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Leliwet: The Tengger Tribe's Traditional Ceremony for Sustainable Conservation in the Land and Springs of Bromo's Upland, Probolinggo Regency, Indonesia

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Abstract

Objectives: *Leliwet ceremony*, a local tradition of the Tengger Tribe reflects activities centred on environmental management within the upland zones of Mount Bromo, Probolinggo Regency. This study explores the values of the tribe's local wisdom in preserving the environment through the ceremony.

Methods: Employing a qualitative descriptive approach, the study involved the tribal chief, *legen* (assistants to the tribal chief), *hulun kyang* youth, and community members partaking in the ceremony. Primary data were concerned with all activities related to the ceremony, particularly those involving environmentally conscious practices, gleaned through in-depth interviews, observation, and documentation. Data analysis attended to a data reduction model.

Results: The ceremony denotes a spiritual praxis for purifying the soil and water within the upland landscape of Mount Bromo. Offerings (*sajen*) in the ceremony include flowers, vegetables, agricultural produce, and livestock, sourced from the community's daily harvests. Their belief system underscores environmentally conscious practices and echoes the harmonization of nature, humans, and the environment. The symbolic activities taught within the community reinforce the cultural significance of sustainability within a spatial context.

Conclusion: The findings suggest that the ceremony, as part of a cultural tradition, foregrounds a framework for spatial management, emphasizing human-environment relationships embedded with values of sustainable ecological education.

Keywords: *Leliwet ceremony*, upland, environmental conservation, Mount Bromo

ليليويت: مراسم القبيلة التنجيرية التقليدية للحفاظ المستدام على الأرض والينابيع في منطقة برومو العليا، مقاطعة بروبولينغو، إندونيسيا

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ملخّص

الأهداف : تعكس مراسم *ليليويت*، وهي تقليد محلي لقبيلة تنجر، أنشطة متمحورة حول إدارة البيئة في المناطق الجبلية المرتفعة لجبل برومو في مقاطعة بروفولينغو. وتستكشف هذه الدراسة قيم الحكمة المحلية لدى القبيلة في الحفاظ على البيئة من خلال هذه المراسم.

المنهجية : اعتمدت الدراسة المنهج الوصفي النوعي، وشارك فيها زعيم القبيلة، *وليغِن* (مساعدو زعيم القبيلة)، وشباب *هولون كيانغ*، وأفراد من المجتمع المشاركين في المراسم. تناولت البيانات الأولية جميع الأنشطة المرتبطة بالمراسم، ولا سيما الممارسات البيئية الواعية التي جُمعت من خلال المقابلات المتعمقة، والملاحظة، والتوثيق. واعتمد تحليل البيانات على نموذج اختزال البيانات.

النتائج : تمثل المراسم ممارسة روحية لتنقية التربة والمياه ضمن المشهد الجبلي المرتفع لجبل برومو. وتشمل القرابين (*sajen*) في المراسم الزهور والخضروات والمحاصيل الزراعية والماشية، والمستمدة من الحصاد اليومي للمجتمع. ويؤكد نسق معتقداتهم على الممارسات البيئية الواعية، ويعكس التناغم بين الطبيعة والإنسان والبيئة. كما تعزز الأنشطة الرمزية المتوارثة داخل المجتمع الأهمية الثقافية للاستدامة في سياقها المكاني.

الخلاصة : تشير النتائج إلى أن المراسم، بوصفها جزءًا من تقليد ثقافي، توفر إطارًا لإدارة الفضاء المكاني، وتؤكد العلاقات بين الإنسان والبيئة المرتبطة بقيم التربية الإيكولوجية المستدامة.

الكلمات المفتاحية : مراسم ليليويت، المناطق المرتفعة، الحفاظ على البيئة، جبل برومو.

1. Introduction

The livelihood of Tengger community in the upland region of Mount Bromo, Probolinggo Regency, is characterized by a unique environmental lifestyle. The Tosari District is an area with strong local cultural wisdom fosters environmental stewardship. The human-environment relationship is evident in the coexistence of mountainous landscapes, agricultural practices, and the Tengger people's settlements, which have harmoniously integrated with nature for generations. The Tengger Tribe adheres to environmental conservation principles rooted in the teachings of *Karmaphala* and the values of *Sesanti Panca Setia* (Sumarmi, 2018). This local wisdom, passed down through generations, aids in preserving the environment. Environmental conservation efforts include implementing terraced farming systems, managing waste from tourists, and upholding the tradition of *kenduri* ceremonies to honor and preserve nature. Additionally, the community also maintain agroforestry practices based on the principles of *Tri Hita Karana*, a ritualistic approach to safeguarding forest and environment (Sumarmi, 2018).

