



Agrarian Reform and Land for Youth?: Responding to Agricultural Gerontocracy among Palm Sugar Farmers in the Menoreh Mountains

Assyifa Khoirunnisa Dewi¹, Dwi Wulan Pujiriyani^{2*}, Nur Rahmanto³

^{1,2,3}Sekolah Tinggi Pertanian Nasional, Yogyakarta

* Correspondence: luciawulan@stpan.ac.id

ARTICLE INFO	ABSTRACT
<p>Keywords: Farm regeneration, land inheritance, kinship, land fragmentation</p> <p>Date logs: Received: Des 3, 2024 Reviewed: Des 3, 2024 Accepted: Des 5, 2024 Published: Des 6, 2024</p> <p>How To Cite: Dewi, A.K, Pujiriyani, D.W, & Rahmanto, N. (2024). Agrarian Reform and Land for Youth?: Responding to Agricultural Gerontocracy among <i>Palm sugar</i> Farmers in the Menoreh Mountains. <i>Marcapada: Jurnal Kebijakan Pertanahan</i>, 4(1), 71–85. https://doi.org/10.31292/mj.v4i1.70</p>	<p>This paper aims to examine the contribution of agrarian reform in addressing the gerontocracy of agriculture in rural areas. The research specifically focuses on examining how the post-agrarian reform program in Gunung Kukusan hamlet has shifted land ownership and control from the older to the younger generation, and how agrarian reform has influenced changes in land management control. The research was conducted using a qualitative approach. Data collection techniques included in-depth interviews, observation, and documentation. Data analysis was carried out qualitatively by categorizing and visualizing the data. The research results clearly demonstrate the issue of agricultural gerontocracy, particularly the tendency to view agricultural activities as a secondary profession. Agrarian reform through asset restructuring and access restructuring does not bring about changes in land control, ownership, and management. Land certification serves as a confirmation of ownership rather than a direct transfer of ownership. The practice of land grabbing shows that management control is entirely in the hands of landowners, most of whom belong to the older generation. The youth lack the authority to make changes to the generations-old coconut farming practices. This situation underscores the need for agrarian reform policies that accommodate the issue of youth landlessness.</p>

A. Introduction

Agricultural gerontocracy can be simply understood as an intergenerational domestic issue closely related to agrarian inequality. Referring to Madikana et al.(2021), gerontocracy can be defined as leadership based on seniority derived from age factors. Atella & Carbonari (2017) describe gerontocracy as a situation in which decision-making is dominated by the oldest individuals. In the agricultural context, gerontocracy indicates an intergenerational problem that affects land tenure and ownership transitions, or the transmission of agricultural resources, especially land. The transfer of control and ownership or the transmission of agricultural resources between generations plays a crucial role in perpetuating and reinforcing agrarian inequality. The transmission of agricultural resources through inheritance is a concrete example that intergenerational relations do not function freely. There are regulatory patterns that determine "to whom" or "by whom" these agricultural

resources will be granted or continued (White, 2020). Various ways exist to determine or regulate who is "worthy" to inherit or succeed: is it patrilineal, matrilineal, or ambilineal? Is the property divided or not? Is the heir the eldest child, the youngest, or simply the one born first?

Agricultural gerontocracy as an intergenerational domestic issue also serves as a reminder that agrarian inequality can have its roots in the most private realm, the family. Intergenerational relationships are not always harmonious or straightforward. The issue of gerontocracy in these relationships shows that imbalanced power is likely to occur between families or even within the same family. Intergenerational relationships indirectly reflect the power dynamics and access of individuals to resources. In line with White (2020), this inequality will lead to mass unemployment for youth due to limited access to agricultural resources and their inability to meet their own needs. In this similar process, there are always those who are included or involved and those who are excluded or not involved.

One reflection of gerontocracy in the agricultural context is the issue of farmer regeneration or the difficulty in ensuring the sustainability of agricultural activities from one generation to the next. Agricultural regeneration is a global issue. Bezu & Holden (2014) assert that landlessness is a reflection of youth who cannot access land from their parents. Owning agricultural land is a crucial factor in determining an individual's ability to sustain their livelihood in agriculture, especially in rural areas. Often, parents' inherited or gifted land is too limited or too small to provide a viable source of livelihood. Lungkang (2018) highlights the issue of "generational succession" in the agricultural sector. This situation is characterized by the predominance of older generations as landowners and active agricultural practitioners, while younger generations tend to pursue non-agricultural activities or abandon agriculture altogether. Susilowati (2016) refers to this as the "aging farmers" phenomenon, which is corroborated by data from the Central Bureau of Statistics. According to the data, young farmers or millennials aged 19–39 constitute only 21.93% of the total farmer population in Indonesia, with millennial farmers in the Special Region of Yogyakarta (DIY) comprising just 8.87% in 2023 (Nurfiani, 2023). Harahap & Ambarwati (2015) further note a tendency for land rights to be transferred to children only upon the death of their parents, through inheritance mechanisms. This results in children serving merely as laborers supporting the production process during their parents' lifetimes. Concerns arise that even when children are married, they might sell the land without parental consent if given ownership prematurely. This perception stems from the belief that the younger generation lacks the necessary skills for farm management. In rice farming culture, parents often retain authority over decisions regarding planting and harvesting times, as well as the choice of crops, even when non-rice commodities might be more profitable.

