

Cassava Villages: A Marker of Deagrarianization and Agrarian Change in Rural West Java (Sukaraja Village)

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ABSTRACT

Deagrarianization in rural areas of West Java represents a profound structural transformation affecting agrarian production systems, labor allocation, and community livelihood strategies. This study examines how the reduction of agricultural land and land-use conversion into cassava plantation areas reshape rural livelihood dynamics and undermine the sustainability of farming communities. Conducted in a predominantly agricultural village in West Java one of Indonesia's principal rice-producing regions this research employs a qualitative approach based on in-depth interviews, field observations, and analysis of relevant secondary data. Data were processed using an interactive analytical model, supported by the Community Pentagon framework to assess ecological, economic, social, institutional, and technological dimensions of change. The findings reveal that cassava plantation is an indicator of agricultural agrarian change that has led not only to a measurable decline in the number of active farmers but also to shifts in production patterns, reduced labor absorption in the agricultural sector, and increasing dependence on non-farm employment. Beyond occupational diversification, deagrarianization manifests as a systemic process that weakens agrarian capacities, disrupts intergenerational farmer regeneration, and alters the social fabric of rural communities. These transformations indicate that rural livelihood changes are embedded within broader structural pressures, including urbanization and regional economic development. The study underscores the urgency of policy interventions aimed at protecting productive farmland, strengthening institutional support, enhancing farmer regeneration, and promoting sustainable livelihood strategies to ensure the long-term resilience of rural agrarian systems.

INTRODUCTION

Farming communities can be understood as groups of individuals who live within a distinctive social system shaped by the close interaction between people, agrarian resources, and the agricultural production practices they undertake. The daily activities of farmers, which are inseparable from cultivation practices, foster social relations within the community that evolve alongside the management of land, water cycles, and the crops being cultivated. In many agrarian societies around the world, the relationship between farmers and land extends beyond its economic role as a factor of production; it also encompasses social, ecological, and cultural dimensions that shape the identity and organizational structure of rural community life.

Agrarian studies show that control over land and the livelihood patterns of farming households are closely linked to social structures, labor relations, and local institutional systems that regulate the management of natural resources (Rigg et al. 2016; Bernstein, 2019). Furthermore, the strong relationship between farming communities, land, and agricultural production systems also shapes social networks that organize labor distribution, water management, and collective practices aimed at sustaining agricultural production (Li, 2017; Scoones et al. 2018). Therefore, in many rural communities, changes in land control or transformations in livelihood patterns not only affect the economic activities of farmers but also influence the broader social structure and dynamics of agrarian community life.

Rice cultivation constitutes one of the primary livelihood strategies for the majority of rural communities in West Java and is closely associated with the region's ecological conditions and local social systems. West Java is widely recognized as one of Indonesia's major rice-producing regions, supported by favorable agroecological characteristics, including high rainfall and the presence of nutrient-rich volcanic soils. These environmental conditions have enabled the widespread development of irrigated rice farming and have shaped a distinctive agrarian landscape across many districts in the province. Beyond serving as a source of livelihood, rice cultivation also carries strong social and cultural significance within Sundanese society, where agricultural practices are often embedded in local traditions, collective labor arrangements, and various rituals associated with the cycles of agricultural production.

Research on rice farming systems in Asia shows that rice production functions not only as an economic activity but also as a foundation for the formation of rural social structures, labor relations, and the cultural identity of agrarian communities (Rigg et al. 2016; Li 2017; Lansing et al. 2017). However, changes in agrarian structures driven by the commercialization of agricultural land, increasing urbanization pressures, and the rising economic value of land have contributed to significant transformations in rural production systems. In many cases, smallholder farmers face limited access to farmland due to land fragmentation, land conversion, and the growing concentration of land control by non-agricultural actors. These conditions reduce the ability of farmers to maintain optimal rice cultivation practices and often encourage rural households to diversify their livelihood strategies beyond the agricultural sector (Hall et al. 2017; Lerche et al. 2017; Rigg et al. 2018).

In recent years, the emergence of villages dominated by cassava cultivation has begun to characterize several rural areas in West Java. Agrarian landscapes that were previously marked by diverse farming systems such as rice paddies, intercropping of various food crops, and inland aquaculture have gradually shifted toward more homogeneous cultivation patterns.

