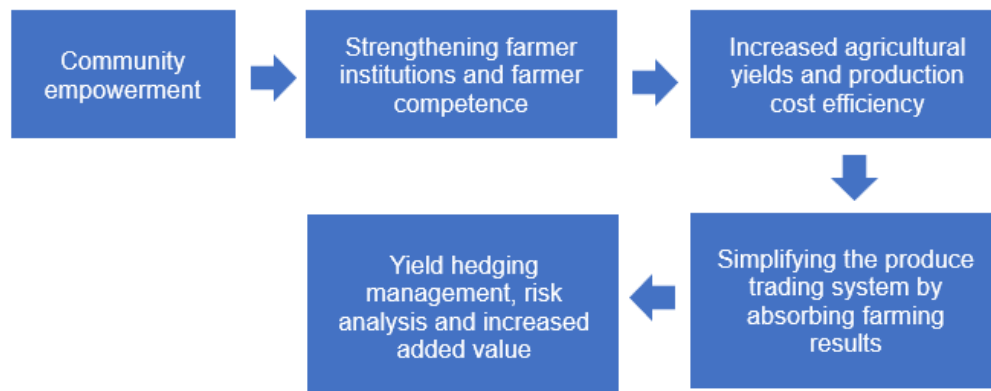
### **The farmer groups governance**

Most agricultural programmes can succeed in getting farmers out of poverty when there is instruction to farmers about a series of innovations that will increase productivity (Bunch 1991). The widespread dissemination of certain technologies, which are considered as the perfect solution to farmers' problems, must be followed by intervention programmes to improve the agricultural system. Most farmers do not feel the direct impact of intervention programs from the government, but many farmers in the countryside are receiving support from the community or NGOs in developing sustainable agricultural techniques. Future success of consulting services for farmers driven by demand and market-oriented (Haverkort 1991).

In this context, farmer groups need capacity increases and empowerment. Farmers need skills and make innovations in accordance with the real conditions of the land and customary environmental ecosystem. This is what makes farmer groups a leading guard to introduce innovative programmes to its members. Most development success stories are a direct result of or dependent on collective action. However, the diverse roles of farmers' organizations in extension is not well understood. In many contexts, rural development is the story of failed farmer groups. The majority of these groups, formed for various purposes by national agencies or organizations development, generally lack the essential elements that can ensure their survival (Bingen & Simpson 2015).

There are several things to support the success of rural development, which so far have not received much attention. First, working with community-based farmer groups is an important means of strengthening farmers' capacity to engage in various agricultural and rural development activities, participate in markets and be involved in policy formation. Second, different types of investment in village accompaniment influence the types of services available to farmer groups and, consequently, the group's collective capacity to access and make effective claims against inactive, non-intensive, remote rural accompaniments. Farmer groups as a forum for cooperation can make farmers stronger (Hamilton et al. 2015). The opinion of Frese & Gielnik (2014) can be applied to farmers, because farmers who are in farmer groups must also develop an entrepreneurial spirit. It's not just entrepreneurs who need to have a lot of knowledge and skills to adapt to developments in agricultural technology. So, farmers

can access agricultural resources. Farmer groups are real communities so the strength of the institution is decisive in empowering the farmer groups (Ife 2002). Farmer groups are community institutions that are common in agricultural-based village communities, so the emphasis on strengthening institutions in agricultural communities is on farmer groups.



**Figure 3.**

Farmer group empowerment scheme

Source: Author analysis

Empowering farmer groups goes through a long, continuous process (see Figure 3). Strengthening institutions, increasing agricultural yields and adding value from agriculture are the main priorities in empowering farmer groups. Of course, this cannot be separated from the post-harvest aspects and handling the risks that occur. Considering the natural conditions and social situation of the East Manggarai people who are fully bound by custom. It is expected that farmer groups can be the answer to the difficulty of earning a living in rain-fed rice fields, steep land and drought through efforts to increase production and farming innovation, including smallholder coffee plantations.

Farmer groups can function optimally without formality, if farmer groups are empowered and their institutional capacity is increased. This is very beneficial for farmers. Although interview data shows that there is awareness among farmer group members to organize themselves for the following reasons.

