

Tenurial System in Shaping the Livelihood Pattern of Ciherang Village

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Abstract. Productive land is a source of livelihood for most people, although some farmers can only rent land to others as happened in Ciherang Village. The conversion of agricultural land into non-agricultural areas has increased in Ciherang Village, which is still an area with high rice production. This encourages farmers to have a dual livelihood pattern by working in the non-farm or off-farm sector. This research can explain the relationship between the tenure system and the community's livelihood strategy in responding to the phenomena that occur. The purpose of this study was to analyze the relationship between the tenure system and livelihood patterns. The results of this study show how changes in the tenure system encourage smallholders to change their livelihood patterns in line with massive land conversion. This has encouraged many of the farmers to work in the non-farm and off-farm fields, such as having jobs as drivers or traders.

Keywords: agriculture, livelihood, land tenure

1 Introduction

Indonesia is an agricultural country with the agricultural sector as the main livelihood, especially in rural areas. Utilization of natural resources for agriculture of course requires land. Putri (2019) revealed that the land has various types of soil that are suitable for growing certain plants. Land is an important aspect in meeting the needs of the community, especially in agriculture. Productive land is used to meet the needs of life. However, along with the times, there is often a change of land function from agriculture to non-agriculture. Land conversion or land use change is the process of land conversion, especially from agricultural land to non-agricultural land or from non-agricultural land to agricultural land. Land conversion causes less job opportunities for farmers because the use of land intended for agriculture is getting smaller so that farmers' incomes decrease (Nugraharani and Wikarta 2014). The increasing number of people is one of the main factors nowadays people need more land. As a result, conversion of agricultural land into settlements is unavoidable.

The tenure system is the basis for regulating ownership to land management. Ternurial describes the relationship between communities or individuals with the control of resources on land. Land tenure is a concept that discusses the legal status of a control over agrarian resources in a society (Sonya I. Sondakh 2010). Governance also explains who has the right to

access and control natural resources, which includes competing interests, priorities, decisions made by individuals or communities, to what extent a person has the right to be able to utilize natural resources. existing ones (Hutabara 2019). So that the form of the tenure system is related to how people shape their livelihood patterns.

The pattern of livelihood has the meaning as a source of income/livelihood, ownership rights and social institutions. The choice of livelihood patterns or livelihood patterns is determined by the availability of resources and the availability of access to various livelihoods. Because, if a household only depends on one job and one livelihood, it cannot cover the needs of the entire household (Astuti 2018). Productive land also affects how people form livelihood strategies by planting commodities according to conditions.

Based on data from the Inter-Census Agricultural Survey Results (SUPAS 2018) it is stated that the majority of Indonesian farmers are Agricultural Business Households with a land area of <0.50 which is 16,257,430. From that amount of land, most Indonesian farmers can be said as farmers of necessities, so that they can also be said to be poor farmers on a daily basis.

Research conducted by Sajogyo (1978) in Subali (2005) shows that almost all poor people have a dual income pattern. Multiple livelihood patterns are defined as a “process” in which households build an activity on various social support capabilities to survive or survive to improve their standard of living, Sumarti (2007).

Ciherang Village is one of the villages under the District of Dramaga with a geographical location at 199 meters above sea level and has an area of 2.52 km². With the highest number of households located in the Dramaga District, as many as 4688 families with a population of 14804 Ciherang Village consisting of 7588 male residents and 7216 female residents. The main source of income for the residents of Ciherang Village consists of various livelihoods. Most of the population make a living as traders/entrepreneurs and laborers, as many as 2,427 people. Meanwhile, in the agricultural sector, only 7.78% or as many as 398 people, even though most of the land in Ciherang Village is used for lowland rice farming, which is decreasing in the Drama area, Kab. Bogor.

Masithoh (2005) states that differences in livelihood strategies depend on the resources owned in a community, which can be in the form of the existence of ecological dimensions, social structures, socio-cultural, economic, agricultural systems, and agrarian structures that can affect the degree of life. Ellis (2000) in Fridayanti (2013) explains that the types of livelihood strategies are divided into 3 sectors, namely:

1. Farm income sector: this sector refers to income derived from self-owned agricultural land, either cultivated by the land owner or accessed through rental or profit sharing. The on-farm strategy refers to livelihoods that come from agriculture in a broad sense.
2. Off-farm income sector: this sector refers to non-agricultural income, which can mean income derived from labor wages, profit-sharing systems, non-wage labor contracts, etc., but still within the scope of the agricultural sector.
3. Non-farm income sector: this sector refers to non-agricultural income, such as retirement income or salaries, income from personal businesses, and so on.

Based on these problems, this paper aims to analyze the livelihood system of the village community. Ellis (2000) in (Astuti 2018) states that there are five types of capital that can be

owned or managed by households to support their lives. In addition, this paper will also analyze the agro-ecosystem by analyzing the commodities planted, the adaptation of the community along with the times, the area of land, to the agricultural land ownership system in Ciherang Village, Kec. Dramaga, Kab. Bogor, West Java Province.

