Measurement of Land Valuation Value and Survival Strategy of Farmers in Rural–Urban Areas

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p-ISSN: 2808-9529 (Printed)
e-ISSN: 2808-8816 (Online)

Jurnal Ilmu Sosial Indonesia (JISI)
http://journal.uinjkt.ac.id/index.php/jisi
VOL. 6, NO. 2 (2025)

Page: 90 – 100

Recommended Citation (APA 7th Edition):
Measurement of Land Valuation Value and Survival Strategy of Farmers in Rural–Urban Areas. (2025). *Jurnal Ilmu Sosial Indonesia (JISI)*, *6*(2), 90-100. https://doi.org/10.15408/jisi.v6i2.45085

Available at:
https://journal.uinjkt.ac.id/jisi/article/view/45085

Article History:
Received: February 24, 2024
Accepted: December 10, 2025
Available online: December 31, 20255

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Abstract. *Kedungrejo as a village located on the border of a city village, certainly has consequences for changes in the structure and local institutions of farmers. As a consequence, changes in land spatial planning and livelihoods will dominate, many industrializations, developer housing development, and land use change. The impact that occurs is the crisis of farmer youth, often crop failures due to the market, so that farmers will adapt according to the existing dynamics. This is what is of interest to researchers to analyze the value of the valuation of rural land spatial planning and farmers' survival strategies due to urban attractiveness. With ethno-ecological methods, this research will focus on land value, land benefits, and farmers' survival strategies. Based on the results of the study, it shows that the valuation value of agricultural commodities depends on the type of crops they grow. Namely spinach, kale, kenikir and basil. Each commodity has a different valuation value because it is in accordance with market opportunities, operational costs, and the area of farmers' land. Therefore, the form of active strategies for farmers is in the form of reducing seed operational costs and switching chemical fertilizers to natural fertilizers. Then consider the planting and harvesting time, as well as read market opportunities. The passive strategy of farmers tends to borrow money from middlemen and financial institutions, and reduces the role of workers in the planting phase. Meanwhile, another strategy is to take advantage of social ties between farmers, in the form of mutual cooperation, joint gathering, and maintaining farmer group activities in terms of assistance information, sharing, and water irrigation management.*

Keywords: *Valuation of Vegetable Farmers, Peripheral Areas, Active Strategies, Passive Strategies and Network Strategies.*

Abstrak. *Kedungrejo sebagai desa yang terletak di perbatasan desa-kota, tentu mempunyai konsekuensi terhadap perubahan struktur dan pranata lokal petani. Sebagai konsekuensinya perubahan tata ruang lahan dan mata pencaharian akan mendominasi, banyak industrialisasi, pembangunan perumahan developer, dan alih fungsi lahan. Dampak yang terjadi ialah krisis pemuda tani, sering terjadi gagal panen akibat pasar, sehingga dengan kondisi tersebut petani akan beradaptasi sesuai dengan dinamika yang ada. Inilah yang menjadi ketertarikan peneliti untuk menganalisis nilai valuasi tata ruang lahan pedesaan dan strategi bertahan hidup petani yang disebabkan daya tarik perkotaan. Dengan berbekal metode etno-ekologi penelitian ini akan berfokus pada nilai lahan, manfaat lahan, dan strategi bertahan hidup petani. Berdasarkan pada hasil penelitian menunjukkan bahwa nilai valuasi komoditas tani bergantung pada jenis tanaman yang mereka tekuni. Yakni bayam, kangkung, kenikir dan kemangi. Masing masing komoditas mempunyai nilai valuasi berbeda karena sesuai dengan peluang pasar, biaya operasional, serta luas lahan petani. Oleh karena itu, bentuk strategi aktif petani berupa pengurangan biaya operasional bibit dan peralihan pupuk kimia menjadi pupuk alami. Kemudian mempertimbangkan masa waktu tanam dan panen, serta membaca peluang pasar. Strategi pasif petani cenderung meminjam uang kepada tengkulak dan lembaga keuangan, dan mengurangi peran kerja buruh pada fase tanam. Sedangkan strategi lainnya adalah dengan memanfaatkan ikatan sosial antar petani, berupa gotong-royong, rembuk bersama, dan menjaga kegiatan kelompok tani dalam hal informasi bantuan, sharing, serta pengelolaan irigasi air.*

Kata Kunci: *Valuasi petani sayur, kawasan periferi, strategi aktif, strategi pasif dan strategi jaringan*

1. INTRODUCTION

Rural areas located on the border of cities have a fairly high value of social dynamics, especially in terms of changes in land use change and shifts in community structures affected by industrialization. In these conditions, the village is directly able to create connectivity with several urban areas and has an impact on the condition of the village that is dynamic, flexible, and independent in facing social dynamics (Suparmini 2017; Wijayanti and Pratomo 2019). Villages as areas that have quite authentic potential values socially and environmentally, certainly need moral encouragement in making measurable changes. Both in economic, social, cultural changes, and especially changes in people's behavior who are beginning to realize the importance of maintaining existing potential. (Cimahi 2015).

