

Article

Local knowledge of Mecula Haroano Laa as social cohesion of agricultural communities in Buton utara district

Syahrin Syahrin¹, Muhamad Chairul Basrun Umanailo^{2,*}, Halim Halim¹, Alias Alias¹¹ Fakultas Ilmu Budaya, Universitas Halu Oleo, Kendari 93111, Indonesia² Fakultas Pertanian dan Kehutanan, Universitas Iqra Buru, Maluku 97511, Indonesia* **Corresponding author:** Muhamad Chairul Basrun Umanailo, chairulbasrun@gmail.com

CITATION

Syahrin S, Umanailo MCB, Halim H, Alias A. (2024). Local knowledge of Mecula Haroano Laa as social cohesion of agricultural communities in Buton utara district. *Journal of Infrastructure, Policy and Development*. 8(11): 6452.
<https://doi.org/10.24294/jipd.v8i11.6452>

ARTICLE INFO

Received: 16 May 2024

Accepted: 17 June 2024

Available online: 9 October 2024

COPYRIGHT

Copyright © 2024 by author(s).

Journal of Infrastructure, Policy and Development is published by EnPress Publisher, LLC. This work is licensed

under the Creative Commons Attribution (CC BY) license.

<https://creativecommons.org/licenses/by/4.0/>

Abstract: Mecula Haroano Laa is a local wisdom that includes beliefs, norms, and practices passed down from generation to generation in the context of agricultural resource preservation and community cultural identity formation. The author is interested in investigating the practices of the Mecula Haroano Laa tradition, which is unique to North Buton Regency and has unique specifications and characteristics. This research uses a qualitative approach. The data collection techniques used in this study are in-depth interviews and participatory observations. The results of this study demonstrate that Mecula Haroano Laa in North Buton society is more than just an agricultural custom; it is also an attempt to strengthen social solidarity among community members. This practice reflects the spirit of solidarity, gotong royong together, and respect for the environment. The North Buton community is actively involved in implementing Mecula Haroano Laa as a form of participation in developing sustainable agriculture. This research contributes to understanding the importance of local wisdom in building social cohesion in communities. Research implications include sustainable planning and efforts to empower communities in developing farms in North Buton Regency. Natural resource management policies may incorporate Mecula Haroano Laa's effective and sustainable resource management techniques to promote wise use, environmental conservation, economic resilience, and dependency reduction.

Keywords: local; Mecula Haroano Laa; cohesion; community; agricultural

1. Introduction

When talking about agricultural development, one of the most important topics to tackle is sustainable agriculture. The commitment of nations around the world to agricultural expansion that is both sustainable and environmentally responsible must be honoured and followed. (Rivai and Anugrah, 2016). Developing sustainable agriculture can contribute to the resilience and protection of environmental ecosystems (Jatav and Naik, 2023; Singh, 2020). The orientation of sustainable agricultural development focuses on farming practices that aim to increase agricultural yields, maintain ecological sustainability and balance, maintain biodiversity, and increase the quality and quantity of farm products (Suardike and Prabawa, 2022; Sudjana, 2014). To support sustainable agricultural practices, village communities have social cohesion as an excellent potential to support sustainable practices. Social cohesion is built because there is equality in meeting needs which gives rise to interaction. The concept of social cohesion is a social element in society that functions to provide standard norms for living together. Sustainable agricultural practices have three main objectives: environmental health, economic benefits, and social and economic equality to meet the needs of society for a long time without damaging the availability of

resources and the environment (DeClerck et al., 2016; Sullivan, 2003). Sustainable agriculture considers both the social welfare of local communities and their economic viability to build up the capacity of community economic resources (Efendi, 2016). Sustainable farming techniques entail using farming methods that are less harmful to the environment, such as minimizing the amount of pesticides and chemical fertilizers used, managing water resources more effectively, and employing technology that promotes ecological principles. In this approach, sustainable agriculture methods aim to preserve soil fertility, minimize adverse effects on the surrounding environment, boost crop yields, and boost economic income, including food security and human and soil health (Adebayo et al., 2018; Bedeke et al., 2019; Mgomezulu et al., 2023; Ogada et al., 2020).