The issue of limited land ownership among younger generations aligns with findings by (Mandang et al., 2020) in South Sulawesi, where only 18.8%, or six young individuals, reported owning agricultural land. (Wati et al., 2021) reinforce this by noting that, particularly in traditional Javanese agricultural systems, the authority over land ownership, use, and management remains predominantly with the older generation until inheritance occurs. This gerontocracy perpetuates the

problem of agricultural regeneration, as evidenced by the declining number of young agricultural workers. Gullen (2015), as cited in (Pujiriyani et al., 2016) warns that this decline in young laborers may exacerbate imbalances in the labor market.

Youth are expected to play a central role in sustaining agriculture. A review of previous research indicates that numerous policies have been implemented to encourage youth involvement in agriculture. Aziza et al. (2022) report on the provision of capital, technology, and market facilitation to young farmers, including initiatives like Agricultural Training Camps. Nugroho (2021) discusses career guidance programs for millennial farmer groups. Similarly, Polan et al. (2021) emphasize introducing agricultural entrepreneurship to high school students, fostering principles of modern and innovative farming. However, engaging youth in agriculture is complex. Nurcahyadi et al. (2023) demonstrate that efforts to attract youth often begin with promoting awareness of green open spaces. (Effendy et al., 2022) describe initiatives such as sustainable home gardens and simple hydroponic systems to motivate youth to participate in agriculture. Meanwhile, Wulandari et al. (2024) highlights the "Kita Tani Muda" program, which focuses on fostering agricultural entrepreneurship through innovation. Despite these efforts, the review reveals a gap in research addressing the intersection of agrarian reform and agricultural gerontocracy in rural areas.

As the next generation in agriculture, young people must have access to and control over agrarian resources, particularly land. Without ownership or control of land, they cannot achieve the autonomy or independence necessary to actively engage in building or sustaining agricultural practices (Pujiriyani et al., 2016; Wati et al., 2021; Oktafiani et al., 2021). Initiatives that create agrarian-based sources of wealth and community welfare through the regulation of land ownership, control, utilization, and management should align with programs aimed at involving youth as primary agents in agriculture. Agrarian reform, particularly in terms of access reorganization, must play a role in integrating youth into agriculture. This integration is crucial in tackling the issue of agricultural gerontocracy, as it involves the transfer of authority from landowners or parents to ensure fair access for young individuals. Such measures would enable youth to independently own, control, utilize, and manage agrarian resources, particularly land. This paper will explore the contributions of agrarian reform in addressing the issue of agricultural gerontocracy in rural areas. Specifically, it examines the crisis of youth involvement in agriculture in Hargorejo village, Kulonprogo Regency, a region identified as facing challenges in agricultural regeneration Nugroho et al. (2018). The agricultural labor crisis in Kulonprogo has resulted in a predominance of older farmers, representing a category of human resources less capable of advancing agricultural development (Sutarmi, 2019). Hargorejo village presents a unique case due to its focus on sugar palm tapping and sugar production, alongside agroforestry farming practices. Unlike other rural areas where agricultural gerontocracy is more commonly associated with food crop commodities such as rice, Hargorejo's distinctive practices add a layer of complexity to the issue. This study seeks to answer the following questions: How does agrarian reform influence the transfer of land ownership and control from older to younger generations? and How does agrarian reform contribute to changes in land control and management by the younger generation within the agricultural sector?

B. Methods

This study was conducted in Gunung Kukusan Hamlet, Hargorejo Village, Kokap Subdistrict, Kulonprogo Regency. We selected the location based on the implementation of the Agrarian Reform Access Arrangement (PARA) program in Hargorejo Village in 2021. The Ministry of Agrarian Affairs and Spatial Planning/National Land Agency (ATR/BPN), specifically the Kulonprogo Land Office, initiated this program in collaboration with the Agriculture Office and the Cooperatives and Micro, Small, and Medium Enterprises Office of Kulonprogo Regency. The research employed a qualitative approach. Following Fadli (2021), this method was chosen to provide a holistic and contextual understanding of the phenomenon of agricultural gerontocracy in Gunung Kukusan Hamlet by collecting data in a natural setting. Data collection techniques included in-depth interviews, observations, and document analysis.

The study involved a total of 18 informants, consisting of 11 sugar palm farmers and 7 additional key informants. These additional informants included the Head of the Land Use and Empowerment Section of the Kulonprogo Land Office, field staff from the Kulonprogo Land Office, staff from the Regional Land Office of Yogyakarta Special Region Province, the Head of the Crop Production and Protection Division of the Agriculture and Food Office of Kulonprogo Regency, a representative from the Nyawiji Mulyo Palm Sugar Craft Group, the Water Resource Manager (Ulu-Ulu) of Hargorejo Village, the Village Security Officer (Jagabaya) of Hargorejo Village, and the Head of Gunung Kukusan Hamlet. The data collected were analyzed qualitatively through categorization. Perception data from farmers were divided into two groups: older farmers (aged >45 years) and younger farmers (aged <45 years). These two groups' data were then segregated and analyzed based on key concepts, including land ownership and control as well as land management and utilization.

