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Ethnoecological Perspective on Community Forest Conservation: *The Susuk Wangan Ceremony in Setren Village, Wonogiri*

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Abstract

Background: *Community-based conservation and traditional ecological knowledge are becoming increasingly vital in biodiversity conservation and sustainability science. Nevertheless, previous ethnoecological research has infrequently incorporated ritual behaviors, ecology elements, and conservation management. This study aimed to analyze the ecological elements and conservation management aspects inherent in the Susuk Wangan tradition in Setren Village, Wonogiri, Indonesia.* **Methodology:** *This study utilized a qualitative ethnoecological approach. Data were gathered through observation, documentation, and in-depth interviews with 15 informants selected using purposive sampling. Data were analysed using descriptive analysis techniques, encompassing data condensation, data display, conclusion formulation/verification, and source triangulation.* **Findings:** *The findings identified five ecological elements: water source preservation, waterway sanitation, forest vegetation preservation, sustainable forest resource utilization, and wildlife conservation, supported by five conservation management components: local wisdom, customary rules, community participation, institutional regulations, and social-spiritual sanctions.* **Contribution:** *This study illustrates that the Susuk Wangan tradition embodies a unified socio-ecological governance framework grounded in traditional knowledge which supports community-based conservation and sustainable forest management in Setren Village, Wonogiri.*

Keywords: *Community-based Forest; Ethnoecology; Local Wisdom; Susuk Wangan; Traditional Ecological Knowledge*

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INTRODUCTION

Deforestation and forest degradation have become significant environmental issues that jeopardize biodiversity, ecological stability, and long-term sustainability. The accelerating rate of deforestation, caused by land-use change, illicit logging, and unsustainable resource utilization, presents a substantial risk to forest sustainability, resulting in habitat degradation, ecosystem disruption, climate change, and the disturbance of hydrological systems, especially in tropical areas. This condition is aggravated by a widespread disregard for the significance of environmental functions, leading to fragmentation, habitat loss, ecological disruption, and a fall in biodiversity (Ramachandra et al., 2025).

Indonesia, a nation endowed with extensive forest resources, harbors significant natural assets, including forests that are essential for controlling hydrological systems, sustaining climate stability, offering habitats for species, and supporting the livelihoods of adjacent communities (Tanjung, 2021; Rahman & Jalaluddin, 2022; Rahmawati & Cahyanto, 2024). The sustainability of these forest ecosystems is increasingly jeopardized by human-induced stresses, including land conversion, overexploitation, and inadequate environmental management techniques.

Research on community-based forest conservation predominantly focuses on ecological and institutional methodologies that prioritize technical management and policy considerations. Nevertheless, these methodologies have not adequately integrated cultural factors, especially the influence of traditional rituals on environmental behaviors. While ethnoecology provides a framework for comprehending the interplay between local knowledge, culture, and ecological systems, its utilization in examining traditional rituals as functional ecological mechanisms is still constrained. The relationship among traditional rituals, ecological processes, and community-based forest conservation has not been sufficiently elucidated within a cohesive scientific framework.

In response the issue, community-based conservation approaches have gained increasing attention as sustainable techniques that integrate ecological awareness with local knowledge system (Jayadi, 2020). Ethnoecology is a relevant framework for comprehending the reciprocal relationship between humans and the environment, grounded in local knowledge, values, and cultural practices that evolve within communities (Suyoga & Juliasih, 2023; Aprila, 2025). Traditional ecological knowledge includes the beliefs, practices, and social norms that direct communities in the sustainable management of natural resources and the preservation of ecological equilibrium (Alandra et al., 2018; Efriani et al., 2020; Salim et al., 2023). This knowledge evolves through long-term interactions between communities and their environment, establishing adaptive methods for conservation and sustainability (Medeiros et al., 2014; Pratiti et al., 2021; Maulana & Wicaksono, 2025).

Communities are essential in environmental and natural resource management, as their involvement and traditional ecological knowledge foster sustainable development (Burgos-Ayala et al., 2020). The interaction between society and the environment underpins sustainability, since traditional ecological knowledge serves as the foundation for adaptive management in conservation and the

preservation of nature through local wisdom traditions (Fakhruddin, 2024; Ramadha & Santhyami, 2025). Local knowledge constitutes a unique identity within a region, defined by community viewpoints or regulations that uphold traditional cultural values for environmental stewardship (Akmal, 2021; Novianti et al., 2022). This local knowledge informs the community's profound comprehension of the environment, hence facilitating conservation from the interactions between humans and their surroundings (Setiawan et al., 2021).