North Buton Regency, Indonesia, is a specific place where indigenous wisdom traditions, such as those practiced in Mecula Haroano Laa, are located. Cashew growing is one of the most prominent agricultural practices in this region. Cashew farming strategies in North Buton Regency can contribute to long-term planning and community empowerment activities. Natural resource management strategies can incorporate local knowledge of cashew production, including soil and water conservation measures used by North Buton farmers. This can help to maintain soil fertility and water supply viability. North Buton's demonstrated agricultural strategies, like planting cashew nuts on hillsides to reduce erosion, can serve as a model for sustainable agriculture in other locations with similar conditions.

In the framework of environmentally friendly agriculture, the North Buton Regency in Indonesia is a region that possesses an abundance of agricultural resources and acts as a basis for creating employment opportunities. To realize the goals of sustainable agriculture and have a good impact on the surrounding environment, addressing and resolving social and cultural issues is necessary. Traditions such as Mecula Haroano Laa are just one example of the rich and varied heritage of local knowledge found in the North Buton Regency. This local wisdom tradition includes the local understanding of ecological and cultural systems and adaptability to environmental changes and climate change. For humans to survive, adaption tactics that consider their level of knowledge and technology are necessary (Salem and Mesra, 2020). A critical aspect of this local wisdom is the growth of the community's ability to coexist with nature and sustainably use resources. Local knowledge contains cultural values and social norms the community uses to solve their problems (Jers et al., 2021; Sahlan, 2013; Sibarani, 2020). The existence of this local wisdom can be a solid basis for building social cohesion during the social life of the people of North Buton.

Mecula Haroa Ana Laa is a notion passed down from generation to generation in North Buton. It serves as the foundation for how the people of North Buton connect and collaborate in the agricultural sector. This is backed by Gunawan's idea that local wisdom is the consequence of community adaptation formed from community interaction with other community groups and their environment. Gunawan's view is correct by the following (Nesi et al., 2019; Sztompka, 2018). This idea highlights the significance of social cohesion in building environmentally friendly agriculture.

Within the context of traditional farming methods, the inhabitants of North Buton have a profound comprehension of the significance of striking a healthy equilibrium

between humans, nature, and cultural traditions. The capacity of communities to share information, knowledge, and resources and to be able to collaborate in the adoption of sustainable agricultural practices is what determines the importance of social cohesion in the development of sustainable agriculture. Indirectly, positive social connections, mutual trust, and mutual support can be formed between community members through solid social cohesiveness. This encourages active engagement in implementing initiatives for sustainable agriculture and the communal construction of sustainable farming systems. The indigenous philosophy known as Mecula Haroano Laa emphasizes working together in the spirit of cooperation, mutual assistance, and togetherness to advance agricultural development. This can help to promote social interaction within society.

A complete and in-depth study of the Mecula Haroano Laa and how this notion influences social cohesion is required to develop sustainable agricultural practices in the North Buton District. As a result, this study aims to investigate the indigenous knowledge of Mecula Haroano Laa as a form of social cohesiveness that helps the growth of environmentally friendly agriculture in the North Buton Regency.

2. Materials and methods

This study uses a qualitative approach. The data collection technique consists of three parts, namely interviews, observation, and documentation study (Creswell, 2015). The interview was conducted with key informants: local farmers, traditional leaders, associated stakeholders, and community members with information and experience concerning Mecula Haroano Laa's local wisdom and sustainable agricultural growth. The interviews focused on their understanding of Mecula Haroano Laa, traditional agricultural practices, the significance of local wisdom in promoting social cohesion, and their attempts to develop sustainable agriculture. In addition, the interviews covered the function of local wisdom in building social cohesion. Direct observations were made in the field by watching traditional agricultural practices associated with Mecula Haroano Laa. The number of informants interviewed was 36 people who were representatives of 1) people whose profession was farmers; 2) people who work as agricultural laborers; 3) housewife; 4) community and traditional figures. These practices were observed concerning Mecula Haroano Laa.