Results and Discussion

Sugar Palm *Palm Sugar* Farmers in Gunung Kukusan Hamlet

Gunung Kukusan Hamlet is one of the hamlets in Hargorejo Village, situated in the Menoreh Mountain area. Coconut trees primarily cover the hamlet, serving as the primary source of livelihood for the 160 households residing in the region. Each household owns approximately 14 to 40 coconut trees, used for sap extraction and processed into palm sugar.

The palm sugar farmers produce two types of sugar: molded palm sugar and granulated palm sugar. Of the total households, 78 produce molded palm sugar, while only 5 produce granulated palm sugar. Granulated palm sugar is less popular due to its higher production costs and relatively small profit margin, amounting to only IDR 2,000 per kilogram. The following excerpt from the interview reflects this sentiment:

"Although this region is known for producing granulated palm sugar, most residents prefer not to produce it because the profit margin is not significantly different compared to molded palm sugar, which can be sold immediately. The economic process is quicker, so they were less affected by the COVID-19

pandemic compared to those producing granulated sugar." (AM, field staff, Year I and III, Kulonprogo Land Office).



Figure 1. Coconut Trees in Gunung Kukusan Hamlet
Source: Researcher's Documentation, 2024.

Since 2012, Gunung Kukusan Hamlet has been recognized as a center for sugar craftsmanship in Hargorejo Village. Coconut sap, or *legen*, is processed into granules of sugar. Most palm sugar farmers in the hamlet have practiced their trade for over a decade. The income generated by these *palm sugar* farmers varies significantly depending on the size of their coconut plantations, the quality of the saplings planted, and the market price for molded palm sugar or palm sugar blocks. On average, *palm sugar* farmers earn between IDR 1,000,000 and IDR 4,800,000 per month.

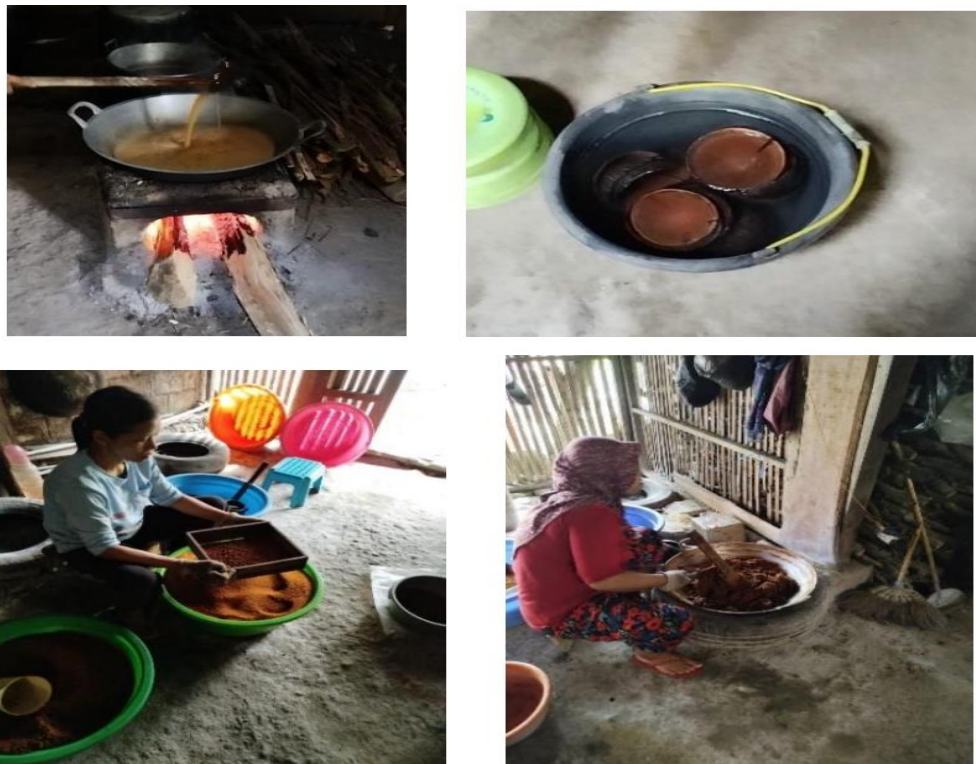


Figure 2. Granulated Palm Sugar Processing
Source: Researcher's Documentation, 2024

The production of molded palm sugar in Gunung Kukusan Hamlet is carried out through two main systems: sharecropping and independent production. The sharecropping system, locally referred to as *kedokan*, is commonly practiced by elderly palm sugar farmers who hire younger workers to tap the sap. Under this arrangement, the harvest is divided evenly, with three days' yield allocated to the landowner and the other three days' yield to the hired *palm sugar* farmer.

"My husband works as a laborer, tapping coconut trees owned by someone else who is already elderly. He works on only five trees per day and alternates with the owner every three days, harvesting about 10 kilograms. My role is to process the sap, and my payment comes from the share of those three days." (ES, wife of a *palm sugar* farmer, Hargorejo Village).

In the *kedokan* system, landowners are responsible for providing the necessary harvesting tools, such as *bumbung* (bamboo tubes used to collect sap). In return, the hired *palm sugar* farmers must maintain the coconut trees, including tasks like applying organic fertilizer.