This transformation not only reflects a change in crop choices but also indicates a broader restructuring of agrarian production systems and rural household livelihood strategies. In many rural contexts across developing countries, the expansion of certain commodity crops, including cassava, is often driven by economic considerations such as growing market demand, relatively low production costs, and the crop's ability to thrive on land with declining soil fertility (Parmar et al. 2017; Burns et al. 2019).

Several research indicates that the simplification of farming systems toward single-commodity cultivation can significantly alter the labor structure and livelihood strategies of farming communities, as production systems become increasingly dependent on specific commodity cycles and more deeply integrated into market dynamics (Rigg et al. 2016; Li 2017). Over time, agricultural land dominated by crops such as cassava may also become more vulnerable to conversion into non-agricultural uses, due either to its relatively limited long-term economic returns or to increasing development and urbanization pressures that raise land values in rural areas (Hall et al. 2017; Borrás et al. 2020). In this context, the emergence of “cassava villages” does not merely reflect a shift in cultivated crops but also signals a broader agrarian transformation that affects livelihood structures, land management practices, and the long-term sustainability of agricultural systems in rural areas.

Cassava (*Manihot esculenta* Crantz) is one of the major tropical food crops that plays an important role in agricultural systems and food security in many developing countries. Etymologically, the term cassava originates from the word casabe, used by the Taíno people of the Caribbean to refer to a type of bread made from cassava flour, while in botanical literature the plant is known as *Manihot esculenta*, a species belonging to the Euphorbiaceae family. Biologically, cassava is a woody shrub characterized by a high level of adaptability to marginal agroecological conditions, including soils with low fertility and areas with irregular rainfall patterns. These physiological characteristics make cassava relatively tolerant to drought and capable of using water more efficiently than many other staple crops. The cassava root is rich in starch and can be utilized as food, animal feed, and industrial raw material, making the crop a crucial component of food production systems and rural economies across tropical regions (Ceballos et al., 2018; Burns et al., 2019).

From agronomic and agribusiness perspectives, cassava is widely recognized as a crop with high flexibility in cultivation systems, both as a monoculture and as part of intercropping arrangements. The crop can be harvested within a relatively flexible time frame, typically between 8 and 24 months after planting, allowing farmers greater flexibility in managing production risks and responding to market fluctuations. Over the past decade, global demand for cassava has increased significantly alongside the expansion of starch-based industries, bioethanol production, and livestock feed markets, particularly in Asia and Africa. This development has gradually transformed cassava from a subsistence food crop into an agribusiness commodity with substantial economic value within agro-industrial supply chains. Nevertheless, the expansion of cassava cultivation has also been associated with changes in land-use patterns and transformations in agrarian structures across many rural regions, as the crop can be cultivated relatively easily with lower production inputs compared to many other staple crops (Jarvis et al., 2017; Parmar et al., 2017; Howeler et al., 2020).

This paper aims to capture the phenomenon of the “cassava village” that has emerged in Bogor Regency and to examine its relationship with the agrarian situation and the dynamics of the farming community that cultivates it. The village that serves as the focus of this study is Sukaraja Village, Sukaraja Subdistrict, Bogor Regency. As the population in Sukaraja

Village has increased, agricultural land has declined due to land conversion into residential areas, infrastructure development, and other economic activities. Following this reduction in agricultural land, the community of Sukaraja Village has increasingly cultivated cassava rather than other commodities. The selection of cassava as the primary crop is based on several factors, including the ease of cultivation, low production costs, high economic value, and the flexibility of its harvesting period.

Cassava is a crop that is relatively easy to cultivate and can grow in various types of soil, including land with low fertility or minimal maintenance. Unlike other crops that require intensive irrigation and continuous fertilization, cassava can survive under less favorable environmental conditions, such as drought and limited availability of organic fertilizers (Ardyani et al., 2022). These factors make cassava the primary choice for farmers in Sukaraja Village in responding to the constraints of limited land and agricultural resources.

In addition, cassava cultivation requires lower production costs compared to other agricultural commodities such as rice and maize. According to a report by the Directorate General of Food Crops of the Ministry of Agriculture of the Republic of Indonesia, the production costs of cassava are considerably more efficient than those of other food crops, making it a profitable alternative for farmers with limited capital (Ministry of Agriculture, 2022). With lower production costs, farmers are able to obtain more stable profits without having to rely on intensive agricultural systems that require substantial investment.