Broadly speaking, the tenure system determines who has the right to access and control natural resources. The tenure system is one strategy to prevent the conversion of agricultural land that can be carried out by the government (Kamilah and Yulianah 2016). Based on this, it is necessary to do research to examine this because it relates to how to form a livelihood pattern at the location of Ciherang Village "tenurial system in forming a pattern of livelihood in Ciherang village, Bogor, Indonesia"

2 Methods

Data collection consisted of primary data and supported by secondary data. In this study, the types of data taken were primary data and secondary data. Primary data in the form of interviews (in depth interviews) with the village secretary, head of women farmer groups, and farmers in Ciherang Village about problems regarding livelihood patterns and the tenure system in the community in the research location. Secondary data is taken from data in the form of documents, reports and other publications related to the concept of agroecosystems, and livelihood patterns.

While secondary data was obtained from written sources such as books, published articles, published Government Regulations, and online news. This research was conducted in Ciherang Village, Dramaga District, Bogor Regency on May 18 and 24 by conducting direct observations in the field. Ciherang Village is one of the villages under the District of Dramaga with a geographical location at 199 meters above sea level and has an area of 2.52 km². Ciherang village is located not far from the sub-district capital with a distance of 1.5 kilometers from the sub-district center, and 25 km from the district capital.

Furthermore, data analysis is carried out as a process of systematically searching and compiling data obtained from interviews and data from previous studies so that they can be informed to others. In data analysis, we used three stages, namely data reduction, data presentation, and data verification. Data reduction is the process of improving data in the form of adding or subtracting data to be analyzed. At the data presentation stage, narrative text is used that explains the research results systematically, besides that the data presentation can be displayed in the form of nonverbal language such as charts, graphs, floor plans, to tables. While data verification is a temporary conclusion before re-examining in accordance with research evidence.

3 Results and Discussion

3.1. The Form of Tenurial

Tenure comes from the word tenure, while in Latin the word tenere means holding, owning, and maintaining. Land tenure or land ownership is the relationship between an owner and his land. Take a deeper look at the relationship based on legal or customary ownership, then refer to the laws, customs, policies, and institutions that regulate and define a person's rights to control, use, and transfer land (Hutabarat 2019). Based on this understanding, the tenure

system is used to describe the system that a person uses to own land. In the case of agriculture, the tenure system is used to review farmer's land ownership in managing it. Some farmers use their own land. On the other hand, labor farmers who do not own land can only rent or cultivate land belonging to other people. This shows the form of inequality in land distribution which will have an impact on the low productivity and welfare of farmers, and farmers' businesses do not meet the economic scale (Angkoso et al. 2020).

A person may hold the land (property right), but he does not always have the right to control (access right) so that a series of tenure system rights emerge (Sylviani and Hakim 2014). The tenure system is known as a bundle of rights which consists of three components of rights, namely:

1. The subject of rights, means the holder of the right or to whom certain rights are attached. The subject of rights can be individuals, households, groups, communities, social institutions, the economy, and even political institutions at the state level;
2. Objects of rights, means goods or objects that grow on land, mining goods or minerals that are in the land, waters, or a certain area or airspace;
3. The type of rights, means that each right can always be explained the limitations of the right that distinguish it from other rights. The types of rights include property rights, rental rights, to use rights, and so on, depending on how the community concerned determines them (Kamilah and Yulianah 2016).

Through this research, the tenure systems in Ciherang Village are owned by individuals or the private sector, so that not a few lands are rented out for agricultural activities. Some of the farm laborers come from Ciherang Village, some from outside the village. Unfortunately, much of the land is sold for conversion into housing or industry leaving smallholders in a vulnerable situation. An area that has high activity in supporting land use change will usually occur if the area has a high level of access. The growing industrial sector causes the level of land use demand for this sector to also increase (Adiyaksa and Djojmartono 2020).

Ciherang Village was once the center or center of the agricultural sector in Dramaga District, Bogor Regency. The reason for making it a center for the agricultural sector is because Ciherang Village has a very good and well-maintained agricultural management system. Not only that, Ciherang Village is also famous for its agricultural products that never fail miserably. This happens because Ciherang Village has a good irrigation system and always applies training from agricultural extension workers. However, in the last 10 years Ciherang Village has experienced many changes in the amount of available agricultural land. It is feared that this will have an impact on food security (Kamilah and Yulianah 2016).

Ayuningtias and Murdianto (2017) revealed that to support economic growth, steps that can be taken to carry out development, one of which is rural industrialization. The emergence of industrialization in rural areas is a form of leveling so that development can reach the grassroots layer. The presence of industrialization indeed encourages the growth of the economic aspect because people have the opportunity to work or open businesses. However, behind this the agricultural sector is increasingly displaced. Ciherang Village, which is located close to the IPB Campus, certainly has greater potential in the field of industrialization. This is because the strategic location is a supporting factor in industrial development (Banowati 2013).

Currently, Ciherang Village has about 16 hectares of agricultural land planted with various types of food crops, such as rice and secondary crops. When compared to the last 10 years, the amount of remaining agricultural land has always experienced a very significant decline. This is because the previous generation of landlords did not have the ability and expertise to manage agricultural land. In addition, the occurrence of significant population growth has made agricultural land increasingly narrow and converted into residential buildings and places of business on the basis of the desires and demands of one's own economic needs. So this is also the cause of the decline in the number of farmers in Ciherang Village.