Agricultural Gerontocracy Issues in Gunung Kukusan Hamlet

As described by White (2020) agricultural gerontocracy in Gunung Kukusan Hamlet is evident in its social structure, where landownership is predominantly concentrated in the hands of older generations. Younger family members typically gain land ownership only through inheritance, which occurs after the passing of their parents. This was illustrated by one respondent:

"I used to tap sap under my father's guidance until he passed away, and then I inherited the land. Being a *palm sugar* farmer is essentially a generational profession, or at least it was in the past. Nowadays, fewer young people are willing to take it up." (J, *Palm sugar* farmer, May 2, 2024).

The average land size owned by farmers is 2,375 m², with the smallest plot measuring 700 m² and the largest 8,500 m². These limited landholdings are insufficient for sustainable agricultural production. The situation worsens during the inheritance process, which leads to land fragmentation, as expressed by another respondent: "*The land is small, only 700 m², inherited from my father.*" (S, *Palm sugar* farmer, May 30, 2024). Landownership is a critical factor for the continuity of agriculture (Bezu & Holden, 2014). Without sufficient land, agricultural regeneration faces significant challenges. Smaller land sizes indicate reduced economic viability, resulting in lower income and poorer living standards for farmers (Susilowati & Maulana, 2012). Such conditions make agriculture increasingly unattractive to younger generations. This phenomenon, observed in many parts of the world, is also prevalent in Gunung Kukusan Hamlet.

Table 1. Land Size of Farmers and Number of Children

No	Farmer's Name	Land Size	Number of Children	
			Male	Female
1	Antonius Krisdianto	1,333	1	1
2	Aris V Risdiyanto	2,000	1	2

3	Barno	1,000	3	0
4	Endri Suprapti	700	1	1
5	Habib	1,500	2	0
6	Iswahyudi	3,500	0	2
7	Jemadi	3,000	1	1
8	Setiyono	700	1	2
9	Sukidin	8,500	2	0
10	Sukirin	1,700	1	0
11	Suyitno	2,200	1	1
	Jumlah	26,133	14	10

Source: Primary Data, 2024.

The sustainability of agriculture is threatened not only by the limited ownership of agricultural land but also by the perception among parents that their children should not pursue the same profession as palm sugar farmers. Traditionally, tapping was a hereditary profession, where children of palm sugar farmers were expected to follow in their parents' footsteps. This generational continuation is illustrated in the following account:

"I started tapping sap to help my parents at around the age of 17. It was a generational profession passed down from my parents. However, I do not want my own children to inherit this job. I became a farmer to help my parents and support my own family." (S, palm sugar farmer, May 30, 2024).

The tradition of hereditary tapping has undergone significant changes. Being a palm sugar farmer is no longer considered an ideal career choice. Various risks associated with this profession compel farmers to encourage their children to pursue alternative, better opportunities.

"No, I plan to send my eldest to work in Korea on a project, as it has better prospects. Personally, I'm proud to be a palm sugar farmer. It's peaceful because the land is my own, even though the income is sometimes below the regional minimum wage and affected by weather conditions. To supplement my household income, I work as an online network employee. The salary depends on the number of customers, but it's paid consistently every three months." (AK, palm sugar farmer, June 2, 2024).

According to (Arvianti et al., 2019), this shift reflects the demographic changes in agriculture, where the farming population is aging, and fewer young people are entering the sector. Young people often choose tapping out of necessity, particularly when they are already married and need to support a family. Similar patterns are observed in many places, where agriculture acts as a safety net for individuals unable to compete in other sectors (Pujiriyani et al., 2016).

"Mr. Barno started tapping only after marrying me because it was necessary to support the family. It's a profession passed down through generations." (S, wife of palm sugar farmer B, June 2, 2024).

For many, tapping is not pursued as a sole occupation. Farmers seek additional sources of income alongside their work as palm sugar farmers:

"I am proud to be a palm sugar farmer. It's fulfilling to work on my own land, though the income is sometimes below the regional minimum wage and affected by weather. To meet household needs, I also work as an online network employee. The salary depends on customer volume, but it's consistently paid every three months." (AK, palm sugar farmer, June 2, 2024).

When given a choice, the youth of Gunung Kukusan Hamlet prefer to work outside the village in non-agricultural sectors.

"My name is Sukidin, my highest education is elementary school. My wife helps process sap into sugar. In our household, there is one family head, and we have two children. One is 34 years old and married, while the other is 26 years old and unmarried. Both of my children are university graduates—one works as a physical education teacher in Bantul, and the other is a photographer in Semarang. Alhamdulillah, both are university graduates—one from UNY and the other from ISI Yogyakarta" (S, palm sugar farmer, May 30, 2024).

Youth migration from Gunung Kukusan Hamlet is also driven by the perception that the village lacks adequate facilities and infrastructure, including limited road access and an isolated atmosphere far from bustling areas and entertainment. The condition accompanying agricultural gerontocracy is referred to by (Živković et al., 2024) as deruralization, triggered by the limited access to resources in rural areas, as reflected in the following interview:

"For entertainment here, we usually have traditional activities, such as Independence Day competitions on August 17 and the anniversary of Hargorejo village. Recently, on April 27, there was a morning parade and an evening puppet performance. For cafes or modern hangout spots, people have to go to urban areas, such as the town square in Wates" (SDC, Ulu-ulu of Hargorejo, April 29, 2024).