From an economic perspective, cassava has a relatively high market value due to stable market demand. Cassava is used as a raw material for various industries, such as mocaf flour, tapioca, bioethanol, and processed food products. This ensures that cassava harvests consistently have a market, thereby providing income security for farmers (*Dinas Pertanian Kabupaten Buleleng*, 2021). In addition, the flexibility of cassava's harvesting period allows farmers to determine the timing of harvest according to their financial needs. Unlike other crops that have stricter harvesting schedules, cassava can remain in the soil until farmers need it, thereby functioning as a "savings" mechanism for them in coping with uncertain economic conditions (Ardyani et al., 2022). By considering these factors, cassava has become the primary choice for the community of Sukaraja Village in utilizing the remaining agricultural land. The ease of cultivation, cost efficiency, high economic value, and flexibility of the harvesting period make cassava a leading commodity compared to other crops in this village.

RESEARCH METHODS

This study employs a qualitative method with a descriptive approach to understand the conditions of the farming community in Sukaraja Village. Data were collected through interviews, observations, and documentation studies. The data collection was conducted from January to February 2025. This research was carried out in Sukaraja Village, Sukaraja Subdistrict, Bogor Regency, West Java Province. Sukaraja Village was selected as the research site due to its strategic proximity to Bogor City. In addition, the characteristics of Sukaraja Village align with the objectives of this study, as it is an area with natural resource potential, particularly in cassava farming, although the availability of agricultural land has been increasingly reduced due to residential and industrial housing development.

Interviews were conducted with several key informants consisting of representatives of the village government, farmer groups, and a fertilizer business owner in the village. Observations were carried out by visiting agricultural fields to examine the condition of

farmland that has been increasingly reduced due to land conversion. Documentation studies were conducted to obtain supporting data related to farmer groups and village policies. The collected data were analyzed using a thematic analysis technique consisting of data reduction, categorization, and interpretation in order to obtain an in-depth understanding of the challenges faced by the farming community and the factors influencing the sustainability of agriculture in this village.

RESULTS AND DISCUSSION

Agricultural Situation in Sukaraja Village

The agricultural commodities cultivated in Sukaraja Village before the decline in agricultural land were highly diverse, including papaya, banana, taro, and cassava, while the village's cool natural environment served as an important natural asset. Over time, however, with the emergence of industrial needs such as housing development, the agricultural land owned by the people of Sukaraja Village has gradually decreased, and the surrounding air temperature has become increasingly warmer. These companies purchased a portion of the community's land for residential housing development based on mutual agreements. According to Siswanto (2006), changes in land use occur due to population growth, the increasing need to fulfill livelihood demands, and the growing demand for improved quality of life.

According to the Sukaraja Village Government, "*Gedang jadi gedong, pacul jadi stek*" ("Papaya becomes buildings, hoes become pillars"), an expression that illustrates the condition of agriculture in Sukaraja Village as it has gradually been converted into residential housing development. In line with this information, the head of the Sukaraja Village farmer group stated that currently most agricultural land in the village is privately owned. Moreover, the largest remaining agricultural lands in Sukaraja Village are now predominantly used for cassava cultivation.

Community Situation

Community Characteristics

Farmer groups in Sukaraja Village are formed based on shared community characteristics. The farmer groups in Sukaraja Village have similarities in their agricultural cultivation, namely cassava. In addition, the establishment of farmer groups in Sukaraja Village is also based on the similarity of land conditions that have not yet been sold to the housing industry. Based on information obtained from the Sukaraja Village Farmer Group, the number of members in the farmer groups has been decreasing, and the majority of members are elderly farmers.

The pentagon concept of community development proposed by Lubis (2010) illustrates that community strengthening cannot be carried out partially, but must involve the development of five interrelated dimensions, namely ecology or natural resources, economy, social aspects, institutions, and technology. This approach emphasizes that community sustainability is largely determined by the capacity of communities to manage natural resources productively, develop sustainable local economic systems, strengthen social cohesion and networks of cooperation, build effective institutions, and adopt technological innovations that are appropriate to the local context.

