

STRATEGIES OF WOMEN FARMERS IN ACHIEVING FAMILY SECURITY: A CASE STUDY OF BANDUNG JAYA VILLAGE, KEPAHIANG

Jimmy Yogari ¹, Panji Suminar ², Ika Pasca Himawati ³

^{1,2,3}Jurusan Sosiologi, Fakultas Ilmu Sosial dan Ilmu Politik, Universitas Bengkulu

^ajimmyyogari@gmail.com
bpsuminar@unib.ac.id
cikapasca@unib.ac.id

(*) Corresponding Author
jimmyyogari@gmail.com

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ABSTRACT

This study analyzes the strategies employed by women farmers in achieving family food security in Bandung Jaya Village, Kabawetan District, Kepahiang Regency. Using a qualitative case study design, eight purposively selected informants including members of the "Kaba Indah Lestari" Women Farmers Group (KWT) and village authorities were interviewed through in-depth interviews supported by non-participant observations and document analysis. The findings reveal four integrated strategies: (1) food production through optimal and sustainable use of family fields, group plots, and home gardens; (2) food access strategies involving produce exchange, selective selling to middlemen, and livelihood diversification; (3) food management and consumption strategies that ensure balanced household nutrition through storage, processing, and adaptive menu planning; and (4) empowerment through KWT as a platform for capacity building, knowledge exchange, and social solidarity. Using Moser's Gender and Development (GAD) framework, the study shows that women farmers perform productive, reproductive, and community management roles that are essential for strengthening household resilience and sustaining local food systems. The study concludes that women's empowerment plays a critical role in building a gender-equitable and sustainable food security system in rural communities.

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INTRODUCTION

Food security remains a central dimension of national development, particularly in rural agricultural areas where communities face challenges such as climate variability, limited land resources, and fluctuating food prices. At the household level, women farmers play a critical role in ensuring food availability, access, and utilization by combining agricultural activities with domestic food management. As highlighted by the Badan Ketahanan Pangan

(2020),), food procurement and distribution are essential to ensuring equitable access, especially during periods of crisis. Women therefore contribute significantly not only to production but also to nutritional planning and daily household food allocation (Hayati et al., 2015). Food security itself is a basic aspect of community welfare, especially at the household level. Facing challenges such as climate change, food price fluctuations, limited land, and the global economic crisis, the role of families, especially women, is becoming increasingly vital in building a sustainable food supply system. Agricultural development is a very important part of national development. One of the main priorities is increasing food security, which includes strengthening food distribution, increasing food availability, accelerating food diversification, and monitoring the safety of fresh food according to regional characteristics (Ediwiyat et al., 2015).

Bandung Jaya Village in Kabawetan District represents a relevant case of rural agricultural livelihood where women are deeply involved in farming, harvest management, and household consumption. Previous studies emphasize the importance of Women Farmers Groups (KWT) in enhancing women's capacity through training, agricultural innovation, and social learning ((Yuliana, 2017); (Alpandari & Prakoso, 2022); (Jumiati et al., 2024)). Research also shows that optimizing home gardens and community-based yard agriculture strengthens local food systems and increases household resilience (Saranani et al., 2023; Solikah et al., 2023).

The results showed that this intervention was able to increase family food production capacity and encourage food independence through yard farming activities, meanwhile Utomo et al., (2024) examined the role of the "Cahaya" KWT in Balongkrai Village, Mojokerto City, in supporting the family food security program. This study revealed that the program's success was supported by synergy between farmer groups, local government, and field facilitators through training activities, provision of production facilities, and regular monitoring research by Yanfika et al., (2023) added a new perspective by applying hydroponic techniques to KWT empowerment. Hydroponic vegetable cultivation has proven to be an innovative solution to overcome limited yard space, while also increasing food diversification and family access to nutritious food. Women's empowerment through KWT aims to create groups that are dynamic, disciplined, responsible, open to change, as well as creative and skilled in managing agricultural activities ((Afifah & Ilyas, 2020)). Utilization of home yard land also is an important strategy in supporting family food needs (Permana et al., 2020). This effort not only supports food security but also contributes to the prevention and management of stunting by improving the nutritional status of the community (Riajaya & Munandar, 2020). The issue of food security is a major concern for both the government and the community, as it is directly related to survival and national resilience. Therefore, various programs have been initiated to maintain and strengthen food security, one of which is through the development and empowerment of Women's Groups (KWT). In research (Ismail (2021), the Selayar Islands Regency Government, for example, supports the development of women's potential in the agricultural sector through the KWT program as a form of real participation in village and national development.

The purpose of this study is to analyze the strategies of women farmers in achieving family food security, including agricultural activities, household food management, and participation in the KWT (Farmers' Group). Theoretically, this study contributes to the study of rural sociology regarding women's roles in the food system. Practically, the results are expected to provide input for local governments and farmer groups in designing locally-based women's empowerment programs. The significance of this study lies in revealing the dual role of women farmers who not only support family needs but also contribute to community food sustainability. Novelty of the Study This research offers a holistic analysis that integrates women's production, procurement, consumption, and empowerment strategies using Moser's GAD framework—highlighting their multi-dimensional agency in sustaining household and community food security.

