

ECO-MYSTICISM AS A BASIS FOR WATER CONSERVATION IN SENDANG TAWUN NGAWI

Nur Kasanah

Universitas Islam Negeri Kiai Ageng Muhammad Besari Ponorogo

nur.febi@uinponorogo.ac.id

Hilmi Faizurrahman

Universitas Negeri Surabaya

25030234023@mhs.unesa.ac.id

Muhammad Husain As Sajjad

Universitas Islam Negeri Walisongo

2102046021@student.walisongo.ac.id

Abstract: *Water conservation amid the climate crisis requires a holistic approach based on eco-mysticism that integrates ecological knowledge with cultural and spiritual values. This study examines the role of local eco-mysticism as a basis for water conservation at Sendang Tawun, Ngawi. The research focuses on ritual practices and local beliefs of the Tawun community in preserving water sources. The aim is to understand the relationship between mystical rituals, customary prohibitions, and environmental conservation efforts. The method employed is qualitative research with a case study approach through in-depth interviews, participatory observation, and documentation. Data were obtained from traditional leaders, local communities, officials, vendors, and visitors. The findings show that local eco-mysticism is manifested through the Keduk Beji ritual and prohibitions against taking turtles, fish, and plants from the spring area. These beliefs are grounded in ancestral reverence, faith in spiritual guardians, and fear of misfortune. Such practices have proven effective in sustaining water sources, preserving traditions, and promoting tourism-based economies. Thus, eco-mysticism can serve as a model of culturally rooted water conservation.*

Keywords: *conservation, local eco-mysticism, sendang tauun, water.*

INTRODUCTION

Water conservation is a significant effort to maintain water availability as a fundamental element that sustains life on Earth. Humans and all living things depend on



water to meet basic needs such as drinking, sanitation, and sustaining ecosystems.¹ However, sufficient and quality water is highly dependent on wise management. The water cycle must be balanced to support life's sustainability, starting from rainfall, soil absorption, and river and sea drainage. Disruption to this cycle, due to human activities such as deforestation and pollution, and natural changes such as climate change, can trigger serious problems such as floods, droughts, and clean water crises. Therefore, water conservation is a top priority in ensuring ecosystem balance, maintaining resource sustainability, and supporting the lives of future generations.

Reality shows that human activities that damage the environment have disrupted the balance of the water cycle. Massive tree felling and deforestation result in the soil losing its natural ability to absorb and store rainwater. As a result, unabsorbed water flows directly into rivers and seas, causing flooding in the rainy season. On the other hand, when the dry season arrives, soils that lack water reserves experience drought, leading to a clean water crisis.² This phenomenon impacts humans and destroys the habitats of other living things. With conditions like this, serious steps are needed to overcome ecosystem damage so that water resources can be optimally managed for the future.³

Efforts to overcome challenges in protecting water resources, such as conservation efforts, are necessary. Water conservation aims to protect groundwater resources, maintain the sustainability of the water cycle, and ensure that water needs can be met for both current and future generations in line with the findings by Salari et al (2024).⁴ According to research by Achmad et al (2024)⁵ conservation approaches can involve technical measures, such as forest reforestation, creation of water catchment areas, and responsible waste management. However, no less important is the involvement of the community in protecting spring water sources by applying local wisdom as found by Sedyowati et al (2023).⁶ With a holistic approach that blends modern technology and local traditions, conservation efforts can provide more effective and sustainable results in maintaining water as a source of life.⁷

¹ Taleat Adewale Tella et al., "Water and Wastewater Treatment in Developed and Developing Countries: Present Experience and Future Plans," in *Smart Nanomaterials for Environmental Applications* (Elsevier, 2025), 351–85, <https://doi.org/10.1016/B978-0-443-21794-4.00030-2>.

² Nida Humaida and Murniningsih, *Dasar-Dasar Pengetahuan Lingkungan Berbasis Perubahan Iklim Global* (Banjarmasin: UrbanGreen Central Media, 2024).

³ Animesh K. Gain et al., "Social-Ecological System Approaches for Water Resources Management," *International Journal of Sustainable Development & World Ecology* 28, no. 2 (February 2021): 109–24, <https://doi.org/10.1080/13504509.2020.1780647>.

⁴ Azam Salari, Mahdi Zeinali, and Mousa Marzband, "Model-Free Reinforcement Learning-Based Energy Management for Plug-in Electric Vehicles in A Cooperative Multi-Agent Home Microgrid with Consideration of Travel Behavior," *Energy* 288 (February 2024): 129725, <https://doi.org/10.1016/j.energy.2023.129725>.

⁵ Sofyan Maulana Achmad et al., "Edukasi Dan Mitigasi Bencana Yang Optimal Melalui 'Pos Iklim' Desa Pakis Kabupaten Jember," *AJAD: Jurnal Pengabdian Kepada Masyarakat* 4, no. 2 (August 2024): 454–63, <https://doi.org/10.59431/ajad.v4i2.365>.

⁶ Laksni Sedyowati, Sari Yuniarti, and Sufiyanto Sufiyanto, "Is Local Wisdom Able to Build Sustainable Communities in Informal Flood-Prone Settlements? Evidence from Glintung Kampong, Malang City, Indonesia," *Local Wisdom: Jurnal Ilmiah Kajian Kearifan Lokal* 15, no. 1 (2023): 41–52.