During the same period, the documentation study was carried out by collecting data and information associated with Mecula Haroano Laa through document studies. These documents included government records, previous research reports, and relevant literature. The method of analyzing the data employed is known as qualitative analysis. In this qualitative analysis, the findings are grouped, patterns are identified, and the meanings arising from the collected data are interpreted (Flynn, 2023; Plümper et al., 2019). Meanwhile, a thematic approach or content analysis is used to identify the main themes related to Mecula Haroano Laa as social cohesion in the development of sustainable agriculture. Then to ensure data validation and validity, data triangulation techniques were used to obtain a more comprehensive perspective on local wisdom and social cohesion.

3. Results and discussion

3.1. Contribution of Mecula Haroano Laa to building community social cohesion

3.1.1. Mutual cooperation as a means of social interaction

Gotong royong is a local term used in Indonesia to describe joint activities in achieving a desired goal. This term consists of two words: gotong ‘work’ and royong, which means ‘together’ (Ahimsa-Putra, 2019; Pratiwi, 2017). In the life of the local community in North Buton, gotong royong is a means of social interaction. The inculcation of cooperation values in the context of Mecula Haroano Laa refers to collaborative practices in agricultural activities in North Buton Regency. This social practice inherently encourages a culture of gotong royong among the local community. In principle, gotong royong is a fundamental concept in people’s lives in Indonesia, where individuals jointly help each other to achieve common goals.

In the cultural farming practices of Mecula Haroano Laa, communities collaborate and work together in various agricultural activities, such as land clearing, land clearing, maintenance, planting, and harvesting. For example, when a farmer clears land, he will ask for the help of a traditional leader (parika) to recite a prayer, while other farmer members will help jointly in clearing the land. In addition, when the planting season arrives, community members will gather and carry out cashew planting activities throughout the plantation area. Each member contributes by providing their labour, farming tools, and knowledge. The concept of gotong royong in the community can be in time, energy, or financial assistance (Lukiyanto and Wijayaningtyas, 2020). Likewise, the community will work together at the plant maintenance stage to maintain agricultural sustainability, including pest control and soil maintenance.

This cooperation practice created solid social ties among the farming community members. Local wisdom not only forms collaborative exercises that strengthen community social cohesion but also strengthens a sense of mutual ownership of traditional agricultural life passed down from generation to generation in a cultural environment. Communities can feel a sense of belonging and depend on one another to achieve good agrarian results. The practice of gotong royong in Mecula Haroano Laa can reduce individual workload, speed up agricultural work processes, and create efficiency.

Mecula Harono Laa’s research, which gave rise to cooperative practices, may not necessarily foster strong social cohesion in certain areas due to the limited sample size. The author argues that this sample size is not fully representative, as it includes characters from other communities that differ from the selected samples. Additionally, the number of samples is still small and restricted to agricultural communities.

3.1.2. Mecula Haroano Laa strengthens cultural identity

This research considers that it is crucial to understand that planting cooperation values through Mecula Haroano Laa is not just a traditional practice in the agricultural sector but also an essential aspect of the social and cultural life of the people in North Buton Regency. Through this cooperation, strong social bonds are established between

community members, strengthening social cohesion in developing sustainable agriculture in North Buton Regency.

The livelihood system, as a cultural element, forms the identity of a community group. The local wisdom of Mecula Haroano Laa is a tradition in agricultural activities that has a practical function in farming activities and plays an essential role in describing the people's cultural identity in North Buton Regency. The agricultural sector is one of the central livelihood systems of the local community in North Buton. Tradition, in the local community's view, symbolizes local wisdom, indicating the creation of togetherness and attachment between the community and even with the ancestors. The community celebrates the Mecula Haroano Laa tradition with joy and pride so that its values are maintained and preserved from generation to generation. This practice is not just an agricultural activity but is also an actualization of the activities and existence of the people of North Buton Regency in respecting and maintaining traditions full of meaning and value.