METHOD

This study adopts a qualitative case study approach to explore the strategies used by women farmers in achieving family food security in Bandung Jaya Village. The case study design allows for an in-depth understanding of complex social practices within their real-life context (Starman, 2013). The research location is in Bandung Jaya Village, Kabawetan District, Kepahiang Regency, which is an agrarian area with dominant agricultural activities and has the Kaba Indah Lestari Women's Group (KWT) active in food management and women's empowerment.

The research objective is to describe the strategies of women farmers in food production, procurement, and consumption. This study also identifies supporting factors and challenges that influence the success of these strategies amidst rural social, economic, and environmental conditions. Data collection was conducted using three techniques, first, semi-structured interviews were conducted to explore the experiences and strategies of women farmers directly. Second, non-participant observation was conducted to observe behaviors and interaction patterns that were not always apparent in interviews (Hermes et al., 2024).

Third, documentation in the form of KWT archives, village documents, and activity photos was used to supplement and verify other data. Primary data were obtained from interviews with women farmers, village officials, and agricultural extension workers, while secondary data came from official village documents, KWT reports, and relevant literature and research (Margayaningsih, 2020). Data analysis used the interactive model of Miles & Huberman (1992) in the book (Sugiyono, 2013) which includes data collection, data reduction, data presentation in narrative form, and drawing conclusions and verification to ensure data validity through comparison of various information sources.

RESULT AND DISCUSSION

RESULT

a. Food Production Strategy

Women farmers in Bandung Jaya Village, located in a highland region with fertile soil but vulnerable to extreme weather, have developed a holistic food production strategy based on local resources. This strategy encompasses the management of individual fields, group plots, and home gardens, with a primary focus on subsistence production that prioritizes meeting family consumption needs before selling or exchanging surpluses. The dominant crops cultivated include vegetables such as mustard greens, cabbage, carrots, and spinach, which are easily harvested in a short time, as well as economically valuable crops such as chilies and coffee, which contribute additionally to household income. Intercropping is a primary option for optimizing limited land, where perennial crops such as coffee are combined with annual crops to maximize yields and reduce the risk of total failure. Cropping patterns are dynamically adjusted to seasonal cycles and land conditions, with local knowledge playing a crucial role in selecting crops that are adaptive to environmental challenges, such as cold temperatures or the dense fog that often occurs in the highlands. Food stabilization efforts are also carried out through scheduled and planned planting patterns. Some KWT members have begun implementing a monthly planting cycle with different commodities, ensuring a consistent harvest each month. This pattern not only expands the availability of agricultural products, but also Reducing dependence on a single commodity can reduce the risk of crop failure. This adaptation is not merely reactive, but an integral part of a sustainable production strategy that reflects the inherited experiences of women farmers. As one informant expressed it:

"If it's too cold for vegetables, it's not good... usually we're smart about choosing what's suitable for planting, like in the rainy season, only cabbage and mustard greens are suitable." (interview with informant AN, June 18, 2025) This statement illustrates how this empirical knowledge serves as an effective adaptation tool, enabling women farmers to maintain productivity despite increasingly unpredictable climate change. At the household level, home gardening is a highly inclusive and accessible practice, where vegetables are grown in pots, polybags, or in small plots of land to reduce dependence on purchasing food from outside. This approach not only saves on kitchen expenses but also ensures the availability of nutritious, fresh food while promoting environmental sustainability through minimal resource use. Informant S emphasized the accessibility of this practice: "Utilizing yards is a simple step that anyone can take, because the land in this village is relatively fertile and easy to cultivate." (interview with informant S, June 18, 2025)

These production responsibilities are largely borne by women, although there is a division of labor with other family members in cases of heavy work. Strategic decisions regarding crop types and management methods are often made by women, particularly in matriarchal households or those where women are primarily responsible for food. Food stability is also supported by income diversification through side businesses such as sweet stalls or farm laborers, which serve as a buffer when production declines. Informant SH gave an example: the stall's income helps when the harvest doesn't meet expectations. Social dimensions, such as the KWT program for assisting the

underprivileged, strengthen collective resilience through solidarity. Within the household, careful consumption management, weekly shopping schedules, and nutritious menus are supported by knowledge from training. This stability is shaped by women's adaptive strategies in the economic, social, and knowledge sectors, making them a foundation for food security that is resilient to change. Women farmers in Bandung Jaya Village play a central role in daily agricultural activities, which are seamlessly integrated with domestic responsibilities, making them dual actors in both productive and reproductive functions. They are directly involved in land preparation, planting, maintenance (such as weeding, watering, and fertilizing), and harvesting, with decisions based on inherited knowledge and collective experience from the KWT or training. On group land, this involvement strengthens cooperation and solidarity. The flexibility of role sharing with her husband was described by informant AN: "If my husband works, we help him. But if there are activities in the farmer's group, we have to make time, and my husband takes care of the house for a while." (interview with informant AN, on June 26, 2025)