In the condition of a village that is able to build relationships with the city, it will directly affect the village government in the process of making planning based on stimulating urban development. In these conditions, these two areas (villages-cities) form Rural Urban (Linkage), namely the concept of regional development that emphasizes the balance between villages and cities in carrying out functions in the economic, social, cultural, and environmental fields (Wijayanti and Pratomo 2019). Tacoli (2003) explained that the relationship between villages and cities is in the form of two types, including backward linkage (backward) and future linkages (forward). The condition of the linkage is caused by the occurrence of population mobility activities, movement, commutation, capital, and gentrivikation (Suparmini 2017; Wijayanti and Pratomo 2019). In its development, the interconnectedness of the area has implications for cultural acculturation and determines the spatial layout of the rural-urban area. So that several resource functions in the village will undergo changes, this is where it is important to measure the valuation of those affected by the influence of the city (Hudawan Santoso and Nurumudin 2020; Sebelas and Surakarta 2015; Suryanto 2017).

Based on the category, the valuation of rural areas includes the fields of economy, tourism, water resources, MSMEs, and other fields that have the opportunity to be measured in layers (Anwar 2022; Hudawan Santoso and Nurumudin 2020; Sebelas and Surakarta 2015). By knowing the valuation value of a rural area that is connected to the city, it can be projected how the village will develop, especially during changes in the functions of some of its resources (Anwar 2022; Suryanto 2017). As what happens in general, namely the conversion of rice fields into housing, it will change and give rise to new functions of the land. Not only settlements, but it will encourage the emergence of the community's creative economy such as laundry, computer courses, photocopying, and population mobility (Fitriyah 2021; Sebelas and Surakarta 2015). Therefore, these changes can be measured to the extent to which the function of the land has changed according to the situation and has an impact on the existence of farmers who are currently in a condition of environmental degradation along with the crisis of regeneration of young farmers. Thus, the analysis that needs to be studied is how the strategies of farmers who are in rural-urban areas and are squeezed by the pressure of environmental, social and economic aspects.

Farmers' survival strategies have been found in several places, especially in agricultural areas in villages. The existence of farmers today is widely found regarding the water crisis, the low value of workers' bargaining power, and the low wages received (Dharmawan 2007; Irawan 2018; Nur Fajri 2021). In addition, the current unstable agricultural condition even though there has been a lot of assistance provided by the government, in fact there are still many polemics, namely not all farmers receive assistance, lack of conditions, and politicization of the government to maintain their constituents (Agustina et al. 2023; Irawan 2018). That way, the survival strategy of farmers is an existence of farmers that adjusts to their social, economic, and environmental conditions. The farmers do not care how they have to survive and get great profits while pursuing their farming activities. This is similar to what James Scott (2004) said, namely that while maintaining their daily lives, farmers do not prioritize profits, but how they live quietly and can meet today's needs. The problem of tomorrow's problems farmers do not think about it, the most important thing is that now

they can work and can fulfill their lives (Azzahra, Elvawati, and Putra 2022; Sri Rejeki 2019). Based on this assumption, the interesting thing is about the institution that is built as a result of the farmer adaptation process to adjust to existing conditions. So that with the institution they hold and as a reference for their activities, the collective behavior of farmers will be formed. This is where the position of this paper will observe the valuation value that is built along with the survival strategy of farmers expressed through agricultural institutions from social, economic, and ecological elements.

Based on the description above, the author chose Kedungrejo village as the center of analysis. Because the village meets the criteria of the agricultural crisis problem in villages in village-city areas. Based on the observation results, this village is a type of village with agricultural characteristics, around 60% of the land is used for wetland and dryland agricultural activities that often use rainwater. The existence of this affects the type of agricultural commodities that residents are engaged in, namely for wetlands many rice, kale, cabbage, spinach, mustard greens and other types of vegetables. Meanwhile, dry land is planted with crops in the form of sugarcane, cassava, corn, and oranges. The use of land is certainly correlated with the routine activities of the community, they prioritize their land as the main source of livelihood.

Kedungrejo Village, which is located in the Village-City border area, or as a peripheral area, has consequences for changing the space of the village area. The development of office activities, infrastructure development, industrial area development, and settlements will be the main indicators to change the spatial order of the existing area. So that one existence that cannot be controlled is the problem of gentrivication, or the increase in land prices due to the increasing presence of migrants and the function of the region that has shifted to industrialization. The observation results show that the agricultural land area planted with sugarcane and characterized by dry land, has now been used as residential land by developers. There are many land offers in the vicinity with the sale of plots and prices that have started to be high, as well as the area which is identical to the lack of clean water availability. Unfortunately, many local people think that the area used by the developer is a place that is inhabited by many residents who have deviant behavior, many theft problems, crime, and robbery of road users at night. Many people already know about this stigma, especially people around hamlets who are considered at risk.