To maintain and maintain the local wisdom of Mecula Haroano Laa, the people of North Buton Regency actively practice and live the cultural values contained therein, which are passed down from generation to generation. In the philosophical understanding of the local community, the local wisdom of Mecula Haroano Laa encompasses spiritual, social, and economic meanings attached to their lives. Therefore, the culture or tradition of Mecula Haroano Laa is used as a forum for the community to strengthen social ties with their cultural heritage and preserve their environmental ecosystem.

Mecula Haroano Laa's wisdom is essential in strengthening the people's cultural identity. When the community organizes or practices the local knowledge of Mecula Haroano Laa, they preserve their ancestral traditions and strengthen the bonds of togetherness. This local wisdom reflects the identity and social and cultural values of North Buton, which then become the basis of solid social cohesion. Mecula Haroano Laa is used to strengthen social cohesion to maintain the sustainability of traditional farming culture and practices in the North Buton Regency.

Mecula Haroano Laa, in particular, can contribute to sustainable agricultural practices in other regions by transforming knowledge of effective agricultural techniques for their local conditions, such as minimal tillage, crop rotation, and cover planting to maintain soil fertility and reduce erosion. Additionally, the integration of trees and agricultural plants to increase biodiversity and ecosystem balance can be an example of beneficial practice for communities outside North Buton.

3.2. Implementation of local wisdom in sustainable agricultural practices

3.2.1. Mecula Haroano Laa preserves sustainable agricultural practices

The local wisdom of Mecula Haroano Laa is a culture that promotes people to utilize organic farming practices to avoid harmful chemicals that can degrade agricultural commodities and affect the health of those who consume them. These chemicals can harm the health of individuals who consume them and those who consume agricultural commodities. In this debate, we will investigate the usage of organic farming methods that are adhered to in the cultural tradition of Mecula Haroano Laa to retain biodiversity,

maintain soil fertility, and prevent adverse environmental consequences. An organic farming method is one method of achieving a condition of sustainable agriculture (Toansiba et al., 2021).

The people who live in northern Butonese believe that preserving biodiversity while extending the lifespan of parks and land can be accomplished through organic agricultural methods. The methods help to conserve the variety of plant and animal species found in agricultural environments by preventing the use of harmful pesticides and chemical fertilizers, both of which have the potential to cause damage to the surrounding environment. This is crucial because the richness of biodiversity plays a significant role in preserving the balance of ecosystems and ensuring the long-term viability of land utilized as a place for plantations. For instance, when carrying out the Mecula Haroano Laa tradition, the parika or traditional leader who leads the event urges farmers not to act arbitrarily towards plants since these plants may have supernatural residents. This is because the Mecula Haroano Laa tradition is said to have been passed down from generation to generation.

The rebuke or interference from supernatural creatures may induce illness issues or even crop failure due to these occurrences. Many people think karma is the source of supernatural justice, according to which deeds and their resulting consequences are ethically appropriate. This principle is a crucial component in many beliefs worldwide, represented in people's social judgments. Consequently, the plantation region will benefit from having a good relationship with the natural environment and functioning sustainably. Inadvertently supplying environmental conservation ideals that are to the benefit of the farmers is the comprehension and worldview that was developed by parika. Then the dread that develops from intervention from supernatural creatures becomes a form of social control in society by constantly being friendly and intelligent towards nature. This can be accomplished by having a positive attitude toward the natural world. A farming method encouraging farmers to think more critically and show concern for the natural world is a true example of organic agriculture (Imani et al., 2018).

3.2.2. Support Mecula Haroano Laa in preserving pest control practices

This organic farming method will take place during the phase in which pest and disease management are being implemented. Farmers of cashews in North Buton use a wide variety of techniques to protect cashew plants from numerous pests and illnesses. They do this in several ways: Clearing the area around the cashew trees and the cashew trees themselves of weeds, which serve as potential breeding grounds for pests. Additionally, they treat patients utilizing both contemporary medicine and traditional medicine in the course of their practice. Conventional medicine practitioners diagnose and treat patients using the local community's extensive historical medical knowledge. For instance, olive skin (also known as kulino bubuno) and giant squid bones (also known as bhang Kano sumampu) are utilized by farmers as components of traditional medicine. These two components are typically incinerated while standing beneath a cashew tree. The farming community in North Buton has long held the traditional idea that the smoke produced by burning olive skin and giant squid bones can prevent or eliminate the pests and diseases that attack cashew nuts. This belief holds that smoke can do either of these things. Farmers

frequently turn to both conventional and alternative medical practices in their daily lives. In its current form, therapy entails the application of pesticides or fungicides that have already been evaluated for their lack of adverse effects. Cashew trees are treated with modern pesticides or fungicides according to the instructions for usage supplied by the producer or agricultural extension agent.

