

## The local wisdom and land use of paddy field in Sukarame Village, Cisolok Sub-district, Sukabumi Regency

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### ABSTRACT

Local wisdom is an understanding of a culture that has been inherited in a place from generation to generation by word-of-mouth. Indonesia, which still adheres to agriculture, always involves local wisdom in the use of their lands. Land-use is a visualization of the earth's surface cover, which results in a various earth formation, both natural and human-made. In the Village of Sukarame, there was a representative of Kasepuhan, which came from the Banten Kidul indigenous community, namely Kasepuhan Ciptagelar. This community still adheres to the traditional farming methods until now. The purpose of this study was to determine the relationship between land use and local wisdom from an indigenous population that lives in the Village of Sukarame. The methodology carried out in this study was a qualitative descriptive method by conducting an interview, field observation, and documentation. The data used in this study include High-Resolution Satellite Imagery from BIG (2018) and questionnaires. The analysis was also carried out in a qualitative descriptive manner. The result of the research indicates that there's a relationship between paddy fields and the tradition of Ciptagelar in the Village of Sukarame. The distribution of paddy fields and the culture of Ciptagelar are characterized by the type of paddy, which are the ones harvested once a year with a local variety. The location of those paddy fields is only located in the Hamlet of Lebak Lingsir and Hamlet of Pamokoan, whose communities still adhere to the tradition of Ciptagelar.

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### INTRODUCTION

Local wisdom is an understanding of a culture that has been inherited in a place from generation to generation by word-of-mouth. Etymologically the local wisdom consists of the word 'Wisdom': good value and 'Local': area/object. In general, local wisdom can be understood as local ideas that are wise, full of knowledge, good value, which is imprinted and followed by members of the community. Local wisdom has many functions, that the purpose of local wisdom is 1) conservation and preservation of natural resources; 2) human resources development; 3) development of culture and science; 4)

advice, belief, literature, and taboo; 5) ethical and moral; 7) political meaning. Every phenomenon or cultural expression has always based on 1) some ideas, propositions, values, and norms; 2) patterns activities or actions of the people in the society, and 3) artifacts, so local wisdom has the same analogy. Generally, the local wisdom emerges through the internal process and passed for a long time as a result of the interaction between humans and their environment. Therefore, local wisdom that that was formed in Desa Sukarame is based on an adjusted ideas that have been inherited from generation to generation. Local wisdom emerged through a lot of processes and passed for a long time as a result of the interaction between humans and their environment. Local knowledge is an entity that is crucial for human dignity in the community.

An agrarian country such as Indonesia has a land use that has been influenced by local wisdom that is still in effect today. Land use is a visualization of the surface cover of the earth, which is the formation made by humans. Land can be interpreted as land settlers, for example; a place or area of residence and shared space, where they can use the environment to sustain and continue to develop. There is also a statement that a physical environment that includes climate, soil relief, hydrology, and plants, which, to some extent, will affect the ability of land use. Land use is defined as any form of human intervention on land to meet material and spiritual needs. As a form of human intervention on earth in order to meet material needs or spiritual needs, including grouping the types of land use as follows, 1) Inflammation, 2) Mixed annual plants, land land, not intensive, 3) Mixed annual plants, land land, intense, 4) Paddy fields, 5) Smallholder plantations, 6) Large plantations, 7) Production forests, 8) Natural forests, 9) Grazing fields, 10) Protection forests, 11) Nature reserves.

One example of land use that is influenced by local wisdom can be found in Sukarame Village in Cisolok Subdistrict, Sukabumi District. The village government in managing its household has a source of funds and wealth sought by the village government itself to supply the funds for government administration and village development. One example is the people of Sukarame Village, where most of their income comes from agriculture and farming, as many of them work as a farmer. Farmer itself is a person whose livelihood is farming. Sukarame Village, which is an expansion of Karangpapak Village, is a village consisting of 4 hamlets. The four hamlets, namely the Langkob Hamlet, Lebak Lingsir, Sukarame, and Pamokoan, the majority of their residents work as farmers, from which they own their land, cultivate other people's land, or work on government-owned land. From the four hamlets in Sukarame Village, there are two hamlets whose communities have a unique tradition in processing their agricultural products, namely Lebak Lingsir and Pamokoan Hamlets.