3.2. The Relationship between tenurial system and livelihood pattern

In terms of ownership of agricultural land, many farmers are peasant not land owners. They usually rent or lease land. The majority of the land owners are from Ciherang Village itself, and many peasant farmers are from outside Ciherang Village. When most farmers do not cultivate their own land, this shows the ineffectiveness of the tenure system where farmers do not have the right to manage their own land. This ineffectiveness ultimately causes economic development to stagnate and hinder rural development (Donkor and Owusu 2014). Another negative impact occurs when the land owner decides to sell his land to be used as an industry or residence so that less land is cultivated by farmers. In fact, a good tenure system will ultimately increase land productivity and boost the economy of farmers. Compared to the land lease system, profit sharing, farmers who own their own land are the most efficient way to improve the economy (Fukui and Islam 2018). This also encourages the formation of agrarian reform as a form of land redistribution to landless farmers.

There are some differences in land ownership between the Adult Farmer Group and the Women's Farmer Group. The majority of farmers in KTD have their own land and land (Kusdiane et al. 2018) Being a farmer is the main livelihood for most residents in Ciherang Village. Agricultural products are usually sold as well as consumed as food. However, often limited land makes it difficult for farmers to improve their economy. So it is not uncommon for the non-agricultural sector to become an alternative to support additional household income. This is included in the strategy of multiple livelihood patterns where farmers do not only use one source of income (Fridayanti and Dharmawan, 2013). Side jobs that are occupied by farmers in Ciherang Village include angkot drivers, entrepreneurs, and also in other agricultural fields such as ornamental fisheries and animal husbandry.

The decline in the number of farmers is closely related to the amount of agricultural land that is still available. Not to mention that only a small number of farmers own their own land. This causes the income obtained from the agricultural sector to decrease. The small scale of the business owned by most of these farmers shows the lifestyle of Indonesian farmers who are classified as subsistence (surviving in minimal conditions) this happens because of the limited ability to produce along with the smaller scale of business owned or that can be worked on by farmers (Sanjaya 2017).

The strategy of dual livelihood patterns in the non-agricultural sector, the fewer owners of agricultural land who are interested in agriculture, until the land is getting narrower indicates a social transformation (Fridayanti and Dharmawan 2013). The form of transformation that occurs is in the form of decreasing agricultural values in the Ciherang Village area. In the end, land conversion is unavoidable where the private sector undertakes housing or industrial development. Farmers will be a group that faces a dilemma to choose to stay in the

agricultural sector or change their livelihood strategies. In addition, other impacts that can occur due to land conversion include the degradation of the carrying capacity of national food security, decreased agricultural income resulting in increased poverty, wasted investment, and other negative impacts (Hidayati and Kinseng 2013).

The conversion of agricultural land to non-agricultural land has an impact on various aspects of people's lives (Kusdiane et al. 2018). When the owner sells his land to be used as housing or industry, it is often the smallholders who are disadvantaged. The conversion of agricultural land also affects the socio-economic conditions of the community, not only for land owners but also for peasant farmer. (Kusdiane et al. 2018) In the end, agricultural land is getting narrower and the profits obtained by smallholders are getting smaller. Even so, the increasing narrow agricultural land has encouraged some farmers to innovate in the form of garden towers or hydroponics.

4 Conclusion

In Ciherang Village, currently many rice fields are converted into residential or industrial areas, thus affecting the livelihood patterns of the local community. Housing and industrial development also hampers access to irrigation. This is what causes rice farmers to finally switch to planting plantation commodities. With the many conversions of agricultural land, small farmers began to have a dual income pattern and changed jobs to become traders or drivers. Although the majority of farmers in Ciherang Village are smallholders, not all farmers are from Ciherang Village, but farmers from other villages. However, the owner of the arable land is the indigenous people of Ciherang Village.

Agricultural land owners do not have interest and expertise in agriculture, and the lack of human resources to manage their agricultural land causes the number of small farmers in Ciherang Village to be more than the number of agricultural land owners. There is a difference in land ownership between the Adult Farmer Group and the Women Farmer Group in Ciherang Village.

The majority of farmers in KTD (Adult Farmer Group) have their own land and the land is cultivated by farmers from other villages, while KWT (Women Tani Group) mostly rent or lease land, and choose to be farmers only. In addition, the previous generation of landlords did not have the ability and expertise in managing agricultural land, causing a decrease in the number of farmers in Ciherang Village.

Once an agricultural center in Dramaga Subdistrict, Ciherang Village has a better irrigation system than other villages, so there has never been a total crop failure of the various commodities planted. Ciherang village itself is currently using the Inpari 32 rice variety which is a superior variety that is resistant to crackle disease so that it will suppress the use of bactericides and is resistant to tungro and blast diseases. Farmers in Ciherang Village besides planting rice, also plant several vegetable commodities such as spinach, kale, caisim, pakcoy, eggplant and various types of chili.

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