Positive results have been obtained using integrated approaches to controlling pests and diseases that combine traditional and contemporary medical practices. Farmers can protect the health of their cashew plants and ensure successful harvests. Conversely, farmers who regularly clean the area around the tree can limit the number of nests and other locations where disease-causing organisms and pests make their homes. In addition, the approach serves as an effort to manage populations of disease and pests, both of which have the potential to impede the growth activities of the cashew plant. Farmers can care for their crops in a more effective and sustainable way if they combine the traditional knowledge they have with modern technology. This allows them to minimize potentially harmful chemicals and create a healthy environment where cashew nuts can flourish.

3.2.3. Organic farming practices that maintain soil fertility

Organic agricultural practices in North Buton Regency have benefited the local farming communities. The use of this approach preserves the fertility of the soil. Soil is a critical component of organic farming operations since it ensures the long-term viability of agricultural ecosystems. High-quality soil is required to underpin a good piece of land. Compost, green manure, and other natural materials are only some of the organic substances used in organic farming in North Buton, which helps preserve the soil and instils a sense of confidence in the farmers who work the land in this manner. Even the leftovers of fish that have been processed are put to good use as organic fertilizer for the coastal settlements of North Buton. It is necessary to maintain soil fertility for plants to develop effectively and provide healthy and abundant yields. The people of North Buton have their ideals formed by the local wisdom of Mecula Haroano Laa, and one of those principles is that they should always use organic methods while managing sustainable agricultural development.

Mecula Haroano Laa is a cultural practice that urges people to protect and maintain soil fertility and contributes to effective and sustainable water management. This local wisdom is known as Mecula Haroano Laa. The significance of the items used in the ritual, which were meant to dissolve and be carried away by the river, lies in the fact that they did so. The gathering of rainwater and the use of traditional methods of irrigation are two practices that are crucial to the local wisdom. During this conversation, we will talk about the sustainable management of water resources, which can help promote sustainable agriculture and contribute to the community's social cohesion. One of the methods that is utilized to improve the efficiency of water management is the use of traditional irrigation. Traditional Irrigation Systems consist of canals, drains, and distribution facilities constructed over several generations and then handed down to subsequent generations. This approach maximizes water use in local communities by considering the water requirements of crops, limiting the amount of water lost to leakage or waste, and ensuring that water is distributed equally throughout agricultural land. Water can be managed intelligently and sustainably if

conventional irrigation methods are used. Rice farming communities typically utilize this irrigation management to meet their rice crops' irrigation needs.

Collecting rainwater is an additional method that the society of North Buton can utilize to limit the water used to irrigate the agricultural area. This rainwater collection technique is quickly becoming a standard procedure in the environmentally responsible management of water resources. The water that falls from the sky can be collected and stored for agricultural purposes through this process. This technique is thought to be capable of lessening reliance on surface water or groundwater supplies, susceptible to quality and quantity declines. In addition to this benefit, collecting rainwater helps lessen the runoff and soil erosion that heavy rains generate. Therefore, efforts to collect rainwater contribute to the sustainability of water management and agriculture. This is in the tradition of Mecula Haroa Ana Laa, which provides cultural education to the community to understand the significance of preserving water conservation for the community's agricultural environment. Mecula Haroa Ana Laa continues this legacy to carry on the teachings of Mecula Haroa Ana Laa. Local wisdom is a cultural tradition consisting of lessons that encourage people to preserve and responsibly use all potential and natural resources (including woods, land, and water) (Efriani et al., 2020).