⁷ Intan Wahyuningtyas Andin, Muhammad Danda Evantrino, and Romadona Putri Pertiwi, "Eksistensi Penegakan Hukum Lingkungan Dalam Mewujudkan Pertumbuhan Ekonomi Dan Pembangunan



Sendang Tawun in Ngawi is a clear example of harmony between humans, nature, and local traditions in preserving water resources. Located in almost 12 hectares, this tourist location, established in 1952, offers natural beauty surrounded by lush trees and bamboo that have grown for hundreds of years. The primary spring water source in Sendang Tawun consistently drains hundreds of cubic feet of water daily and is utilised for swimming pools and artificial lakes.⁸ This continuity turns out to be not only the result of the grace of nature, but also thanks to the traditions of the local people who maintain the sanctity of the sendang through traditional rituals. The residents believe that Sendang Tawun has a "supernatural guardian," so they support preserving the environment, including the flora and fauna in the area, to avoid catastrophe. This tradition reflects an ecological-mystical approach that can be an essential lesson in conserving natural resources.⁹

Ecology-mysticism is a conservation approach that combines ecological principles with a spiritual belief in the sacredness of nature. This approach assumes that nature is a living entity with guardians that must be respected to maintain balance. In the context of Sendang Tawun, the community's belief in the existence of the "supernatural guardian" of Sendang is the driving force to preserve the surrounding environment. Generational traditions in the form of traditional rituals and respect for local habitats make this area not only ecologically sustainable but also spiritually valuable. The ecological-mystical practices in Sendang Tawun reflect the harmonious symbiosis between humans and nature, which has proven effective in maintaining the sustainability of spring water sources.¹⁰

Several previous studies have confirmed the close link between spirituality and environmental conservation. Research by Tomalin (2024)¹¹ and Mo et al. (2023)¹² shows that people who place water as a sacred element tend to have a higher level of

Berkelanjutan Di Indonesia," *Jurnal Hukum, Politik, Dan Ilmu Sosial* 3, no. 3 (June 2024): 294–308, <https://doi.org/10.55606/jhps.v3i3.3919>.

⁸ "SIDITA | Pemandian Tawun," accessed October 13, 2025, <https://sidita.disbudpar.jatimprov.go.id/destinasi/detail/0d437800dd77a1f988efd2e7edf57ef1433c21e222d4b3a95b64e409e6b3eac78a6f7b1559b0fe3f4a000a91787ef89d11418b87549fcb47577363753dbdcca-2.1>

⁹ Claudia Martha, "Bulus Tawun Spesies Langka Asal Ngawi," *Kompasiana*, February 24, 2022, <https://www.kompasiana.com/claudia07329/6216fece3179491835307594/spesies-langka-asal-ngawi-bulus-tawun.c>

¹⁰ Frengki Nur Fariya Pratama, "Ngebel Dan Isu Krisis Ekologis: Pelestarian Lingkungan Melalui Pendekatan Ekologi-Mistik Dalam Narasi Serat Centhini," *Ansoruna: Journal of Islam and Youth Movement* 1, no. 1 (2022): 73–88.

¹¹ Emma Tomalin, "Religion, Ecology and Hindu Nationalism in India," *Religion and Development* 2, no. 3 (March 2024): 463–82, <https://doi.org/10.30965/27507955-20230032>.

¹² Yalin Mo, Junyu Zhao, and Thomas Li-Ping Tang, "Religious Beliefs Inspire Sustainable HOPE (Help Ourselves Protect the Environment): Culture, Religion, Dogma, and Liturgy—The Matthew Effect in Religious Social Responsibility," *Journal of Business Ethics* 184, no. 3 (May 2023): 665–85, <https://doi.org/10.1007/s10551-022-05131-z>.



environmental concern than other groups. Bere et al. (2023)¹³ and Utami et al. (2023)¹⁴ added that traditional rituals can strengthen a sense of collective responsibility in preserving water resources. On the other hand, Mulyanti (2022)¹⁵ and Masha et al. (2021)¹⁶ highlight the importance of active participation of local communities in water management that is adaptive to the dynamics of climate change. Meanwhile, Fatem et al. (2020)¹⁷ and Armitage et al. (2020)¹⁸ emphasized the need for public policy support and institutional synergy in strengthening community-based conservation systems. However, in-depth studies of the role of mystical values and local spirituality as the main factors in water conservation are still relatively limited. Therefore, the exploration of the spiritual dimension is essential to complete the understanding of the socio-ecological dynamics of traditional societies.

Previous research that has been dominant using technical and ecological approaches has not fully uncovered the spiritual and mystical dimensions of water resource management. This study seeks to fill this void by examining Sendang Tawun, Ngawi's ecological-mystical practices as a form of conservation based on local wisdom and spiritual awareness. The uniqueness of this research lies in the effort to understand the connection between the value of water sacredness, the traditional rituals of Keduk Beji, and the protection of the feather habitat, which is believed to be a symbol of ecosystem balance. Through this perspective, conservation is seen as a technical act of protecting water resources and a spiritual expression of human nature towards nature. This model is expected to enrich the discourse on culture-based conservation oriented towards ecological harmony. Thus, the study offers a new approach that places local spirituality and traditions as the foundation of environmental sustainability and preservation of cultural heritage.