In Sukarame Village, precisely in Lebak Lingsir Hamlet and Pamokoan Hamlet, there are Kasepuhan representatives from the Banten Kidul indigenous people, namely Kasepuhan Ciptagelar who still upholds the traditional farming methods up to now. Kasepuhan itself comes from the word *sepuh*, which means old, and from that comes the word *sesepuh*, which means elder or an older person who usually is a leader of an organization. Besides, Kasepuhan can be referred to as an association of many heads of families and small and large villages that are bound in customs and culture. One of the Kasepuhan in West Java is Kasepuhan Ciptagelar. Kasepuhan Ciptagelar is a group of indigenous people who still carry on the tradition of ancestors (Karuhun) based on rice culture. The Ciptagelar community has local wisdom that is valuable in fostering harmony with the natural environment so that environmental sustainability is maintained. There are customary land tenure arrangements in Kasepuhan Ciptagelar, outside the technical aspects of land use, especially in the determination of the physical boundaries

of Kasepuhan Ciptagelar. That statement makes the connection between land use and traditions in Kasepuhan Ciptagelar interesting to be studied more deeply.

There is a research about the correlation between local wisdom in the management of agricultural land resources in the Sileng Purba river valley in Borobudur District conducted in 2017, the results of this study indicating local wisdom in agriculture, according to the needs of watering and watering plants with spring water sources in the research area. The research about local knowledge of the Dayak Ngaju people in Central Kalimantan in conducting land preparation by doing that was done in 2017 also produced results that are related to this research. This study shows that local wisdom is still used for the preparation of agricultural research starting from the techniques for land preparation and is again doing traditional preparations, for example, thinning, repairing, and some improvements that previously need to be discussed together. Then research on the wisdom of local communities in forest management in Rano Village, Balaesang Tanjung District, Donggala District, also produced results that residents in Rano Village still uphold the traditions they know from the past. Seen from the land selection, land clearing, and agricultural processes listed in *topomardia* traditional institution, which contains a set of rules and interference as an attitude to the ethnic To'Balaesan community in the area of research. This research method is how to study the land and how to manage property in Sukarame Village among residents who still carry out the tradition of the Kasepuhan Ciptagelar community. From the research conducted, it can help to find out the differences between the cultures adopted in Sukarame Village based on the number of paddy fields harvested within reach.

The benefit of this research is that it is useful to provide the latest information for the village government related to the different types of rice fields in Sukarame village so that they can focus more on managing, planning, and supervising the land. That is because this research obtains precise information related to the locations of rice fields managed by Kasepuhan Ciptagelar and those operated by other communities. This research becomes an essential topic because agricultural land, such as the paddy field, is critical to provide food and fibre for the people and is a vital source of employment in Sukarame Village. Hence, it is necessary to provide an appropriate spatial description of land uses for future planning and sustaining agricultural land by still respecting the local wisdom which has existed for a long time. Therefore, this research needs to be done to find out whether or not there is a difference from the culture that exists in each hamlet with the number of paddy fields harvested within reach.

## METHOD

The research about land use in Kasepuhan Ciptagelar was conducted in Sukarame Village, Cisolok District, Sukabumi Regency, West Java. Sukarame village. Sukarame Village is astronomically located between 6,685° North Latitude to 6,917° North Latitude and 106,466° East Longitude to 106.5° East Longitude. Based on its geographical position, Sukarame Village on the west is bordered by Cikelat Village and Cicadas Village, east is border by Sirna Rasa Village, north is border by Sirna Rasa Village and Cicadas Village, and south is border by Karangpapak Village and Cimaja Village. The total area of Sukarame Village is 962 hectares.

