

NGINDUNG KA WAKTU MIBAPA KA ZAMAN: FOOD RESILIENCE BASED ON LOCAL WISDOM IN KAMPUNG ADAT CIREUNDEU

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Abstract

The development of technology in this digital era has significantly changed various aspects of human life. This technological development provides innovation in all fields, including life and economy. This research aims to study and understand the food resilience the Kampung Adat Cireundeu community applies through their local wisdom. The method used in this study is a descriptive method with a qualitative approach. Through this approach, the research focuses on data collection through in-depth interviews, participatory observations, and related document studies. Kampung Adat Cireundeu, located in Cimahi Regency, West Java, is known for maintaining food resilience through traditional practices and local wisdom passed down from generation to generation. One of the primary practices is using cassava as a staple food in place of rice, which improves food resilience and maintains local culture and traditions. The activity results prove that most of them have a livelihood in cassava farming called Cassava Rice (*Rasi*), and the Cireundeu Indigenous people have the principle of "*Ngindung Ka Waktu, Mibapa Ka Jaman*". The meaning of the word "*Ngindung Ka Waktu*" is that the residents of the traditional village have their own ways, characteristics, and beliefs. Meanwhile, "*Mibapa Ka Jaman*" means that the people of the Kampung Adat Cireundeu do not fight against the changing times but follow the changing times, including adapting to the existence of technology, television, communication tools in the form of *mobile phones*, lighting, and entrepreneurship by using the Shopee platform as a souvenir sale of the Kampung Adat Cireundeu called *Serba Cassava Kampung Cireundeu*.

Keywords: *Food Resilience, Technology, Sustainable Development*

INTRODUCTION

Food security is a crucial issue affecting a community's social and economic stability. Amidst globalization and modernization, the Cirende Traditional Village in West Java faces challenges in maintaining its agricultural traditions. The principle of "*Ngindung ka Waktu Mibapa ka Zaman*," which signifies the ability to adapt to changing times without abandoning local wisdom, is an essential foundation for ensuring food security in Cirende Traditional Village. Known for its food resilience, the village survived a food crisis in 1918, when the elder, Mamah Ali, chose not to consume rice, a practice referred to as "*Nyunda Kersa Nyai*" or "*Dewi Sri*," but instead shifted to corn. Over time, in 1984, Omah Asnamah introduced the technology to convert rice into cassava (*sampeu*), a tradition that continues today. The

community of Cirende Traditional Village maintains this practice by producing "*rasi*," or cassava rice. Cassava is processed into various innovative food products, and today, the people of Cirende also utilize technology to sell cassava-based food items through the Shopee app under the name "*Serba Singkong Kampung Cirende*." This exemplifies their enduring presence as a food security model that can protect in unexpected situations and natural disasters. Hence, Cirende Traditional Village is renowned for its food resilience, consistently preserving its community's local wisdom, customs, and traditions, all while adhering to the principle of mutual support. "*Teu Boga Sawah Asal Boga Pare, Teu Boga Pare Asal Boga Beas, Teu Boga Beas Asal Nyangu, Teu Nyangu Asal Dahar, Teu Dahar Asal Kuat*".

As research suggests (Reis et al., 2021), disaster resilience strategies are part of broader disaster preparedness efforts. These strategies span five years and view disaster resilience as the

responsibility of all sectors of society. The goal is for communities in affected areas to be aware of and understand the impacts of natural disasters. They must also be empowered to take practical action and prepare themselves for self-preservation.

The development of technology transcends social status and even culture, embodying the presence of technology that embraces and offers its convenience, as seen in Kampung Adat Cireundeu.