Agrarian Reform in Gunung Kukusan Hamlet

In the context of agrarian reform, asset and access restructuring, as defined by (Sulistyaningsih, 2021) are recognized. Asset restructuring in Gunung Kukusan Hamlet has been implemented through the Complete Systematic Land Registration (PTSL) program, with a land certification rate of 98%. About 2% of landowners still lack certificates, with their ownership documented in the form of Letter C, as stated:

"In Hargorejo, land certification has reached over 80%. Those that remain uncertified are typically due to incomplete documentation during PRONA or PTSL programs, or because of ongoing disputes" (H, Jagabaya of Hargorejo, March 3, 2024).

Meanwhile, access restructuring activities focus on developing palm sugar crystals processing businesses to optimize the potential of coconut sap production. The first year included forming the Agrarian Reform Access Structuring Team (PARA), determining project locations, conducting social mapping, developing models, carrying out outreach activities, and evaluating the program. The second year involved institutional restructuring. The third year focused on marketing literacy assistance, creating Standard Operating Procedures (SOPs), and opening digital marketing access. The Kulonprogo

Land Office collaborated with PT Nira Lestari Internasional and the Department of Trade and Industry of Kulonprogo Regency to implement these programs. The Ministry of Industry also supported the initiative by providing palm sugar crystals production facilities.

Table 2. Agrarian Reform Access Structuring Activities in Hargorejo

No	Program	Activities	Status		
			Completed	Not Completed	Planned
1	Agrarian Reform Access Structuring 2021	Formation of PARA Team	✓	-	-
		Determination of Locations	✓	-	-
		Social Mapping	✓	-	-
		Model Development	✓	-	-
		Outreach Activities	✓	-	-
		Activity Evaluation	✓	-	-
2	Agrarian Reform Access Structuring 2022	Institutional Structuring	-	✓	-
3	Agrarian Reform Access Structuring 2023: Marketing Access	Marketing Literacy Assistance for Palm Sugar Crystals Businesses with PT Nira Lestari Internasional	✓	-	-
		Assistance with SOP Development with the Kulonprogo Department of Trade and Industry	✓	-	-
		Online Marketing Access	✓	-	-

Source: Primary Data, 2024

Land Ownership and Control Changes in Gunung Kukusan Hamlet

The asset and access arrangements implemented in Gunung Kukusan Hamlet have not resulted in significant changes in land ownership or control. Land certification primarily serves to confirm ownership rather than directly transferring property rights. Formal transfers of land ownership and control typically occur through inheritance. Culturally, as is common among Javanese communities, inheritance practices adhere to bilateral or parental kinship lines, granting equal rights to both male and female descendants. This includes the families of both spouses, as noted by (Komari, 2015). In this context, the transfer of wealth from a testator to heirs does not distinguish between male and female children (Astutik, 2019). The principle of balance in inheritance distribution, often referred to as *dum-dum kupat* (sharing ketupat), underpins this practice.

According to Aryaputra & Yudhistira (2023), inheritance processes can occur either during the parents' lifetime or after their death. However, in Javanese communities, the latter norm is more commonly followed. In Gunung Kukusan Hamlet, inheritance typically occurs posthumously as a sign of respect for the parents as the testators. While there are privileges afforded to male heirs, female descendants generally receive comparable rights.

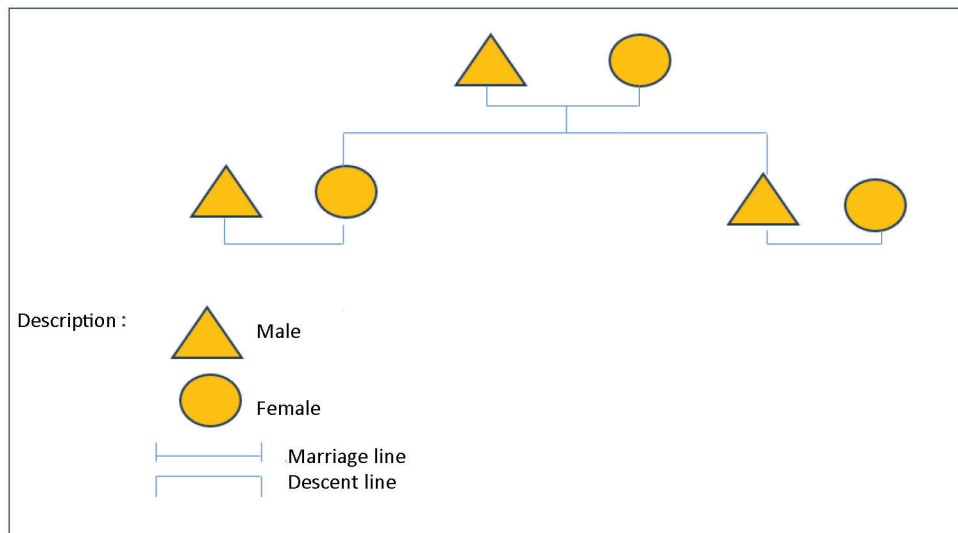


Figure 3. Bilateral/Parental Kinship Lines

Source: Processed by the Author, 2024.