The dynamics experienced by the people of Kedungrejo certainly have an impact on the existence of farmers in a sustainable manner, especially on the problem of the crisis of peasant youth and the low bargaining power of the agricultural crop market. Farmers often suffer losses when the harvested commodities occur at the same time, so they prefer to sell at a low price and be determined by middlemen. In addition, they often distribute their crops because there is no profit if they are sold. This situation occurs in farmers of vegetables, mustard greens, kale, kenikir, and basil. Therefore, the situation that occurs in Kedungrejo farmers is very relevant to the above explanation which explains that the existence of village areas influenced by cities has a fairly high impact on social dynamics. Especially in the issue of gentrivication, ecological crisis, land conversion and village youth crisis. Based on empirical and conceptual analysis, the researcher will analyze more deeply the valuation value of agricultural commodities along with the survival strategies of farmers expressed through agricultural institutions as a form of adaptation to the existence of villages and cities (peripherals).

The measurement of the valuation of rural land spatial planning can be studied through the application of the concept of economic valuation. Based on his definition, valuation is an effort to quantitatively measure the value of goods, services, and natural resources, both with market value and non-market value (Anwar, 2022; Fitriyah, 2021). This means that conducting a valuation analysis is a step to find out how much the contribution has a useful value, so as to produce a market productivity. Namely, the use of agricultural land planted with rice can be measured by the amount of harvest, selling price, and the final balance from the reduction in farmers' profits. Furthermore, the measurement of non-market land valuation

is land inhabited by large, shady trees, and widely used as resting places. So in this case, the function of the land does not have economic value but has socio-cultural value of the community.

Based on its function, land valuation can also be directed to carry out social, cultural and disaster studies that often occur in the environment (Hudawan Santoso & Nurumudin, 2020; Eleven & Surakarta, 2015; Suryanto, 2017). Valuation measurement can be applied to conduct risk assessments of natural resources, either quantitatively or by revealing aspects of socio-cultural knowledge of local communities. Namely as a study of land inhabited by wringin trees which are considered sacred by the local community, of course in that case the community will consider that the land must be well maintained, have ancestral values, and have consequences for safety, especially water availability. The reason is that in terms of plant anatomy, the function of the roots can maintain the quality of the land and water sources

The purpose of economic valuation is to promote the linkages between natural resource conservation and economic development funds (ANNET & Naranjo, 2014; Erfrissadona et al., 2020; Patiung, 2022). In addition, economic valuation can also be used as an instrument to increase public appreciation and awareness of the environment (Erfrissadona et al., 2020; Hudawan Santoso & Nurumudin, 2020; Nana & Ibrahim, 2003). Referring to this assumption, the measurement of the valuation of rural land spatial planning can be associated with conservation values, how communities participate in preserving the environment, caring for water quality, land quality, and maintaining local traditions related to ecological maintenance. Furthermore, the results of measuring people's knowledge of their environment will directly contribute to raising awareness and strengthening local wisdom patterns, especially related to environmental conservation. Both in the water, plantation, fisheries, marine, and other sectors related to natural resources.

Based on the concept of valuation and ethno-ecology as the basis for building a perspective, this research will directly focus on several aspects including: 1) Measuring land spatial planning based on its benefits; 2) Measuring land functions based on economic value; 3) Measuring land productivity and the amount produced by each harvest; 4) Measure how far communities maintain land as their main source of livelihood; 5) Analyze the existence of land related to the socio-cultural value of the community; 6) Analyzing the values of non-market land including elements of sacredness, conservation, and local wisdom (community resilience).

In an effort to carry out a survival strategy, of course, every human being has their own way of doing rational actions which in this case are taken into account as an effort to increase pleasure and avoid all possible suffering. Steefland (in Juanda et al., 2019) explained that strategies are usually applied by the community as a response to difficult conditions or life problems. The intended condition can be caused by several natural factors and the formation of an unfavorable economic structure. Still with the same concept, George Herbert Mead said that stimulation and response are the first step of action which is identified as the ability to survive various conditions (Juanda et al., 2019). Survival strategy is the ability that a person has in order to apply various ways to overcome various problems that have surrounded life (Hidayati et al., 2022). Snel and Staring (in Hidayati et al., 2022) explained that survival strategies are a series of behaviors that are consciously carried out by individuals and groups that are socially and economically incapable.

According to Suharto (in Juanda et al., 2019) Survival strategies can be carried out in various ways that are divided into three groups or categories, namely active strategies, passive strategies, and network strategies.

Active Strategy

An active strategy is defined as a survival strategy that is carried out by utilizing all of your abilities. Suharto tried to define an active strategy as a strategy that is carried out by optimizing all the abilities or resources owned, such as increasing working hours, doing anything to increase income, and carrying out activities independently (Hidayati et al., 2022). This includes optimizing the potential possessed by his family.

Passive Strategy

A passive strategy is defined as a survival strategy carried out by minimizing expenses. According to Suharto (in Assan, 2019) Passive strategy is a survival strategy by reducing several expenses in the family, such as the cost of clothing, food, education, and others. As Suharto has conveyed, it is the same as what was stated by Kusnadi (in Assan, 2019) that this passive strategy is interpreted as an individual effort to minimize money expenditure, in this case the passive strategy is usually carried out by low-economic communities to survive.