“There are socio-economic motives, individual farmers also have social reasons for joining farmer groups. Social benefit reasons include, but are not limited to. First, feeling a sense of belonging to a group and getting protection in the group; second, complying with norms in the community or society; third, to gain status and respect, by being active in decision making and management of farmer organizations; fourth, additional education and training and visibility to obtain external assistance (Government, NGOs, projects). Several factors and situations can encourage farmers to form local groups or join existing groups. It can be concluded that the problems and obstacles faced by farmers cannot be resolved individually or with the help of family and friends, but can be resolved institutionally. This includes opportunities that cannot be captured individually and there is trust among members to work together (social cohesion) with other farmer groups and this is important in farmer groups.” (Informant FBA).

From a political economy perspective, farmer groups have direct links with equivalent institutions – at the regional level, through field officers at the lowest level, extension workers or rural development officials, who have direct links with the Ministry of Agriculture. This is to ensure that farmer groups also become a systemic part of running the agricultural programs. Other functions of farmer groups include: equal distribution of water, coordination of work related to irrigation/water distribution when the dry season arrives, facilitation of extension, especially plant demonstrations through group collaboration, not individuals and facilitation of product marketing when the harvest season arrives in collaboration with the group other farmers across hamlets, villages and even across sub-districts.

Farmer groups perform economic and political functions, meaning that economically they carry out an empowerment function for their members, and politically farmer groups are at the leading guards in encouraging the successful implementation of agricultural policies, especially in increasing food production. This can be done by farmer groups by building synergistic relationships between various existing social and economic institutions, including traditional institutions/traditional elders in the community, which are then developed towards the formation of a people's economic network, so that it will be able to have an impact on empowering farmers and farmer groups. Meanwhile informants (community figures) stated that there were motivating factors for farmers to form farmer groups.

“There are situations that can encourage farmers to form farmer groups or join existing groups. For example, farmers often face unsolvable problems, such as when farmers don't have fertilizer, some can solve this personally and some ask other farmers for help. "Farmers want to make a profit during the secondary crop or rice harvest season, but after calculating how to pay credit, it turns out that farmers don't get anything, because they have to pay debts from purchased fertilizers, pay for pesticides, have traditional events, and so on." (Informant KAS).

According to informants (PPL officers), there are several things that are important to understand to empower farmer groups.

"We need to understand farmers' motivations. According to this informant, in practice, farmers and farmer organizations have many goals. The main thing is that when it comes to planting season, we need seeds, we need money to pay the wages of workers who cultivate the land...yes, something like that. Especially in a season like now, there is no rain. For a PPL it is very important to understand the motivation of farmers from their perspective. For farmers, the point is that time and money spent on activities to advance farmer groups is fine as long as it produces results." (Informant SAP).

There are certain reasons for farmers to form and strengthen the position of farmer groups at this time. The initiative motive and main motivation for farmers to organize themselves is because they are aware of the risks that might arise if they do not become members of farmer groups. It is further explained that.

"The motivation of farmers to become members of farmer groups refers to socio-cultural motivation. Farmer members form organizations because they share a lifestyle, culture, vision and/or live in a certain geographic area. Maintaining and creating (social and cultural) identity is less obvious, but often very important. This motivation is often found in local farmer associations that have strong social functions (mutual cooperation, community functions). The governance of these organizations is generally informal and rooted in and guided by local culture, norms and values. There is obedience within farmer groups that must not be ignored." (Informant VAJ).

This is reinforced by statements from other farmers who assume that organizing can expand access for various interests.

“Farmers organize themselves because the government wants them to, or to comply with laws, policies and regulations. Formal organizations are often needed to gain access to subsidies, inputs and services, or to sell agricultural products in government-controlled markets. For many governments, these farmer organizations may serve purposes outside the interests of farmers, for example to get votes from rural communities during village head elections. Strong orientation towards government (compliance/compliance) with the assistance that has been provided to farmer groups." (Informant RAN).

