The Existence of Culture and Livelihood Strategies in Kasepuhan Sinar Resmi in Facing Climate Change

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Abstract. Kasepuhan Sinar Resmi is one of the indigenous communities in West Java that has various cultures and traditions. The term culture can be defined as the totality of behavior patterns, arts, beliefs, institutions and all other products of human work and thought. Culture as beliefs, values, norms, symbols and traditions that have been learned are common to a group of people, Kasepuhan Sinar Resmi is one of the traditional villages that still upholds cultural values. In the context of climate change that is increasingly evident, indigenous communities have a role in protecting the environment. The purpose of this research is to see how culture in indigenous villages can be a defense in maintaining ecosystems due to climate change and their livelihood strategies. The cultural elements that have long been practiced by Kasepuhan Sinar Resmi have an important contribution to the Kasepuhan in preventing the impacts of climate change. One example of such cultural activities is the custom to plant rice only once a year. The cultural elements of Kasepuhan Sinar Resmi also have an impact on the livelihood strategies of the Kasepuhan community. Although the majority of the area is agricultural, the livelihood strategy includes livelihood diversification, such as tourism and handicraft development, which not only strengthens the local economy but also promotes cultural preservation.

Keywords: culture, kasepuhan sinar resmi, livelihood strategy, climate change

1 Introduction

Livelihood strategies describe the efforts made by the community in achieving adequate livelihoods [27]. As an agricultural country where the majority of people depend on the agricultural sector, livelihood strategies as the ability of farming households to adapt to various conditions [9]. [26] have further detailed the conditions that farmers must be able to deal with, one of which is the occurrence of climate change which will have a negative impact on certain commodities. The current climate change is caused by the increasing concentration

of greenhouse gas emissions due to various activities, both natural and anthropogenic, which trigger an increase in the earth's temperature [15]. [10] emphasised that the agricultural sector is the most vulnerable sector to climate change. [2] stated that Indonesia is ranked nine out of ten countries most vulnerable to food security due to climate change impacts. This is further strengthened by the statement of the Ministry of National Development Planning/Bappenas [7] in the document 'Climate Resilient Development Policy 2020-2045' which states that the phenomenon of climate change has great potential in reducing agricultural productivity in Indonesia. It is estimated that Indonesia's rice production centres, namely Java and Sumatra, will experience a decrease in production from 10% to 17.5% due to climate change. Extreme climate events cause several things such as crop and planting failures that lead to decreased productivity and production; damage to agricultural land resources; increased flooding/drought intensity; and increased humidity and increased intensity of plant pest organisms [6].

One of the components of society affected by climate change is indigenous peoples [25]. This confirms that one of the local communities that depend on natural resources, such as indigenous peoples, is one of the groups that is allegedly quite vulnerable to climate change. This is because indigenous peoples are considered to be still very dependent on agricultural products. Indigenous peoples refer to a legal community as an independent political institution (able to stand alone without depending on larger social institutions) along with all kinds of existing institutional devices whose formation and life in it are based on the rules of customary law that live in the community [4]. UU No. 32/2009 on Environmental Protection and Management underlines the definition of indigenous peoples as a group of people who have lived in the same area for generations due to ties to their ancestral origins. The existence of indigenous peoples is related to their distinctive cultural identity. Their lives are based on traditional values and customary rules that have been passed down from generation to generation or can also be referred to as local wisdom. In its development, the community adapts to its environment by developing a wisdom in the form of knowledge or ideas, tools, combined with customary norms, cultural values, activities to manage the environment to meet their needs [14].

Livelihood strategies are closely related to various assets that support success. [5] states that livelihood assets are not only natural, physical, financial, and human assets, but also socio-cultural assets. This is further strengthened by Priharyono's research [11] which found that one form of community livelihood adaptation can be applied by utilizing cultural elements of the local community. This is in accordance with the conditions of indigenous peoples who still coexist with various cultural traditions and the majority depend on agriculture. In the face of increasingly complex economic and environmental challenges, indigenous communities can expand or change their livelihood strategies by more actively utilising their cultural wealth. Such as developing tourism village-based businesses, promoting traditional handicraft products, or introducing environmentally friendly agricultural practices. This way, indigenous peoples not only maintain the existence of their traditions and culture, but also help introduce their culture to the public and certainly increase their economic resilience in the midst of climate change phenomena. This culture-based adaptation allows indigenous peoples to be more flexible and innovative in managing existing resources, so that they can continue to develop without losing their identity and values inherited from their ancestors.