Network Strategy

A network strategy is a strategy that is applied by utilizing social networks. Suharto (in Juanda et al., 2019) explained that the network strategy is a survival strategy that is applied by establishing relationships or relationships, both formally and with the surrounding social environment and in an already institutionalized environment, such as borrowing money with relatives, borrowing money from neighbors, borrowing groceries at stalls or shops, taking advantage of poverty programs, making loans at mobile banks, and so on.

Based on this concept, the analysis will emphasize the survival strategy of farmers from three elements, namely active, passive, and network strategies. From the aspect of active strategy, it will explain how Kedungrejo farmers actually circumvent crop losses, so they find local techniques to cover the losses. The passive strategy will be directed at farmer management, especially controlling the operational costs of planting, and the needs of farm workers. Meanwhile, the network strategy emphasizes social capital, namely the social relations of farmers collectively while overcoming crop losses and the crisis of peasant youth. So from these three aspects, you will directly see several components of the analysis of the valuation of agricultural commodities, how much value they are and how they get the economic and social valuation value.

2. METHOD

The approach taken in this study is Ethnology, which is the study of the way of life of people as a form of interaction with their environment (Arsana and Purnamawati 2021; Dede, Purwanto, and Guhardja 2012). The results of the relationship between humans and ecology will form local knowledge and be holistic until the analysis of the knowledge system of local communities in managing their environment, along with adaptation strategies and production systems developed in their environment (Ahmad 2022). Then, the study of ethnology rests on the way nature is used by community groups (ethnic) according to the variety of beliefs, knowledge, objectives and how the views of the ethnic group concerned in their use (Toledo, 1992). The position of ethnology as an approach is to analyze all aspects of local knowledge about its environment, including the perception and conception of local communities towards its environment (corpus) along with adaptation strategies and production systems and natural resource management contained in them (praxis) (Arsana and Purnamawati 2021). Based on this approach, the valuation value and adaptation strategy of Kedungrejo farmers as a form of interaction with the environment, namely agricultural areas that include irrigation systems, farmer systems, harvest systems, and other aspects holistically. Thus, to obtain accurate and validated data, the researcher used interview techniques, primary and secondary data, along with the determination of informants by purposive sampling.

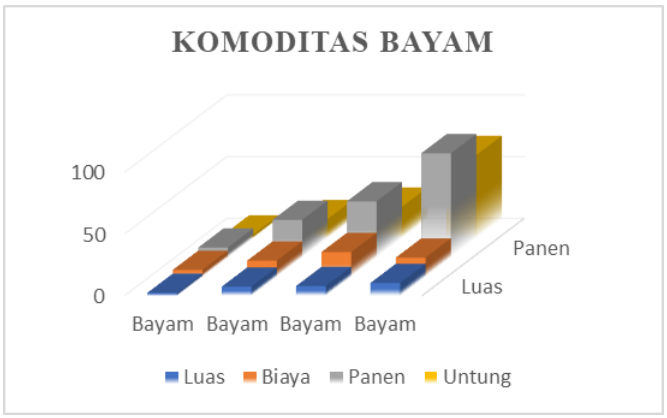
3. RESULT AND DISCUSSION

3.1 Valuation Value on Vegetable Farmers

Farmers in Kedungrejo, located in a peri-urban area, must continuously adapt to changes across various aspects, including social, economic, and environmental factors. This adaptability is evident through the establishment of social institutions mutually agreed upon by the farmers. Consequently, various forms of local knowledge are applied in agricultural practices, directly influencing both harvest quality and land productivity. As illustrated in Figure 1, the valuation of spinach crops depends on land area and operational costs incurred by farmers. For instance, farmers cultivating a land area of 200 m^2 incur an operational cost of IDR 600,000, generating a harvest revenue of IDR 850,000 and resulting in

a net income of IDR 250,000. Similarly, a farmer with 700 m^2 of land incurs an operational cost of IDR 1,454,000 and earns IDR 3,000,000, leading to a net income of IDR 1,546,000. Likewise, a farmer managing 750 m^2 of land spends IDR 1,985,000 on operational expenses and generates IDR 4,500,000 in revenue, yielding a net income of IDR 2,515,000. In contrast, a farmer cultivating 1,000 m^2 of land with an operational cost of IDR 1,696,500 earns IDR 8,400,000 from the harvest, resulting in a net profit of IDR 6,703,500.

Figure 3.1 Valuation of Spinach Commodity

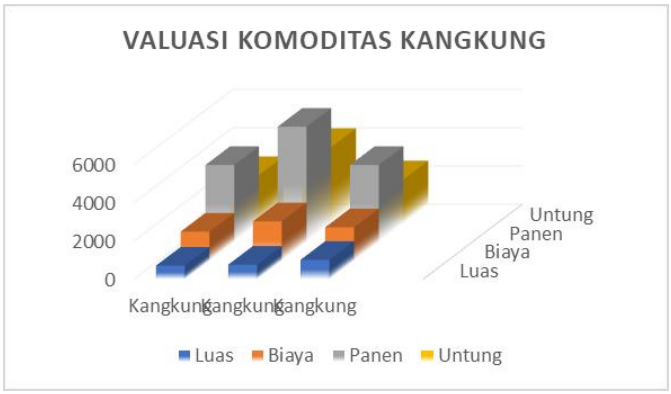


Sources: Author, 2023.