In the practice of rural development, such a multidimensional framework is important because the dynamics of social, economic, and environmental change often occur simultaneously and influence the capacity of communities to adapt to external pressures, such as land-use change, the transformation of agrarian structures, and the diversification of livelihoods. Recent studies in the rural development literature also emphasize that community strengthening requires an integrated approach that combines the dimensions of natural resources, social capacity, local institutions, and technological innovation in order to enhance the resilience and sustainability of community livelihood systems (Scoones et al. 2018; Reed et al. 2016; Bennett et al. 2017).

Problems in the Community

Farmer groups in Sukaraja Village face various challenges in maintaining their agricultural activities. One of the main issues is the reduction of agricultural land due to its conversion into residential areas and golf courses, which has increasingly limited the space available for farmers to cultivate crops. In addition, the distribution of subsidized fertilizers has also become a problem due to frequently changing and uneven distribution systems. The village government and local fertilizer kiosks have assisted the community in accessing subsidized fertilizers, although the process still encounters administrative constraints. To convey their complaints and aspirations, farmers often rely on village deliberation meetings as the primary forum. However, the effectiveness of this forum remains limited because there is no strong advocacy mechanism to more broadly defend farmers' rights. To date, the provision of subsidized fertilizer assistance from the central government is still in the planning stage and has not yet been realized.

According to Mangowal (2013), the empowerment of farming communities in an economic context is crucial in order to enhance their capacity to optimally develop the agricultural sector. This perspective aligns with the situation in Sukaraja Village, where farmers require further support to address the challenges they face, particularly in relation to access to subsidies and the protection of agricultural land. This statement is also reinforced by an interview with the Head of the Farmer Group, who stated that, "*Kami sangat bergantung pada pupuk subsidi, tetapi sistemnya berubah-ubah. Sekarang, kami hanya bisa mendapatkannya dengan KTP, dan itu pun sering tidak merata*" (Head of the Farmer Group, Sukaraja Village, 11/2/2025).

Organizational Structure of Farmer Group

The Sukaraja Farmer Group has a relatively simple organizational system with a structure that is not yet fully well-organized. The group is led by a chairperson, with members spread across several areas of the village without any specific working groups. The chairperson holds the primary role in managing various aspects of the organization, ranging from the purchase of fertilizers to the distribution of harvests to middlemen. Unfortunately, there are no written regulations governing community activities, so the decision-making process is carried out informally based on urgent needs. Farmer group meetings are usually held on agricultural land or at members' houses, but they do not follow a fixed schedule. This situation causes coordination among members to be less effective, and decisions are often made spontaneously.

Iskandar (2016) argues that community empowerment in the agricultural sector often does not function optimally due to weak organizational structures and the lack of regulations

governing group activities. This condition is reflected in the working system of the Sukaraja Farmer Group, where decision-making is carried out spontaneously without standardized procedures. A member of the farmer group stated that, “*Kami biasanya bertemu kalau ada masalah, tapi tidak ada jadwal rutin. Semuanya berjalan seadanya*” (Farmer Group Member, Sukaraja village, 11/2/2025), which reflects the weak level of community organization in carrying out its activities.

Network Development

The cooperation network possessed by the farmer group is still limited to middlemen as the primary buyers of harvests and fertilizer suppliers who manage the distribution of subsidized fertilizers. There are no partnerships with cooperatives or agricultural institutions that could provide additional support for farmers. The form of cooperation that occurs is largely transactional, in which farmers sell their harvests directly to middlemen without alternative market channels. The main advantage of this network is the ease of access to buyers and subsidized fertilizers; however, on the other hand, farmers become highly dependent on prices determined by middlemen. Efforts to expand networks with other buyers have not yet been carried out optimally.

Research by Khasanah et al. (2023) shows that the sustainability of farmer groups largely depends on the values of social capital within the community. The application of these values can strengthen cohesion among members and facilitate the achievement of group objectives, including the development of broader marketing networks. However, in the case of the Sukaraja Farmer Group, the existing networks remain limited and dependent on certain actors. This condition was expressed by one of the farmer group members who stated that, “*Kami selalu menjual ke tengkulak karena tidak ada alternatif lain. Kalau ada akses langsung ke pasar, mungkin harga jual bisa lebih baik*” (Farmer Group Member, Sukaraja village, 11/2/2025).