Managing the harvest at home, such as sorting for consumption or sale, makes women the link between production and meeting household needs. Despite carrying out demanding, multi-layered roles, especially when their husbands are away from home, women demonstrate a strong sense of responsibility as the main pillar of village agricultural sustainability, built on experience, local knowledge, and solidarity. Overall, this production strategy is not only technical but also reflects the independence, local knowledge, and social strength of women farmers, which form the foundation of family food security at the micro level.

b. Food Procurement and Access Strategy

The food procurement and access strategies of women farmers in Bandung Jaya Village are designed to address production uncertainty, particularly during lean seasons or when harvests are insufficient to meet household needs. In addition to relying on their own production, women farmers have developed a mechanism for exchanging produce among group members, which serves as an internal social network to compensate for deficiencies. For example, surplus chilies from one member can be exchanged for green vegetables from another, creating an efficient, trust-based barter system. This practice strengthens communal solidarity and reduces dependence on external markets. As informant SH explained: "If I don't have any other types of vegetables, we will use the exchange system." (interview with informant SH, on June 26, 2025)

This mechanism demonstrates how social relations are a key instrument in expanding food access at the local level. However, structural challenges such as limited market access remain significant barriers. Many women farmers rely on middlemen or collectors who come directly to their fields, offering easy distribution but often unilaterally setting prices, weakening smallholder farmers' bargaining power. This situation can lead to rejection of sales if prices are too low, which in turn impacts household liquidity. Informant P described this dynamic: "If the middleman buys at a high price, we get a lot. If the middleman buys at a low price, we sometimes choose not to sell our harvest." (interview with informant P, on June 18, 2025)

To address this, some informants developed additional income sources outside of agriculture, such as working as farm laborers, opening sweet stalls, or sewing at home, with the proceeds used to purchase staples like rice, oil, salt, or meat that they could not produce themselves. Women farmers demonstrated resilience in managing food procurement, with strong control over daily decisions. Informant NY, for example, explained the conversion of harvested produce into staple foods. Furthermore, the existence of KWT opens access to social assistance and collective programs, such as setting aside harvested produce for underprivileged families, which creates a local safety net. Structural support from the village government, including plans to establish a "Red and White" cooperative, is expected to be a long-term solution to improving access and distribution, so that food procurement strategies rely not only on individual ingenuity, but also on collective relationships and adaptation to a local economy that is still not fully in favor of small farmers.

Access to food is a crucial aspect determining the sustainability of family resilience, with women farmers in Bandung Jaya Village serving as the primary logistics managers, ensuring fair and efficient distribution within the household. While they rely on their own production of vegetables, access to staples such as rice, meat, and oil is obtained through the sale of agricultural produce or through an exchange system between residents. Informant NY described this conversion process: "We turn the vegetables we get into rice by selling them and replacing them with rice." (Interview with informant NY, June 18, 2025)

This demonstrates the simple economic dynamics implemented by women to ensure the family's basic needs are met. In terms of food distribution within the home, women also play a key role. Within the household, women organize daily menus based on available stocks, considering family members' needs and consumption frequency to avoid shortages. A major challenge is dependence on middlemen, who set unilateral prices and create unstable access, especially in limited local markets. KWT (Farmers Group) assists through informal exchanges between members, such as exchanging chilies for other vegetables, which serves as an effective social strategy. The highland geography, with its access barriers during the rainy season, encourages local self-reliance through home gardens. Women manage food from upstream (production) to downstream (consumption), overcoming access barriers with fair and rational micro-distribution skills.

c. Food Management and Consumption Strategy

Household food security in Bandung Jaya Village is determined not only by the availability of produce but also by wise management and consumption, with women farmers playing key decision-makers and strategic domestic roles. Food stocks are managed independently through simple harvest storage, such as storing onions, chayote, or carrots in a dry place to anticipate weather disruptions or famine. This strategy has proven effective in maintaining a sustainable supply while processing the harvest into economical and nutritious, long-lasting foods, such as daily side dishes made from garden vegetables.