The requirement of waiting for inheritance to transfer land ownership restricts the access of palm sugar farmers to the plantations. Consequently, productivity among these farmers, who rely on land still owned by their parents, remains low. A sharecropping system constrains tapping yields, as the following statement illustrates:

"My father is just a laborer; the trees belong to my grandparents, who are elderly. He only taps five trees a day and alternates with the landowner every three days, yielding 10 kilograms. My payment is part of the harvest from those three days of tapping." (ES, wife of a palm sugar farmer, June 2, 2024).

Ultimately, what occurs is merely a transfer of control rather than ownership. Parents often grant verbal authority to their children. This arrangement typically happens after children who had previously migrated return to Gunung Kukusan Hamlet.

"The land from my parents has been divided among the children (verbally allocated), but it's still under the original letter C document. The area is 1,333 square meters. I worked in Jakarta for 11 years and only started tapping at 29. Initially, I had no intention of becoming a tapping farmer because I saw the risks were high, and the income was far below Yogyakarta's minimum wage." (AK, *palm sugar* farmer, June 2, 2024).

Youth from Gunung Kukusan Hamlet often return to the village after their employment contracts end or when they face limited opportunities in urban areas.

"I left my job in 2020 during the COVID-19 pandemic because I felt uncomfortable with my work as a cooperative debt collector. It involved constant collection tasks, and finding other work at my age was difficult. Since then, I've become a *palm sugar* farmer. Before I started tapping, my neighbor was doing it, and we shared the profits." (VR, *palm sugar* farmer, June 2, 2024).

Changes in Land Control and Management in Gunung Kukusan Hamlet

The restructuring of assets and access in Gunung Kukusan Hamlet has not significantly influenced land control or management practices. This is evident in the continued implementation of

sharecropping systems in the region, reflecting the relationship between landowners and tenant farmers. According to Malik et al. (2018), tenant farmers are individuals without ownership of agricultural land who gain access to it through sharecropping arrangements. Sharecropping, or *penyakapan*, is a socio-economic agreement in which landowners permit their land to be cultivated by tenant farmers under mutually agreed terms. This system illustrates that control and management of the land remain firmly with the landowners, who are predominantly from the older generation. The younger generation of *palm sugar* farmers in Gunung Kukusan Hamlet typically occupy roles as tenant cultivators, lacking authority to implement changes in longstanding coconut farming practices.

The land management practices of *palm sugar* farmers follow traditional methods. They cultivate coconut plantations using agroforestry techniques, interplanting coconut trees with other crops such as cocoa, bananas, cloves, bamboo, and vanilla. Besides coconuts, the produce from these companion crops—such as cloves, vanilla, and cocoa—serves as an additional source of income for daily needs. This approach not only optimizes land use but also enhances biodiversity and strengthens ecosystem resilience.

In their management practices, *palm sugar* farmers utilize traditional irrigation methods. They construct simple channels with hand tools, such as hoes, to collect rainwater and, during the dry season, irrigate coconut plantations using wastewater pipes from domestic sources. This method proves effective for irrigating plantations during both the dry and rainy seasons. The local morphology, characterized by limestone formations and hilly terrain, further influences the reliance on traditional irrigation systems. Implementing a piped irrigation system from municipal water supplies (PDAM) would demand significant financial and time investments.



Figure 4. Domestic Wastewater Pipes Used for Irrigation
Source: Researcher's Documentation, 2024

Natural methods are employed to manage pests and diseases in coconut plantations. Rainwater, in addition to irrigating the plantations, is utilized to naturally eliminate pests such as white scale insects and stem borers. Farmers also leverage natural food chains by introducing biological control techniques, such as using *weaver ants* (*Oecophylla smaragdina*) to manage coconut stem borer populations. Furthermore, crop rotation and intercropping are implemented to disrupt pest and disease life cycles. These practices not only maintain ecosystem balance but also support the economic and social sustainability of rural communities.

The persistence of land control by the older generation and the reliance on traditional agricultural practices illustrate that the prevailing agricultural profile in Gunung Kukusan Hamlet is subsistence-based. This model of agriculture holds limited appeal for most younger generations as it offers minimal economic returns. This stagnation is consistent with the lack of innovation in improving the market value of processed coconut sugar products, such as palm sugar crystals, in the region. Subsistence agriculture is characterized by small landholdings, traditional farming methods, and low purchasing power. As noted by Kurniawan (2003), subsistence farmers often face significant limitations in expanding their agricultural ventures. In Gunung Kukusan Hamlet, *palm sugar* farmers have long struggled with restricted land ownership, making it challenging to develop commercial farming ventures with higher economic potential. Bezu & Holden (2014), emphasize that owning agricultural land is a crucial determinant of whether individuals, particularly those living in rural areas, can sustain their livelihoods in farming. The realities in Gunung Kukusan Hamlet underscore the occurrence of agricultural gerontocracy due to limited land access. If left unaddressed, this situation could hinder agricultural regeneration in the future, exacerbating the vulnerability of the sector as it remains reliant on an aging and less capable workforce.

To attract younger generations to farming, ensuring land access is a foundational requirement. Only after this can other interventions—such as financial support, skill development, innovation, mechanization, and other prerequisites for high-value modern agriculture—be effectively implemented.

D. Conclusion

Agricultural gerontocracy in Gunung Kukusan Hamlet is evident from the tendency to regard agricultural activities as a fallback profession. This phenomenon arises from the hereditary nature of the *palm sugar* farmers profession, which offers limited economic prospects for younger generations. The youth prioritize non-agricultural activities, only returning to their villages to participate in their parents' traditional palm sugar farming activities as a last resort.