Capacity Development

Training and capacity-building activities for members of the farmer group have not been conducted for a long time. The Department of Agriculture previously provided training on more efficient cultivation techniques; however, in recent years, such activities have no longer been implemented. As a result, farmers rely primarily on personal experience and traditional methods passed down through generations in managing their agricultural practices. Several members of the farmer group stated that they require more intensive training, particularly in aspects of land management and the more effective use of fertilizers. However, the limited access to training programs makes it difficult for them to develop new skills. At present, the only way to improve their capabilities is through the exchange of experiences among fellow farmers. As noted by Iskandar (2016), farmer empowerment is often constrained by the lack of access to continuous training and educational programs.

Communication, Information, and Education

The communication system within the farmer group remains very simple and has not yet functioned optimally. Information regarding market prices, agricultural policies, and fertilizer distribution is still conveyed orally through word-of-mouth communication. The head of the farmer group and village officials are responsible for disseminating information; however, this dissemination mechanism does not always operate smoothly. Most farmers obtain information from fertilizer kiosks or through direct interactions with fellow farmers.

Effective communication within farming communities plays an important role in improving farmers' access to information on technology and agricultural policies. However, in Sukaraja Village, the communication system remains traditional and less structured. A member of the farmer group stated that, "*Biasanya kami tahu informasi dari kios pupuk atau kalau ada yang memberi tahu langsung. Tidak ada sistem komunikasi yang jelas*" (Farmer Group Member, Sukaraja village, 11/2/2025).

In the digital era, the use of communication technology in the agricultural sector has become increasingly necessary to improve farmers' access to information. Journal of Information Science and Technology (2020) highlights the importance of digital literacy for farmers in facilitating access to information on markets, weather, and modern agricultural techniques. Unfortunately, the majority of farmers in Sukaraja Village still rely on conventional communication methods. The limited adoption of technology within this farmer group has become a barrier to improving the efficiency and productivity of their agricultural activities.

To enhance the effectiveness of communication and information dissemination within the community, farmer groups need to adopt more modern communication methods, such as the use of WhatsApp groups, SMS gateways, or digital platforms based on agricultural communities. According to Aliya and Febriyani (2020), the use of digital media in development communication can help accelerate the dissemination of information and increase community involvement in decision-making related to agriculture.

The Cassava Village Phenomenon and Its Consequences

Based on the identification of the pentagon of community development, as well as the current situation of the farming community in Sukaraja, there are at least several conditions related to the phenomenon of the conversion of polyculture agriculture into cassava monoculture in this village:

Deagrarianization

The phenomenon of the "cassava village" demonstrates that deagrarianization is not merely an imaginary condition within agrarian studies concepts. Deagrarianization refers to the structural process of the declining role of the agricultural sector in rural economic and social systems, characterized by a reduction in the number of households dependent on agriculture, the weakening of agrarian production relations, and the increasing diversification of livelihoods into non-agricultural sectors. This process is not only related to changes in employment but also to broader transformations in agrarian structures, land ownership and land use, as well as the social reproduction of rural communities. In many rural development studies, deagrarianization is understood as a consequence of urbanization, agricultural commercialization, industrialization, and shifts in development policies that encourage rural labor to move into non-agrarian sectors. Such processes often produce increasingly diverse livelihood patterns, in which rural household income is no longer dominated by agricultural activities but rather by a combination of agricultural and non-agricultural activities. Recent literature also shows that deagrarianization has implications for changes in farmers' social identities, the weakening of farmer regeneration, and the transformation of the relationship between people and agrarian resources as the basis of production and rural life (Rigg et al. 2016; Li 2017; Lerche et al. 2017; Bernstein, 2019).

The phenomenon of deagrarianization has been observed in various regions of the world that share rural characteristics similar to many villages in Indonesia, particularly in the Global South and in countries with agrarian structures based on smallholder farmers. In southern Latin America, agrarian transformation has occurred through the expansion of agribusiness and export commodities, which has pushed small farmers out of the agricultural sector and increased rural labor migration to urban areas (Kay, 2017). In Southeast Asia and East Asia, studies show that many smallholder households have become increasingly dependent on non-agricultural employment due to the shrinking of agricultural land and the growing integration of rural economies with regional markets (Rigg et al. 2016).