Adjusting consumption patterns is key to adaptation, with women adapting their daily menus by maximizing available ingredients and adding simple protein sources like eggs or tofu to meet basic nutritional needs. Informant P illustrates the burden of this dual role: "Working in the fields and being a housewife is one way to ensure food supplies are available and healthy for consumption." (interview with informant P, June 18, 2025)

In difficult times, women develop adaptive strategies such as working as wage laborers in neighboring fields to generate additional income. The solidarity of the KWT (Family Welfare Movement) group is reflected in the program of setting aside harvested produce for the elderly or families with stunted children, which forms a collective resilience system. The flexible division of roles within the family, where women often take over all processes, especially when their husbands are away from home, demonstrates their resilience. Informant SH stated: "Women even play a role as regulators in the entire decision-making process related to agriculture and household consumption." (interview with informant SH, June 26, 2025)

This strategy, built on small, repeated, responsible actions and based on mutually supportive relationships, emphasizes that household food security is the result of integrated ecological, social, and economic adaptation. Food security in Bandung Jaya Village, where women farmers play the role of primary organizers and guardians to ensure basic needs are met, both through internal production and social networks. The majority of women rely on their own gardens and yards as their primary source of food, growing vegetables such as spinach, mustard greens, cabbage, chilies, tomatoes, and carrots using polybags, pots, or used containers for limited space. A crop rotation system and Seasonal adjustments ensure uninterrupted supply throughout the year, with some of the produce held in reserve or exchanged. Informant SH explained this strategic planning: "My group members and I plant vegetables based on harvest time calculations, so we can harvest different varieties each month." (interview with informant SH, June 26, 2025)

Community solidarity through the KWT (Farmers' Group) strengthens collective food availability, such as programs that set aside harvests for underprivileged families or provide member reserves, reflecting the value of mutual cooperation. However, food availability is not always stable due to external factors such as extreme weather, plant diseases, or limited land. Food utilization in Bandung Jaya Village falls under the responsibility of female farmers, who transform resources from production and access into nutritious and efficient consumption within the household. With a strong awareness of nutrition, women design daily menus based on available ingredients, such as garden produce or exchange, with the principle of "cooking what is available" while maintaining nutritional balance. Informant NY emphasized this effort: "Yes, although it's not as comprehensive as the four healthy five perfect, we try to have something like fruit and meat in our family every week. Because the closest thing to us and what we know is healthy are vegetables." (Interview with informant NY, June 18, 2026)

Local knowledge, passed down through generations and enhanced by KWT training, enables vegetables like mustard greens, spinach, chayote, and chilies to be processed into simple yet healthy dishes, using economical

techniques like using the cooking water as stock or drying surpluses for storage. When the harvest is abundant, some is processed into salted vegetables or semi-prepared vegetables for the lean season, avoiding waste.

d. Empowerment Strategy Through Women Farmers Groups (KWT)

The "Kaba Indah Lestari" Women Farmers Group (KWT) in Bandung Jaya Village is not just a production platform, but a comprehensive empowerment platform that promotes food security and economic independence for women farmers. Through active participation in agricultural training and extension programs covering cropping patterns, nutrition knowledge, fertilization, and climate change management, KWT members gain a better understanding for application in their individual and group fields. This training often involves trips to the district or provincial level, as experienced by informant SH in Bengkulu, which strengthens their confidence and intellectual insight. Regular monthly meetings provide a vital space for sharing experiences, motivation, and formulating joint strategies, not only on agricultural techniques but also on social aspects such as stunting reduction programs and assistance for the elderly. This strategy extends empowerment from production to broader social solidarity. The changing role of women in family and group decision-making is evident, with members like Mrs. Fatmawati managing their fields independently while balancing domestic duties. Informant P reflects on this transformation: "Learning from not knowing to knowing, from not being able to being able." (interview with informant P, on June 18, 2025)

Women's participation in KWT activities also has psychological and emotional impacts. They feel more valued, less isolated, and have room to grow. Some even stated that by joining the group, they were able to develop themselves as more confident and productive individuals, while also building broader social relationships. In this context, empowerment is not only about increasing technical capacity, but also about developing identity and social recognition of women's roles within rural communities. From a social development perspective, women's participation in empowerment activities is a crucial foundation for the success of food security programs. Women's active involvement opens up space for cross-gender dialogue, enriches policymaking based on real-life experiences, and creates a balanced role in communities previously dominated by men.

The contribution of women farmers to the economy and family resilience is *multifaset*, extending beyond the domestic sphere to the productive sphere that stabilizes households. Through production in fields, groups, and yards, they secure food and income, selling surpluses for basic necessities like rice, oil, or children's school supplies. When production is low, they adapt to side businesses such as working as daily farm laborers, opening small stalls, or sewing, reflecting strategies for coping with limited resources. At the KWT group level, collective production strengthens access to training, social networks, and economic opportunities, with some of the group's harvest channeled for social assistance and some sold as rotational capital. Women often become the full-time breadwinners for their families, especially when their husbands migrate or work outside the village, as experienced by informants P and SH, who simultaneously manage the fields, kitchen, and children's education. This situation demands extraordinary emotional and physical flexibility, while maintaining a healthy diet and managing food crises with nutritional insights gained from KWT training. This contribution is not only economic, but also a holistic resilience dimension, with women being the primary protectors against food insecurity. Overall, women's roles emphasize that they are not simply supporting actors in the agricultural sector, but rather key pillars in maintaining economic stability and family resilience, which covering production, distribution, consumption, and social management amidst the challenging dynamics of modern agriculture