Research on the *Susuk Wangan* tradition has primarily concentrated on cultural and social dimensions, whereas investigations into community-based forest conservation have highlighted technical and institutional methodologies. Nevertheless, few research investigate the correlation between the *Susuk Wangan* practice, its ecological significance, and its contribution to integrated forest conservation management. Thus, the role of this practice in community-based forest protection is still inadequately comprehended.

Setren Village, situated in the Slogohimo District of Wonogiri Regency, Central Java, Indonesia, was deliberately chosen as the research location because to its robust preservation of ancestral beliefs and customs that the community actively upholds. Despite growing industrialization, the village maintains ancient traditions, demonstrating the endurance of local wisdom over generations, exemplifies a distinctive instance in which traditional ecological knowledge is maintained by the *Susuk Wangan* tradition. This ritualistic practice amalgamates environmental protection with cultural and social values, especially in the stewardship of forest ecosystems and water sources.

This study aims to identify ecological components inherent in the *Susuk Wangan* tradition and examine community-driven forest conservation management strategies. It offers a cohesive comprehension of how ritualistic traditions encapsulate ecological values and promote conservation, emphasizing the interrelation between cultural activities and ecological systems from an ethnoecological viewpoint. The findings provide theoretical insights into traditional ecological knowledge and practical implications for community-based conservation.

METHOD

Study Area

The research was carried out in Setren Village, Slogohimo District, Wonogiri Regency, Central Java, Indonesia (Figure 1). Setren Village encompasses an area of 959.38 hectares. The area comprises 156.38 hectares of yard, 96.00 hectares of dry ground, 532.00 hectares of forest land, and 75.00 hectares of other land. Setren Village is bordered to the north by the Perhutani area of Karanganyar Regency, to the east by Sugihan Village (Bulukerto District), to the south by Sokoboyo Village, and to the west by Jatipuro District. The research location was intentionally chosen because the *Susuk Wangan* tradition endures amid rising modernization, rendering Setren Village a pertinent environment for investigating community-based conservation from an ethnoecological viewpoint. This settlement has four hamlets: 1) Setren Hamlet, 2) Ngrapah Hamlet, 3) Salam Hamlet, 4) Kembang Hamlet. The settlement has a population of 2,808 individuals, comprising 1,400 males and 1,408 females

(BPS, 2025). A portion of Setren Village is situated within the Girimanik Natural Forest Area (KHA), positioned at coordinates 110°41'-111°18'E and 7°32'-8°15'S. The Girimanik Natural Forest Area (KHA) is classified as high mountain forest, with elevations ranging from 1200 to 2500 meters above sea level. The region possesses a tropical climate, characterized by average annual precipitation of 1,557-2,476 mm and an average air temperature of 24-32°C.