“*Ngindung Ka Waktu*” Means that the people of Kampung Adat Cireundeu have their ways and signs. Whereas “*Mibapa Ka Jaman*” This means that the people of Kampung Adat Cireundeu do not close themselves off to the progress of the times and adapt to current changes, including embracing technology, television, communication tools such as cell phones, lighting, and entrepreneurship by using the Shopee platform for selling souvenirs from Kampung Adat Cireundeu under the name “Serba Singkong Kampung Cireundeu,” as stated by (Ločičnik, 2024)

“The function of social technology is dedicated to social purposes through the use of meaningful digital goods. In this context, social technology can be understood as information and communication tools accessible to everyone (or at least should be when internet connectivity is introduced). However, it ultimately requires the cooperation of the entire community of Kampung Adat Cireundeu not to abandon their local wisdom, as expressed by Astasio Picadoet et al., 2022 (in Ločičnik, 2024). “This, in turn, requires the cooperation of the entire community, particularly the health and education sectors, with learning tailored to individuals”.

“*Ngindung Ka Waktu*” Preserving the local wisdom of Kampung Adat Cireundeu and “*Mibapa Ka Zaman*” The indigenous people of Cireundeu adapt to the advancing times to survive. This is evidence that Kampung Adat Cireundeu has endured through all the changes and surrounding developments with sustainable progress. Humans are a totality of six dimensions: physical, mental, spiritual, coexistence, development, and existential. Sustainable development highlights the "need for the

next energy transition," as it is evident that the current energy system is unsustainable across all social, economic, and environmental criteria.” Grubler, 2012 (in Chipango & To, 2024).

Everything is interconnected, and sustainable development is intended to meet the needs of the current generation without compromising the ability of future generations to meet their own needs. The people of Kampung Adat Cireundeu, guided by the *Ngindung Ka Waktu Mibapa Ka Zaman* principle, maintain food security based on their local wisdom.

METHOD

This study employs a qualitative descriptive approach, integrating data through participatory observation, relevant document studies, and in-depth interviews. Cireundeu is a traditional village in Cimahi Regency, West Java. Thus, Kampung Adat Cireundeu is known for its strong food security while maintaining its community's cultural values and traditions, which emphasizes mutual support.

RESULTS AND DISCUSSION

I. Result

A. Food Resilience in Kampung Adat Cireundeu

Kampung Adat Cireundeu is a traditional village where the community has moved beyond reliance on staple foods like rice. Through historical food crises, cassava has become a staple, ensuring food security in Kampung Adat Cireundeu. Since cassava became the primary food source, there has not been a food crisis. This success is attributed to mutual support and cooperation among community members, fostering peace and harmony in the lives of Kampung Adat Cireundeu residents while preserving their local wisdom, which they commonly refer to as “*Silih Asah, Silih Asih, Silih Asuh, Tata Titi, Diduga Peryoga*”. The people of Kampung Adat Cireundeu steadfastly uphold the Karuhun Cireundeu proverb, which is also used as a principle for their local food security wisdom, namely:



Figure 1. Personal Document: Food Security Motto of Kampung Adat Cireundeu

“*Teu Boga Sawah Asal Boga Pare, Teu Boga Pare Asal Boga Beas, Teu Boga Beas Asal Nyangu, Teu Nyangu Asal Dahar, Teu Dahar Asal Kuat*”. "It's okay not to have rice fields as long as you have paddy; it's okay not to have paddy as long as you have rice; it's okay not to have rice as long as you can cook it; it's okay not to cook rice as long as you can eat; it's okay not to eat as long as you can live."

The people of Kampung Adat Cireundeu honour their ancestors by not consuming rice, which has now been replaced by cassava (sampeu), commonly referred to as "Rasi" or cassava rice.



Figure 2. Personal Document: Rasi (Cassava Rice) of Kampung Adat Cireundeu

The daughter of Mr. Haji Ali, Mrs. Omah Asmanah, initiated the shift in staple food for the people of Kampung Adat

Cireundeu from rice, a change that her relatives followed in Kampung Cireundeu. In 1964, Mrs. Omah Asmanah was awarded the title of "Food Hero" by the Cimahi government through Wedana Cimahi for her pioneering efforts.