Kasepuhan Sinar Resmi is one of the indigenous communities that has a strong attachment to its natural surroundings. The interaction between Kasepuhan culture and the environment is reflected in various aspects of life, including the agricultural system, beliefs and traditional rituals. One form of interaction is the 'seren taun' system, which involves planting rice once a year and prohibiting the use of chemicals in agricultural activities. This system helps maintain the balance of the local ecosystem and plays an important role in maintaining the sustainability of natural resources. In addition, the spiritual connection between the Kasepuhan community and the environment is evident in traditional rituals that often involve prayers and offerings to ancestors and nature. These rituals illustrate the importance of the environment in the daily lives of the Kasepuhan Sinar Resmi community. Kasepuhan Sinar Resmi, which is located in Sirna Resmi Village, until now the majority of people still work as farmers and agricultural labourers. The main agricultural commodity of the Kasepuhan Sinar Resmi community is rice. Rice then becomes one of the agricultural commodities that is considered vulnerable to climate change. Therefore, a question arises in this research on how the culture and livelihood strategies of the Kasepuhan Sinar Resmi community in the current era of climate change. Furthermore, this research aims to look at the cultures in Kasepuhan Sinar Resmi, the livelihood strategies currently implemented by the community, and analyse the role of culture in becoming one of the livelihood strategy assets for the community in the era of climate change.

2 Methods

This research examines more deeply the existence of culture and livelihood strategies in Kasepuhan Sinar Resmi, especially in the era of climate change, using a qualitative method approach. The qualitative method approach is a method used to investigate natural object conditions, where the researcher acts as the main instrument [20]. This method is carried out by conducting field observations and in-depth interviews with informants who have knowledge in this field. Furthermore, the data collected through observation and in-depth interviews are compiled descriptively and systematically. Descriptive research is research that examines the current status of human groups of objects, conditions, systems of thought, or events with the aim of describing the facts under study systematically, factually, and actually. In addition, the research data is supported by several literature reviews in enriching the research data as secondary data.

The research was conducted in Kasepuhan Sinar Resmi, Sirnaresmi Village, Cisolok District, starting from 7-14 August 2024. The selection of the research location was carried out with several considerations, such as; (1) Kasepuhan Sinar Resmi is one of the traditional villages that still exists and develops well until now; (2) Kasepuhan Sinar Resmi still maintains its customary values and cultural traditions, especially in terms of agriculture. This is evidenced by Kasepuhan Sinar Resmi routinely carrying out the Seren Taun Ceremony.

The informant determination technique used is purposive sampling. [20] defines purposive sampling technique as a technique for determining informants with certain considerations that are considered suitable in this study. By using this technique, our research informant is Abah Asep as the Customary Chief at Kasepuhan Sinar Resmi who is considered to have knowledge according to the topic. Furthermore, the research also used the snowball sampling technique defined by [20] as a technique for determining informants who were initially small, then became larger.

3 Results and Discussion

3.1 Overview of Kasepuhan Sinar Resmi

Kasepuhan Sinar Resmi is located in Sirna Resmi Village, Cisolok District, Sukabumi Regency, West Java Province. The village is geographically located between 106° 27'- 106° 33' east and 6° 52' - 6° 44' west. The village area of 4,917 ha is dominated by a forestry area of 4,000 ha. Furthermore, there are 2,212 ha of villages, 917 ha of land owned by indigenous people, 901 ha of plantations and fields, 800 ha of rice fields, and 4 ha of ponds. The climate in this village is quite cool with an average temperature of 25-30 degrees Celsius. This is due to its location at an altitude of 620-1,200 above sea level (MDPL) and the rainfall varies between 2,120-3,250 mm/year. Sirna Resmi Village is administratively bordered by several areas which are divided into four parts, including:

North: Cibareno River
 East side: Cikaret Village
 South side: Cibombong Village
 West side: Cicadas Village

Based on data from Sinar Resmi Village in 2022, it is known that there are 2,972 men and 2,641 women living in Sinar Resmi Village. The population density in this village is 114.15/km. The main livelihood of the Sinar Resmi Village community is farming. There are 1,894 men and 155 women who work as farmers. In addition, the community of Desa Sinar Resmi also works as farm laborers, civil servants, craftsmen, and traders. The location of Sinar Resmi Village in West Java makes the area filled with ethnic Sundanese. But even so, there are still some people of other ethnicities such as Batak, Javanese, and Chinese. Sinar Resmi Village is equipped with various adequate facilities and infrastructure. You can find worship infrastructure such as mosques and mushollas, sports infrastructure such as soccer fields and volleyball courts, health infrastructure such as health centers and posyandu, educational infrastructure such as school buildings, energy and lighting infrastructure such as PLN electricity, and entertainment and tourism infrastructure. Currently, Sinar Resmi Village is led by the Village Head, Mr. Iwan Suwandri. In addition to the village government, Kasepuhan Sinar Resmi is also led by a customary chief who is more familiar with the greeting abah. Currently, Kasepuhan Sinar Resmi is led by Abah Asep, who is the tenth customary head in the course of the establishment of this kasepuhan.