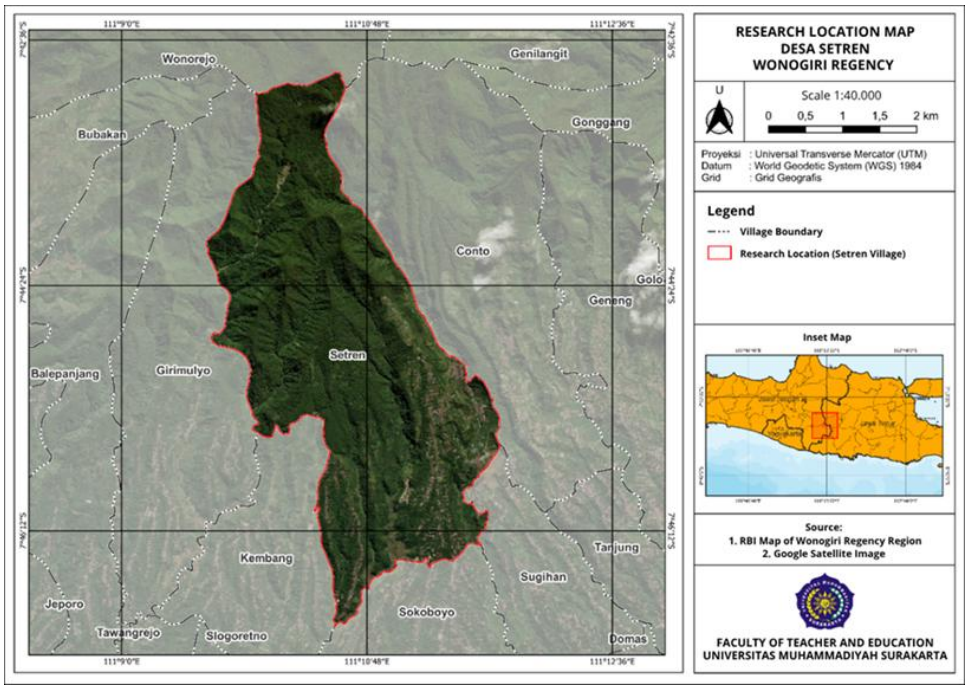

Figure 1. Research location

Research Design

This study utilized a qualitative research methodology with an ethnoecological framework to investigate the interplay of local communities, cultural traditions, and environmental conservation activities inherent in the *Susuk Wangan* tradition in Setren Village, Wonogiri. The ethnoecological approach was utilized to investigate the influence of traditional ecological knowledge, customary regulations, and community engagement on environmental conduct and the promotion of community-based forest conservation.

Data Collection

Data were gathered over a two-month period by non-participant observation, in-depth interviews employing a semi-structured interview guide, and documentation. Observations were performed to assess ecological conditions in residential, agricultural, and forest habitats. In depth interviews were performed to investigate informants knowledge, experiences, and participation in the *Susuk Wangan* tradition, with data collected by a cell phone for audio and documentation purposes.

Sampling Strategy

Informants were chosen using purposive sampling according to criteria

pertinent to the research aims (Makwana et al., 2023; Kristina, 2024). The inclusion criteria included: residency in Setren Village, familiarity with the *Susuk Wangan* tradition, direct engagement in or observation of the practice, participation in local socio-cultural activities, and acknowledgement as individuals with pertinent knowledge or information. A total of 15 male informants participated, comprising 1 village administrator, 13 farmers, and 1 private sector employee, aged between 40 and 70 years. Seven informants aged 60–70 years were designated as community elders, signifying their seniority, experience, and socio-cultural importance within the community.

Data Analysis

The gathered data were examined by ethnographic analysis techniques to systematically delineate and encapsulate the information (Sofwatillah et al., 2024). The data analysis employed an interactive model comprising data condensation, data display, and conclusion drawing/verification (Miles et al., 2014). Data condensation entailed the selection and simplification of information from field notes and interview transcripts, while the display of data systematically organized the data to discern patterns and themes pertinent to the *Susuk Wangan* tradition. Conclusions were formulated and consistently validated during the research process to ensure accuracy.

Validity & Reliability

The validity of the data was confirmed using triangulation to bolster the reliability of the conclusions. This study utilized source triangulation by comparing and cross-verifying information from primary data (observation and in-depth interview) and secondary data (internet, documentation, Law Book Setren Village Regulation) sources to reduce bias and enhance data accuracy. This methodology enabled the researcher to analyze variations, confirm consistency, and ascertain the trustworthiness and comprehensiveness of the data during the study process (Arianto, 2024; Susanto et al., 2023).

Ethical Consideration

All informants participated willingly and gave informed consent before data collection commenced. The researcher guaranteed the confidentiality and anonymity of participants, and all data were utilized exclusively for research reasons.

RESULT AND DISCUSSION

The *Susuk Wangan* tradition in Setren Village embodies a ritualistic activity that amalgamates cultural, social, and ecological aspects in the preservation of water supplies and forest ecosystems. *Susuk Wangan* occurs on Saturday Kliwon during the month of *Bulan Besar* or *Dzulhijah*. This custom originated as a communal response to water shortage, as restricted access to water resources prompted collective efforts to find, manage, and preserve water sources. Over time, these activities were institutionalised through cultural rites and social obligations, illustrating how environmental difficulties can influence local knowledge systems. During the *Susuk*

Wangan ceremony, the local community collaborates to cleanse rivers originating from the spring to ensure unobstructed water flow and avert blockages or contamination, followed by prayers and expressions of gratitude, culminating in communal meal of tumpeng and ingkung, at post 3 of the Girimanik Forest (Figure 2).

Figure 2. *Susuk Wangan* Ceremony

Figure 3. Community Water Maintenance

The *Susuk Wangan* ceremony honors ancestors, expressing gratitude for the plentiful water, and ids in the conservation of essential water sources in Setren Village (Qomariah et al., 2020). According to the informant, *"makna Susuk Wangan di masyarakat itu tradisi bentuk terima kasih rasa syukur kepada Tuhan Yang Maha Esa dengan melestarikan sumber mata air kemudian merawat saluran air"* (*Susuk Wangan signifies a societal tradition of expressing gratitude to God Almighty through the preservation of water sources and the maintenance of water channels*). The integration of spiritual principles in the *Susuk Wangan* tradition enhances community dedication to environmental preservation. The ritual embodies religious convictions and ethical obligations that bolster pro-environmental conduct. This illustrates that traditional ecological knowledge includes not only technical components but is also intricately connected to belief systems, norms, and cultural behaviors that underpin sustainable resource management.