Based on the data of the in-depth interviews above, it can be concluded that there are benefits of farming groups that perform multifunctional, not only economic functions and orientations, but also socio-cultural. Farmers organize themselves for economic empowerment, professionalization, and better income from agriculture and related business activities. Members seek benefits, which should be higher than membership costs. Through collective action, farmers individually do something better or cheaper, or engage in economic activities that could not be done individually. For the members of the farmer group that are mostly small farmers joining the farmers' group is to get support from external parties.



It's a rational reason for obtaining fertilizer aid, market access, and credit. Farmers who understand market dynamics and quality standards can better position their products, which leads to increased local and international sales, which contributes to regional and national economic growth. The results of this study are expected to contribute to enhancing the capacity of farmers through increased participation of members in all stages of activity, thus strengthening the statement that member participation is an important component as a factor in farmers' sustainability in the process of agricultural development in interaction with the order of agriculture and global trade (Chesoli 2013).

The farmer group needs to get the attention of the local government to increase its capacity. With empowerment will have a positive impact on: first, empowering farmers to develop, have knowledge, information and good awareness, skills. So they can mobilize existing resources, advocate better infrastructure, and build initiatives to improve living conditions in the countryside, leading to stronger and more autonomous communities. There is something more important than the presence of the farmer group as a functional group to advance the farmer, that is, agriculture.

"Agriculture approval is important. This interest is crucial in the context of the many pressing issues associated with agricultural change and rural development. Because of the importance of this, the dismissal received much criticism for constantly disregarding social and political factors. In this case, the history of discovery can be seen as a paradigm consisting of an approach aimed at increasing agricultural production through the transfer of technology from experts to farmers, and a series of criticisms of technology transfer obstructed by the neglect of socio-political factors." (Informant FBA).

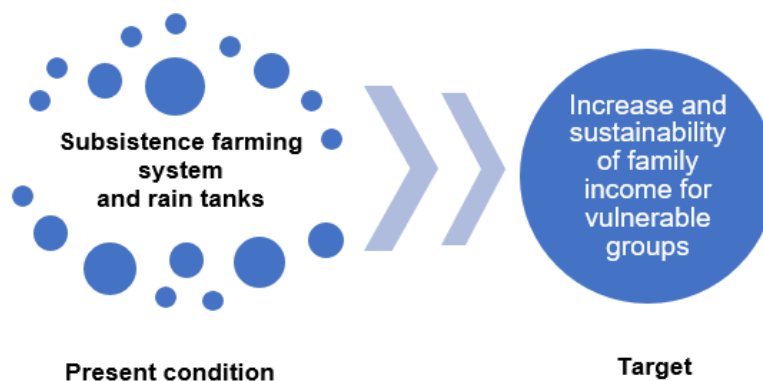
In East Manggarai (NTT) in general, farmers have already implemented a food system based on culture/tradition. They grow pumpkins, corns, and strawberries, where these plants are traditional foods. In short, the food system of the NTT community has to do with culture such as customary rituals and daily food. Therefore, the farmers and the community cultivate food that is related to culture. What's interesting is, the variety of food served in customary weather becomes a daily meal. In establishing a culture-based food system, local governments socialize by duplicating farmers and farmer groups to synergize with others in developing programmes related to what the community needs. At NTT, the preservation of customary knowledge goes well through the food system. It's seen from the typical Sei meat dish, the borse corn can survive to this day because it's a food that contains customary/traditional values. Increasing food production for local food needs needs to be followed by providing socialization and support to peasant groups. It requires strong commitment of local governments and related policymakers in villages and villages to target more resources to farmers, especially those who want to move forward and be forward-oriented to increase their income and agricultural products.

"A group of farmers already exists but lacks support and needs a lot of training. Another obstacle to the empowerment of the farmer group is a matter of responsibility for both the manager and the members of the group. And that applies to various other communities in Watu Lanur. Less optimum is the exploitation of programmes that have been run by the government." (Informant MAR).