This research is categorized into cultural geography, and the research method used in this study is a descriptive qualitative method. The researcher collects data from the field and then analyze the descriptive approach to find conclusions based on the correlation of the data found in the field. The descriptive research method aims to describe, tell or describe the situation or event in an area based on facts obtained in the

field in the form of direct information (primary data) or indirect (secondary data). This study uses several variables that are divided into physical variables and social variables. Physical variables used include height, slope, and land use. Social variables used include information about local wisdom, habits, tools, methods, and human activities that affect land use. Physical data parameters used are the area of paddy fields and planting period. The parameters of social data are how to plant, harvest tools, and how to harvest. The process of collecting data done by several methods. In-depth information about the local wisdom 'Ciptagelar' was obtained by collecting secondary data, doing interviews with the people of Sukarame Village, observations directly in the Sukarame Village area, and documentation related to the local wisdom of 'Ciptagelar'. After collecting the data, the next step is data processing. Data processing is performed by using ArcGIS 10.1. The data obtained will be processed to produce an output in the form of a verified land use map of Sukarame Village. The results of data processing, which consist of physical variables and social variables, were analyzed using qualitative descriptive methods.

## **RESULT AND DISCUSSION**

### **Physical Condition of Sukarame Village**

Altitude is the vertical location of a point above the reference plane where the reference used is the average vertical distance from the sea level. Sukarame village is at an altitude with intervals between <200 - 1500 meters above sea level. Altitude <200 meters above sea level is located in the southern part of Sukarame Village, precisely in Sukarame Hamlet. The height of the interval 201-500 meters above sea level is located in the middle of Sukarame Village, precisely Sukarame Hamlet and southwest, Langkob hamlet. The height interval of 501 - 1500 meters above sea level is located in the western part, precisely in Lebak Lingsir Hamlet and east of Sukarame Village, precisely in Pamokoan Hamlet. The shape and contours of the Sukarame Village follow the Ci Sukarame flow that runs in the middle of the village. Altitude can affect the type and condition of vegetation that grows in a place so that it is often a condition for growing specific plants. In this study, altitude can affect rice yields.

A slope is a plane that connects higher ground surfaces with lower ground surfaces [13]. A slope is also the magnitude of an angle formed by the plane. Sukarame Village has a slope that includes six of the seven classes of Van Zuidam Slope Classification. The six categories are flat (0 - 2%) and slightly tilted (3-7%) scattered in the Langkob, Sukarame and Pamokoan hamlets along the Ci Sukarame flow, sloping (8-15%) spread in the Langkob hamlet, rather steep (16 - 30%) which dominates the Sukarame Hamlet, steep (31 - 70%) which governs the Pamokoan Hamlet, and very steep (71 - 140%) which dominates the Lebak Lingsir Hamlet and part of the Sukarame Hamlet.

Sukarame Village has an area of 1256.78 hectares, dominated by mixed farms of 60.70%, based on research results (figure 1). Paddy land use in Sukarame Village covers a total of 15.69% of the area and is divided into two, non-technical irrigated paddy fields once a year and two times a year. It indicated that land use is a human activity on earth that aims to meet their needs. The difference of irrigating method is due to the custom that governs planting and processing rice. The non-technical irrigated paddy fields planted once a year is only located in the Lebak Lingsir and Pamokoan Hamlet.

Lebak Lingsir Hamlet is in the northern part of Sukarame Village with an altitude of 501 - 1500 meters above sea level and is a mountainous area with a very steep slope. Lebak Lingsir Hamlet has three hutments (Kampongs), namely Lebak Lingsir,