The *Susuk Wangan* tradition demonstrates a community-based forest conservation framework that amalgamates local wisdom, customary regulations, and communal engagement in the stewardship of natural resources, and is officially governed by Law Book Regulation Setren Village No. 4 of 2011, Article 10, as a cultural and water conservation tradition (Figure 4). *Susuk Wangan* serves as both a ritualistic practice and a method of environmental stewardship, wherein the community collectively preserves water sources, purifies waterways, and expresses gratitude for natural resources. This technique enhances communal recognition of the significance of safeguarding forests and water systems, in accordance with community-based and integrated natural resource management strategies (Zamzami et al., 2025).

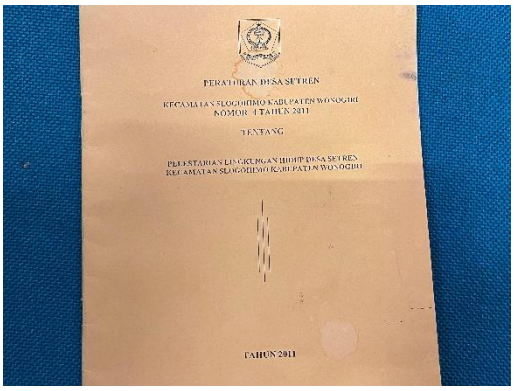

Figure 4. Village Regulation Book of Setren Village

Conservation practices in Setren Village are further shaped by customary rules passed down through generations, which regulate interactions between the community and the environment. These norms include restrictions on tree cutting near water sources, preservation of forest areas, and respectful behavior within forest spaces. Such practices reflect ethnoecological knowledge that supports sustainable resource use and biodiversity conservation (Qodim, 2023; Molnár et al., 2024). These conservation efforts are further strengthened by customary regulations and local principles that govern environmental behavior. The local adage,*"yen ora disusuki wangan e buntet"* (*if the waterways is not maintained, it will be blocked)*, encapsulates the belief that neglecting the maintenance and cleanliness of streams will obstruct water flow. Community participation plays a central role, as conservation activities are carried out collectively through mutual cooperation, ensuring the sustainability of natural resources for present and future generations (Suhaeb et al., 2024).

In addition to traditional norms, conservation management is reinforced by formal institutional support and social control mechanisms. Conservation practices reinforced by sosial and spiritual sanction, necessitating adherence to the norms of *Susuk Wangan* and forest utilization by both the Setren Village community and other individuals. Violations of customary regulations regarding forest protection and environmental conservation are generally resolved in village assemblies or community forums, where offenders may receive admonitions or social condemnation. As seen by the assertion, *"sanksi adat di pertemuan besar di acara kegiatan tersebut pelanggar akan di protes semua warga dan mendapat sanksi sosial" (Violations may encounter social sanctions and public censure during village assemblies).* The association asserts that individuals who

damage protected forest areas or breach conservation standards may experience misfortune known as *balak*. According to an informant, *"biasanya kalau merusak atau berniat melanggar aturan ada balak dari alam setempat secara garis spiritual" (Violations will face spiritual consequences from their environment)*. This belief system functions as a social control mechanism that encourages community compliance with conservation activities.

Table 1. Ecological Element The *Susuk Wangan* Tradition

Ecological Element	Source of Evidence	Observed practice	Frequency
Water sources protection	Interview with informant: *"Susuk wangan artine yen ora di susuki wangan e buntet" (Susuk Wangan means that if the waterways is not maintained, it will be blocked).*	• Communal ritual of cleaning springs and safeguarding water sources. • Prayers and expressions of gratitude for the water sources.	Periodic (during ritual and routine activities)
Waterway sanitation	Interview with informant: *"sumber air nggak boleh dikotori, menjaga kebersihan bersama-sama" (Water sources must not be polluted, maintain cleanliness collectively).*	• Collective cleaning of rivers and irrigation channels. • Regular clean-up (*Kemisajen*).	Regular/ routine
Forest vegetation preservation	Interview with informant: *"Ora oleh nebang kayu saking sumber air" (Tree cutting is prohibited in water sources).*	• Prohibition of cutting tress within ± 100 meter radius of water sources. • Protection of vegetation around springs and water sources.	Continuous (rule-based)
Sustainable resources use	Interview with informant: *"Memanfaatkan hasil hutan dengan menggunakannya tidak boleh berlebihan" (The utilization of forest products should not be excessive).*	• Restricted extraction of forest products • Use of non-timber resources (grass, medicinal plants, coffee) in controlled amounts.	As needed (controlled use)