Overall, the participation of women farmers in empowerment activities carried out by the "Kaba Indah Lestari" Women's Group (KWT) is a concrete example of community-based empowerment practices. They not only act as participants but also as key actors who initiate, implement, and evaluate their own programs. Thus, this empowerment strategy has succeeded in positioning women as active, empowered, and impactful social actors in the context of agriculture and local food security. Women in daily agricultural activities in Bandung Jaya Village are proof that they are not merely supporting actors, but rather determine the direction of agricultural success and family survival. This role is built from a combination of experience, local knowledge, female solidarity, and a passion to keep village life growing, even amidst various limitations. The village government recognized the KWT's more responsive activities than men's groups, thus involving them in village agendas such as the formation of cooperatives. The impact is tangible: increased food production, household economic contributions through side

businesses, and strengthening women's bargaining position. The "Kaba Indah Lestari" Women's Group is an example of how community-based empowerment instills hope, resilience, and a powerful future for village women.

Village Government Support in Helping Family Food Security

The Bandung Jaya Village Government plays an active role in supporting food security through integration with the KWT (Farmers' Group) and structural initiatives to address farmer challenges, particularly in crop marketing. Dependence on middlemen, who often set unilateral and unstable prices, is a key focus, leading the government to initiate the establishment of the "Merah Putih" Village Cooperative as a collective platform for fairer distribution and sales. This cooperative is expected to bridge the KWT with the wider market, strengthening farmers' bargaining power and village economic independence. The Village Head calls it a "village economic booster," not only addressing distribution but also supporting women farmers in strengthening their households. "This cooperative will help farmers sell directly to the city, without middlemen, so that prices are fairer and families have more stable food supplies." (Interview with Village Head, June 26, 2025)

In addition, programs from the Department of Agriculture provide training and assistance with production inputs such as seeds and fertilizer for KWTs, although these are still incidental and limited. The dynamic relationship between the government and KWTs relies on two-way communication, where women convey needs such as access to capital and women-friendly technology. Without equal participation, empowerment programs risk stalling or becoming dependent on village elites. These efforts demonstrate a structural commitment to strengthening food security, with KWTs as key partners in implementation.

Challenges and Hopes

The process of achieving family food security in Bandung Jaya Village faces complex technical, structural, and ecological challenges, yet the women farmers of the "Kaba Indah Lestari" farmer group (KWT) demonstrate remarkable resilience while harboring hope for a more inclusive future. The main challenge is climate uncertainty, with extreme weather such as heavy rain or thick fog disrupting productivity, especially for sensitive crops. Informant AN revealed that local adaptation and limited access to agricultural information and technology exacerbate this, although local knowledge serves as a buffer. Another structural challenge is dependence on middlemen, which leads to unstable prices and fluctuating incomes, making it difficult to meet basic needs when prices soar. Informant P stated: "If the middleman buys at a high price, we get a lot. If the middleman buys at a low price, we sometimes choose not to sell our harvest." (interview with informant P, on June 18, 2025)

Women's dual burden as farmers, housewives, educators, and breadwinners leads to physical and mental exhaustion, especially in households without husbands' support. Nevertheless, women farmers remain hopeful for the sustainability of the KWT as a platform for learning, solidarity, and empowerment. Informant S hopes for government support so that the KWT can become a fun medium for learning and mutual support. Informants N and AN want the group to remain active and united, where they feel valued. They hope for better access to training, business capital, fertilizer, and women-friendly agricultural technology. These challenges and hopes emphasize that food security involves power structures, social relations, and the role of women as key actors championing change from below, creating a resilient, adaptive, and socially meaningful system.

DISCUSSION

Field findings indicate that women farmers in Bandung Jaya Village play a crucial role in maintaining family food security. They are not merely agricultural practitioners but also decision-makers, household consumption managers, and community leaders through the Women Farmers Group (KWT). *Kaba Indah Lestari*. Based on the interview results, female farmers hold dual, even triple, responsibilities: working in the fields, taking care of the household, and managing farmer group activities. The strategies implemented by female farmers in Bandung Jaya Village to achieve family food security demonstrate the integration of economic, social, and cultural activities that are closely linked to rural life. Based on the perspective of the Gender and Development (GAD) theory proposed by Moser (1993), these strategies can be understood as a form of *gender planning* which places women not merely as additional actors in the food production system, but as the main actors possess the capacity,

knowledge, and power to transform society. Moser emphasized that gender-based development is not only oriented toward increasing women's roles in economic activities, but also toward changing the unequal power relations and distribution of resources between men and women. Therefore, the strategies of women farmers in Bandung Jaya Village can be seen as concrete examples of social transformation efforts toward gender equality and food self-sufficiency at the household and community levels.