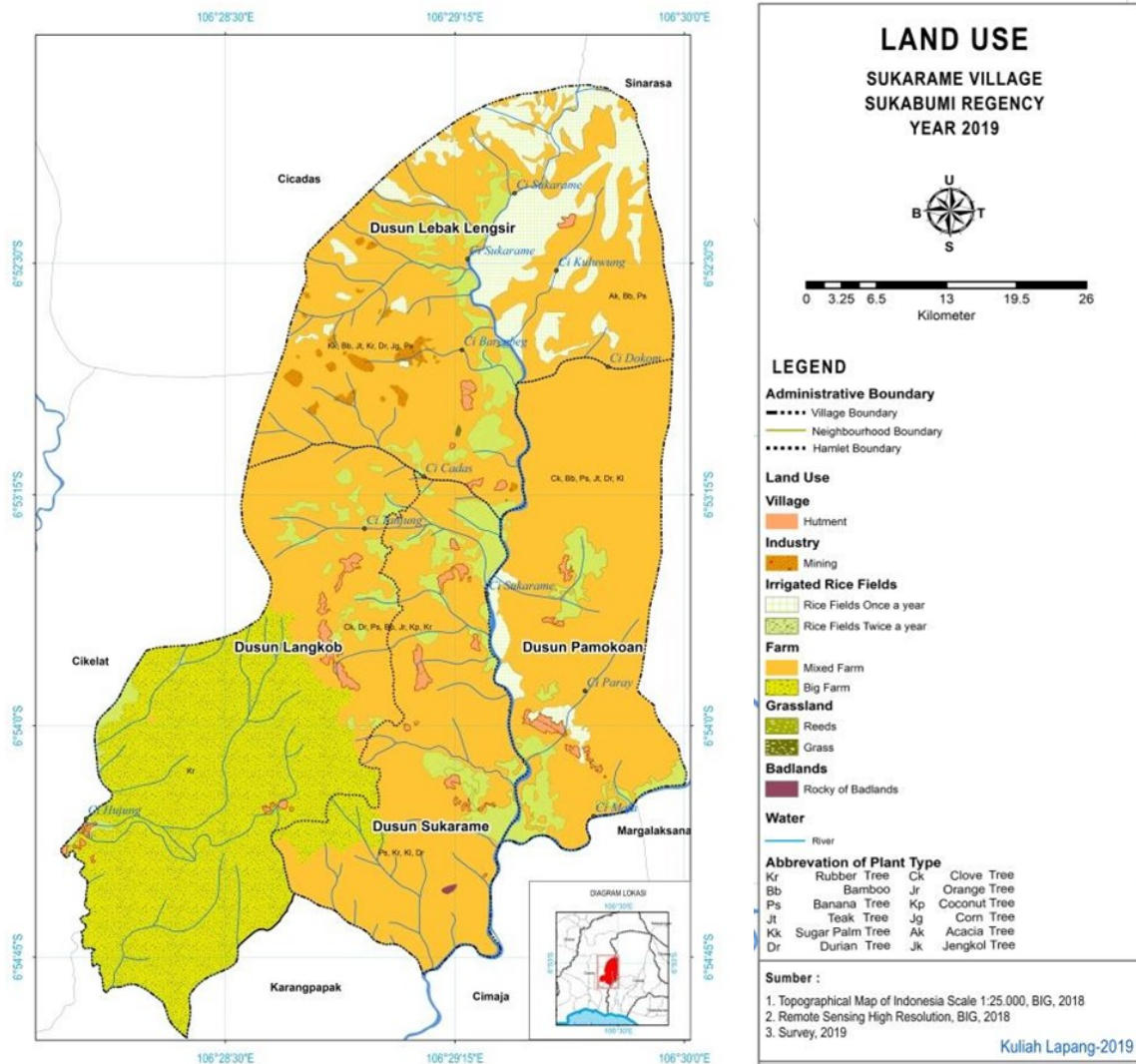


Figure 1. Land Use Map in Sukarame Village

Remalega, and Cikuluwung. Land use in Cikuluwung is dominated by a mixed farm, then non-technical irrigation paddy fields are planted once a year (figure 2). The area of paddy fields planted once a year in Lebak Lensir Hamlet is 83.07 hectares. Meanwhile, the paddy field planted twice a year only covers 30.89 hectares. This dominance is supported by traditional and cultural factors in Kampong Cikuluwung, which embraces Kasepuhan Ciptagelar.