Ecological Element	Source of Evidence	Observed practice	Frequency
Wildlife conservation	Interview with informant: *"hewan yang dilindungi dan tidak boleh ditangkap it seperti macan, lutung, rusa" (protected species that are prohibited from capture, including tigers, langurs, and deer).*	• Avoidance of hunting and trapping. • Protection of wildlife and maintenance of ecological balance.	Continuous (rule-based)

Figure 5. Perennial Planting at Water Sources

Figure 6. Elephant Grass (*Pennisetum purpureum)*, a Non-Timber Forest Product Utilized By The Community

These behaviors yield various ecological outcomes that embody the ecological components inherent in the *Susuk Wangan* tradition, particularly water sources protection and waterway sanitation as presented in Table 1. The conservation of water sources is ensured through the collaborative upkeep of springs and irrigation systems, while waterway cleanliness is maintained through routine activities. Interviews with informants reveal that 12 out of 15 informants (80%) are farmers who depend on water for irrigation and agricultural practices. The community preserves spring areas through

conservation initiatives, including planting perennial trees as natural buffers (Figure 5) and routinely cleaning streams while avoiding agricultural activities near water sources (figure 3). These practices help maintain water availability and reduce environmental risk such as erosion and landslides (Nurfadillah et al., 2023; Salokhiddinov et al., 2025). The community participates in collaborative efforts, such as regular cleaning of streams (*Kemisajen*), and maintaining irrigation channels.

Forest vegetation preservation and sustainable resource utilization are also significant, as detailed in Table 1. Forest regions are safeguarded by prohibitions on deforestation and the preservation of lands next to water sources. This conservation practice is also evident in the statement of an informant, "*Dalam menjaga lingkungan masyarakat tidak boleh menebang pohon di lingkungan sekitar sumber air" (To safeguard the environment, individuals should refrain from deforesting areas surrounding water sources).* In Setren Village, the 2011 Environmental Conservation Regulation (Article 5) regulates tree felling licenses, reporting protocols, and replanting obligations, effectively restricting forest utilization to required necessities. This illustrates the community's comprehension of the correlation between forest conditions and water supply, further reinforced by the preservation of sacred forest regions. Village regulations and Perum Perhutani KPH Surakarta laws, which limit forest exploitation and forbid forest and land burning in order to minimise environmental harm and protect forest ecosystems, assist the maintenance of forest vegetation (Ferlyanto & Mukasyaf, 2026). Violations of these regulations, as stipulated in Forestry Law No. 41 of 1999, are punishable up to 15 years of imprisonment and fines of 5,000,000 rupiah.

Resource utilization in Setren Village is regulated by controlled extraction and the prioritizing of non-timber forest products, including elephant grass (*Pennisetum purpureum*) for animal feed (Figure 6). Non-timber forest products are increasingly acknowledged as a more ecologically sustainable and socially beneficial method of forest management (Sari et al., 2025). Forest exploitation is confined to fundamental necessities, with timber utilization restricted to naturally fallen branches and the collection of non-timber forest products within regulated limits. This behavior is substantiated by an informant's assertion,*"Memanfaatkan hasil hutan dengan menggunakannya tidak boleh berlebihan" (Utilizing forest resources should not be excessive).* These practices reflect sustainable forest resources utilization that minimizes ecological degradation (Hernanda & Giyono, 2021).

Alongside these conservation practices, wildlife protection maintains environmental equilibrium and represents one of the ecological components behind the *Susuk Wangan* tradition, as illustrated in Table 1. The identification of tiger footprints by a research team on May 30, 2025, validated by forest officials, signifies a well-preserved forest environment. Despite problems from wildlife, such as monkeys, the community addresses these issues through non-destructive techniques, such driving them away or erecting basic barriers. These behaviors exemplify localized adaptive conservation efforts and emphasize wildlife protection without killing animals, illustrate the community commitment to sustaining ecological equilibrium and habitat viability. Wildlife conservation is crucial for preserving ecosystem equilibrium, education and community engagement are essential for fostering environmental sustainability (Ji, 2024).