B. Ngindung Ka Waktu Mibapa Ka Zaman as Technology in Kampung Adat Cireundeu

Kampung Adat Cireundeu continues to uphold their ancestral customs and beliefs. However, they strive to keep pace with the times, including adopting technology. "Ngindung Ka Waktu" reflects that the village community has its methods, characteristics, and beliefs. Meanwhile, "Mibapa Ka Zaman" means that the people of Kampung Adat Cireundeu do not resist or oppose the progress of the times but instead adapt to it, such as embracing technology, television, and cell phones, lighting, and entrepreneurship using the Shopee platform for selling souvenirs from Kampung Adat Cireundeu under the name "Serba Singkong Kampung Cireundeu."

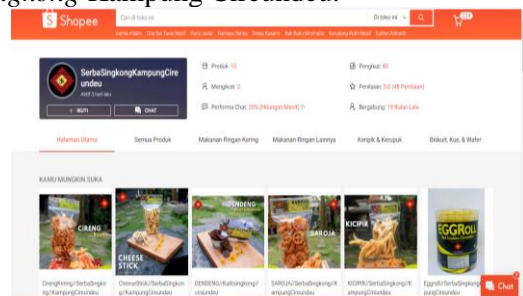


Figure 3. Shopee Platform "Serba Singkong Kampung Cireundeu"

https://shopee.co.id/serbasingkong?is_from_login=true

The use of this technology has become one of the livelihoods and economic activities of the people of Kampung Adat Cireundeu. It also demonstrates that the community can consistently uphold ancestral principles while striving to keep up with the times, including technology, to sustain their lives through entrepreneurship with cassava (sampeu) or cassava rice, which is then processed into various cassava products: Cireng Rujak, Cheese Stick, Dendeng Kulit Singkong, Saroja, Kicipir, Eggroll, Keripik Bawang, Simping, Opak Bumbu. The sale of "Serba Singkong Kampung Cireundeu" has reached an international level. Many visitors from both domestic and abroad order traditional foods made from cassava rice to be shipped to their home countries.

C. Sustainable Development Based on Local Wisdom in Kampung Adat Cireundeu

The concept of sustainable development means that the development of the current generation should not require future generations to sacrifice a lower level of social welfare than the current generation. This includes economic welfare social welfare, which encompasses health, education, and environmental well-being. To plan development based on sustainable development, one must understand the components needed for sustainability. Knowing which components and instruments are necessary for sustainable development is also essential.

Local wisdom can be defined as wise, insightful, and valuable local ideas that are ingrained and followed by the community members. Local culture is a form of local wisdom typically possessed by specific regions or groups. Local culture reflects and characterizes a region, which can be demonstrated through customs, skills, and even the structures in that area. Local culture is a strength for the region in developing businesses, including in the agricultural sector.

Growth and conservation of natural resources and the environment are always associated with exploiting natural resources and environmental damage (Meadows, Donella and Meadows, Nancy, 1972 (Chaireni et al., 2020).



Figure 4. Personal Document: Entrepreneurial Kitchen "Serba Singkong Kampung Cireundeu"

In addition to using the Shopee platform for entrepreneurship, the people of Kampung Adat Cireundeu have a public elementary school in the village, Cireundeu

Public Elementary School.



Figure 5. Cireundeu Public Elementary School <https://www.kompasiana.com/erfransdo/6503593f4addee3f792e9822/ketuk-tular-prinsip-masyarakat-kampung-adat-cireundeu-dalam-mencegah-pandemi-covid-19?page=all>

Additionally, Kampung Adat Cireundeu, by embracing the developments of the times, has been provided with free WIFI services from the Ministry of Communication and Information (Kominfo). This aims to support education, economic empowerment, and the preservation of local culture through digital technology.



Figure 6. Free WIFI Facility from Kominfo <https://youtu.be/CGoPXb0KgcU?feature=shared>

With access to the internet, the people of Kampung Adat Cireundeu are leveraging sustainable development to enhance digital opportunities that can improve the well-being of the local community.