It should be noted that in order to preserve the Mecula Haroano Laa tradition, the community may face a number of challenges, including pressure from modernization and urbanisation, which may reduce the younger generation's interest in maintaining the Mecula Haroano Laa tradition, as well as competition between traditions and modern agricultural methods that may be more productive and profitable in the short term. If educational programmes fail to promote the preservation and appreciation of the Mecula Haroano Laa tradition, or if government policies fail to support or even hinder its practice, the tradition may face extinction.

The collection of rainwater is an additional method that the society of North Buton can utilize to limit the amount of water used to irrigate the agricultural area. This rainwater collection technique is quickly becoming a standard procedure in the environmentally responsible management of water resources. Rainwater is collected when it falls from the sky and then stored until it can be used for agriculture. This technique is thought to be capable of lessening reliance on surface water or groundwater supplies, both of which are susceptible to declines in quality and quantity. In addition to this benefit, collecting rainwater also helps lessen the runoff and soil erosion that heavy rains generate. Therefore, efforts to collect rainwater contribute to the sustainability of water management and agriculture. This is in the tradition of Mecula Haroa Ana Laa, which provides cultural education to the community to understand the significance of preserving water conservation for the community's agricultural environment. Mecula Haroa Ana Laa continues this legacy to carry on the teachings of Mecula Haroa Ana Laa. The local wisdom passed down through generations includes teachings on preserving and responsibly using all potential and natural resources (such as forests, land, and water). Mecula Haroano Laa is an integral component of the culture that the people of North Buton preserve, and it has played a role in the river water conservation efforts that have been undertaken. While carrying out this ritual, there is a practice of washing offerings into the river as a gesture of respect for the invisible spirits or souls who guard the river water. This is done to show

appreciation for their presence. In addition to serving as a show of gratitude for the harvest, this practice gives significance to the long-term viability of river water by adhering to ecological and conservationist principles to forestall the occurrence of catastrophic events.

Mecula Haroano Laa is an essential ritual for the cashew farming community, and it is required to be observed to demonstrate respect and thanks for the harvested crops. Because of this tradition, the spiritual connection that exists between humans and river water is strengthened. River water is revered as a life source because it makes soil and plants fertile. The people who live in North Buton believe that the water from the rivers is essential in ensuring that their way of life and crops may continue uninterrupted. The inhabitants of North Buton have embodied the concept that river water must be conserved and preserved following the principles of ecology and conservation thanks to the local wisdom of Mecula Haroano Laa. They are aware that the overexploitation of river water or the contamination of its environment can lead to calamities such as droughts, floods, and even a decline in the quality of the water itself. Because of this, the custom helps to convey river water conservation ideals to the community, thereby boosting knowledge of the significance of preserving a healthy ecosystem.

4. Conclusion

The Mecula Haroano Laa tradition is a traditional ceremony performed as a form of gratitude and respect for the supernatural spirit that guards the river water. This tradition provides a strong understanding of the importance of maintaining biodiversity, ecosystem balance, and the sustainability of agricultural land. Organic farming practices initiated in Mecula Haroano Laa contribute to reducing the use of chemical fertilizers and commitment to maintaining soil fertility through sustainable water use. In addition, the local wisdom of mecula haroano laa contributes to forming the social cohesion of the people of North Buton. Through this tradition, cashew farmers in North Buton Regency are connected in an atmosphere of positive social interaction and are responsible for protecting the environment and agricultural sustainability. Mecula Haroano Laa, as local wisdom, has become the primary stimulus in developing sustainable agriculture in North Buton Regency. In this context, local knowledge is a cultural heritage that must be protected and maintained and a source of environmental conservation values that benefit farmers and society.

In research regarding mecula haro ano laa as social cohesion in agricultural communities in North Buton Regency, there are several main findings that can be developed in more specific research, namely, togetherness and attachment between communities strengthen social ties with their cultural heritage to preserve the environmental ecosystem, then mecula haroano Laa maintains the agricultural ecosystem by inviting the community to protect and maintain soil fertility and contribute to effective and sustainable water management. The importance of preserving local wisdom in forming cultural identity and maintaining the rich cultural heritage of a nation built on the mecula haroano laa tradition so that local wisdom becomes an integral part of a society's cultural identity. Preserving it means maintaining the identity and characteristics that differentiate one community from

another. This is important to build a sense of pride and attachment to culture, especially for future generations. The mecula haroano Laa tradition includes knowledge that has been passed down from generation to generation, including agricultural practices, this knowledge is not only valuable for local communities, but can also provide solutions to global challenges such as climate and food change.