In Sub-Saharan Africa, deagrarianization is often associated with changes in production systems, demographic pressures, and unstable access to land, which lead rural households to develop increasingly diversified livelihood strategies outside agriculture (Scoones et al. 2018). Meanwhile, in post-socialist Eastern Europe, economic restructuring and changes in land ownership following political transitions have resulted in declining household involvement in small-scale farming and increasing migration of rural labor into the industrial and service sectors (Visser et al. 2019). These studies indicate that deagrarianization is a global phenomenon reflecting the transformation of relationships between rural communities, agrarian resources, and broader economic systems.

The cassava village phenomenon in Sukaraja presents several conditions related to the decline in the control of agricultural land due to land conversion, where previously heterogeneous commodity cultivation making the land productive with diverse harvesting periods has shifted into cassava monoculture with simultaneous harvesting seasons. This situation makes the land more easily converted to other uses compared to when it is cultivated under a heteroculture approach.

Land cultivated under a monoculture system generally has a simpler production structure and weaker social ties to the community's livelihood system compared to land managed under diversified farming systems that often integrate various food crops, horticulture, and other ecological functions. Research on land-use transformation in various rural areas shows that agricultural landscapes dominated by monoculture are more susceptible to functional change due to market pressures, urbanization, and industrial expansion, because their conversion does not directly disrupt complex production systems or the local socio-economic networks that are typically formed within mixed farming systems. In contrast, heteroculture or diversified farming systems tend to be more resistant to land conversion because they provide more diverse economic benefits, enhance production resilience, and strengthen farmers' attachment to the land through various interconnected ecological and social functions (Altieri et al. 2015; Perfecto et al. 2019; Garibaldi et al. 2021). These findings indicate that the simplification of cultivation systems toward monoculture not only affects ecological and production aspects but can also accelerate changes in land-use structures that ultimately lead to the loss of agricultural land in rural areas.

Another situation that contributes to the acceleration of agrarian structural changes in rural areas is related to the weakening of agrarian resource governance and the declining function of local agrarian institutions. When the control of agricultural land becomes increasingly individual and is no longer balanced by collective mechanisms in its management, such ownership can become counterproductive to the sustainability of the agricultural system. Under these conditions, decisions regarding the utilization of agrarian resources such as land use, irrigation water management, and cultivation practices tend to be

made individually without coordination with other members of the farming community. Several studies indicate that the weakening of local institutions and collective governance in rural areas can loosen the social relationships between agrarian subjects and the resources they manage, thereby reducing the effectiveness of common resource management and accelerating the fragmentation of agricultural production systems (Ostrom, 2015; Cole et al. 2019).

In the agricultural context, such weak collective coordination leads to the decline of communal resource management practices, such as the regulation of irrigation water distribution, integrated pest management, and the maintenance of soil quality, which were previously often carried out through cooperation among farmers. Recent research also indicates that when local agrarian institutions weaken and social relations within farming communities decline, the collective capacity to manage natural resources diminishes. As a result, agricultural production systems become more vulnerable to environmental degradation, land-use conflicts, and the conversion of land to non-agricultural sectors (Agrawal et al. 2017; Cox et al. 2020; Borrás et al. 2020). Thus, the sustainability of agriculture at the local level is determined not only by land ownership itself but also by the strength of institutions and the social relations that bind farming communities in collectively managing agrarian resources.

Community's Bonds

The conversion of heterocrop cultivation initially practiced by the farming community in Sukaraja into cassava monocropping has also transformed the social bonds among community members. A production system that was previously more communal in nature has now shifted toward a more individualistic pattern. The communication system remains simple and limited, while networks are confined mainly to cassava collectors. This condition has reduced and weakened more complex communication channels as a result of the simplification of the cultivation system.

The meaning of community has also undergone a process of reduction. As expressed by several informants, group cohesion that was initially formed through shared origins and strengthened by common interests in agricultural cultivation has now been reduced to merely a bond among recipients of fertilizer assistance. The farmer group functions primarily as a means to obtain subsidies, rather than developing into a platform for improving cultivation capacity or evolving into an economic institution.

The narrowing of the meaning of community currently experienced by the farmer group resulting in the group no longer functioning as a space for enhancing cultivation capacity may lead to the degradation of agricultural skills and practices. Ultimately, this situation will hinder the regeneration of cultivation capacity as well as the regeneration of farmers themselves. Indirectly, the weakening of community structures further reinforces the process of deagrarianization, as declining agricultural production and reduced competitiveness of the agricultural sector may eventually lead to the migration of farmers into non-agricultural sectors.