This research aims to explore the application of ecological-mystical concepts as the foundation of water conservation in the Sendang Tawun area, Ngawi Regency, as well as to understand the social, ecological, and spiritual rationality behind the sustainability of these traditions. This research seeks to reveal how local communities maintain traditional rituals and environmental practices based on spiritual awareness, especially in preserving the sanctity of water sources as a symbol of life. The results are expected to be an

¹³ Aprilia Fransiska Issa Bere, Remigius Binsasi, and Willem Amu Blegur, "Pengelolaan Sumber Mata Air Berbasis Kearifan Lokal Di Kabupaten Malaka," *Jurnal Biologi Indonesia* 19, no. 2 (2023): 134–44, <https://doi.org/10.47349/jbi/19022023/135>.

¹⁴ Ami Sukma Utami and Hiroki Oue, "Traditional Value and Its Function in Managing Modern Irrigation System in West Sumatra Indonesia," *Sustainable Water Resources Management* 9, no. 2 (April 2023): 54, <https://doi.org/10.1007/s40899-023-00830-5>.

¹⁵ Dewi Mulyanti, "Kearifan Lokal Masyarakat Terhadap Sumber Mata Air Sebagai Upaya Konservasi Dan Pengelolaan Sumber Daya Lingkungan," *Bina Hukum Lingkungan* 6, no. 3 (June 2022): 410–24, <https://doi.org/10.24970/bhl.v6i3.286>.

¹⁶ Mamush Masha et al., "Effectiveness of Community-Based Soil and Water Conservation in Improving Soil Property in Damota Area, Southern Ethiopia," *Applied and Environmental Soil Science* 2021 (April 2021): 1–11, <https://doi.org/10.1155/2021/5510587>.

¹⁷ Sepus M. Fatem et al., "Model Kelembagaan Lokal Kabupaten Konservasi Tambrau Di Papua Barat," *Jurnal Ilmu Kehutanan* 14, no. 2 (November 2020): 167, <https://doi.org/10.22146/jik.61401.f>

¹⁸ Derek Armitage et al., "Governance Principles for Community-centered Conservation in The Post-2020 Global Biodiversity Framework," *Conservation Science and Practice* 2, no. 2 (February 2020): e160, <https://doi.org/10.1111/csp2.160>.



inspiring model for water conservation policies based on local wisdom that are inclusive, sustainable, and firmly rooted in cultural values and human moral awareness as guardians of the balance of nature.

RESEARCH METHODS

This study employs a qualitative approach using a case study design based on Yin's¹⁹ framework, which emphasizes exploring a contemporary phenomenon within its real-life context through multiple sources of evidence. The research focuses on the Sendang Tawun area in Ngawi to examine the application of ecology-mysticism as a foundation for water conservation, integrating spiritual values, local traditions, and ecological practices. The bounded case in this study is the ecological-cultural landscape of Sendang Tawun, with research subjects consisting of area managers, traders, visitors, and officials from the tourism and environment offices. Consistent with Yin's recommendation, primary data were collected through participatory observation, in-depth interviews, and documentation, while secondary data were drawn from official documents, traditional records, and supporting literature. These multiple sources enabled a contextual understanding of how spiritual beliefs and local wisdom guide the community's environmental actions.

The research process consisted of three stages—preparation, data collection, and data analysis—following Yin's analytical procedures, including data reduction, data display, and conclusion drawing, supported by pattern matching and explanation building. These analytic techniques facilitated the identification of recurring themes linking traditional rituals—such as the *Keduk Beji* ceremony and the protection of *bulus* habitats—to ecological balance and spiritual awareness. Data validity and reliability were ensured through triangulation of methods, sources, and time, in accordance with Yin's principles for maintaining construct validity. Through this integrated approach, the study seeks to formulate a conservation model based on local wisdom that unites ecological, cultural, and spiritual dimensions to strengthen human-nature relationships and promote sustainable water resource management.

RESULTS AND DISCUSSION

Results

This study found that the Tawun people practice forms of ecological wisdom combined with spiritual beliefs and customary traditions. Through interviews, field observations, and tracing of cultural documents, it was found that three main aspects of ecology-mysticism are still preserved today: the form of practice, the basis of belief, and its impact on the environment and social life. The description of the results of the research is presented in the presentation below:

A. Eco-Mysticism Practices as a Basis for Water Conservation in Sendang Tawun Ngawi

Sendang Tawun is a natural spring located in Tawun Village, Kasreman District, Ngawi Regency, East Java. The area, covering approximately 12 hectares, is part of

¹⁹ Robert K. Yin, *Case Study Research: Design and Methods*, vol. 5 (sage, 2009).



the Tawun natural tourism complex managed collaboratively by the local community and the Ngawi Regency Youth and Sports Office (Dispora).²⁰ According to Prapto, a representative from Dispora who has long served in the area, Sendang Tawun was once a dense wilderness dominated by large trees such as Chinese bamboo, mahogany, acacia, and ancient banyans estimated to be over a hundred years old. *"Before it became a tourist destination, this place looked like a small forest. The sendang was overgrown with big trees and was considered sacred by the locals,"* he explained (Interview, 2025). Over time, parts of the area were developed into tourism facilities, but large trees were deliberately preserved to maintain the ecological balance. An artificial lake was later constructed to channel water from Sendang Tawun, which historically served as an irrigation source. The lake became home to fish and bulus (freshwater turtles) that thrive freely because they are considered sacred and forbidden to be caught. A swimming pool was later added, utilizing water directly from the Sendang, which overflows back into the artificial lake—creating a closed, sustainable water circulation system.