3.2 Cultural Existence in Kasepuhan Sinar Resmi

Etymologically, the word "Culture" comes from the Sanskrit language, Buddhayah, the plural form of the word buddhi which means mind or budi. Terminologically, culture refers to a complex system of values, norms, beliefs, customs, and knowledge owned and adopted by a group of people. The diversity of cultural meanings is also complemented by the opinions of experts in their fields. According to [13], culture is a concept that arouses interest and is concerned with the way humans live, learn to think, feel, believe, and strive for what is appropriate according to culture in the sense of the word is behavior and social symptoms that describe the identity and image of a society. Meanwhile, according to Edward Burnett Tylor (1832-1972), culture is a complex system that encompasses knowledge, beliefs, arts, morals, laws, customs, abilities, and habits acquired by humans as members of society. Based on the above opinion, it is known that culture is quite complex and related to life. Although complex,

some people make culture the basis that regulates life by harmonizing ecological sustainability in fulfilling their lives.

Cultural ecology is a form of meeting needs based on community culture with the existence of human self-equalization with the environment in it. If you take a general view, cultural ecology is defined as a form of human skill in interacting with the environment and cultural elements contribute to it as a guide. According to [19] cultural ecology is understood as the main cultural features that are empirically analyzed for environmental utilization, where the livelihood process is influenced by the culturally determined way of the local community. Cultural ecological features is a concept in anthropology and ecology that provides an overview of the reciprocal relationship between humans and their environment.

One of the features of cultural ecology is the cultural core. The cultural core is a cultural element related to subsistence activities [9]. According to him, the cultural core can be seen based on the political system, social system, economic system, and technological tools in an area. The social system itself can be analyzed based on the form of social interaction between communities. One form of community social interaction can be seen through human efforts in finding ways to produce resources and division of labor and how to adapt to the environment and also market conditions incorporated in the economic system. When talking about resources, one can clearly see one of them from the existing social structure and social organization. Where they influence access to the values applied by the community. Not only that, the role of leaders in the social structure functions in regulating interactions and decision-making in the community that forms a political system. The economic system is related to how production and division of labor in economic activities. The political system talks about leadership and social organization. Meanwhile, technological tools see the extent of technological development in a region.

Meanwhile, the non-culture core is seen from the origin, value and belief system, religious system and language (myth or tradition). These three things play an important role in studying the social interaction of a society. From the origin, we can find out the reasons for the formation of cultural identity and the process of adaptation to the environment. Through the system of values and beliefs, it reflects how behavior and social interactions are influenced based on the worldview and norms that develop in society. In addition, the way people understand the world and represent relationships between community members can be represented by religious systems and language, including myths or traditions.

The core of culture in Kasepuhan Sinar Resmi can be seen in how the four aspects of the political system, social system, economic system and technology interact with each other. In addition to the village head, the highest leadership in Kasepuhan Sinar Resmi is also held by a traditional leader who is usually called "Abah". Abah's power is absolute over the indigenous community and its followers. The position of traditional leader is valid from the time of appointment until his passing. As a traditional leader, Abah is also the highest decision-maker based on 'wangsit'. Wangsit are instructions or signs from the spirits of ancestors that come through dreams. However, it is recognised that Kasepuhan Sinar Resi also has a legislative body, known as a 'deliberative body', which helps to give Abah consideration before making decisions. Kasepuhan Sinar Resmi also has customary institutions that are structured and have clear roles and responsibilities. Village customary institutions are organisations that function as community institutions that partner with the Village Government in empowering, preserving and developing local customs that support governance, community and development [16]. The following is a composition of customary institutions that have an

important role in assisting Abah in managing and regulating the implementation of indigenous peoples' lives