Author contributions: Conceptualization, SS and MCBU; methodology, MCBU; validation, HH; formal analysis, MCBU; investigation, SS, HH and AA; resources, MCBU; data curation, MCBU and AA; writing—original draft preparation, MCBU; writing—review and editing, SS; visualization, HH; supervision, AA and SS; project administration, AA. All authors have read and agreed to the published version of the manuscript.

Acknowledgments: The author would like to thank the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia through the Directorate General of Higher Education, Ministry of Education and Culture of the Republic of Indonesia, which has provided Research and Community Service Program Grants in 2023. In addition, the authors also thank the Directorate of Research, Technology, and Community Service, the Directorate General of Higher Education, Ministry of Education and Culture for the 2023 Fundamental—Regular scheme research grant, as well as all those who have helped so that this research and publication process can be completed.

Conflict of interest: The authors declare no conflict of interest.

References

- Adebayo, O., Bolarin, O., Oyewale, A., et al. (2018). Impact of irrigation technology use on crop yield, crop income and household food security in Nigeria: A treatment effect approach. *AIMS Agriculture and Food*, 3(2), 154–171. <https://doi.org/10.3934/agrfood.2018.2.154>
- Ahimsa-Putra, H. S. (2019). Koentjaraningrat and Indonesian national integration: A critical review (Indonesian). *Patra Widya: Seri Penerbitan Penelitian Sejarah Dan Budaya*, 20(2), 115–130. <https://doi.org/10.52829/pw.v20i2.288>
- Antonius Nesi, R., Rahardi, K. & Pranowo. (2019). Local Wisdom Values in the Oral Tradition of Takanab: An Ecolinguistic Study (Indonesian). *Jurnal Pendidikan Dan Kebudayaan Missio*, 11(1). <https://doi.org/10.36928/jpkm.v11i1.138>
- Bedeke, S., Vanhove, W., Gezahegn, M., et al. (2019). Adoption of climate change adaptation strategies by maize-dependent smallholders in Ethiopia. *NJAS: Wageningen Journal of Life Sciences*, 88(1), 96–104. <https://doi.org/10.1016/j.njas.2018.09.001>
- Creswell, J. W. (2015). *Qualitative Research and Research Design (choose between five approaches)* (Indonesian). *Penelitian Kualitatif*, 634.
- DeClerck, F., Jones, S., Attwood, S., et al. (2016). Agricultural ecosystems and their services: the vanguard of sustainability? *Current Opinion in Environmental Sustainability*, 23, 92–99. <https://doi.org/10.1016/j.cosust.2016.11.016>
- Efendi, E. (2016). *Implementation of Sustainable Agriculture System in Supporting Agricultural Production* (Indonesian). *Jurnal Warta*.
- Efriani, E., Dewantara, J. A., Utami, D., et al. (2020). *Traditional Ecology of Dayak Tamambaloh* (Indonesian). *Jurnal Ilmu Lingkungan*, 18(3), 503–514. <https://doi.org/10.14710/jil.18.3.503-514>
- Flynn, C. (2023). *Qualitative methods in social work. How to Conduct Qualitative Research in Social Science*. Edward Elgar Publishing Ltd.
- Imani, F., Charina, A., Karyani, T., et al. (2018). Implementation of organic farming system in mekar tani jaya farmer group, cibodas village, west bandung district (Indonesian). *Jurnal Pemikiran Masyarakat Ilmiah Berwawasan Agribisnis*, 4(2), 139. <https://doi.org/10.25157/ma.v4i2.1173>