In the context of food production strategies, women farmers play a key role in farming activities, land management, and selecting crop types tailored to environmental conditions and family needs. They grow a variety of local commodities such as vegetables, chilies, coffee, and seasonal food crops, which serve as a primary source of family food security. One of the most prominent concrete strategies is utilizing home gardens to grow vegetables, herbs, and even medicinal plants for the family. This is where women optimize limited space to create sustainable food sources. They grow chilies, tomatoes, kale, spinach, mustard greens, and onions in their yards, pots, polybags, and even in fences. This yard utilization strategy is not simply an additional activity but a crucial foundation for family food security. As noted by Informant S and Informant AN, they consciously set aside time to care for their garden plants, knowing that the produce can be used directly for daily cooking. This reduces dependence on the market, especially when vegetable prices rise or when the group's crops have not yet been harvested. This finding is in line with Permana et al., (2020) which shows that the use of yards by Women Farmers Groups in Indramayu significantly contributes to household food availability, especially during times of famine or rising prices of staple foods.

Furthermore, research by Yunita et al., (2023) also shows that female farmers play a significant role in family food self-sufficiency through the practice of growing vegetables in their yards, preparing simple nutritious menus, and utilizing the harvest as the family's primary source of nutrition. This is identical to the practice in Bandung Jaya Village, where yard produce helps women reduce dependence on markets and maintain family food sustainability. This activity reflects women's productive role as described by Moser (1993), namely women's involvement in economic activities that generate income and direct benefits for the household. In Bandung Jaya Village, women not only plant but also actively participate in harvest planning, determining planting times, and managing production so that it can be optimally utilized for household consumption or sold to middlemen. This shows that women have access to agricultural resources as well as some control over the results—two important aspects within the GAD framework that determine the extent to which women are empowered in the rural economic system.

This finding aligns with research by Setiawan (2024), who stated that women in agricultural development are no longer merely technical implementers but also decision-makers who play a crucial role in village deliberations and local economic development. Furthermore, research by Syukur et al., (2022) confirms that the gender-based division of labor in rural areas is now increasingly fluid; women play dual roles as productive workers and domestic managers without losing their social identity. Within the GAD framework, this situation demonstrates that women are able to dynamically negotiate roles and power within the household and public sphere. Beyond mere economic activities, women farmers' production strategies also demonstrate sustainable values and local knowledge, (*local wisdom*) passed down from generation to generation. They choose climate-resilient crops, use organic fertilizers from household waste, and practice crop rotation to maintain soil fertility. This approach demonstrates not only economic efficiency but also a form of ecological wisdom that strengthens a sustainable food system. From Moser's GAD perspective, this is part of *strategic gender needs*, because women play a role as guardians of environmental sustainability and agents of change in adaptation to climate change, an aspect that is often overlooked in conventional, masculine-oriented development policies.

Meanwhile, in terms of food procurement and access strategies, women in Bandung Jaya demonstrate a strong form of social solidarity through the practice of mutual cooperation and the exchange of crops among group members. When production declines due to weather or pests, they share food, seeds, and labor within a collective farming system. This phenomenon aligns with the findings of Ratmayani et al., (2018) who showed that women in rural areas often fill gaps not covered by the formal agricultural system, such as managing crops, food and children's education. These social mechanisms show that women are not only economic actors, but also community managers (*community managing role*) which plays an important role in maintaining local food stability. This finding is reinforced by research by Fikry et al., (2024) which shows that women's empowerment through KWT which focuses

on local food diversification not only strengthens family food security, but also increases women's self-confidence and social solidarity in rural communities. A similar condition occurs in Bandung Jaya, where solidarity among KWT members *Kaba Indah Lestari* become the basis for the sustainability of group agricultural activities.

In the realm of food management and utilization strategies, women play an equally important reproductive role. They regulate family consumption, determine daily menus, manage crop residues into food reserves, and practice household efficiency by processing local ingredients into nutritious meals. For example, chili and tomato harvests are processed into chili sauce for long-term supplies, while cassava and spinach leaves serve as a source of inexpensive and nutritious plant-based protein. In Moser's view, this reproductive role is often invisible economically, but it has strategic value because it supports family survival.

Furthermore, women's empowerment through the Kaba Indah Lestari Women's Group (KWT) is the most concrete way to implement Moser's GAD principles at the community level. Through this group, women receive training in agricultural techniques, household financial management, and value-added agricultural product processing. The KWT serves not only as an economic platform but also as a social arena that strengthens women's livelihoods, *strategic gender needs*. Women are empowered to express their opinions, organize activities, and make collective decisions regarding village agricultural activities. This phenomenon illustrates social transformation, as Moser emphasized, that women's empowerment must be directed at changing social relations and the distribution of power within society. Thus, KWT activities are not merely collective economic activities, but also a social educational process that fosters women's critical awareness of their rights to resources and participation in village development.