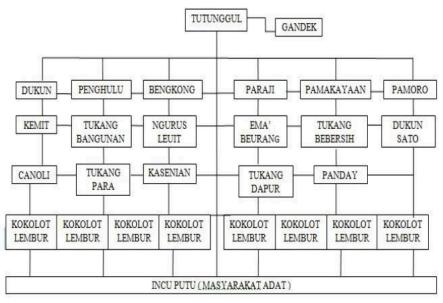


Fig. 1. Structure of traditional institutions of Kasepuhan Sinar Resmi

The political system that operates in the Kasepuhan Sinar Resmi community then affects how the social system works in daily life. This is clearly illustrated in the social interactions of the community, which are influenced by the traditional laws that have been rooted for generations. The political system in Kasepuhan Sinar Resmi, centred on traditional institutions and traditional leadership, especially Abah, plays an important role in regulating and maintaining the social structure. Abah also plays an important role as the main figure in traditional ceremonies and rituals, especially in agricultural activities or just ordinary thanksgiving events held by the community. Traditional leaders or elders, collectively recognised as authoritative figures, are responsible for guiding community behaviour based on values and traditions passed down through generations. They not only act as decision-makers, but also as guardians of morals and ethics that directly influence patterns of social interaction. The indigenous people have great respect for Abah and his family and often invite Abah to celebrations such as weddings, births and other celebrations. Abah's presence at these events is not only symbolic, but also has deep spiritual value. The community believes that the prayers and blessings given by Abah have special power, as he is seen as an intermediary who is close to the ancestors and possesses knowledge and wisdom passed down from generation to generation.

Kasepuhan Sinar Resmi is an area known for its wealth in agriculture, especially rice farming. Rice is the main commodity and an important part of the cultural identity and life of the community. The process of rice farming is carried out in various traditional ways, accompanied by traditional rituals from the planting period to post-harvest. In carrying out agricultural activities, the Kasepuhan Sinar Resmi community does not adopt developing

technology. Some of the tools used in agriculture in the Kasepuhan Sinar Resmi community are buffaloes for cultivating rice fields, "ani-ani" which is used to harvest rice, "lesung" and "alu" which are tools for pounding rice, and "leuit" which is a rice storage barn. The use of technology in agricultural activities is believed to violate the prevailing customary law even though there has never been a directly written rule on the matter.

"...(Land cultivation) is not allowed to use machines... animal and human labour is allowed. There have been people who tried to use machines because they felt it was more efficient, but not a lot. They will be reminded through adat, let adat law speak for itself. Usually they will get sick, even adat law is also related to life, because it is part of life... It cannot be separated" (AN, Kasepuhan Sinar Resmi, 58 years old.).



Fig. 2. Lesung and Alu as a tools for pounding rice

Myths and beliefs classified as Non-Culture Core can also be observed in the Kasepuhan Sinar Resmi community, especially in rice farming. The main belief regarding rice farming is that planting rice should only be done once a year. Planting rice once a year is linked to the indigenous community's efforts to maintain the balance of the ecosystem and soil fertility. By only planting once a year, the soil has enough time to rest and recover from the agricultural process. In addition, there are also beliefs about the best time to plant rice according to the date of birth. There is also a rule that harvested rice cannot be traded, but can be loaned. Another belief that is still attached to people outside agriculture is related to eating a little salt before and after eating rice. Actually, this refers to the teachings of Islam, which is the sunnah of the Prophet Muhammad and is related to efforts to maintain health.

[8] defines religion as encompassing beliefs, rituals and their paraphernalia, attitudes and behaviors, the realm of thought and feeling, as well as aspects related to its adherents. The indigenous community in the Kasepuhan traditional village is predominantly Muslim. This religious system, in daily life, collaborates with beliefs in ancestral traditions (*tatali paranti karuhun*). Ancestral beliefs and Islamic religion run parallel. Although all members of the community are Muslim, they still maintain ancestral beliefs such as burning incense, offering sacrifices, performing traditional ceremonies, placing amulets on doors, and other ancestral beliefs [22].

3.3 Livelihood Strategies in Kasepuhan Sinar Resmi

Scoones defines livelihood strategies as a group's ability to manage livelihood assets (including both material and social resources) and the ability to respond to changes [18]. According to him, livelihood strategies can be categorized based on activities to increase income, namely through intensification, extensification, diversification, and migration. If interpreted further, intensification and extensification are closely related to agriculture. Agricultural intensification is the processing of existing agricultural land as well as possible to increase agricultural yields by using various existing infrastructure and production facilities. Agricultural extensification is an effort to increase agricultural yields by expanding new agricultural land. Extensification can be done by clearing forests for new agricultural land to manage shrubs, land around swamps for agriculture and other untapped agricultural areas [12]. Diversification is defined as a process of diversifying and increasing the number of sources of income for villagers [23].

One of the livelihood approaches, intensification is one of the adaptive strategies of communities in facing economic, environmental, or social challenges. Intensification is chosen as a strategy because it is considered more efficient and can minimise risks compared to extensification (land expansion) or diversification (additional types of work). According to [5], intensification is a common strategy among smallholders in agrarian societies, especially when there is limited access to new land or additional resources. Basically, agricultural intensification can be done by the adoption of advanced farming techniques such as the selection of superior seed varieties that are resistant to pests and weather changes. It can also be done with the use of modern agricultural tools and technology such as tractors to support the efficiency and productivity of agricultural products. However, the Kasepuhan Sinar Resmi community, as one of the indigenous communities that still relies on traditional agriculture, conducts agricultural intensification in a different way. In their agricultural practices, the Kasepuhan Sinar Resmi community does not involve technology.