From this valuation analysis, it can be concluded that net income is not solely influenced by land area but also by operational costs, particularly the type of fertilizer used. Farmers who rely on chemical fertilizers tend to have higher operational costs, whereas those using organic fertilizers incur lower expenses. Consequently, this factor affects the net profit received by each farmer. Some farmers remain steadfast in their beliefs, convinced that using homemade fertilizers derived from animal manure is a more natural approach. They argue that such practices enhance soil fertility, promote healthier plant growth, reduce susceptibility to pests, and minimize the adverse effects of weather conditions. Furthermore, utilizing livestock manure—such as goat and cattle waste—as an organic alternative to chemical fertilizers contributes to waste efficiency. Instead of disposing of livestock waste indiscriminately, farmers ensure that it is not discarded into rivers or open fields, which were previously considered common dumping grounds for animal waste.

Farmers engaged in water spinach (Ipomoea aquatica) cultivation encounter similar economic conditions, where land area and production costs play a crucial role in determining the valuation of their yields. A farmer cultivating 700 m^2 of land incurs IDR 1,985,000 in operational costs and generates IDR 4,000,000 in harvest revenue, resulting in a net income of IDR 2,546,000. Similarly, another farmer with 750 m^2 of cultivated land, having IDR 2,035,000 in operational expenses, earns IDR 6,000,000, leading to a net income of IDR 3,965,000. Lastly, a farmer managing 1,000 m^2 of land, despite having IDR 1,985,000 in operational costs, only generates IDR 4,000,000 in revenue, resulting in a net income of IDR 2,546,000.

Figure 3.2 Valuation of Water Spinach Commodity

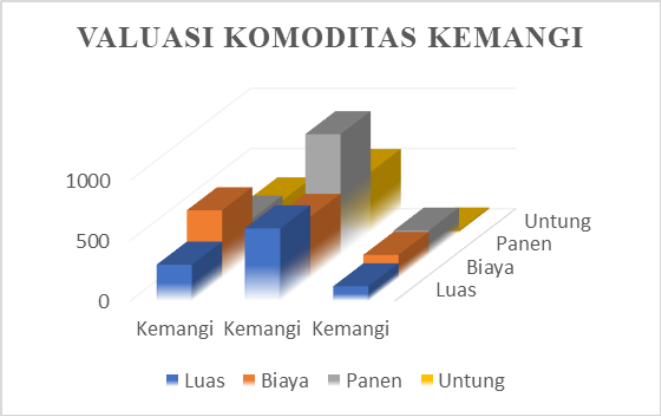


Sources: Author, 2023.

Farmers engaged in basil (*Ocimum basilicum*) cultivation face slightly different circumstances compared to those cultivating spinach (*Amaranthus*), water spinach (*Ipomoea aquatica*), and other leafy greens. Several factors contribute to financial losses among basil farmers, primarily due to higher operational costs and lower selling prices. For instance, a farmer managing 300 m^2 of land incurs an operational cost of IDR 560,000 but generates only IDR 300,000 in revenue, resulting in a net loss of IDR 260,000. Meanwhile, a farmer with 600 m^2 of land, with operational costs of IDR 730,000, earns IDR 1,000,000, leading to a net income of IDR 250,000. Lastly, a farmer cultivating 120 m^2 of land spends IDR 190,000 on operations and receives IDR 200,000 in revenue, resulting in a marginal net income of IDR 10,000. Basil is classified as a low-valuation commodity, as many farmers frequently experience financial losses. However, farmers cultivating basil do not solely rely on this single commodity; instead, they often diversify their crops. As a result, despite losses in basil farming, they still

have alternative revenue sources from other harvests. In other words, they maintain a stock of various agricultural products for sale, reducing their financial vulnerability. Moreover, basil farmers tend to be less concerned about occasional losses due to their strong communal values of mutual support and sharing. This internalized principle fosters resilience, allowing them to navigate economic challenges more effectively. Analysis suggests that this behavior is influenced by farmers' deep-seated belief in the sacredness of sharing and the expectation of reciprocal benefits from unforeseen sources.

Figure 3.3 Valuation of Basil Commodity



Sources: Author, 2023.

Farmers engaged in cosmos (*Cosmos caudatus*) cultivation face significant challenges, as this commodity is generally considered a secondary crop rather than a primary source of income. Collectively, farmers do not prioritize cosmos as their main agricultural product; instead, they allocate unoccupied land for its cultivation. According to interview findings, farmers cultivating cosmos typically use 120 to 300 m^2 of land, indicating a limited scale of production. As a result, the land valuation for cosmos remains negative, meaning that farmers do not gain financial benefits from its cultivation. Based on calculations, a farmer managing 300 m^2 of land incurs IDR 640,000 in operational costs but earns only IDR 150,000 from the harvest, resulting in a net loss of IDR 490,000. Similarly, another farmer with 450 m^2 of cultivated land, despite having IDR 243,000 in operational expenses, generates only IDR 125,000, leading to a net loss of IDR 118,000. Lastly, a farmer working on 1,200 m^2 of land, with IDR 540,000 in operational costs, earns IDR 150,000, experiencing a net loss of IDR 390,000.