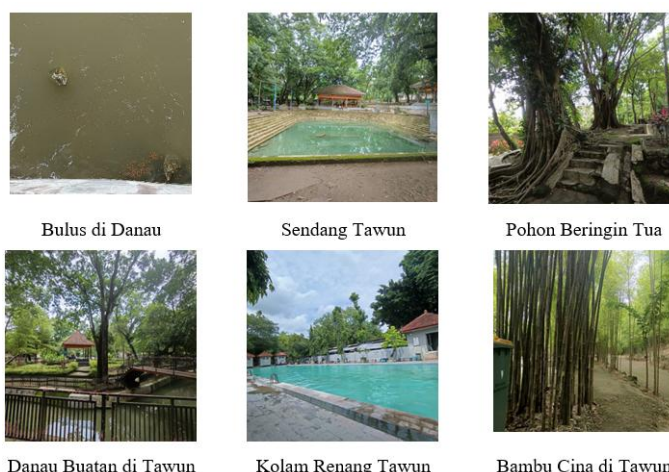


Photo I. Sendang Tawun Area

Source: Researcher Documentation, 2025

Sendang Tawun Ngawi is also rich in mystical elements, believed to have thousands of feathers that are considered the incarnation of soldiers from an ancient kingdom. Legends developed in the community mentioned that anyone who took fur from the place would experience illness or a trance. Therefore, the community and the management of Sendang Tawun firmly protect the feathers and warn visitors not to disturb them. In addition, the community also believes bathing in the Beji Sendang Tawun water source can speed up marriage and cure diseases. The tradition of the Keduk Beji Traditional Ceremony, which is held every year on Tuesday Kliwon, is believed to be an effort to resist reinforcements and maintain the harmony of the

²⁰ Pemdes Tawun, *Sejarah Desa Tawun*, 2016, <https://tawun.desa.id/artikel/2016/8/26/sejarah-desas>.

lives of residents. This mystical belief is part of the local culture that is highly guarded and respected by the local community.²¹

Yes	Aspects of the Findings	Form of Practice	Field Description
1	Traditional Rituals	Keduk Ceremony	Beji It is held every year as a form of gratitude and respect for water sources.
2	Nature Prohibition	It is forbidden to take feathers, fish, and plants in the Sendang area	Followed from generation to generation as a customary norm and ecosystem protection.
3	Spiritual Values	Respect for the ancestors and guardians of Tawun	It is believed to preserve sendang and resist catastrophe.

Table 1. Eco-Mysticism Practices in Sendang Tawun, Ngawi

Source: Research data processed, 2025

Based on the results of observations, the Sendang Tawun people practice *ecological mysticism* through traditional activities and local rules that are firmly rooted in spiritual traditions. The *Keduk Beji ceremony* is the main form of respect for water sources that are considered sacred. This ritual involves all elements of society, including traditional leaders, village officials, and the younger generation. The procession began with a joint prayer, the cleaning of the sendang, and the symbol of offerings to the ancestors. This activity has an ecological meaning, namely, physical cleaning and restoring the balance of natural energy, which is believed to maintain water sustainability.

In addition to rituals, the community prohibits taking feathers, fish, or plants in the Sendang area. This ban is a form of ecological wisdom that keeps the habitat natural. The taboo is not only based on mystical beliefs, but also reflects environmental awareness passed down from generation to generation. Thus, spiritual values function as social norms that support environmentally friendly behavior, create harmony between humans and nature, and make local traditions a natural conservation mechanism.

B. Argumentation of Eco-Mysticism Practices as a Basis for Water Conservation in Sendang Tawun, Ngawi

The second finding explains that the reason for the Tawun people to carry out these rituals and taboos is religio-cultural. They believe some ancestors must be respected and sendang servers trusted to maintain the balance of nature. Prohibition

²¹ I. N. Fitriani et al., "Sejarah 'Sumber Keduk Beji Di Ngawi,'" *J. Sastra, Bahasa, Dan Budaya* 1, no. 1 (2022): 15–22.



violations cause catastrophe or misfortune, such as illness or disaster. In addition to spiritual factors, ecological awareness is needed to keep water sources flowing and not damaged by exploitation.

Yes	Main Reasons	Meaning or Purpose
1	Honoring ancestors	Maintain a spiritual connection with the founder of the village.
2	Trust in the sendang waiter	A form of respect for the power of nature guardians.
3	Fear of catastrophe	Efforts to protect themselves from the consequences of violating customs.
4	Maintaining water sources	Ecological awareness to keep sendang sustainable.

Table 2. The Reasons and Beliefs Behind Eco-Mysticism Practices

Source: Research data processed, 2025

The research found that *ecological-mystical* practices in Sendang Tawun are carried out because of customs and based on deep religio-ecological beliefs. People believe that water is a sacred entity guarded by supernatural forces, so it should be respected and not abused. Belief in the "Tawun waiters" is the moral basis for enforcing customary rules. Violations of prohibitions are believed to bring bad luck or disaster, which serves as social control over human behavior towards the environment.