The link between agricultural intensification and traditional rituals in Kasepuhan Sinar Resmi can be seen in how these spiritual and cultural practices influence the way the community manages agricultural resources and increases their productivity. These rituals not only have religious or social significance but also serve as mechanisms for agricultural management that are integral to their way of life. Some of the customary rituals related to agriculture in Kasepuhan Sinar Resmi are described in the following table

Table 1. A series of traditional agricultural rituals at Kasepuhan Sinar Resmi

No	Activities	Describe
1.	Narawas	Marking the fields designated for cultivation
2.	Nyacar	Clearing the land usually takes a week
3.	Ngahuru	Burning useless shrubs for organic fertilizer
4.	Ngerukkan	Burning remnants of shrubs that have not yet been incinerated
5.	Nyara	Cultivated to make the soil loose
6.	Ngaseuk	Planting rice by inserting seeds into holes using a wooden stick. This method

		was first introduced by Abah and has been continued by the descendants of Kasepuhan
7.	Ngored	Weeding rice
8.	Beberes Mager	A ritual performed in the fields by Kasepuhan figures to protect the rice from pests.
9.	Ngarawunan	A ritual to ensure the rice grows lush, perfect, and free from disturbances, usually conducted when the rice is three to four months old
10.	Mipit	Harvesting rice, initially performed by Abah. The tool used for harvesting is called an <i>ani-ani</i> , and before the first cut, a ceremonial act is performed as a symbol of gratitude
11.	Ngalantayan	The process of drying harvested rice using bamboo or trees, and laying it out to dry for one year
12.	Mocong dan Ngunjal	Rebinding selected rice for transport to the granary
13.	Nutu and Nganyaran	The activities of threshing the first batch of harvested rice, with <i>Nganyaran</i> involving cooking rice from the first harvest
14.	Seren Taun	The culmination of the agricultural rituals involving placing the harvest into the granary (<i>leuit si jimat</i>)

There are several aspects in which customary rituals play an important role in intensification strategies. First, customary rituals such as "seren taun" - an annual ceremony conducted after the rice harvest - emphasize the importance of time and the agrarian calendar. These ceremonies are often based on careful timing to determine when it is appropriate to start planting, tending the crops and harvesting. By adhering to the times specified in the rituals, communities indirectly organize their agricultural cycles according to optimal natural conditions. This can be considered a form of intensification as it ensures that each stage of the agricultural process is carried out at the most favorable time, maximizing productivity without the need for additional external inputs. Second, customary rituals often involve prayers and offerings to ancestral spirits, reflecting respect for the environment and ecosystem. This attitude encourages more sustainable and thoughtful agricultural practices, such as the use of organic fertilizers that support long-term sustainability. By practicing agriculture that pays attention to ecological balance and sustainability, communities effectively increase the intensity of their land use without damaging soil quality or harming the environment, which is often a risk in conventional intensification. Farmers in Kasepuhan Sinar Resmi are not organized into farmer groups, such as gapoktan, as agriculture is a skill that is indirectly required by indigenous people. Another unique feature is that rice farming in Kasepuhan Sinar

Resmi is not allowed to be traded. The results of the farming will later be stored in a building called "*leuit*" and become material to meet each other's food needs for one year.

"There is no farmer group because all the farmers here are farmers and the crops are for consumption and not for sale. If the crops outside of rice, for example tomatoes or chili, can be traded, but if the ingredients are rice, for example rice flour, you can't sell it. Here, anyone who has a household must have a leuit to store rice, if they don't have land, they will share it, the land is in the garden, profit sharing, mertelu, derep, ngepak" (A, Imah Gede, 58 years old)

Agricultural intensification in Kasepuhan Sinar Resmi can also be reflected in the "mina padi" activity. Intensification in this context refers to the more efficient and optimal utilization of agricultural land by maximizing yields from the same land without the need to expand the land. By utilizing rice fields after harvest for fish farming, farmers increase land productivity by utilizing land that would otherwise "sleep" or not be used during a certain period. Fish farming after rice harvesting provides additional benefits, such as increasing farmers' income since fish can be traded and provides a better source of local protein. After the fish rearing period is over, the remaining nutrients and fish waste can improve the quality of paddy soil for the next planting season, increasing soil fertility and reducing the need for chemical fertilizers.