Figure 3.4 Valuation of Cosmos Commodity

Sources: Author, 2023.

Findings from focus group discussions (FGD) confirm that cosmos cultivation is unpredictable, particularly regarding market prices and bargaining power. Many farmers prefer to use the harvest for personal or family consumption rather than selling it to middlemen at extremely low prices. The low market value of cosmos leads to harvest failures, as farmers struggle to balance operational costs, labor expenses, and maintenance fees. In response to these challenges, farmers often donate excess produce, including water spinach, mustard greens, and cosmos, to motorcycle drivers at Kedungrejo vegetable market.

3.2 Survival Strategy

As stated by Garza (2012), humans constantly adapt to their environment to ensure survival. This adaptive behavior influences social system transformations within communities and can affect both biophysical systems and local knowledge. This phenomenon is evident among farmers in Kedungrejo, whose village is characterized by a moderate climate, wetland areas, abundant water sources, and a landscape dominated by coconut trees. To sustain their agricultural routines, farmers cultivate multiple crop varieties rather than relying on a single commodity. At a minimum, they plant two or more types of crops to mitigate harvest failure risks, which are influenced by three main factors.

First, pest infestations and parasitic threats pose significant challenges to crop productivity. Insects such as caterpillars, plant hoppers, and birds often disrupt plant growth, leading to failed harvests. Second, farmers are concerned about market oversaturation, which occurs when a large number of farmers simultaneously harvest and sell the same crop. This surplus

supply drives prices downward, as middlemen and market traders set lower purchase rates. To counteract this issue, some farmers opt to sell their produce outside the village or, in certain cases, distribute it for free to local residents. The low market price of crops often leads to financial losses for farmers, as their expenses for maintenance, labor, and other operational costs exceed their earnings. As a result, many farmers experience economic hardship due to an imbalance between production costs and selling prices. To mitigate losses, farmers frequently distribute their surplus harvest, including water spinach (*Ipomoea aquatica*), mustard greens (*Brassica juncea*), and cosmos (*Cosmos caudatus*), to motorcycle riders and other community members. This informal practice typically takes place at the Kedungrejo vegetable market, where farmers voluntarily share their produce rather than sell it at unprofitable prices. Frequently donated crops include water spinach, mustard greens, and cosmos (*Cosmos caudatus*). In such situations, farmers no longer focus on financial losses but rather emphasize charitable giving and community support.

Third, when harvest failure becomes inevitable, some farmers choose not to harvest at all. In these cases, crops are left untouched in the fields, and farmers refrain from hiring laborers to assist with harvesting. This strategy enables landowners to avoid paying remaining wages, as they can justify non-payment by citing financial losses due to crop failure. Several farmers adopt a similar practice by abandoning their crops in the fields rather than seeking out middlemen or market opportunities. This decision is often strategic, as it allows landowners to create the perception that they lack the financial resources to pay outstanding wages to farm laborers who have been tending to the crops.

Farmers employ an **active strategy** to mitigate the risk of crop failure by cultivating more than one type of commodity. Several types of vegetables commonly grown include water spinach (*Ipomoea aquatica*), spinach (*Amaranthus spp*.), mustard greens (*Brassica juncea*), cabbage (*Brassica oleracea*), and Chinese cabbage (*Brassica rapa*). Typically, within a one-year period, farmers rotate different vegetable varieties in each planting cycle. Each cycle, from planting to harvest, takes approximately 30 to 40 days before the crops are ready for sale. Additionally, crop rotation helps maintain soil fertility, ensuring that the cultivated vegetables grow optimally and remain of high quality.

According to a farmer specializing in vegetable cultivation, water spinach (*Ipomoea aquatica*) and mustard greens (*Brassica juncea*) are the preferred commodities. Both water spinach and spinach (*Amaranthus spp*.) share the same growing period of one month, whereas mustard greens require 40 days from planting to harvest. Additionally, the cost of seedling, maintenance, and harvesting for water spinach and spinach is relatively lower compared to mustard greens. This indicates that farmers do not solely base their crop selection on production costs. Instead, they prioritize the time required until harvest, as this factor plays a crucial role in assessing profitability and optimizing their agricultural practices.

Additionally, water spinach (Ipomoea aquatica) can be regenerated, as farmers only harvest the leaves and upper stems, leaving the lower stem and root system intact in the soil. This technique allows the plant to regrow without requiring replanting from seeds, thereby reducing the cost of seed procurement. By adopting this method, farmers can minimize their expenses, investing only in crop maintenance for the next 30-day cycle. As a result, even when facing financial losses, they can continue farming in subsequent cycles with lower capital requirements.