This spiritual motivation creates a powerful collective ecological consciousness. People carry out rituals not because of compulsion, but as a form of gratitude and respect for God's creation. This awareness fosters a moral responsibility to keep water flowing as a source of life. Thus, *ecological mysticism* not only serves as a traditional belief system but also forms an environmental ethics based on spirituality and human values that strengthen the social cohesion of the Tawun people.

C. The Impact of Eco-Mysticism Practices as a Basis for Water Conservation in Sendang Tawun, Ngawi

The third finding shows that applying ecological mysticism has a broad positive impact. The water source in Sendang Tawun is maintained and never dries up throughout the year. Ritual traditions also strengthen the cultural identity and togetherness of the community. In addition, this area is now a natural and cultural tourist destination that provides economic benefits for residents. Details of the social, cultural, and ecological impacts can be seen in Table 3 below.

Yes	Impact Type	Explanation
1	Ecological	The preservation of water resources and biodiversity is maintained.
2	Socio-Cultural	The Keduk Beji tradition remains alive and strengthens the solidarity of the residents.
3	Economics	Sendang Tawun is developing as a tourist destination and a source of income for residents.

Table 3. The Impact of Eco-Mysticism Practices in Sendang Tawun, Ngawi

Source: Research data, research-processed, 2025

The results of the study show that the application of ecological mysticism has a significant impact on environmental sustainability and community welfare. Ecologically, Sendang Tawun is maintained in terms of cleanliness and balance. Water flows throughout the year without experiencing a significant decrease in discharge. Customary prohibitions act as an instrument to control the exploitation of natural resources, while annual rituals maintain ecological awareness across generations.

From a social and economic perspective, the tradition of Keduk Beji makes Sendang Tawun an attractive cultural and religious tourism destination. Annual traditional activities attract visitors, strengthen local cultural identity, and create new economic opportunities for residents. The community opened a culinary, parking, and special souvenir business that supports the village economy. Thus, ecological-mystical practices contribute twofold: preserving nature and empowering communities by managing water resources based on spirituality, culture, and local wisdom.

Discussion

A. Eco-Mysticism Practices as a Basis for Water Conservation in Sendang Tawun Ngawi

Field data show that ecological-mystical practices in Sendang Tawun are manifested through three main elements: the *ritual of the Keduk Beji Ceremony*, the prohibition of taking feathers or vegetation, and respect for the supernatural guardians of the sendang. This tradition not only symbolizes spirituality, but also becomes a social mechanism to protect water sources. Residents believe customary norm violations will bring reinforcements, so ecological compliance arises voluntarily. Thus, the sacredness of sendang becomes a moral foundation for the community in managing nature. This phenomenon confirms that ecological actions in Tawun are not merely the result of government instructions, but the expression of spiritual values that have shaped collective ecological consciousness for generations.

However, when viewed from modern ecological theories, such as the concept of *socio-ecological systems* for the conservation of water resources, it should be



based on scientific principles about ecological balance, not just spiritual beliefs.²² The mystical aspect can be considered irrational because it has no empirical evidence in scientific logic. However, the *ecological-mystical* approach combines the ecological and spiritual dimensions in complementary consciousness.²³ Rituals and myths in Sendang Tawun function not as dogmas, but as social mechanisms that internalize the environmental responsibility of the community. In other words, what appears to be a mystical practice functions rationally in a social system that preserves water resources.

The integration between spiritual values and ecological actions is in accordance with the idea of *eco-spirituality*, which places the sacredness of nature as a means of forming environmental ethics.²⁴ In the context of Sendang Tawun, the belief in "supernatural guardians" is not understood as a cult, but as a moral symbol that regulates human relations with nature. This view is also in line with the findings of Mulyanti (2022) about local wisdom in water conservation in Malacca, where myths function as a *cultural framework* for ecosystem protection.²⁵ Thus, belief systems initially considered suprarational contribute to sustainable ecological preservation based on social participation.

The ecological-mystical practices in Sendang Tawun prove that local traditions can internalize conservation values without contradicting modern science. The sacredness of the sendang, ecological prohibitions, and customary rituals are not just a form of belief, but a socio-ecological mechanism that organizes people's behavior. This aligns with the concept of *local wisdom for sustainability*, emphasizing that local wisdom can be a *living system* to maintain ecological balance. Therefore, the eco-mysticism in Sendang Tawun can be seen as a synthesis between traditional spirituality and modern ecological consciousness—a model of conservation that is alive, reflective, and firmly rooted in the local culture of the people of East Java.

B. Argumentation of Eco-Mysticism Practices as a Basis for Water Conservation in Sendang Tawun Ngawi

After examining how ecological-mystical practices in Sendang Tawun are carried out through rituals, ecological prohibitions, and respect for nature, a fundamental question arises about the motivations behind the community's adherence to these values. The seemingly simple practice is actually rooted in a strong religio-cultural belief system. Thus, the discussion needs to move from *how the practice is carried out* to *why people choose the ecological-mystical path* as the basis for water conservation.

Field data shows that the Tawun people believe in water as a sacred entity guarded by supernatural forces. They honor their ancestors and "Sendang'u waiters" through rituals and taboos as a form of respect for nature. This belief created a spiritually based system of social control: violations of prohibitions were considered

²² Gain et al., "Social-Ecological System Approaches for Water Resources Management."