Pamokoan Hamlet is located in the eastern part of Sukarame Village with a dominating height at 200 - 500 meters above sea level and is a hilly area with a steep slope. Pamokoan Hamlet has two hutments, namely Cijangkorang and Pamokoan. Land use in Pamokoan Hamlet is dominated by mixed farms and is followed by non-technical irrigation paddy fields twice a year (figure 2). The area of paddy field twice a year in Pamokoan Hamlet covers 23.24 hectares. Land use in the east of Ci Sukarame at Pamokoan Hamlet is dominated by non-technical irrigated paddy fields once planted in a year (figure 1), and it covers 10.64 hectares. Some of the Pamokoan Village communities still adhere to Kasepuhan Ciptagelar as in Cikuluwung's hutment especially the people that live in the east of Ci Sukarame. Paddy fields are usually planted twice a year, and

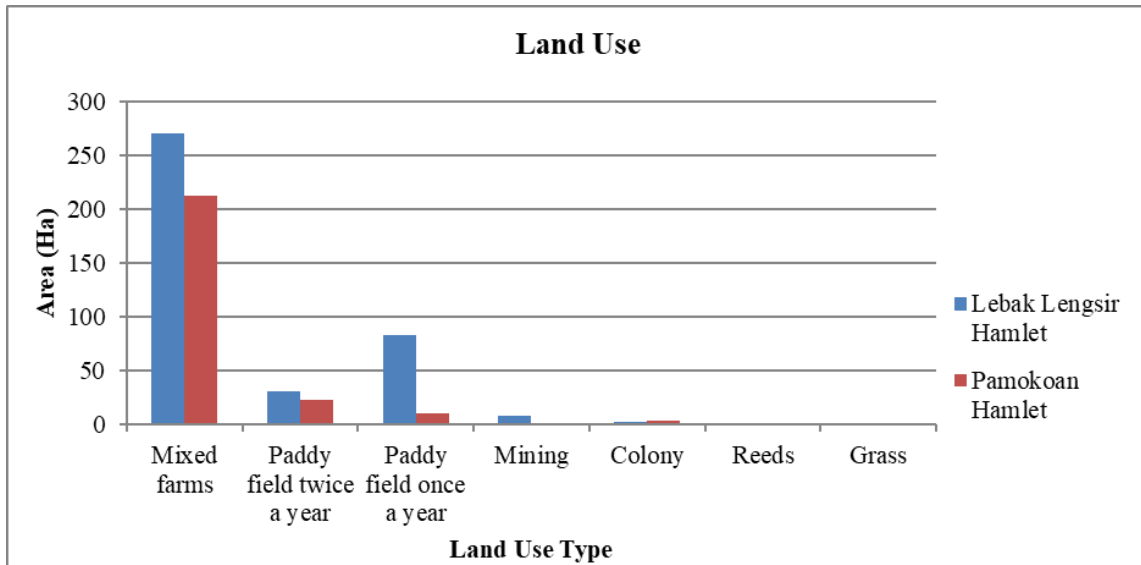


Figure 2. Land Use Types in Lebak Lingsir and Pamokoan Hamlet (in Ha)

this difference can be used as a sign that instead, the land belongs to the indigenous people or the non-indigenous residents.

### Local Wisdom of Kasepuhan Ciptagelar

Human activities in Sukarame Village are dominated by primary activities, such as farming. The cultivated land can be one's own or someone else's, as well as the state. The primary crop commodities in Sukarame Village are rice and bananas. The harvest is then consumed by them or sold directly to consumers or mediators. Most of the people of Lebak Lingsir Hamlet, precisely in Cikuluwung Kampong, and Pamokoan Hamlet, precisely in Pamokoan Kampong follow the Kasepuhan Ciptagelar tradition.