Fig. 3. Land used for mina padi

In addition to rice cultivation, the Kasepuhan Sinar Resmi community also engages in the cultivation of chili peppers, cardamom, and palm sugar. The produce from these agricultural activities is not only marketed within the Kasepuhan community but can also be sold in external markets. The Kasepuhan Sinar Resmi community also employs livelihood diversification strategies. This diversification is necessitated by customary regulations that permit farming only once a year. To enhance their income and economic stability, the community has embraced various alternative activities. Diversification includes several areas:

• Public Sector Employment: Some community members have transitioned to becoming civil servants, providing them with a stable income and access to various social and economic benefits provided by the government. This is reflected in the presence of Kasepuhan Sinar Resmi members working in local government positions. This is in accordance with what was told by one of the informants

"Indeed, there are some Kasepuhan people who are incu putu Abah that work in the village office. The village head is also family-related to Abah" (V, Village Office, 30 Years Old)

• **Craftsmanship:** The community is involved in crafting traditional products such as "gelang simpay", sinjang (a type of cloth), and ikat (traditional woven fabrics), which are integral to their cultural heritage and local identity. These products cater to local consumption needs and have marketable value outside the region, thus increasing family income and preserving traditional skills





Fig. 4. Gelang simpay craftsman

Village Tourism Management: The Kasepuhan Sinar Resmi community also
focuses on managing their area as a cultural and eco-tourism destination. By
developing tourism based on cultural and natural education, they create additional
economic opportunities through accommodation services and traditional activities,
such as the Seren Taun ceremony, which serves as a unique attraction. This tourism
management not only generates supplementary income but also aids in preserving
local culture and attracting external interest, thereby strengthening the overall
community economy

3.4 Cultural Existence and Livelihood Strategies in Kasepuhan Sinar Resmi in the Era of Climate Change

Livelihood assets are an important part of livelihood strategies. Assets are resources that are available and can be utilized by humans (households) for certain purposes such as household activities in earning a living to fulfill life needs [17]. Livelihood assets required to fulfill livelihood strategies according to DFID (2001) are human capital, social capital, natural capital, physical capital, and financial capital. This is slightly different from [5] who states that assets can take the form of natural assets, physical assets, financial assets, human assets, and socio-cultural assets. In the context of village communities living close to forest areas, [17] mentioned that forests are a form of local wisdom that can be one of the assets to fulfill livelihood strategies.

One of the livelihood assets of the Kasepuhan Sinar Resmi community is natural assets in the form of productive rice fields. Some of the fruit crop products developed in Kasepuhan Sinar Resmi are bananas with yields reaching 10 tons/hectare. In addition, there are natural assets in the form of 800 hectares of land with the main production being rice. It is known that

Kasepuhan Sinar Resmi farmers can only grow local varieties of rice. One of the rice varieties that is very famous for its good type and is known to smell the best is "marilene". There have been 68 rice varieties cultivated to this day and the quality of the rice is highly regarded.

"(Agriculture) here can only use local rice varieties. Now there are about 68 types of rice that have been developed" (A, Imah Gede, 58 years old)

Rice is one of the agricultural commodities that is quite vulnerable to climate change. Even so, the Kasepuhan Sinar Resmi community does not feel that climate change is disrupting their rice farming productivity. This is because the orientation of their agriculture is not on quantity but on quality. So far, farmers in Kasepuhan Sinar Resmi have never experienced a large number of crop failures. The effect of weather changes is only to reduce the amount of rice produced, but it can still be categorized as sufficient to meet the family's food needs with good quality rice. This stems from the existence of a Non-Culture Core-based cultural system in the form of beliefs related to the obligation to set the date for planting rice according to the calculation of constellations, rather than by looking at the climate.

"(Climate change) has no impact on our agriculture, because (the calculations) follow the constellations, so if it decreases, it must be there because the growth is slower too... but we don't pursue quantity, how much the result is, we leave it (to God). This is a concept that no one else can have." (A, Imah Gede, 58 years old)

Furthermore, the livelihood asset in Kasepuhan Sinar Resmi is a diverse culture that has been passed down from generation to generation and is still preserved in the form of rituals in every activity related to agriculture and life. One of them is the seren taun traditional ceremony which is held once a year. The seren taun ceremony is one of the traditions owned by Sundanese agrarian society as an expression of gratitude for God's abundant gifts through fertile land and abundant yields [21]. This culture contributes to efforts to reduce and adapt to the impacts of climate change. Adaptive capacity refers to individual or collective actions taken by families, communities, organizations or institutions to minimize the potential impacts of climate change hazards [24]. The official ray kasepuhan czommunity maintains environmental fertility by avoiding the use of chemical fertilizers, as well as technology that produces pollution to preserve the ecosystem of rice fields, so that the harvest period once a year can still be carried out in accordance with the seren taun tradition.