The findings indicate that the *Susuk Wangan* tradition serves both as a cultural tradition and as an integrated community-based forest conservation system. This ritual is reinforced by conservation management components, including local wisdom, customary rules, community participation, institutional regulations, and social and spiritual sanction that collectively influence community behaviour toward environmental preservation. These practices are evident in water sources preservation, waterway sanitation, forest vegetation protection, sustainable resources utilization, and wildlife conservation. The interaction of ritual activities, indigenous knowledge, and conservation behavior demonstrates the role of traditional ecological knowledge in contributing to environmental sustainability within the community. This discovery underscores that local traditions like *Susuk Wangan* significantly contribute to enhancing community-based conservation via interrelated ecological, cultural, and social aspects.

CONCLUSION

This study indicates that the *Susuk Wangan* tradition in Setren Village, Wonogiri represents an integrative sosio-ecological governance model rooted in local tradition that influences environmental behaviour through five management components: local wisdom, customary rules, community participation, institutional regulations, and social-spiritual sanctions. These components collectively support essential ecological elements, including water sources preservation, waterway sanitation, forest vegetation protection, sustainable resources utilization, and wildlife conservation. Unlike previous ethnoecological studies that predominantly focus on cultural values or traditional ecological knowledge in isolation, this study integrates ritual activities, ecological factors, and conservation management into a cohesive conservation framework. The findings underscore the significance of local traditions in strengthening community-based conservation strategies and promoting sustainable forest management. However, this study was limited to a single community context and relied on qualitative approaches. Therefore, future research are encouraged to examine similar ritual-based conservation systems across diverse socio-ecological contexts using broader scientific approaches.

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REFERENCES

Akmal, Z. (2021). A Philosophical and Legal Review of the Existence of Local Wisdom. *JOELS: Journal of Election and Leadership*, *2*(2), 1–11. https://doi.org/10.31849/joels.v2i2.7451 **[*In Indonesian language*]**

Alandra, Y., Amelia, F. U. D., & Iskandar, J. (2018). The traditional Rimbo Larangan system of forest management: An ethnoecological case study in Nagari Paru, Sijujung District, West Sumatra, Indonesia. *Asian Journal of Ethnobiology*, *1*(2), 61–68. https://doi.org/10.13057/asianjethnobiol/y010202

Aprila, A., & Samsuar. (2025). Ethnoecological Education in the Context of Pawang Laot: Preservation of Local Knowledge and Sustainability of Marine Ecosystems. *Jurnal Semasa : Jurnal Sosial Dan Budaya Dunia Melayu Raya*, *1*(1), 1–13. **[*In Indonesian language*]**

Arianto, B. (2024). *Triangulation in Qualitative Research Methods*. Balikpapan: Borneo Novelty Publishing. **[*In Indonesian language*]**

BPS. (2025). *Slogohimo Subdistrict in Figures 2024*. BPS Kabupaten Wonogiri-Statistics Wonogiri Regency. Pages : 27-36. https://wonogirikab.bps.go.id/id/publication/2024/09/26/7a2d3f13d14ba189bb590bb6/kecamatan-slogohimo-dalam-angka-2024.html. Accessed on 17Th December 2025. **[*In Indonesian language*]**

Burgos-Ayala, A., Jiménez-Aceituno, A., Torres-Torres, A. M., Rozas-Vásquez, D., & Lam, D. P. M. (2020). Indigenous and local knowledge in environmental management for human-nature connectedness: a leverage points perspective. *Ecosystems and People*, *16*(1), 290–303. https://doi.org/10.1080/26395916.2020.1817152

Efriani, E., Dewantara, J. A., Utami, D., & Listyaningrum, I. (2020). The Traditional Ecology of the Tamambaloh Dayak. *Jurnal Ilmu Lingkungan*, *18*(3), 503–514. https://doi.org/10.14710/jil.18.3.503-514 **[*In Indonesian language*]**

Fakhruddin, A. A. Y. (2024). Local Wisdom as a Resource for Environmental Conservation. *Jurnal Ekologi, Masyarakat Dan Sains*, *5*(1), 100–108. https://doi.org/10.55448/xg63eb94 **[*In Indonesian language*]**

Ferlyanto, M. B., & Mukasyaf, A. A. (2026). Analysis of forest and land fire disaster vulnerability in Blora Regency based on geographic information system. *IOP Conf. Series: Earth and Environmental Science*, *1586*(1), 1–13. https://doi.org/10.1088/1755-1315/1586/1/012033