Agrarian reform through asset and access redistribution has not led to changes in land ownership or control in Gunung Kukusan Hamlet. Land certification primarily serves to reaffirm ownership without directly transferring possession. Formal processes of land transfer only occur through inheritance, further delaying shifts in ownership.

The inheritance-based land transfer system limits the access of *palm sugar* farmers to plantations, resulting in lower productivity as they continue to work on land owned by their parents. Moreover, agrarian reform has not altered land management control. Landowners, primarily from the older generation, fully retain land management control, as evidenced by the prevalence of sharecropping practices. Younger *palm sugar* farmers are often relegated to the role of cultivators without decision-making authority regarding changes in coconut farming practices that have been passed down for generations. This situation underscores the critical need to explore issues related to generational succession in agriculture. Targeted agrarian and agricultural policies must address agrarian inequalities, reflected in the challenges of generational succession.

E. Recommendation

The implementation of agrarian reform through asset and access redistribution in Gunung Kukusan Hamlet has yet to address the issue of agricultural gerontocracy in rural areas. Current agrarian reform policies seem to diverge from the global concern of agricultural gerontocracy. Considering the vulnerabilities of youth, reflected in landlessness, agrarian reform initiatives—whether focused on asset redistribution or access enhancement—must address disparities in land control and ownership. Agricultural societies, where youth face significant challenges, also exhibit these disparities. Youth, as the successors of agricultural generations, confront serious difficulties due to landlessness. These vulnerabilities highlight the urgent need for policies rooted in empowerment. Agrarian reform must integrate strategies that specifically accommodate the structural inequalities faced by younger generations in agriculture, enabling their active participation and ensuring the sector's sustainability.

Daftar Pustaka

- Arvianti, E. Y., Masyhuri, M., Waluyati, L. R., & Darwanto, D. H. (2019). Gambaran Krisis Petani Muda Indonesia. *Agriekonomika*, 8(2), 168–180. <https://doi.org/10.21107/agriekonomika.v8i2.5429>
- Astutik, S. (2019). Karakteristik Pembagian Waris Adat Jawa. *Jurnal Aktual Justice*, 4(2), 147–155. <https://doi.org/10.47329/aktualjustice.v4i2.545>
- Atella, V., & Carbonari, L. (2017). *When elders rule: Is Gerontocracy Harmful for Growth? A Comparative Study of Seven European Countries* (Issue 79583).
- Aziza, T. N., Surito, N., & Darmi, N. (2022). Petani Milenial: Regenerasi Petani Di Sektor Pertanian. *Forum Penelitian Agro Ekonomi*, 40(1), 1. <https://doi.org/10.21082/fae.v40n1.2022.1-11>
- Bezu, S., & Holden, S. T. (2014). Are Rural Youth in Ethiopia Abandoning Agriculture? *World Development*, 64, 259–272.
- Effendy, L., Nasruddin, W., & Pratama, A. (2022). Empowering Millennial Farmers through the Implementation of Sustainable Food Yards in the Covid-19 Pandemic Era. *Jurnal Triton*, 13(2), 179–196. <https://doi.org/10.47687/jt.v13i2.232>