Overall, the strategies of women farmers in Bandung Jaya Village demonstrate a strong integration of productive, reproductive, and community management roles, as articulated in Moser's GAD theory. They simultaneously perform economic, social, and ecological functions, developing adaptive strategies that combine local traditions with modern knowledge. These strategies are not only a response to the practical need to feed their families, but also a strategic struggle for recognition, independence, and control over resources. Within the GAD framework, women in Bandung Jaya can be seen as active subjects of development, not simply beneficiaries, as they transform everyday experiences into social strategies that strengthen food security and gender equity at the local level. Family food security in Bandung Jaya Village is not simply the result of agricultural activities, but rather a reflection of gender awareness, social solidarity, and women's adaptive capacity in facing structural and ecological challenges. Women's empowerment through the KWT (Family Farmers Group) is a tangible symbol of this *gender planning* successful, where women not only fill economic roles, but also lead social change towards independent and equitable rural communities.

CONCLUSION

This study concludes that women farmers in Bandung Jaya Village play a central role in achieving family food security through integrated strategies of food production, procurement, management, and empowerment. Their actions reflect a combination of ecological knowledge, economic adaptation, and social solidarity. Using Moser's Gender and Development (GAD) framework, women demonstrate productive, reproductive, and community management roles essential for sustaining household resilience and strengthening local food systems. Theoretical Implications the study contributes to rural sociology by integrating food security strategies with gendered roles within the GAD framework. Practical Implications results can guide local governments and KWTs in designing empowerment programs that enhance women's agricultural skills and economic autonomy. Limitations This study focuses on one village with limited sample size. Future research comparative multi-village studies and mixed-method approaches are recommended.

REFERENCES

Afifah, S. N., & Ilyas. (2020). Pemberdayaan Kelompok Wanita Tani Asri Dukuh Dawung Kelurahan Kedungpane Kecamatan Mijen Kota Semarang. *Jurnal untirta*, 5(2), 190–204.

Alpandari, H., & Prakoso, T. (2022). Pemberdayaan Kelompok Wanita Tani dalam Optimalisasi Pekarangan Sebagai Ketahanan Pangan Keluarga. *Abdi: Jurnal Pengabdian dan Pemberdayaan Masyarakat*, 4(2),

388–393. <https://doi.org/https://doi.org/10.24036/abdi.v4i2.337>

Badan Ketahanan Pangan. (2020). *Rencana Strategis Badan Ketahanan Pangan Kementerian Pertanian 2020-2024*. 1–40.

Barrios Hermes Emilio Martinez , Ema Yuselsy Molina Roys, Juan Bautita Ochoa Maestre, H. A. A. A. (2024). Contributions to the Application of Non-Participant Observation as a Research Technique. *Power System Technology*, 48(4), 175–184. <https://doi.org/10.52783/pst.988>

Ediwiyat, R., Koestiono, D., & Setiawan, B. (2015). Analisis Ketahanan Pangan Rumah Tangga (Studi Kasus Pada Pelaksanaan Program Desa Mandiri Pangan Di Desa Oro Bulu Kecamatan Rembang Kabupaten Pasuruan). *Agrise*, 15(2), 85–94.

Hayati, Siti Amanah, Aida Vitayala Hubeis, dan P. T. (2015). Kemampuan Perempuan Tani Dalam Mendukung Ketahanan Pangan Rumah Tangga. *Sosiohumaniora*, 18(18), 230–236. <https://doi.org/https://doi.org/10.24198/sosiohumaniora.v17i3.8340>

Ismail, R. Y. (2021). *Pemberdayaan Kelompok Wanita Tani (KWT) Untuk Meningkatkan Ketahanan Pangan di Desa Bontotangnga Kecamatan Botoharu Kabupaten Kepulauan Selayar Provinsi Sulawesi Selatan*. 167–186.

Jumiati, I. E., Yulianti, R., & Kustiningsih, I. (2024). Penerapan Pekarangan Rumah Lestari Oleh Kelompok Wanita Tani Dalam Menunjang Ketahanan Pangan Keluarga Di Kelurahan Sawah Luhur Kecamatan Kasemen Kota Serang. *Bantenese : Jurnal Pengabdian Masyarakat*, 6(1), 39–46. <https://doi.org/10.30656/ps2pm.v6i1.7581>

Margayaningsih, D. I. (2020). Peran Kelompok Wanita Tani Di Era Milenial. *Publiciana*, 13(1), 52–64.

Milawati Saranani, Kalis Amartani, Mursal Junus, Sinta Dewi, Desyanti Desyanti, & Kadek Ariati. (2023). Pemberdayaan Kelompok Wanita Tani Melalui Pemanfaatan Lahan Pekarangan Dalam Mendukung Ketahanan Pangan Di Desa Ahuawali Kecamatan Puriala Kabupaten Konawe. *Jurnal Nusantara Berbakti*, 1(3), 156–166. <https://doi.org/10.59024/jnb.v1i3.182>

Moser, C. O. N. (1993). *Gender Planning and Development: Theory, Practice and Training*. Routledge.