Hernanda, T., & Giyono, U. (2021). Environmental Legal Protection of Rivers in the Perspective of Sustainable Development. *Jurnal Jurisprudence*, *11*(1), 68–113. https://doi.org/10.23917/jurisprudence.v11i1.14744

Jayadi, E. M. (2020). *Management of Customary Forests Based on Local Wisdom*. Mataram : Sanabil. Pages :113-157. **[*In Indonesian language*]**

Ji, H. (2024). Research on Wildlife Protection and Nature Reserve Management. *International Journal of Natural Resources and Environmental Studies*, *2*(3), 48–52. https://doi.org/10.62051/ijnres.v2n3.07

Kristina, A. (2024). *Interview Techniques in Qualitative Research*. Sleman : Deepublish Digital. Pages : 1-10. **[*In Indonesian language*]**

Makwana, D., Engineer, P., Dabhi, A., & Chudasama, H. (2023). Sampling Methods in Research : A Review. *International Journal of Trend in Scientific Research and Development (IJTSRD)*, *7*(3), 762–768. **[*In Indonesian language*]**

Maulana, M. A. F., & Wicaksono, H. (2025). Ethnoecology of Traditional Oil Mining Management Systems and Technologies in Wonocolo Village. *ETNOREFLIKA: Jurnal Sosial Dan Budaya*, *14*(1), 149–163. https://doi.org/10.33772/etnoreflika.v14i1.2991 **[*In Indonesian language*]**

Medeiros, M. F. T., da Silva, T. C., Sousa, da S. R., & Silva, V. R. R. R. (2014). Oral History in Ethnobiology and Ethnoecology. In U. P. Albuquerque, L. V. F. C. da Cunha, R. F. P. de Lucena, & R. R. N. Alves (Eds.), *Methods and Techniques in Ethnobiology and Ethnoecology*. Humana Press, New York, pp.59-73.

Miles, M. B., Huberman, M., & Saldaña, J. (2014). *Qualitative Data Analysis : A Methods Sourcebook*. California : SAGE Publications. Pages : 69-104.

Molnár, Z., Aumeeruddy-thomas, Y., Babai, D., Díaz, S., Garnett, S. T., Hill, R., Bates, P., Brondízio, E. S., Cariño, J., Demeter, L., Fernández-Llamazares, Á., Guèze, M., McElwee, P., Öllerer, K., Purvis, A., Reyes-García, V., Samakov, A., & Singh, R. K. (2024). Towards Richer Knowledge Partnerships Between Ecology and Ethnoecology. *Trends in Ecology & Evolution*, *39*(2), 109–115. https://doi.org/10.1016/j.tree.2023.10.010

Novianti, L. E., Hamzah, & Hariyadi, B. (2022). Local Wisdom in the Management of Customary Forests by the Tigo Luhah Kemantan Indigenous Community in Kerinci Regency. *Jurnal Ilmiah Universitas Batanghari Jambi*, *22*(1), 261–265. https://doi.org/10.33087/jiubj.v22i1.1971 **[*In Indonesian language*]**

Nurfadillah, N., Susanti, T., & Manurung, A. Q. (2023). Structure and Composition Seedling Plant in the Campus Forest of UIN Sulthan Thaha Saifuddin Jambi. *Jurnal Pembelajaran Dan Biologi Nukleus*, *9*(3), 678–687. https://doi.org/10.36987/jpbn.v9i3.5041

Pratiti, E. C., Hartadiyati, E., Haryanti, W., & Rakhmawati, R. (2021). Ethnoecology of Communities in the Teak Forest Area of Batang Regency Engaged in Intercropping. *Jurnal Jejaring Matematika Dan Sains*, *3*(1), 1–6. https://doi.org/10.52850/jjms.2021.v3.i1.501 **[*In Indonesian language*]**

Qodim, H. (2023). Nature Harmony and Local Wisdom: Exploring Tri Hita Karana and Traditional Ecological Knowledge of the Bali Aga Community in Environmental Protection. *Religious: Jurnal Studi Agama-Agama Dan Lintas Budaya*, *7*(1), 1–10. https://doi.org/10.15575/rjsalb.v7i1.24250

Qomariah, A., Setiawan, H., Purnaweni, H., & Ali Syahbana, J. (2020). Grebeg Susuk Wangan: A river conservation based on local wisdom in Gondang Village, Kendal Regency. *E3S Web of Conferences*, *202*. https://doi.org/10.1051/e3sconf/202020206014