The community's beliefs can significantly influence the spatial and environmental conditions of the places where they reside. Preserving the environment ensures the sustainability of village areas in the upland region of Mount Bromo. Local wisdom is more prominently practiced in rural areas than in urban settings, thereby shaping environmental changes (Nengah Lestawi & Bunga, 2020). *Leliwet* ceremony is closely linked to environmental conservation. This tradition is separate from the routine ceremonies of *Pujan Kasanga*, *Pujan Kasada*, and *Unan-Unan*, which are regularly practiced by the community (Sejati et al., 2023).

Leliwet ceremony is not bound by the Tengger calendar and includes activities such as *Entas-Entas*, *Tugel Kuncung*, *Walagara*, *Barikan*, *Mayu Desa*, and *Pembaron*. (Astina et al., 2021) document that Tengger ceremonies generally align with the calendar, such as *Karo*, *Yadnya Kasada*, and *Unan-Unan*. These activities aim to maintain the natural state of human-environment interactions. The *Leliwet* ceremony is unique, in its sacred elements dedicated to protecting water sources and Mount Bromo area. *Leliwet* ceremony positively impacts the community by fostering environmental stewardship. Offerings (*sajen*) and the symbolic act of wrapping trees with sarongs in the upland area underscore the cultural and spatial significance of the environment. Contemporary perspectives on cultural traditions and community lifestyles foreground a scientific approach to environmental conservation (Evstrop'eva, 2013).

The Leliwet ceremony serves as a foundation for environmental preservation, reflecting the community's commitment to mitigating the impacts of human activities. The interplay between cultural traditions and environmental stewardship forms knowledge passed down through generations to maintain local wisdom. Adherence to Tengger laws is an avenue for safeguarding both culture and the environment through conservation practices. Land and water are central to conservation efforts, necessitating sustainable environmental management. Marlina et al., (2022) argue that the benefits of indigenous traditions, such as *Ufe Karia*, include healing, bringing blessings or health, and protecting water sources. This tradition aligns closely with the *Leliwet* ceremony, both aiming at environmental preservation.

Integrating natural potential, traditions, and community culture provides educational value, promoting sustainable practices. Previous research on local wisdom highlights two key studies. First, Majumdar & Chatterjee (2021) demonstrate the unique environmental perceptions of the Santhal community in Eastern India, shaped by such elements as resource distribution, care, emotional attachment, myths, and environmental beliefs. Their perspective on sustainable resource management underscores the global importance of cultural uniqueness grounded in ethnoscience frameworks. Furthermore, Sibiri (2022) examines the belief systems in Bayelsa State, particularly in Ogobiri, Tungbo, and Bulu-Orua, underscoring environmental care practices associated with lakes, forests, and animals. These belief systems promote sustainable environmental practices through cultural traditions that support the sustainable management and preservation of natural resources.

The other three studies highlight ecological traditions and their role in fostering harmonious relationships between humans and the environment. First, Hastuti et al., (2021) examined the *Sedekah Bumi* tradition surrounding water sources on Mount Merapi, identifying it as an ecological politeness concept. The use of offerings (*sesajen*) and ritual equipment (*ubarampe*) embodies the key to living harmoniously and joyfully with nature. Second, Prastio et al., (2023) explored the

ecological wisdom of the *Anak Dalam Jambi Tribe* (ADJT), revealing how their forest conservation practices create a harmonious coexistence between nature and living beings, rooted in religious and cultural values. Finally, Rakhmawati et al., (2024) investigated the sacred tobacco harvest rituals in Selo District, Boyolali Regency, on the slopes of Mount Merapi, which expresses the gratitude to God for agricultural fertility. These findings highlight that environmental stability is closely intertwined with cultural traditions reflecting the beliefs of indigenous communities.

Research on Tengger Tribe concerning environmental preservation in the Upland region has also yielded important findings. Sumarmi (2018) emphasized the role of the community's agroforestry practices in managing the environment based on the local value of *Tri Hita Karana*. Astina et al., (2021) highlighted the relevance of Tengger ceremonies to the influx of tourists, demonstrating their impact on sustainable resource potential. Similarly, Khusaini et al., (2022) explored the economic and environmental sustainability effects of Tengger cultural traditions, such as ceremonies and *Tengger* batik, leading to increased tourism. Finally, Sejati et al., (2023) examined both routine ceremonies (*Kasada, Karo,* and *Unan-unan*) and incidental ceremonies of Tengger community, showcasing their support to environmental management and sustainable tourism.