Strengthening the capacity of farm groups focuses on increasing and resilient families of vulnerable groups, especially rain farmers (see Figure 4). There is more value in capacity-building and empowerment of farmers. Firstly, success empowering farmers into effective rural-to-urban migration mitigation strategies By providing an opportunity to earn sustainable incomes and a higher quality of life in rural areas, agricultural education slows down people's migration flows to cities to find work. It helps manage urbanization and reduce the pressure on urban resources and services.

Secondly, increase resilience to climate change. Farmers who have knowledge of smart farming practices, learn farming techniques to cope with weather patterns (climate change) such as drought-resistant crop varieties or water-efficient irrigation methods become more valuable to farmers today. Thirdly, by increasing the capacity of the farmer group, these farmers can get out of the cycle of poverty.

As farmers increase their productivity and income, the poverty rate decreases. This, in turn, leads to improved living standards, reduced disparities, and increased economic stability. Providing intensive-regular training can enhance the knowledge and skills of farmers so that they can have better access to better resources such as credit and land, and opportunities for women to engage in income-generating activities. The point is that it has a positive and positive impact on women's empowerment.



**Figure 4.**  
Current group capacity enhancement design framework  
Sumber: Author documentation

Lastly, the preservation of customary knowledge. It can run by creating an exchange program with other groups of farmers across villages, across districts, across counties. Educational programmes such as this will encourage the exchange of traditional agricultural practices that help preserve local knowledge and biodiversity, ensure that unique agricultural traditions are inherited from generation to generation and can support the welfare of farmers and the sustainability of farmer groups.

## Conclusion

The study concludes that there are double difficulties faced by farmers groups. First, the farmer who is a member of this farmer group carries out economic actions or behaviors typical of a family of farmers that are oriented towards subsistence ethics. This ethic derives from the fact that, unlike the capitalist builders, the farmer family is a unit of consumption at the same time as the unit of production. Starting with subsistence consumer demands that are almost irreducible, based on their size, which must be met in order to continue as a unity.

Secondly, the farmer society in the technical, social, and moral order rejects the various innovations that are influenced by the problems of the livelihood of farmers that are already inherent in the morality of the agricultural economy. This is one of the reasons that the farmers' group is not functioning optimally. Farm groups formed for various purposes by national bodies or development organizations generally lack the essential elements that can guarantee their survival. Therefore, empowering the farmer groups can avoid economic and social cultural dysfunction. Although the farmer group faces challenges in rain-based farming conditions and this affects production failures, with minimal PPL assistance and the strong will of farmer group members to tackle technical and non-technical problems enables the country group to become institutionally resilient and in turn have a productive impact mainly on the increase in the farmers' income.

In the end, the study contributed to a common understanding of empowerment of farmer groups in the East Manggarai region. Poorly managed groups of farmers with rational and under-democratic values may encounter failures in improving the supply of agricultural needs (fertilizers, credit, irrigation, market access) and farmers' well-being. The study is expected to be a reference in the empowerment of farmers and farmers in support of access to SDHs#2. Enhancing the capacity and skills of farms and farmer groups in the region, especially in areas with extreme environmental conditions, is essential, so that farmers, and all farm-related policy makers, can support the implementation of food sovereignty.