- Fadli, M. R. (2021). Memahami Desain Metode Penelitian Kualitatif. *Humanika, Kajian Ilmiah Mata Kuliah Umum*, 21(1), 33–54. <https://doi.org/10.21831/hum.v21i1>.
- Hamzan Aryaputra, R., & Aliffio Yudhistira, F. (2023). Efektivitas Asas Keseimbangan Atau Dum-Dum Kupat Dalam Sistem Kewarisan Adat Jawa. *Kultura: Jurnal Ilmu Hukum, Sosial, Dan Humaniora*, 1(6), 76–83. <https://jurnal.kolibi.org/index.php/kultura/article/view/584>
- Harahap, R. A., & Ambarwati, A. (2015). *Tanah untuk Penggarap? Penguasaan tanah dan Struktur Agraris di Beberapa Desa Penghasil Padi*.
- Komari, K. (2015). Eksistensi Hukum Waris di Indonesia: Antara Adat dan Syariat. *Asy-Syari'Ah*, 17(2), 157–172. http://scioteca.caf.com/bitstream/handle/123456789/1091/RED2017-Eng-8ene.pdf?sequence=12&isAllowed=y%0Ahttp://dx.doi.org/10.1016/j.regsciurbeco.2008.06.005%0Ahttps://www.researchgate.net/publication/305320484_Sistem_Pembetulan_Terpusat_Strategi_Melestari
- Kurniawan, A. (2003). Pola Ketahanan dan Strategi Rumah Tangga di Desa Pertanian Subsisten (Studi Kasus Desa Tirtohargo Kecamatan Kretek Kabupaten Bantul). In *Majalah Geografi Indonesia* (Vol. 17, Issue 2, pp. 95–111).
- Lungskang, D. M. (2018). *Shaping Aspirations: Insights of Young Farmers Life Trajectory in Pinrang Regency. November*, 1–56.
- Madikana, J. M., Mokgokong, J., & Khanya, M. P. (2021). Gerontocracy and the Fourth Industrial Revolution in the Public Sector Amid the Covid-19 Pandemic: A Perennial Problem. *European Journal of Economics, Law and Social Sciences*, 27–43. www.iipcccl.org
- Malik, M. K., Wahyuni, S., & Widodo, J. (2018). Sistem Bagi Hasil Petani Penyakap Di Desa Krai Kecamatan Yosowilangun Kabupaten Lumajang. *JURNAL PENDIDIKAN EKONOMI: Jurnal Ilmiah Ilmu Pendidikan, Ilmu Ekonomi Dan Ilmu Sosial*, 12(1), 26. <https://doi.org/10.19184/jpe.v12i1.6466>
- Mandang, M., Sondakh, M. F. L., & Laoh, O. E. H. (2020). Karakteristik Petani Berlahan Sempit Di Desa Tolok Kecamatan Tompaso. *Agri-Sosioekonomi*, 16(1), 105. <https://doi.org/10.35791/agrsosek.16.1.2020.27131>
- Nugroho, A. D., Waluyati, L. R., & Jamhari, J. (2018). Upaya Memikat Generasi Muda Bekerja Pada Sektor Pertanian di Daerah Istimewa Yogyakarta. *JPPUMA: Jurnal Ilmu Pemerintahan Dan Sosial Politik Universitas Medan Area*, 6(1), 76. <https://doi.org/10.31289/jppuma.v6i1.1252>
- Nugroho, I. S. (2021). Pendampingan Regenerasi Petani Milenial Melalui Layanan Bimbingan Karir Dengan Format Kelompok Psikoedukasi. *GANESHA: Jurnal Pengabdian Masyarakat*, 1(02), 75–80. <https://doi.org/10.36728/ganesha.v1i02.1480>
- Nurchayadi, Z., Salsabila, F., & ... (2023). Membina Minat Remaja Untuk Regenerasi Pertanian. *Prosiding Seminar ...*, 351–357. <https://prosiding.umy.ac.id/semnasppm/index.php/psppm/article/view/1212%0Ahttps://prosiding.umy.ac.id/semnasppm/index.php/psppm/article/download/1212/1137>
- Nurfiani, F. (2023). *Sensus Pertanian 2023 Rumah Tangga Pertanian DIY Turun 15,86 Persen*.

Kedaulatan Rakyat. <https://www.krjogja.com/sleman/1243435663/st2023-jumlah-rumah-tangga-%0Apertanian-diy-turun-1586-persen>.

- Oktafiani, I., Sitohang, M. Y., & Saleh, R. (2021). Sulitnya Regenerasi Petani pada Kelompok Generasi Muda. *Jurnal Studi Pemuda*, 10(1), 1–17.
- Polan, T. S., Pontoan, K. A., & Merung, Y. A. (2021). Pemberdayaan Kaum Muda Untuk Mendorong Regenerasi di Sektor Pertanian. *COMSERVA Indonesian Journal of Community Services and Development*, 1(1), 26–34. <https://doi.org/10.59141/comserva.v1i1.95>
- Pujiriyani, D. W., Suharyono, S., Hayat, I., & Azzahra, F. (2016). Sampai Kapan Pemuda Bertahan di Pedesaan? Kepemilikan Lahan dan Pilihan Pemuda Untuk Menjadi Petani. *BHUMI: Jurnal Agraria Dan Pertanahan*, 2(2), 209. <https://doi.org/10.31292/jb.v2i2.72>
- Sulistyaningsih, R. (2021). Reforma Agraria Di Indonesia. *Perspektif*, 26(1), 57. <https://doi.org/10.30742/perspektif.v26i1.753>
- Susilowati, S. H. (2016). Kebijakan Insentif Untuk Petani Muda: Pembelajaran dari Berbagai Negara dan Implikasinya bagi Kebijakan di Indonesia. *Forum Penelitian Agro Ekonomi*, 34(2), 103. <https://doi.org/10.21082/fae.v34n2.2016.103-123>
- Susilowati, S. H., & Maulana, M. (2012). Eksistensi Petani Gurem dan Urgensi Kebijakan Reforma Agraria Farm Business Land Size. *Analisis Kebijakan Pertanian*, 17–30.
- Sutarmi. (2019). *Petani Milenial Dilatih Atasi Krisis Tenaga Kerja Pertanian*.
- Wati, R. I., Subejo, S., & Maulida, Y. F. (2021). Problematika, Pola, dan Strategi Petani Dalam Mempersiapkan Regenerasi Di Daerah Istimewa Yogyakarta. *Jurnal Ketahanan Nasional*, 27(2), 187. <https://doi.org/10.22146/jkn.65568>
- White, B. (2020). *Agriculture and the Generation Problem* (B. Conroy (ed.)). Fernwood Publishing.
- Wulandari, A. N., Riyadi, A., & Karim, A. (2024). Pemberdayaan Petani Muda Melalui Program Kita Tani Muda di Kota Semarang. 13(2), 721–730.
- Živković, M. B., Lukić, T., Bjelajac, D., Pogrmic, Z., & Jovanović, G. (2024). Deruralization as a Global Process and Its Trends in Serbia. *Journal of the Department of Geography, Tourism and Hotel Management*, 53(1), 69–79. <https://doi.org/10.5937/ZbDght2401069Z>