²³ Petir Abimanyu, *Ilmu Mistik Kejawan* (Yogyakarta: Noktah, 2021).

²⁴ Tomalin, "Religion, Ecology and Hindu Nationalism in India."

²⁵ Mulyanti, "Kearifan Lokal Masyarakat Terhadap Sumber Mata Air Sebagai Upaya Konservasi Dan Pengelolaan Sumber Daya Lingkungan."

to bring doom or misfortune. Practically, this belief serves to keep the water ecosystem clean and flowing. These religio-cultural traditions are a form of social adaptation to the environment rooted in local beliefs. Thus, the main reason society maintains ecological-mystical practices is to maintain a balance between spiritual harmony and ecological sustainability.

From a scientific perspective, water conservation should be based on ecological knowledge and systematic resource management. This perspective places nature as a physical system that must be maintained through technology and policy, not through trust in mystical entities. However, *ecological-mystical theory* rejects the dichotomy between science and spirituality, because the two can synergize.²⁶ In Sendang Tawun, religio-ecological values function as *cultural capital* that maintains human behavior towards the environment without external pressure. This approach shows that local beliefs are not barriers to ecological rationality but bridges that transform spiritual consciousness into practical and sustainable conservation ethics.

This integration between spiritual beliefs and ecological awareness reinforces the thesis that environmental mysticism can be the cornerstone of culture-based water conservation. This finding aligns with Pratama's (2022) research on preserving Lake Ngebel, which shows that mystical values encourage people to protect water sources as part of their respect for their ancestors.²⁷ Similarly, Mulyanti (2022) found that local wisdom in protecting water sources creates *social resilience* to environmental crises.²⁸ In the context of Tawun, the fear of violating customs is transformed into an ecological discipline that maintains the sustainability of the sendang. This relationship forms a *living eco-consciousness*, in which humans play the role of water users and the spiritual guardians of their ecosystems.

The Tawun people's use of ecological mysticism as a basis for water conservation reflects a holistic knowledge system that blends faith, culture, and ecology. Belief in ancestors and guardians of nature is not a passive myth but a value system that builds on collective moral responsibility. This is in line with the findings of Bere et al. (2023)²⁹ and Sedyowati et al. (2023)³⁰ that conservation success is often born from communities that instill spiritual values in their ecological interactions. Thus, religio-cultural practices in Tawun affirm that environmental conservation is a technical action and a spiritual process that fosters harmony between humans, nature, and God.

C. The Impact of Eco-Mysticism Practices as a Basis for Water Conservation in Sendang Tawun Ngawi

After analyzing that religio-spiritual motivation and ecological awareness are the main reasons for applying ecological mysticism, the next stage is to explore the

²⁶ Abimanyu, *Ilmu Mistik Kejawaen*.

²⁷ Pratama, "Ngebel Dan Isu Krisis Ekologis."

²⁸ Mulyanti, "Kearifan Lokal Masyarakat Terhadap Sumber Mata Air Sebagai Upaya Konservasi Dan Pengelolaan Sumber Daya Lingkungan."

²⁹ Bere, Binsasi, and Blegur, "Pengelolaan Sumber Mata Air Berbasis Kearifan Lokal Di Kabupaten Malaka."

³⁰ Sedyowati, Yuniarti, and Sufiyanto, "Is Local Wisdom Able to Build Sustainable Communities in Informal Flood-Prone Settlements?"



system's real impact on people's lives and the environment. Combining the dimensions of belief, culture, and ecological ethics, the Tawun people build a conservation model that preserves water resources and strengthens social solidarity and economic productivity.

Field findings show that applying ecological mysticism in Sendang Tawun produces significant environmental, social, and economic impacts. Ecologically, the water discharge remains stable throughout the year, and the ecosystem around Sendang is maintained due to the prohibition of natural exploitation. Socio-culturally, *the Keduk Beji tradition* strengthens solidarity between residents and becomes a means of inheriting ecological values across generations. On the economic side, the management of Sendang Tawun as a cultural and religious tourism destination opens up new jobs through the culinary, parking, and souvenir sectors. Thus, ecological-mystical practices maintain the balance of nature and foster the community's well-being through spiritually based and participatory resource management.

However, from the perspective of modern ecology, these results can be considered not the result of mysticism, but of socio-cultural applications that create *community-based conservation*. Social ecological theory emphasizes that the success of conservation depends on the collaboration of humans and the environment, not on spiritual factors.³¹ However, the practice in Tawun shows that mystical beliefs strengthen social cohesion and expand ecological concerns. Tomalin (2024) states that local spirituality can be an effective instrument in internalizing environmental ethics. In this context, eco-mysticism bridges religious values and ecological conservation mechanisms that are pragmatic and sustainable.³²

Integrating spiritual and ecological aspects shows a synthesis between beliefs and environmental awareness. Local wisdom is a reinforcing element in water resource management,³³ while community participation based on local values increases the effectiveness of conservation. In the case of Tawun, the prohibition of taking feathers and cleaning the sendang in the annual ritual serves a dual purpose—preserving fauna and maintaining water quality.³⁴ Inherited religious values become an ecological control mechanism without legal intervention. This awareness fosters *eco-ethics*, an ecological behavior born from spiritual beliefs and moral responsibility towards nature.