## References

- Anil B, Tonts M, & Siddique KH (2015) Strengthening the performance of farming system groups: Perspectives from a communities of practice framework application. *International Journal of Sustainable Development & World Ecology* 22 (3):219-230. <https://doi.org/10.1080/13504509.2014.1003153>.
- Bingen RJ & Simpson BM (2015) Farmer organizations and modernizing extension and advisory services. MEAS Discussion Paper Series on Good Practices and Best Fit Approaches in Extension and Advisory Service Provision. East Lansing: Michigan State University.
- BPS (2022) Kabupaten Manggarai Timur dalam angka 2022. [Accessed 7 March 2023]. <https://manggaraitimurkab.bps.go.id>.
- Bunch R (1991) People centred agricultural development. In: Haverkort B, Kamp J, & Waters-Bayer A (ed). *Joining Farmers' Experiences*. London: IT Publications.
- Chesoli CW (2013) Types of capacity building activities for improved market participation by farmer groups in Turbo, Kenya. *Journal of Emerging Trends in Economics and Management Sciences (JETEMS)* 4 (4):377-380. <https://hdl.handle.net/10520/EJC142052>.
- CNN Indonesia (2023) Daftar terbaru 5 provinsi termiskin di Indonesia. CNN Indonesia, 17 January. [Accessed 26 February 2024]. <https://www.cnnindonesia.com/ekonomi/20230117184306-92-901639/daftar-terbaru-5-provinsi-termiskin-di-indonesia>.
- Drèze J & Sen A (1989) *Hunger and Public Action*. Oxford: Clarendon Press.
- FAO (2012) *The state of food insecurity in the world. Economic growth is necessary but not sufficient to accelerate reduction of hunger and Malnutrition*. Rome: Food and Agriculture Organization of the United Nations.
- FAO (2020) *Empowering farmers and their organizations through the creation of social capital - Bond learning guide for trainers*. Rome: Food and Agriculture Organization of the United Nations. <https://doi.org/10.4060/cb1423en>.
- Frese M & Gielnik MM (2014) The psychology of entrepreneurship. *Annual Review of Organizational Psychology and Organizational Behavior* 1: 413-438. <https://doi.org/10.1146/annurev-orgpsych-031413-091326>.
- Gassner A, Harris D, Mausch K, Terheggen A, Lopes C, Finlayson RF, & Dobie P (2019) Poverty eradication and food security through agriculture in Africa: Rethinking objectives and entry points. *Outlook on Agriculture* 48 (4):309-315. <http://doi.10.1088/1742-6596/1155/1/012004>.
- Hamilton W, Bosworth G, & Ruto E (2015) Entrepreneurial younger farmers and the "Young farmer problem" in England. *Agriculture & Forestry* 61 (4):61-69.
- Haverkort B (1991) Farmers' experiments and participatory technology development. In: Haverkort B, Kamp J, & Waters-Bayer A (ed). *Joining Farmers' Experiences*. London: IT Publications.
- Ife J (2002) *Community Development, Community Base Alternatives in An Age of Globalisation*. 2nd Edition. Australia: Pearson Education Australia.
- Jonfa E & Waters-Bayer A (2005) *Unlocking Farmers' Potential. Enabling: Institutionalizing Farmer Participatory Research and Extension in Southern Ethiopia*. Project Experience Series 2. <https://www.fao.org/3/I8260EN/i8260en.pdf>.
- Khanal NP & Maharjan KL (2015) *Community Seed Production Sustainability in Rice-Wheat Farming*. Tokyo: Springer.
- Koch M & Buch-Hansen H (2021) In search of a political economy of the postgrowth era. *Globalizations* 18 (7):1219-1229. <https://doi.org/10.1080/14747731.2020.1807837>.
- Listiana I, Efendi I, Mutolib A, & Rahmat A (2019) The behavior of extension agents in utilizing information and technology to improve the performance of extension agents in Lampung Province. In *Journal of Physics: Conference Series* 1155 (1):012004. <https://doi.org/10.1088/1742-6596/1155/1/012004>.
- Lon YS & Widyawati F (2020) *Mbaru Gendang, Rumah Adat Manggarai Flores: Eksistensi, Sejarah, dan Transformasinya*. Sleman: Kanisius.
- Markelova H, Meinzen-Dick R, Hellin J, & Dohrn S (2009) Collective action for smallholder market access. *Food Policy* 34 (1):1-7. <https://doi.org/10.1016/j.foodpol.2008.10.001>.