II. Discussion

A. Food Resilience in Kampung Adat Cireundeu

Food security is sufficient for a healthy life as a means of sustaining life, which involves ensuring an adequate and high-quality food supply that is safe and affordable for all Kampung Adat Cireundeu community members. This is essential to avoid the risk of food insecurity, as outlined by

Maxwell and Frankenberger 1992 (This means "providing everyone with access at all times to sufficient food for a healthy life." (*always secure access to sufficient food for a healthy life*). Law Number 7 of 1996 on Food (dalam BPK, 1996) states that "the condition of food security for households is reflected in the availability of food that is adequate in both quantity and quality, safe, evenly distributed, and affordable." Meanwhile, USAID, 1992 (in Suharyanto, 2011) states, "the condition in which everyone can physically and financially meet their consumption needs for a healthy and productive life." Meanwhile, FAO, 1992 (in Suharyanto, 2011) states that "the condition of food security for households is reflected in the availability of food that is adequate in both quantity and quality, safe, evenly distributed, and affordable."

With the increasing population and the risk of food and nutrition insecurity, the people of Kampung Adat Cireundeu have significantly focused on cultivating cassava as a primary staple. This directly impacts production and the sustainability of their food system with Rasi (cassava rice). This demonstrates the independence and firm determination of the Kampung Adat Cireundeu community to maintain cassava as a critical food source, serving as the first subsystem of three subsystems in the food security system. Food availability is the foundation for achieving food independence and sovereignty. Food security is crucial in creating community well-being, especially regarding availability, affordability, and price stability. Additionally, there is a strong correlation between food security and inflation issues, particularly regarding affordability and purchasing power.

On the other hand, according to Farooq et al. 2022; Leal Filho et al., 2022 (Chen et al., 2024), "To maintain food security, it is often the case that climate change can cause alterations in temperature, rainfall patterns, and extreme weather events, all of which have a direct impact on agricultural productivity. These changes can affect crop yields, planting seasons, and the overall quality of products. Increased temperatures can lead to plant heat stress, while altered rainfall patterns can result in

droughts or floods that damage crops.

However, the people of Kampung Adat Cireundeu can prepare a supply of cassava to be used as cassava rice, ensuring food independence. According to Meiva, food availability is a continuation of consumption but is considered insufficient regarding food security due to various factors at the local and household levels. Physical and economic access to food is a crucial requirement to ensure the sustainability of food consumption.

B. Ngindung Ka Waktu Mibapa Ka Zaman as Food Technology in Kampung Adat Cireundeu

The advancement and development of technology continue to surpass boundaries and spaces, regardless of status, gender, or age in society. Everything evolves rapidly with the ease of access offered, making it inseparable from human life. This is undoubtedly influenced by globalization and the technological advancements that have reached Kampung Adat Cireundeu. These technologies are utilized for ease of education and livelihood sustainment through entrepreneurship using the Shopee platform called "*Serba Singkong Kampung Cireundeu*." This demonstrates that the people of Kampung Adat Cireundeu embrace technological developments without abandoning their local wisdom as a form of values and ancestral heritage passed from generation to generation, known as *Ngindung Ka Waktu Mibapa Ka Zaman*.

The potential of food availability as food technology in Kampung Adat Cireundeu reflects the abundant and high-quality natural resources used as primary food ingredients and produced through entrepreneurship. The innovative technology utilized to the fullest is evident in the sale of traditional cassava rice products, known as rasi, including items such as *Cireng Rujak, Cheese Stick, Dendeng Kulit Singkong, Saroja, Kicipir, Eggroll, Keripik Bawang, Samping, Opak Bumbu*. Thus, this is an innovation of local wisdom from the people of Kampung Adat Cireundeu to attract consumers to consume local food products, specifically cassava/rasi, to ensure food security for the Kampung Adat Cireundeu community. According to Hazelia D, Aomi et al., 2010 (in Ching-Pong Poo et al., 2024), "Several forms of innovation involve utilizing local food sources, such as cassava, to create various food products, demonstrating how these products attract

consumer interest.