Previous studies emphasized local wisdom using in-depth exploration through ethnographic or case study methods, often concentrating on specific environments such as coastal areas, seas, or forests. In contrast, this research integrates environmental, land, water, and tree management with *Leliwet* ceremony as a local wisdom tradition. Conducted in the Upland region of Mount Bromo, this study distinctly focuses on the cultural and environmental preservation values embedded in the ceremony. The ceremony underlines the belief that humans must protect the environment and nature to prevent degradation, as neglecting this responsibility is thought to impact the quality of agricultural yields and water sources. The ceremony reflects traditional practices rooted in the cultural and spiritual beliefs of village life (Hatta et al., 2021). This study examines the cultural values and practical activities of the ceremony, offering a socio-ecological perspective that naturally connects human-environment relationships within the local context.

2. Methods

Informed by a post-positivist paradigm, philosophy reconstruct narrative interpretation foundations of implementation qualitative (Matta, 2022). The present study with qualitative aimed to scrutinize the natural relationship between humans and the environment through ethnographic method. The method emphasized the geographic scale and the connection between theoretical and methodological practices in geographical studies (Low, 2016). The complexity of the phenomena under investigation necessitates a series of focal points, methods, and evidence-based foundations as outlined in qualitative study (Seamon & Gill, 2015). The research was conducted in Wonokitri Village, Tosari Subdistrict, within the upland zone of Mount Bromo in Probolinggo Regency, as illustrated in Figure 1. The area comprised a sand sea caldera and the peripheral zones of the volcanic structure (Toulier et al., 2019). The study involved village officials, and local community members. The study embraced xwell-founded criteria for selecting informants to ensure the depth of information obtained (Subedi, 2021). The topic of environmental and resource management, leveraging local knowledge and culture, represented an intriguing phenomenon involving both interdisciplinary and transdisciplinary approaches to generate new insights (Caggiano & Weber, 2023). Collaborative environmental governance theory contributed to understanding the narratives of sustainable conservation management practices aligned with local wisdom.

The participants were invited after affirming their contribution to *Leliwet* ceremony. This aimed at in-depth findings rather than generalized insights. The selection of participants was a enabled the collection of unique data to establish theoretical patterns, which was coherent with the cultural nuances and environmental values necessary to achieve cultural integrity (Pelzang & Hutchinson, 2018). The research informants are detailed in Table 1 below:

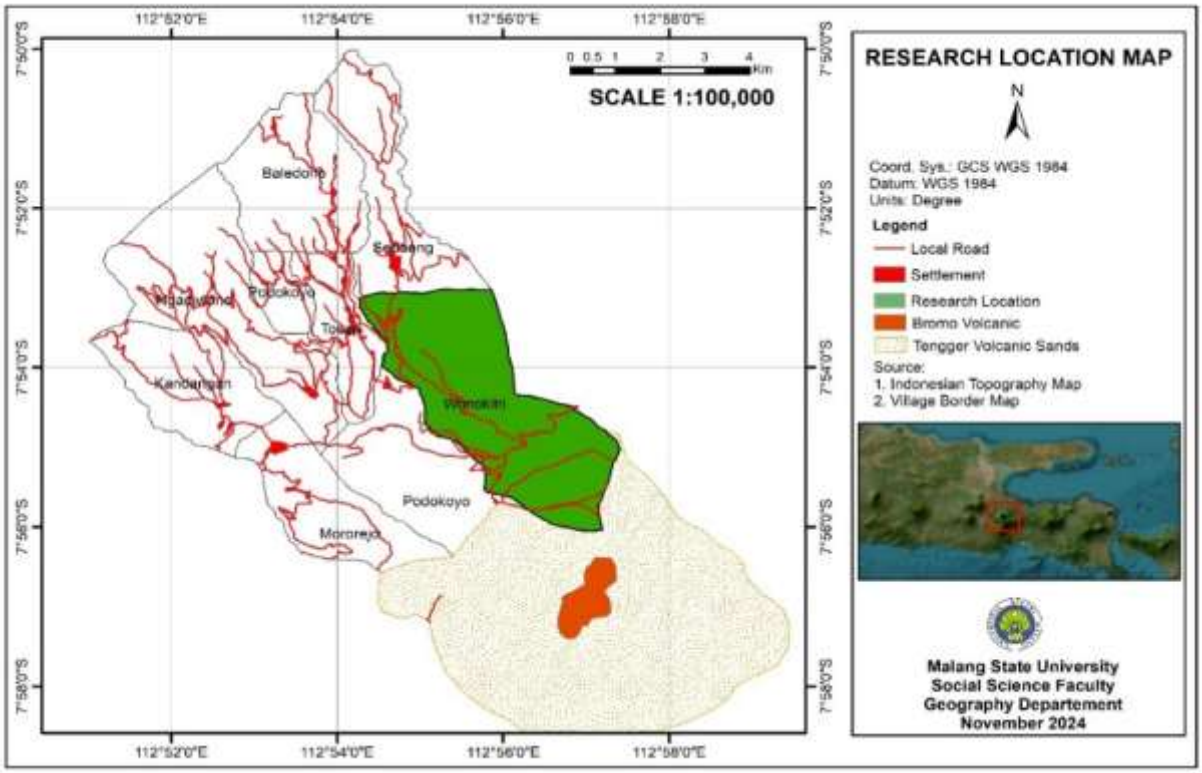


Figure 1. The Research Site in Bromo Mountains Upland Probolinggo Regency, Indonesia (Research Data, 2024)