Rice cultivation in Kasepuhan Sinar Resmi is conducted with a strong emphasis on environmental harmony. The traditional cultural practices adhered to in agriculture represent a significant contribution by the Kasepuhan community to environmental conservation. In their farming practices, the Kasepuhan Sinar Resmi community avoids the use of chemical substances and pesticides, opting instead for organic fertilizers such as manure. This approach not only maintains soil quality but also ensures long-term agricultural productivity. Cultural assets possessed by the Kasepuhan Sinar Resmi community are also leveraged as part of their livelihood diversification strategy. This is evident in their craftsmanship of "sinjang" and "ikat". "Sinjang" is a batik fabric specifically used by women, while "ikat" is a similar fabric with batik motifs used by men. Both "sinjang" and "ikat" are marketed not only within the Kasepuhan community but also to tourists visiting the area. The artisans of "sinjang" and "ikat" are organized into a small business group (UMKM), predominantly comprising youth. The price of both varies depending on the motif used. Additionally, there are artisans who create "gelang simpai", also managed by young people. The raw material for "gelang simpai" comes from locally sourced rattan. The preservation of cultural practices in

Kasepuhan Sinar Resmi thus serves as an additional asset and occupation beyond the primary means of livelihood.

4 Conclusion

Based on the results presented above, the following conclusions can be drawn:

- 1. The essence of the culture in Kasepuhan Sinar Resmi can be observed through its political, social, economic systems, and technological tools. The political system in this community is centered around customary institutions and traditional leadership, which play a crucial role in regulating and maintaining social structure. The indigenous people show great respect towards Abah and his family. The Kasepuhan Sinar Resmi community does not adopt advanced agricultural technologies due to prevailing beliefs. A key belief regarding rice farming is that rice can only be planted once a year. Additionally, there are beliefs about the timing of rice planting and rules prohibiting the sale of harvested rice.
- 2. Livelihood strategies in Kasepuhan Sinar Resmi can be observed through intensification and diversification. Intensification ensures that each stage of the agricultural process is conducted at the most advantageous time to maximize productivity. Spiritual and cultural practices influence how the community manages agricultural resources and enhances productivity. Livelihood diversification is undertaken due to customary regulations that permit rice farming only once a year. This diversification includes various sectors, such as some community members becoming civil servants, engaging in trade, artisan work, or managing the area as a tourist village. The community utilizes various alternatives to improve their income and economic stability.
- 3. The Kasepuhan Sinar Resmi community does not perceive a significant disruption in their rice productivity due to climate change. To date, farmers in Kasepuhan Sinar Resmi have not experienced substantial crop failures. The impact of weather changes is limited to reducing the quantity of rice produced, but it remains sufficient to meet family food needs with good quality rice.