This demonstrates (Ločičnik, 2024) that the focus of social technology is to achieve social goals through the use of meaningful digital tools. In this context, social technology can be defined as communication and information tools available to everyone, or at least should be, when everyone has access to the Internet. For older adults who hope that ICT can enhance their active ageing, it is the right time to teach and introduce ICT or to demonstrate initiatives and evidence of the benefits of social technology for active ageing. Over time, various technology types have become increasingly part of their lives. (Cotten, 2017). Proper information and communication technology can reduce social isolation among older adults and encourage lifestyle changes that support active ageing, thereby enhancing independence.

C. Sustainable Development Based on Local Wisdom in Kampung Adat Cireundeu

Law No. 32 of 2009 on Environmental Protection and Management has identified various elements needed to achieve sustainable development at the national and regional levels (Provinces, Districts, and Cities).

According to (Wang, 2024), "Sustainable development refers to the overall capacity of various components within a system to support sustainable development through interaction, development, and feedback among those elements".

Local wisdom can be defined as ideas imbued with wisdom and positive values, which are ingrained in and followed by the community. Local wisdom reflects the culture of the region. J.W. Ajawaila 1991 (in Suparmoko, 2020) "argues that local culture is a characteristic of the culture of a specific community. Meanwhile, Judistira 2008 (in Dasipah & Iskandar, 2019) "states that regional culture is not only reflected in artistic and aesthetic expressions but also in the behaviours, actions, and underlying thought patterns behind what is visible on the surface. According to Judistira, 2008 (in Dasipah & Iskandar, 2019) states that

regional culture is not only reflected in artistic and aesthetic expressions but also behaviours, actions, and thought patterns underlying what is visible on the surface. The ability to have a significant advantage in balancing regional development (Mally et al., 2022) (Chen et al., 2024), using resources optimally.

According to Hu et al., 2022 (Chen et al., 2024), "Using resources optimally. Additionally, small towns often have unique natural heritage, ethnic cultures, and local businesses." Liao dan Yi, 2018; Jaszczak et al., 2024 (in Chen et al., 2024) "They show a strong potential for preserving traditions and local characteristics. ." Mainet 2015 (Chen et al., 2024) "They maintain urban concepts while considering local characteristics and uniqueness (natural environment, historical culture, and biodiversity) in their sustainable development."

Hu et al., 2022 (in Chen et al., 2024) "Many sustainable development models, one of which is characteristic cities that focus on agriculture." According to Filipovi'c et al., 2016 (Chen et al., 2024), "Sustainable small cities can enhance economic and social development, reduce 'urban diseases,' and improve residents' living standards. With accessible geographic locations, pleasant environments, and prominent characteristic industries, they emerge as new platforms that drive industry transformation and improvement, foster new industrial aggregation, and support integrated urban-rural development." Wu et al., 2018 (Chen et al., 2024).

CONCLUSION AND RECOMMENDATIONS

This study shows that Kampung Adat Cireundeu can maintain its food resilience through cassava, which is processed into rasi, also known as cassava rice, a natural product obtained through agriculture. This food resilience does not preclude technological advancement; Kampung Adat Cireundeu has adopted technology, particularly in production and sales, by utilizing the Shopee platform 'Serba Singkong Kampung Cireundeu' as evidence that the community of Kampung Adat Cireundeu is keeping up with technological developments, known as Ngindung Ka Waktu Mibapa Ka Zaman, without abandoning any of the local cultural values as principles from their ancestors. This also represents an effort in sustainable development, where local wisdom can be interpreted as ideas from the local community that contain wisdom, possess positive values, and are

practised and embraced by its members.

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