CONCLUSION

This study analyzes the factors contributing to the decline of agricultural land in Sukaraja Village and explores strategies that can be implemented to maintain a balance between development and agricultural sustainability. The findings indicate that the conversion of agricultural land into residential areas, infrastructure development, and changes in

economic activities are the main factors driving the reduction of agricultural land. This condition has encouraged the community to shift toward more adaptive commodities, such as cassava, due to its ease of cultivation, low production costs, and flexible harvesting period.

From a theoretical perspective, this study shows that the phenomenon of the cassava village is not merely about a change in agricultural commodities but rather reflects a broader process of deagrarianization resulting from the reduction of heteroculture practices into cassava monoculture. This transformation weakens community functions, reduces control over agricultural land, diminishes cultivation capacity, weakens group solidarity and network development, and undermines agrarian governance and institutional structures.

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REFERENCES

- Agrawal, A., Chhatre, A., & Gerber, E. R. (2017). Motivational crowding in sustainable development interventions. *American Political Science Review*, *111*(3), 470–487. <https://doi.org/10.1017/S0003055415000209>
- Aliya, F. N., & Febriyani, A. R. (2020). Komunikasi pembangunan untuk identitas tempat: Budaya kampung di kota Semarang. *Jurnal Komunikasi Pembangunan*, *18*(1), 10–29. <https://doi.org/10.46937/18202029003>
- Altieri, M. A., Nicholls, C. I., Henao, A., & Lana, M. A. (2015). Agroecology and the design of climate change-resilient farming systems. *Agronomy for Sustainable Development*, *35*(3), 869–890. <https://doi.org/10.1007/s13593-015-0285-2>
- Ardyani, N. P., Gunawan, B., & Harahap, J. (2022). Ekologi politik budidaya singkong di Kecamatan Arjasari Kabupaten Bandung Provinsi Jawa Barat. *Aceh Anthropological Journal*, *6*(2), 137–151. <https://doi.org/10.29103/aaj.v6i2.8040>
- Bennett, N. J., Whitty, T. S., Finkbeiner, E., Pittman, J., Bassett, H., Gelcich, S., & Allison, E. H. (2017). Environmental stewardship: A conceptual review and analytical framework. *Environmental Management*, *61*(4), 597–614. <https://doi.org/10.1007/s00267-017-0993-2>
- Bernstein, H. (2019). Agrarian transformations and the politics of rural change. *Journal of Agrarian Change*, *19*(1), 1–22. <https://doi.org/10.1111/1471-0366.00002>