- Jatav, S. S., & Naik, K. (2023). Measuring the agricultural sustainability of India: An application of Pressure-State-Response (PSR) model. *Regional Sustainability*, 4(3), 218–234. <https://doi.org/10.1016/j.regsus.2023.05.006>
- Jers, L. O. T., Koodoh, E. E., Hasniah, H., et al. (2021). Culture and Food Security of The Mowewe Community During the Covid-19 Pandemic. *Jurnal Antropologi: Isu-Isu Sosial Budaya*, 23(2), 248. <https://doi.org/10.25077/jantro.v23.n2.p248-255.2021>
- Lukiyanto, K., & Wijayaningtyas, M. (2020). Gotong Royong as social capital to overcome micro and small enterprises' capital difficulties. *Heliyon*, 6(9), e04879. <https://doi.org/10.1016/j.heliyon.2020.e04879>
- Mgomezulu, W. R., Machira, K., Edriss, A.-K., et al. (2023). Modelling farmers' adoption decisions of sustainable agricultural practices under varying agro-ecological conditions: A new perspective. *Innovation and Green Development*, 2(1), 100036. <https://doi.org/10.1016/j.igd.2023.100036>
- Ogada, M. J., Rao, E. J. O., Radeny, M., et al. (2020). Climate-smart agriculture, household income and asset accumulation among smallholder farmers in the Nyando basin of Kenya. *World Development Perspectives*, 18, 100203. <https://doi.org/10.1016/j.wdp.2020.100203>
- Plümper, T., Troeger, V. E., & Neumayer, E. (2019). Case selection and causal inferences in qualitative comparative research. *PLOS ONE*, 14(7), e0219727. <https://doi.org/10.1371/journal.pone.0219727>
- Pratiwi, C. A. (2017). Harai: An Examination of Koentjaraningrat's Concept of Religion (Indonesian). *Japanology*, 5(2).
- Rivai, R. S., & Anugrah, I. S. (2016). Concept and Implementation of Sustainable Agricultural Development in Indonesia (Indonesian). *Forum Penelitian Agro Ekonomi*, 29(1), 13. <https://doi.org/10.21082/fae.v29n1.2011.13-25>
- Sahlan, S. (2013). Local Wisdom in Kabanti of Buton People and its Relevance to Character Education. *El-HARAKAH (TERAKREDITASI)*, 14(2). <https://doi.org/10.18860/el.v14i2.2311>
- Salem, V. E. T., & Mesra, R. (2020). Preservation of Local Language Culture in Toundanouw Village District Southeast Minahasa Regency. In: *Proceedings of the 3rd International Conference on Social Sciences (ICSS 2020)*.
- Sibarani, R. (2020). Developing friendly city and friendly village based on local culture: An Anthropolinguistic Study. *IOP Conference Series: Earth and Environmental Science*, 452(1), 012062. <https://doi.org/10.1088/1755-1315/452/1/012062>
- Singh, S. (2020). Farmers' perception of climate change and adaptation decisions: A micro-level evidence from Bundelkhand Region, India. *Ecological Indicators*, 116, 106475. <https://doi.org/10.1016/j.ecolind.2020.106475>
- Suardike, P., & Prabawa, P. S. (2022). Study of Organic Farming in an Effort to Develop a Sustainable Agricultural Development Policy in Buleleng Regency (Indonesian). *Jurnal Pertanian Agros*, 24(3).
- Sudjana, B. (2014). Using Azolla for Sustainable Agriculture (Indonesian). *Jurnal Ilmiah Solusi*, 1(2).
- Sullivan, P. (2003). Applying The Principles of Sustainable Farming *Fundamentals of Sustainable Agriculture*, 1(2).
- Sztompka, P. (2018). *Sosiologi Perubahan Sosial*. In: *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*. Mendel University of Agriculture and Forestry Brno.
- Toansiba, M., Katmo, E. T. R., Krisnawati, K., et al. (2021). Land Management in Local Knowledge and Sustainable Agricultural Practices in Arfak Communities, West Papua (Indonesian). *Jurnal Ilmu Pertanian Indonesia*, 26(3), 370–378. <https://doi.org/10.18343/jipi.26.3.370>