Muhammad Fikry, Leonardo Hasugian, Rufica Sagala, E. S. (2024). Pemberdayaan Kelompok Wanita Tani Dengan Budidaya Sayuran Menggunakan Polibag Di Pekarangan Rumah. *Jurnal Indonesia Raya*, 25–30. <https://doi.org/10.37638/Indonesiaraya.5.1.25-30%APemberdayaan>

Permana, Y., Lukman Effendy, & Billah, M. T. (2020). Pemberdayaan Kelompok Wanita Tani Melalui Pemanfaatan Lahan Perkarangan Menuju Rumah Pangan Lestari di Kecamatan Cikedung Indramayu. *Jurnal Inovasi Penelitian*, 1(3), 599–597. <https://doi.org/https://doi.org/10.47492/jip.v1i3.95>

Ratmayani, Rahmadanah, & Salman, D. (2018). Relasi gender pada rumah tangga petani cengkeh: studi kasus rumah tangga petani cengkeh di Desa Seppong, Kecamatan Tammero'do, Kabupaten Majene, Sulawesi Barat. *Jurnal Sosial Ekonomi Pertanian*, 14(1), 65–74.

Riajaya, H., & Munandar, A. I. (2020). Strategi Peningkatan Ketahanan Pangan Dalam Meminimalisasi Stunting Di Kabupaten Sukabumi. *Jurnal AGRISEP: Kajian Masalah Sosial Ekonomi Pertanian dan Agribisnis*, 19(2), 255–274. <https://doi.org/10.31186/jagrisep.19.2.255-274>

Setiawan. (2024). Kesetaraan Gender Dalam Pembangunan Pertanian. *SETARA: Jurnal Studi Gender dan Anak*, 5(1), 72–84.

Starman, A. B. (2013). Adrijana Biba Starman The case study as a type of qualitative research. *Journal of contemporary educational studies*, 1, 28–43.

Sugiyono. (2013). *Metodologi Penelitian Kuantitatif, Kualitatif dan R & D* (P. D. Sugiyono (ed.)). Alfabeta, CV.

Syukur, M., Ahmad, M. R. S., Mardayani, M., Sofiyana, S., Masniati, M., & Alwi, K. (2022). Mekanisme Pembagian Kerja Berdasarkan Gender Pada Keluarga Petani Jagung di Kabupaten Soppeng. *Phinisi Integration Review*, 5(3), 878. <https://doi.org/10.26858/pir.v5i3.38258>

Umi Nur Solikah, Mohamad Ihsan, Arifah Husna, Rehino Yanu Seto, Chanda Firdaus, & Mufida Diah Lestari. (2023). Pemberdayaan Kelompok Wanita Tani (KWT) Melalui Pembagian Benih Sayuran Dalam Rangka Mendukung Ketahanan Pangan Keluarga. *ALKHIDMAH: Jurnal Pengabdian dan Kemitraan Masyarakat*, 1(4), 134–138. <https://doi.org/10.59246/alkhidmah.v1i4.524>

Utomo, B., Kusumawati, N. F., Ambal Ikka, N. D., & Hafidz, M. A. (2024). Peran Kelompok Wanita Tani (Kwt)

“Cahaya” Terhadap Program Ketahanan Pangan Keluarga Desa Balongkrai, Kelurahan Pulorejo, Kota Mojokerto. *Media Agribisnis*, 8(1), 134–144. <https://doi.org/10.35326/agribisnis.v8i1.5372>

Yanfika, H., Soepratikno, S. S., & Widayastuti, R. D. (2023). Model Pemberdayaan Kelompok Wanita Tani Melalui Budidaya Sayuran Teknik Hidroponik Untuk Mendukung Ketahanan Pangan. *Jurnal Pengabdian dan Pemberdayaan Masyarakat Inovatif*, 2(3), 111–117. <https://doi.org/10.70110/jppmi.v2i3.38>

Yuliana, D. (2017). Pemberdayaan Perempuan Oleh Balai Penyuluhan Pertanian (Bpp) Melalui Kelompok Wanita Tani (Kwt) “Mekar Asri” Di Dusun Mekar Mukti Desa Pasirmukti Kecamatan Cineam Kabupaten Tasikmalaya. *Unigal*, 417–423. https://doi.org/http://dx.doi.org/10.25157/dinamika_v4i3.656

Yunita, Demsa Simbolon, D. S. (2023). Pemberdayaan Kelompok Wanita Tani (KWT) Dalam Pemanfaatan Daun Kelor Sebagai Bahan Dasar Mp-Asi Kota Bengkulu. *Jurnal Kreativitas Pengabdian Kepada Masyarakat (PKM)*, 6, 2116–2126. <https://doi.org/10.33024/jkpm.v6i5.9070> Diterbitkan: 01 Mei 2023 ABSTRAK