- Borras, S. M., Jr., Franco, J. C., Isakson, S. R., Levidow, L., & Vervest, P. (2020). The politics of land and food in the context of climate change. *World Development*, *132*, 104913.
- Burns, A., Gleadow, R., Cliff, J., Zacarias, A., & Cavagnaro, T. (2019). Cassava: The drought, war and famine crop in a changing world. *Sustainability*, *11*(10), 2815.
- Ceballos, H., Hershey, C., & Becerra López-Lavalle, L. A. (2018). New approaches to cassava breeding. *Plant Breeding Reviews*, *42*, 427–504. <https://doi.org/10.1002/9781118358566.ch6>
- Cole, D. H., Epstein, G., & McGinnis, M. D. (2019). The utility of the commons framework in understanding institutional change. *Ecology and Society*, *24*(1), 24.
- Cox, M., Villamayor-Tomas, S., Hartberg, Y., & Fitzpatrick, P. (2020). The resilience of community-based resource management systems. *Environmental Science & Policy*, *104*, 39–47.
- Garibaldi, L. A., Pérez-Méndez, N., Garratt, M. P. D., Gemmill-Herren, B., Miguez, F. E., & Dicks, L. V. (2021). Policies for ecological intensification of crop production. *Trends in Ecology & Evolution*, *36*(4), 282–286. <https://doi.org/10.1016/j.tree.2019.01.003>
- Hall, R., Scoones, I., & Tsikata, D. (2017). Plantations, outgrowers and commercial farming in Africa: Agricultural commercialization and implications for agrarian change. *Journal of Peasant Studies*, *44*(3), 515–537. <https://doi.org/10.1080/03066150.2016.1263187>
- Howeler, R. H., Litaladio, N., & Thomas, G. (2020). *Save and grow: Cassava – A guide to sustainable production intensification*. FAO.
- Iskandar, D. (2016). Pemberdayaan masyarakat dalam bidang pertanian oleh Lembaga Pemberdayaan Masyarakat di Desa Jadimulya Kecamatan Langkaplancar Kabupaten Pangandaran. *Moderat*, *2*(1), 49–58.
- Jarvis, A., Ramirez-Villegas, J., Herrera Campo, B. V., & Navarro-Racines, C. (2017). Is cassava the answer to African climate change adaptation? *Tropical Plant Biology*, *10*(1–2), 1–10.
- Kay, C. (2017). Agrarian change and the neoliberal countryside in Latin America. *Journal of Agrarian Change*, *17*(2), 341–357.
- Khasanah, I. Y. N., Wibowo, A., & Padmaningrum, D. (2023). Pemberdayaan kelompok tani melalui pengembangan nilai-nilai modal sosial dalam pelestarian lingkungan di Kabupaten Karanganyar. *Prosiding Seminar Nasional Pembangunan dan Pendidikan Vokasi Pertanian*, 27–33. <https://doi.org/10.47687/snppvp.v4i1.628>
- Lansing, J. S., Cox, M. P., Downey, S. S., Janssen, M. A., & Schoenfelder, J. W. (2017). A robust budding model of Bali's ancient irrigation networks. *Proceedings of the National Academy of Sciences*, *114*(29), E6135–E6144.
- Lerche, J., Shah, A., & Harriss-White, B. (2017). Labour in contemporary agrarian transformations. *Journal of Agrarian Change*, *17*(3), 389–400.
- Li, T. M. (2017). After development: Surplus population and the politics of entitlement. *Development and Change*, *48*(6), 1247–1261. <https://doi.org/10.1111/dech.12344>

- Mangowal, J. (2011). Pemberdayaan masyarakat petani dalam meningkatkan pengembangan ekonomi pedesaan di Desa Tumani Kecamatan Maesaan Kabupaten Minahasa Selatan. *Governance*, 11(1), 90.
- Ministry of Agriculture. (2022). Biaya budidaya singkong jauh lebih rendah dan lebih efisien dibandingkan komoditas pangan seperti beras/padi.
- Ostrom, E. (2015). *Governing the commons: The evolution of institutions for collective action*. Cambridge University Press. <https://doi.org/10.1017/CBO9781316423936>
- Parmar, A., Sturm, B., & Hensel, O. (2017). Crops that feed the world: Production and improvement of cassava for food, feed, and industrial uses. *Food Security*, 9(5), 907–927. <https://doi.org/10.1007/s12571-017-0717-8>
- Perfecto, I., & Vandermeer, J. (2019). The agroecological matrix as alternative to the land-sparing/agriculture intensification model. *Proceedings of the National Academy of Sciences*, 116(12), 5045–5051.
- Reed, M. S., Vella, S., Challies, E., de Vente, J., Frewer, L., Hohenwallner-Ries, D., Huber, T., Neumann, R. K., Oughton, E. A., Sidoli del Ceno, J., et al. (2016). A theory of participation: What makes stakeholder and public engagement in environmental management work? *Restoration Ecology*, 26(S1), S7–S17. <https://doi.org/10.1111/rec.12541>
- Rigg, J., Salamanca, A., & Thompson, E. (2016). The puzzle of East and Southeast Asia's persistent smallholder. *Journal of Rural Studies*, 43, 118–133. <https://doi.org/10.1016/j.jrurstud.2015.11.003>
- Rigg, J., Salamanca, A., & Parnwell, M. (2018). Joining the dots of agrarian change in Asia. *Journal of Rural Studies*, 55, 208–218.
- Scoones, I., Edelman, M., Borras, S. M., Jr., Hall, R., Wolford, W., & White, B. (2018). Emancipatory rural politics: Confronting authoritarian populism. *World Development*, 110, 1–14. <https://doi.org/10.4324/9781003162353-1>
- Sutanto, R. (2002). *Pertanian organik: Menuju pertanian alternatif dan berkelanjutan*. Kanisius.
- Visser, O., Mamonova, N., & Spoor, M. (2019). Large-scale farming and rural transformation in post-socialist Eurasia. *Journal of Rural Studies*, 67, 142–152.