Farmers adopt **passive strategies** to mitigate the effects of crop failure by adjusting their agricultural practices. One such approach is utilizing livestock manure as an alternative fertilizer. Although the initial application may not yield immediate improvements in crop quality, farmers have observed enhanced soil fertility over time. They firmly believe that healthier soil conditions will lead to better harvests in future planting cycles. Another strategy involves reducing labor costs by limiting the working hours of farm laborers during periods of crop failure. Typically, agricultural workers are employed throughout the entire farming cycle, including land clearing, drying, planting, maintenance, and harvesting. However, in cases of failed harvests, landowners selectively employ laborers only for specific phases of cultivation. This approach is aimed at

minimizing operational expenses while maintaining agricultural productivity.

The last strategy involves borrowing money from close acquaintances or local middlemen (*tengkulak*) they trust. This practice has long been used to cover financial losses, particularly by farmers who own their land. Their primary concern is maintaining their social dignity among fellow farmers, prompting them to seek loans from local middlemen rather than from formal financial institutions. Initially, the borrowed amounts may be small; however, continuous crop failures often lead to a loss of financial control. One recorded case, according to an informant, involved a farmer who initially borrowed IDR 200,000, but over time, the debt escalated to IDR 20,000,000. To repay the debt, the farmer had no choice but to pawn the land certificate or directly sell the land to the middleman at a mutually agreed price. This practice has led to undesirable consequences, as farmers who once owned land are now forced to become agricultural laborers (buruh tani), working under former middlemen who have become landowners.

The next strategy to prevent a gap between income and expenses is for farmers to cultivate *kangkung* (water spinach) and *bayam* (spinach), which require only 30 to 40 days from planting to harvest. Before sowing the seeds, farmers first prepare the land through a process known as *brujul*, ensuring the soil is properly leveled. Then, the land is tilled until even, after which the seeds are scattered (sawur). The cultivation process does not stop there—10 days later, farmers carry out a crucial step called leping, where the field is flooded with a significant amount of water. After one week, the farmers begin fertilizing the land to nourish the young kangkung and bayam seedlings. Another week later, a second round of fertilization takes place, followed by the application of pest control treatments. Finally, after 15 more days, farmers proceed with the harvesting process (*pengemesan*).

According to local farmers, vegetable prices during harvest periods are often unpredictable. The price is mainly determined by the availability of the crop and the number of farmers cultivating the same type of vegetable. For example, if the supply of *bayam* (spinach) is low due to fewer farmers growing it, the selling price tends to increase. The same applies to *kangkung* (water spinach) and other vegetable varieties. In one plot of land, a farmer can harvest approximately 200 bundles (*bentel*) of *bayam* and *kangkung*. Currently, the market price for bayam during this harvest season is IDR 20,000 per bundle, while kangkung sells for IDR 15,000 per bundle. As for the sales system, the harvested *kangkung* and *bayam* are sold directly at the Kedungrejo vegetable market. Unlike some farmers who adopt the tebas system, where middlemen (*tengkulak*) handle the harvesting themselves, these farmers prefer to manage their own harvest and sales. The *tebas* system is generally used only when landowners and laborers are unable to harvest their crops due to limited resources or workforce constraints.

Figure 3.5 Survival Strategy of Farmers

Sources: Author, 2023.

This strategy is commonly adopted by farmers when they anticipate that their harvest will have low bargaining power, primarily due to an oversupply of the same crop by many farmers. As long as they are capable of managing the harvest along with their farm laborers, they prefer to handle it independently without the involvement of external parties. Additionally, farmers strengthen their farmer groups (*Poktan*) to implement collective measures in times of crop failure. Therefore, this networking strategy is deeply rooted in the social capital of farmer groups and their members. Farmers can sustain their activities because they have strong social bonds and engage in community-based activities beyond farming. These include Yasinan (Qur'anic recitation gatherings), Sholawatan (Islamic chanting), and monthly discussion meetings. These regular gatherings not only foster social ties but also serve as platforms for sharing crucial information, such as government aid programs and other

agricultural updates that could impact their future harvests.

4. CONCLUSION

The existence of rural farmers in peripheral areas is marked by significant dynamism. Their resilience is constantly challenged by socio-ecological changes driven by the pull of urbanization. As a result, they must adapt to the current situation, particularly by adjusting their cropping patterns, even if it means operating at a loss. Based on the valuation analysis of four key commodities—*kangkung* (water spinach), *bayam* (spinach), *kenikir* (cosmos leaves), and *kemangi* (lemon basil)—each crop holds different valuation levels, influenced by land size, operational costs, and market opportunities that impact their selling price. Bayam and kangkung remain the preferred crops among farmers because they offer profitability and a short cultivation period, allowing farmers to calculate their income on a monthly basis. Meanwhile, kemangi and kenikir hold lower market value or may even result in losses, as farmers generally regard them as secondary crops. This strategy of maintaining both primary and secondary crops helps mitigate risks associated with market price fluctuations in any single commodity.

To mitigate the impact of urbanization and crop failure, farmers have adopted various improvisational strategies. One approach is to reduce operational costs by replacing chemical fertilizers with organic alternatives. Additionally, they take advantage of kangkung's natural regrowth ability, as it does not require replanting—farmers simply harvest the stems while allowing the plant to regenerate. If *kangkung*'s market value declines, farmers repurpose it as livestock feed or distribute it as alms within their community. For *bayam*, *kenikir*, and *kemangi*, a similar strategy is applied. However, since these crops require replanting from scratch, farmers need additional capital. As a result, they often borrow money from middlemen (*tengkulak*) or local banks. This practice, however, carries significant risks—if crop failure persists, farmers may be forced to sell their land to repay their debts. Despite these challenges, farmers continue to maintain strong social ties by engaging in community-based activities beyond agriculture.