Rahman, F., & Jalaluddin, M. (2022). Forest Resource Management Based on Local Wisdom Among the Balinese People. *Jurnal Hutan Dan Masyarakat*, *14*(1), 51–60. https://doi.org/10.24259/jhm.v14i1.14396 **[*In Indonesian language*]**

Rahmawati, A., & Cahyanto, T. (2024). Analysis of the Designation of the Cikondang Traditional Village as a Cultural Heritage Site as a Means of Conserving Customary Forests. *JPBB: Jurnal Pendidikan, Bahasa Dan Budaya*, *3*(3), 162–169. https://doi.org/10.55606/jpbb.v3i3.3913 **[*In Indonesian language*]**

Ramachandra, T. V, Negi, P., Mondal, T., & Setturu, B. (2025). Sustainable Management of Natural Resources at Disaggregated Levels with Insights from Landscape Dynamics. *Forum Geografi*, *2*(39), 1–27. https://doi.org/10.23917/forgeo.v39i2.6857

Ramadha, F. R., & Santhyami, S. (2025). Ethnobotany of Tree Utilization in Girimanik Natural Forest, Area Setren Village. *BIO Web of Conferences*, *190*, 1–9.

Salim, M. J., Anuar, S. N., Omar, K., Tengku Mohamad, T. R., & Sanusi, N. A. (2023). The Impacts of Traditional Ecological Knowledge towards Indigenous Peoples: A Systematic Literature Review. *Sustainability (Switzerland)*, *15*(1), 1–22. https://doi.org/10.3390/su15010824

Salokhiddinov, A., Juliev, M., Mirzaqobulov, J., Khakimova, P., Khomidov, A., & Abdikairov, B. (2025). Bibliometric Mapping of Research on Water Availability in Central Asia. *Forum Geografi*, *2*(39), 262–273. https://doi.org/10.23917/forgeo.v39i2.8991

Sari, C. P., Supriyadi, Purwanto, Rosariastuti, R., & Nufus, M. (2025). Sumberejo Community's Perspective on Non-Timber Forest Product to Support Sustainable Environment. *Bioeksperimen*, *11*(2), 139–151. https://doi.org/10.23917/bioeksperimen.v11i2.13643

Setiawan, E., Sukesi, K., Hidayat, K., & Yuliati, Y. (2021). PThe Role of Communities in the Surrounding Buffer Zone Villages in the Conservation of Alas Purwo National Park Based on Local Wisdom. *Dimensia: Jurnal Kajian Sosiologi, 13*(1), 19–43. https://doi.org/10.21831/dimensia.v10i1.38862 **[*In Indonesian language*]**

Sofwatillah, Risnita, Jailani, M. S., & Saksitha, D. A. (2024). Quantitative and Qualitative Data Analysis Techniques in Scientific Research. *Journal Genta Mulia*, *15*(2), 79–91. **[*In Indonesian language*]**

Suhaeb, F. W., Tamrin, S., Jumadi, & Irwan. (2024). Community Adaptation Strategies To Climate Change : Towards Sustainable Social Development. *Migration Letters*, *21*(2), 943–953.

Susanto, D., Risnita, & Jailani, M. S. (2023). Techniques for Verifying Data Validity in Scientific Research. *Jurnal QOSIM Jurnal Pendidikan Sosial & Humaniora*, *1*(1), 53–61. https://doi.org/10.61104/jq.v1i1.60 **[*In Indonesian language*]**

Suyoga, I. P. G., & Juliasih, N. K. A. (2023). Understanding Ethnoecology in the Water Management of Traditional Balinese Homes. *Jurnal Widya Biologi*, *14*(02), 1–12. https://doi.org/10.32795/widyabiologi.v14i01.4131 **[*In Indonesian language*]**

Tanjung, A. (2021). The Status of Customary Forests on Communal Lands in Forest

Utilization. *Populis : Jurnal Sosial Dan Humaniora*, *4*(1), 137–148. https://doi.org/10.47313/pjsh.v4i1.590 **[*In Indonesian language*]**

Zamzami, H. A., Elaanzouli, M., Zahrani, A., Ezzardi, A., Saidi, J., Mounaji, J., Belhaj, S., Ammar, A., Jumadi, J., & Boumeaza, T. (2025). Sustainable Water Management in Eco-Tourism : Addressing Water Scarcity in Morocco's Northern Piedmont of the Western High Atlas. *Eco-Tourism and Sustainable Development*, *1*(2), 1–15. https://doi.org/https://doi.org/10.63385/etsd.v1i2.174

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