Communities of kampongs who embrace Kasepuhan Ciptagelar still run ancestral traditions called *karuhun* that is based on rice culture. The people of Kasepuhan Ciptagelar determine the time to plant rice and to harvest it with the help of "Village Teacher", namely the *Kereti* and *Kidang* stars. The two stars move from east to west in tandem once a year. Around August, the *Kereti* Star began to emerge, which meant that they could immediately make a tool for farming. The event is called "*Tanggal kereti, turun beusi*".

The emergence of *Kidang* Star indicates that the community can begin clearing lands and working on paddy fields. This emergence is called "*Tanggal kidang, turun kujang*". The types of rice planted by the community are endemic varieties that can only be found in the area. Commodities that are generally farmed by the Pamokoan community are Cere Kiara, Parejambu, Gajah Panjang, and Bulir Besar. One bundle of rice seeds will produce 30 bundles of rice, which are equivalent to 5 kilograms of rice. Rice planting in one year may only be done once and simultaneously, following *Kereti* and *Kidang* stars.

The disappearance of *Kidang* Star, around May, was a sign that rice had to be harvested; this was called "*Tilem kidang, turun kungkang*". Cutting paddy doesn't use modern tools, but use a tool called *etem* (figure 3) to minimize wasted rice grains, harvested rice is stored in rice barns called *leuit* (figure 4). Rice pounding is done traditionally without using a machine (figure 5). To turn yields into rice, they don't use modern rice cookers, but instead uses stoves.



Figure 3. *Etem*



Figure 4. *Leuit*



Figure 5. Rice Powdering  
Tool

The yields of the Kasepuhan Ciptagelar community cannot be sold to others, either in the form of rice or paddy, it is because the people of Kasepuhan Ciptagelar believe that rice is life. If rice is sold, it is equivalent to the life of sale or killing people. The rice harvested must be stored in a *leuit* to meet the needs of the Kasepuhan Ciptagelar community itself, which will eventually be used in traditional ceremonies.

Kasepuhan Ciptagelar has a ritual ceremony related to rice. They held *Ngaseuk* Ceremony when planting rice and *Mipit* Ceremony when starting to harvest rice. *Nganyaran* Ceremony is also held when they start cooking rice. Then the *Ponggokan* Ceremony is performed as an apology to the earth that has been processed for agricultural purposes. *Seren Taun* Ceremony is the top ceremony. The ceremony is an expression of gratitude and prayer for successful agrarian products. The climax of the *Seren Taun* Ceremony is *Ngadieuken Pare*, in which they put a bunch of mother rice into the *leuit*. This process was carried out by the leader of Kasepuhan Ciptagelar, Abah Ugi Sugriana Rakasiwi, and his wife, Emak Alit.

Kasepuhan Ciptagelar's local wisdom in Sukarame Village influences the condition of paddy fields in the village. With the existence of Kasepuhan Ciptagelar, there are two types of paddy fields in Sukarame Village, namely paddy fields which have a period of rice planting once a year and paddy fields that have a period of rice planting twice a year. Hamlets that adhere to the tradition of Kasepuhan Ciptagelar include Pamokoan Hamlet and Lebak Lingsir Hamlet. In both hamlets, the paddy fields have a planting period of once a year. Unlike the other hamlets, the paddy fields have a planting period of twice a year.

## CONCLUSION

Land use in Sukarame Village is influenced by physical variables such as height and slope. Besides, it is also influenced by the tradition of Kasepuhan Ciptagelar, namely in Lebak Lingsir Hamlet and Pamokoan Hamlet. The existence of people who embrace Kasepuhan Ciptagelar, which manages rice culture, makes the land use in the Lebak Lingsir Hamlet dominated by non-technical irrigation paddy fields planted once a year, especially in Cikuluwung Hutment. In Pamokoan Hamlet there is also a non-technical irrigation rice field planted once a year because the people also adhere to Kasepuhan Ciptagelar. Paddy fields in general experience planting twice in one year, this difference can be used as a sign of whether the land is owned by indigenous people or non-indigenous people.

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