In this article, we suggest that The local government of Kedungrejo Village should optimize the role of *BUMDes* (Village-Owned Enterprises) to accommodate agricultural product centers, ensuring stable harvest prices and preventing middlemen from monopolizing price determination. Additionally, *BUMDes* can serve as a platform for agricultural product diversification, such as processing harvested crops into spinach chips, water spinach chips, and other value-added products, thereby increasing farmers' income. Furthermore, strengthening local market networks is crucial to expanding farmers' access to buyers. The government should facilitate partnerships with nearby market suppliers, such as those in Karangploso, Batu, and South Malang, to create a more sustainable and integrated agricultural economy. Lastly, improving the irrigation system is essential to maintaining food security and agricultural productivity, as a well-managed irrigation infrastructure will help farmers optimize water resources efficiently, particularly in response to seasonal changes and environmental challenges.

5. REFERENCES

Agustina, A., Ervina, E., & Utomo, S. J. (2023). Strategi bertahan hidup petani garam saat musim penghujan di Desa Pangarengan, Kecamatan Pangarengan, Kabupaten Sampang. *Jurnal Ekonomi Pembangunan*, 4(1), 185–196.

Ahmad, U. S. (2022). Etnologi sebagai instrumen perilaku ekonomi dalam perspektif Al-Qur'an. *MUBEZA: Pemikiran Hukum dan Ekonomi Islam*, 12(2), 24–29.

Anwar, A. (2022). *Valuasi ekonomi sumber daya lahan pertanian (sawah) untuk arahan pengelolaan lingkungan lahan sawah Desa Moncobalang, Kecamatan Barombong, Kabupaten Gowa* (Skripsi).

Arsana, I. K., & Purnamawati, N. D. (2021). Etnologi wayang tradisi di Desa Pujungan, Kecamatan Pupuan, Kabupaten Tabanan. *Jurnal Damar Pedalangan,* 1(1), 1–12.

Azzahra, A., Elvawati, E., & Putra, I. M. (2022). Strategi bertahan hidup petani gambir pada fluktuasi harga komoditi gambir di Kecamatan Kapur IX (Studi kasus: Petani gambir di Nagari Koto Bangun, Kecamatan

Kapur IX). *Puteri Hijau: Jurnal Pendidikan Sejarah,* 7(1), 126. https://doi.org/10.24114/ph.v7i1.34611

Cimahi, K. (2015). Artikel ilmiah Indra Nugraha.

Dede, Y. P., & Guhardja, D. E. (2012). *Jumari final. Jurnal,* 14(1), 7–16.

Dharmawan, A. H. (2007). Sistem penghidupan dan nafkah pedesaan: Pandangan sosiologi nafkah (livelihood strategy) Mazhab Bogor. *Jurnal Transdisiplin Sosiologi, Komunikasi, dan Ekologi Manusia,* 1(2), 169–192.

Fitriyah, A. N. I. (2021). Valuasi ekonomi multifungsi lahan sawah di Kabupaten Pasuruan.

Hudawan Santoso, D., & Nurumudin, M. (2020). Valuasi ekonomi degradasi lingkungan akibat alih fungsi lahan di Kota Malang, Provinsi Jawa Timur. *Jurnal Sains dan Teknologi Lingkungan,* 12(2), 121–130.

Irawan, C. (2018). Strategi bertahan hidup petani cabai Desa Tegalagung, Kecamatan Semanding, Kabupaten Tuban. *Jurnal Pendidikan Geografi,* 5(5), 62–69.

Nur Fajri, A. (2021). Strategi bertahan hidup petani (Studi pada keluarga petani karet di Desa Jeriji pada masa pandemi Covid-19). *Jurnal Studi Inovasi,* 1(3), 30–35. https://doi.org/10.52000/jsi.v1i3.47

Universitas Sebelas Maret Surakarta. (2015). Valuasi ekonomi mitigasi lahan pertanian.

Rejeki, S. (2019). Pilihan rasional petani miskin pada musim paceklik. *Jurnal Analisa Sosiologi,* 8(2), 185–212.

Suparmini. (2017). Keterkaitan desa-kota sebagai alternatif pembangunan perdesaan. *Geomedia: Majalah Ilmiah dan Informasi Kegeografian*, 5(2). https://doi.org/10.21831/gm.v5i2.14192

Suryanto. (2017). Pemetaan dan valuasi ekonomi kerugian banjir. *Piramida,* XIII(1), 1–8.

Wijayanti, W. P., & Pratomo, R. A. (2019). Keberlanjutan wilayah: Keterlibatan desa-kota dalam aktivitas minapolitan di Kabupaten Malang. *Journal of Regional and Rural Development Planning*, 3, 180–188.