Thus, the impact of ecological-mystical application in Sendang Tawun can be reformulated as a form of spirituality-based conservation that unites social welfare, cultural preservation, and ecological sustainability. This practice proves that mystical values can be articulated as social energy to maintain the balance of nature. In line with Sedyowati et al. (2023)³⁵, local wisdom living in customary rituals and prohibitions can build a *sustainable community* adaptive to environmental crises.

³¹ Gain et al., "Social-Ecological System Approaches for Water Resources Management."

³² Tomalin, "Religion, Ecology and Hindu Nationalism in India."t

³³ Mulyanti, "Kearifan Lokal Masyarakat Terhadap Sumber Mata Air Sebagai Upaya Konservasi Dan Pengelolaan Sumber Daya Lingkungan."

³⁴ Bere, Binsasi, and Blegur, "Pengelolaan Sumber Mata Air Berbasis Kearifan Lokal Di Kabupaten Malaka."

³⁵ Sedyowati, Yuniarti, and Sufiyanto, "Is Local Wisdom Able to Build Sustainable Communities in Informal Flood-Prone Settlements?"



Thus, ecology-mysticism is not just a traditional belief system, but an integrative conservation model that brings together three main pillars: ecology, economics, and spiritual ethics. Tawun is a concrete example of how tradition can be transformed into a contextual and sustainable nature conservation strategy.

From these three formulations, it can be seen that there is a dialectical continuity between actions, beliefs, and results. The practice of ritual (thesis) combined with religio-ecological awareness (antithesis) then gave birth to socio-ecological harmony (synthesis), which has implications for nature conservation and economic improvement of the community. Overall, the ecological mysticism in Sendang Tawun presents a water conservation model based on spirituality and local wisdom that is relevant in the era of the global environmental crisis.

CONCLUSION

This study concludes that ecological-mystical practices in Sendang Tawun are a form of water conservation based on local wisdom that integrates ecological, spiritual, and social values. The *Keduk Beji* tradition, the prohibition of taking feathers or cutting down trees, and the belief in supernatural guardians create an ecological ethical system that maintains the preservation of water resources and biodiversity. Religio-spiritual values encourage people to view water as a sacred entity that must be respected and maintained. This practice has proven effective in keeping water discharge stable, strengthening cultural identity, and improving the welfare of residents through tradition-based tourism activities. Thus, eco-mysticism is not just a belief system, but a conservation paradigm that combines spirituality, culture, and ecological sustainability.

This study has several limitations related to its scope and duration, as it focuses on a single location—Sendang Tawun, Ngawi—so the generalization of findings remains limited, and quantitative aspects such as water quality measurement and long-term economic impact have not been deeply analyzed. However, this research also offers significant advantages by providing an in-depth qualitative understanding of how spiritual beliefs and local traditions serve as effective ecological management systems, enriching the discourse on eco-mysticism as a foundation for sustainable conservation. The results highlight the integration of cultural, ecological, and spiritual values as a model for community-based environmental stewardship. Practically, this study benefits policymakers, local governments, and environmental institutions by offering insights to develop culture-based conservation strategies that combine local wisdom with modern ecological science, thereby strengthening ecosystem resilience while maintaining the socio-cultural sustainability of local communities.

REFERENCES

- Abimanyu, Petir. *Ilmu Mistik Kejawaen*. Yogyakarta: Noktah, 2021.
- Achmad, Sofyan Maulana, Mikhael Putra Kartodiprojo, M. Pramudya Firmansyah, M. Wildan Habibi, Fakhri Fadli Rahman, Ulita Bella Anggraeni, Adhisty Dhea Apriliani, Lubna Rahman, Aditya Dwi Sugiarto, and Christo Sumurung Tua Sagala. "Edukasi Dan Mitigasi Bencana Yang Optimal Melalui 'Pos Iklim' Desa Pakis Kabupaten