- McGinty S (2003) The literature and theories behind community capacitybuilding. In: *Sharing Success: an Indigenous perspective*. VIC, Australia: Common Ground Publishing.
- Merriam SB & Tisdell EJ (2016) *Qualitative Research: A Guide to Design and Implementation*. New York: John Wiley & Sons.
- Muhammad N (2023) Provinsi dengan produksi padi terbesar nasional 2023, Jawa Timur juaranya. *Databoks*, 18 October. [Accessed 30 October 2023]. <https://databoks.katadata.co.id/datapublish/2023/10/18/provinsi-dengan-produksi-padi-terbesar-nasional-2023-jawa-timur-juaranya/>.
- Nazaruddin N & Anwarudin O (2019) Pengaruh penguatan kelompok tani terhadap partisipasi dan motivasi pemuda tani pada usaha pertanian di Leuwiliang, Bogor. *Jurnal Agribisnis Terpadu* 12 (1):1-14. <https://jurnal.untirta.ac.id/index.php/jat/article/view/5530/3995>.
- Neza BN, Higiro J, Mwangi LW, & Ochatum N (2021) Institutionalizing farmer field schools. *The Food and Agriculture Organization of the United Nations and the International Food Policy Research Institute Rome*.
- Nourani V, Maertens A, & Michelson H (2021) Public good provision and democracy: Evidence from an experiment with farmer groups In Malawi. *World Development* 145. <https://doi.org/10.1016/j.worlddev.2021.105507>.
- Nwankpa NN (2017) Sustainable agricultural development in Nigeria: A way out of hunger and poverty. *European Journal of Sustainable Development* 6 (4):175-184. <https://doi.org/10.14207/ejsd.2017.v6n4p175>.
- Oxby C (1983) Farmer groups in rural areas of the third world. *Community Development Journal* 18 (1):50-59. <https://www.jstor.org/stable/44256167>.
- Prasetyono DW (2019) Pengembangan kapasitas kelembagaan kelompok tani sebagai pilar pemberdayaan petani. In: *Prosiding PKM CSR-Konferensi Nasional Pengabdian Kepada Masyarakat dan Corporate Social Responsibility 2. Peran Perguruan Tinggi dan Dunia Usaha dalam Mempersiapkan Masyarakat Menghadapi Era Industri 4.0*.
- Rahmadanih, Bulkis S, Arsyad M, Amrullah A, & Viantika NM (2018) Role of farmer group institutions in increasing farm production and household food security. In: *IOP Conference Series: Earth and Environmental Science* 157 (1):012062. Bristol: IOP Publishing. <https://doi.org/10.1088/1755-1315/157/1/012062>.
- Rizaty MA (2021) Rasio penderita gizi buruk di NTT tertinggi nasional. *Databoks*, 18 January. [Accessed 26 February 2024]. <https://databoks.katadata.co.id/datapublish/2021/01/18/rasio-penderita-gizi-buruk-di-ntt-tertinggi-nasional>.
- Roller MR & Lavrakas PJ (2015) *Applied Qualitative Research Design: A Total Quality Framework Approach*. New York: Guilford Press.
- Ropo R (2023) PPL dan ketua kelompok tani Manggarai Timur dilatih budidaya jagung model GAP. *Tribunnews*. 30 November. [Accessed 29 October 2023]. <https://flores.tribunnews.com/2023/11/30/ppl-dan-ketua-kelompok-tani-manggarai-timur-dilatih-budidaya-jagung-model-gap>.
- Runggat F (2022) Alokasi pupuk subsidi di Matim kurang, begini penjelasan distributor. *Timexkupang*, 7 February. [Accessed 10 July 2023]. <https://timexkupang.fajar.co.id/2022/02/07/alokasi-pupuk-subsidi-di-matim-kurang-begini-penjelasan-distributor-yohanes-suherman/>.
- Sasmi M, Agustar A, Syarfi IW, & Hasnah (2023). Empowerment of Farmer Institutions in Improving Farmer's Bargaining Position. *IOP Conf. Series: Earth and Environmental Science* 1177 (2023) 012001. Bristol: IOP Publishing. <http://doi:10.1088/1755-1315/1177/1/012001>.
- Scott JC (1976) *The Moral Economy of the Peasant: Rebellion and Subsistence in Southeast Asia*. New Haven: Yale University Press.
- Strauss A & Corbin J (1998) *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. 2nd. Thousand Oaks, CA: Sage Publications.
- World Bank (2007) *World development report 2008: Agriculture for development*. World Bank. [Accessed 7 June 2023]. <http://hdl.handle.net/10986/5990>.