References

- [1] [DFID]. Department for International Development. 2001. Sustainable Livelihoods Guidance Sheets. [diakses pada 27 Agustus 2024]. https://www.livelihoodscentre.org/documents/114097690/1 14438878/Sustainable+livelihoods+guidance+sheets.pdf
- [2] [DNPI]. Dewan Nasional Perubahan Iklim. 2013. Perubahan Iklim dan Tantangan Perubahan Bangsa. Dewan Nasional Perubahan Iklim. Jakarta.
- [3] [UU]. Undang-undang Nomor 32 Tahun 2009 tentang Perlindungan dan Pengelolaan Lingkungan Hidup. [online]. https://peraturan.bpk.go.id/Details/38771/uu-no-32-tahun-2009
- [4] Agus AA. 2017. Eksistensi Masyarakat Adat dalam Kerangka Negara Hukum di Indonesia. Jurnal Sosialisasi. 4(1): 5-15.
- [5] Ellis F. 2000. Rural Livelihood and Diversity in Development Countries. Oxford University Press: New York
- [6] Estiningtyas W, Boer R, Las I, Buono A. 2012. Identifikasi dan Delineasi Wilayah Endemik Kekeringan Untuk Pengelolaan Risiko Iklim di Kabupaten Indramayu. Jurnal Metodologi dan Geofisika; 13(1): 9-20.
- [7] [Kementerian PNN/Bappenas]. Kementerian Perencanaan Pembangunan Nasional/Badan Perencanaan Pembangunan Nasional Republik Indonesia. 2021. Ringkasan Eksekutif Kebijakan Pembangunan Berketahanan Iklim (Climate Resilience Development Policy) 2020-2045. https://lcdi-indonesia.id/wp-content/uploads/2021/04/Buku-0 Ringkasan-Eksekuti f-Dokumen-Kebijakan-Pembangunan-Berketahanan-Iklim.pdf
- [8] Koentjaraningrat. 1986. Pengantar Imu Antropologi. Jakarta: Aksara Baru.
- [9] Kristiawan N. 2018. Pola Adaptasi Ekologi Budaya Tiga Komunitas di Jambi. BHUMI: Jurnal Agraria Dan Pertanahan; 3(2): 189–200. https://doi.org/10.31292/jb.v3i2.124
- [10] Naura A, Riana FD. 2018. Dampak Perubahan Iklim Terhadap Produksi Dan Pendapatan Usahatani Cabai Merah (Kasus Di Dusun Sumberbendo, Desa Kucur, Kabupaten Malang). Jurnal Ekonomi Pertanian dan Agribisnis (JEPA), 2(2):147-158
- [11] Priharyono. 2012. Adaptasi Penghidupan Masyarakat Kalimantan Barat, Jakarta: Gramedia Pustaka
- [12] Priono R, Amal S. 2022. Strategi Pengembangan Rantai Pasok (Supply Chain) Dan Rantai Nilai (Value Chain) Komoditi Padi (Oryza Sativa) Di Kabupaten Jombang (Studi Kasus Di Kabupaten Jombang). In Seminar Keinsinyuran Program Studi Program Profesi Insinyur 2(1):161-171
- [13] Sagala S. 2013. Memahami Organisasi Pendidikan: Budaya dan Reinventing Organisasi Pendidikan. Bandung: Alfabeta
- [14] Salim M. 2016. Adat Sebagai Budaya Kearifan Lokal untuk Memperkuat Eksistensi Adat ke Depa. Al Daulah: Jurnal Hukum Pidana Dan Ketatanegaraan; 5(2): 244-255.
- [15] Saputra I, Prasmatiwi FE, Abidin Z, Setiawan A. 2022. Strategi Adaptasi Petani Padi Irigasi dan Tadah Hujan dalam Menghadapi Perubahan Iklim di Kabupaten Lampung Selatan. Jurnal Ilmiah Mahasiswa Agro Info Galuh; 9(1): 653-662.
- [16] Saputra MF, Taufik MI, Syadiah HT, Fadila N, Hafiza N, Rezkiana F. 2022. Peta Aset Budaya pada Masyarakat Desa Watunonju. Menara Kearifan: Jurnal Pengabdian Masyarakat; 1(2): 151-163.
- [17] Satmoko S, Prasetyo AS, Pertiwi YI. 2019. Strategi Penghidupan Masyarakat Desa Hutan di Desa Kucur, Kecamatan Dau, Kabupaten Malang. *Agrisocionomics: Jurnal Sosial Ekonomi Pertanian*. 3(2): 174-182.
- [18] Scoones I. 1998. Sustainable rural livelihoods: A framework for analysis. Working Paper No. 72. [internet]. [diakses pada 27 Agustus 2024]. https://www.staff.ncl.ac.uk/david.ha rvey/AEF806/Sconnes1998.pdf.
- [19] Steward HJ. 1955, Theory of Culture Change. London(US): Univ of Illinois P
- [20] Sugiyono. 2016. Metode Penelitian Kuantitatif Kualitatif dan R&D. Alfabeta, Bandung
- [21] Suhaedi E dan Nurjanah N. 2023. Upacara Seren Taun dalam Perspektif Etnopaedagogi. Jurnal Pendidikan Bahasa dan Sastra Daerah. 9(1): 25-34. doi: 10.33222/jaladri.v9i1.2489

- [22] Suidat S, Winarsih D, Said AR. 2021. Sistem Religi Dan Kepercayaan Masyarakat Kasepuhan Sinar Resmi Cisolok Sukabumi. Jurnal Citizenship Virtues; 1(2): 113-123.
- [23] Susilowati SH, Supadi, Saleh C. 2002. Diversifikasi sumber pendapatan rumah tangga di pedesaan Jawa Barat. Jurnal Agro Ekonomi, 20(1), 85-109.
- [24] Usaid. 2014. Kajian Kerentanan terhadap Perubahan Iklim Kota Manado. United States of America International Development Agency
- [25] Wardhana A, Meidiana C, Wicaksono AD. 2023. Tingkat Kerentanan Masyarakat Adat Suku Dayak Meratus Terhadap Dampak Perubahan Iklim. Planning for Urban Region and Environment Journal (PURE); 12(3): 261-270..
- [26] Widiyanto W, Dharmawan AH, Nuraini W. 2010. Strategi Nafkah Rumah Tangga Petani Tembakau di Lereng Gunung Sumbing: Studi Kasus di Desa Wonotirto dan Desa Campursari, Kecamatan Bulu, Kabupaten Temanggung. Sodality: Jurnal Sosiologi Pedesaan; 4(1).
- [27] Wijayanti R, Baiquni M, Harini R. 2016. Strategi Penghidupan Berkelanjutan Masyarakat Berbasis Aset di Sub DAS Pusur, DAS Bengawan Solo. Jurnal Wilayah dan Lingkungan. 4(2): 133-152.