- Jember." *AJAD: Jurnal Pengabdian Kepada Masyarakat* 4, no. 2 (August 2024): 454–63. <https://doi.org/10.59431/ajad.v4i2.365>.
- Armitage, Derek, Philile Mbatha, Ella-Kari Muhl, Wayne Rice, and Merle Sowman. "Governance Principles for Community-centered Conservation in The Post-2020 Global Biodiversity Framework." *Conservation Science and Practice* 2, no. 2 (February 2020): e160. <https://doi.org/10.1111/csp2.160>.
- Bere, Aprilia Fransiska Issa, Remigius Binsasi, and Willem Amu Blegur. "Pengelolaan Sumber Mata Air Berbasis Kearifan Lokal Di Kabupaten Malaka." *Jurnal Biologi Indonesia* 19, no. 2 (2023): 134–44. <https://doi.org/10.47349/jbi/19022023/135>.
- Fatem, Sepus M., San Afri Awang, Ahmad Maryudi, Satyawan Pudyatmoko, and Jonni Marwa. "Model Kelembagaan Lokal Kabupaten Konservasi Tambrau Di Papua Barat." *Jurnal Ilmu Kehutanan* 14, no. 2 (November 2020): 167. <https://doi.org/10.22146/jik.61401>.
- Fitriani, I. N., F. N. Dwiyantik, M. P. L. Rahayu, and I. U. Hasanah. "Sejarah 'Sumber Keduk Beji Di Ngawi,'" *J. Sastra, Bahasa, Dan Budaya* 1, no. 1 (2022): 15–22.
- Gain, Animesh K., Sarwar Hossain, David Benson, Giuliano Di Baldassarre, Carlo Giupponi, and Nazmul Huq. "Social-Ecological System Approaches for Water Resources Management." *International Journal of Sustainable Development & World Ecology* 28, no. 2 (February 2021): 109–24. <https://doi.org/10.1080/13504509.2020.1780647>.
- Humaida, Nida, and Murniningsih. *Dasar-Dasar Pengetahuan Lingkungan Berbasis Perubahan Iklim Global*. Banjarmasin: UrbanGreen Central Media, 2024.
- Intan Wahyuningtyas Andin, Muhammad Danda Evantrino, and Romadona Putri Pertiwi. "Eksistensi Penegakan Hukum Lingkungan Dalam Mewujudkan Pertumbuhan Ekonomi Dan Pembangunan Berkelanjutan Di Indonesia." *Jurnal Hukum, Politik, Dan Ilmu Sosial* 3, no. 3 (June 2024): 294–308. <https://doi.org/10.55606/jhps.v3i3.3919>.
- Martha, Claudia. "Bulus Tawun Spesies Langka Asal Ngawi." Kompasiana, February 24, 2022. <https://www.kompasiana.com/claudia07329/6216fece3179491835307594/spesi-es-langka-asal-ngawi-bulus-tawun>.
- Masha, Mamush, Teshome Yirgu, Mulugeta Debele, and Mengie Belayneh. "Effectiveness of Community-Based Soil and Water Conservation in Improving Soil Property in Damota Area, Southern Ethiopia." *Applied and Environmental Soil Science* 2021 (April 2021): 1–11. <https://doi.org/10.1155/2021/5510587>.
- Mo, Yalin, Junyu Zhao, and Thomas Li-Ping Tang. "Religious Beliefs Inspire Sustainable HOPE (Help Ourselves Protect the Environment): Culture, Religion, Dogma, and Liturgy—The Matthew Effect in Religious Social Responsibility." *Journal of Business Ethics* 184, no. 3 (May 2023): 665–85. <https://doi.org/10.1007/s10551-022-05131-z>.
- Mulyanti, Dewi. "Kearifan Lokal Masyarakat Terhadap Sumber Mata Air Sebagai Upaya Konservasi Dan Pengelolaan Sumber Daya Lingkungan." *Bina Hukum Lingkungan* 6, no. 3 (June 2022): 410–24. <https://doi.org/10.24970/bhl.v6i3.286>.



- Pemdes Tawun. *Sejarah Desa Tawun*. 2016.
<https://tawun.desa.id/artikel/2016/8/26/sejarah-desas>.
- Pratama, Frengki Nur Fariya. "Ngebel Dan Isu Krisis Ekologis: Pelestarian Lingkungan Melalui Pendekatan Ekologi-Mistik Dalam Narasi Serat Centhini." *Ansoruna: Journal of Islam and Youth Movement* 1, no. 1 (2022): 73–88.
- Salari, Azam, Mahdi Zeinali, and Mousa Marzband. "Model-Free Reinforcement Learning-Based Energy Management for Plug-in Electric Vehicles in A Cooperative Multi-Agent Home Microgrid with Consideration of Travel Behavior." *Energy* 288 (February 2024): 129725. <https://doi.org/10.1016/j.energy.2023.129725>.
- Sedyowati, Laksni, Sari Yuniarti, and Sufiyanto Sufiyanto. "Is Local Wisdom Able to Build Sustainable Communities in Informal Flood-Prone Settlements? Evidence from Glintung Kampong, Malang City, Indonesia." *Local Wisdom: Jurnal Ilmiah Kajian Kearifan Lokal* 15, no. 1 (2023): 41–52.
- "SIDITA | Pemandian Tawun." Accessed October 13, 2025.
<https://sidita.disbudpar.jatimprov.go.id/destinasi/detail/0d437800dd77a1f988efd2e7edf57ef1433c21e222df4b3a95b64e409e6b3eac78a6f7b1559b0fe3f4a000a91787ef89d11418b87549fcb47577363753dbdcca-2>.
- Tella, Taleat Adewale, Ben Festus, Temitope Daud Olaoluwa, and Abiodun Sinmiat Oladapo. "Water and Wastewater Treatment in Developed and Developing Countries: Present Experience and Future Plans." In *Smart Nanomaterials for Environmental Applications*, 351–85. Elsevier, 2025.
<https://doi.org/10.1016/B978-0-443-21794-4.00030-2>.
- Tomalin, Emma. "Religion, Ecology and Hindu Nationalism in India." *Religion and Development* 2, no. 3 (March 2024): 463–82.
<https://doi.org/10.30965/27507955-20230032>.
- Utami, Ami Sukma, and Hiroki Oue. "Traditional Value and Its Function in Managing Modern Irrigation System in West Sumatra Indonesia." *Sustainable Water Resources Management* 9, no. 2 (April 2023): 54. <https://doi.org/10.1007/s40899-023-00830-5>.
- Yin, Robert K. *Case Study Research: Design and Methods*. Vol. 5. Sage, 2009.