The scope and representation of meaning were deemed critical for ensuring the rigor and credibility of this qualitative research. Data collection and analysis techniques serve as the foundation for critically interpreting target phenomena (Tomaszewski et al., 2020). The researchers employed an in-depth interview guideline matrix, observation, and documentation guidelines. The matrix contained 12 guiding questions, tailored to field conditions and situations. The researchers engaged varying interpretations of phenomena to answer "how" and "why" questions, allowing for a deeper understanding of the data (Baxter & Jack, 2015). The qualitative approach enabled exploring human-environment relationships and resource management in various ecological issues (Caggiano & Weber, 2023). The empirical ethnographic-geographical approach was evident in the use of interviews, participant observations, field notes, and photographs. These data were presented using descriptive exploratory sentences to enrich understanding (Jacobson & Larsen, 2014).

Table 1. The Research Informants (Source: Research Data, 2024)

No.	Subject	Role	Category
1.	Informant 1	Community chief	Key informant
2.	Informant 2	Shaman's assistant	Key informant
3.	Informant 3	Leader of Wonokitri Village	Key informant
4.	Informant 4	Elderly of Wonokitri Village	Key informant
5.	Informant 5	Culture expert of *Hulun Hyang*	Key informant
6.	Informant 6	Village official	Key informant
7.	Informant 7	Religious leader	Key informant
8.	Informant 8	Village official	Key informant
9.	Informant 9	Village secretary	Key informant

No.	Subject	Role	Category
10.	Informant 10	A citizen of Wonokitri and member of *Hulun Hyang*	Supporting informant
11.	Informant 11	A citizen of Wonokitri and member of *Hulun Hyang*	Supporting informant
12.	Informant 12	A citizen of Wonokitri	Supporting informant

The core of data analysis lied in constructing cases as an inquiry approach. The researchers' narratives, observations, and discussions were built upon data collection, analysis, and argumentation, resulting in conceptual generalizations distinct from empirical generalizations (Collins et al., 2024). This approach articulates the logic of qualitative research, underlining the unique phenomena. The data analysis followed Spradley (2007), which included the following stages: 1) Selecting informants, 2) Interviewing informants, 3) Transcribing interview notes, 4) Performing descriptive observations, 5) Analyzing interview data, 6) Conducting domain analysis, 7) Formulating structural questions, 8) Performing taxonomic analysis, 9) Posing contrast questions, 10) Conducting componential analysis, 11) Identifying cultural themes, and 12) Writing the qualitative research report.

These steps encompassed data collection to qualitative analysis, culminating in the identification of meanings, patterns, explanations, and causal configurations. Drawing conclusions involves synthesizing comprehensive configurations supported by the data. The analysis aimed to reveal practical, ethical, and epistemological insights into sustainable actions to address socio-environmental issues (Alexander et al., 2020). In addition, a comprehensive analytical framework ensured coherent discussion, supported by credible data sources, thematic coherence, and robust interpretation. The interactive exploration of themes enabled the conceptual development of models grounded in empirical evidence. In harmony, rigorous data analysis enhances the credibility and replicability of thematic analyses, fostering the theoretical conceptualization of findings (Naeem et al., 2023). The interpretations were conducted in inductive and reflective fashion to reveal the cultural significance of traditions within the interplay between human and the environment. This approach emphasized the distinctiveness of cultural practices within specific geographical and ecological contexts (Dogan Akkaya, 2023).

3. Results and Discussion

3.1 The *Leliwet* Ceremony of Tengger Tribe

The *Leliwet* ceremony is a unique cultural activity practiced by the Tenggerese in Wonokitri Village, located within the national park area. The term "*Leliwet*" refers to the act of rejuvenating a withered earth to make it fertile, symbolizing the restoration of water and soil. The *Leliwet* tradition has several distinctive features: 1) it is a tradition exclusive to the Tenggerese people, 2) it can be performed on any day, but the Tenggerese typically observe it on the major religious days of *Kasada* and *Karo*, 3) the tradition has prohibitions against being carried out in the seventh and ninth months of the Tengger calendar, 4) the ritual involves the use of the *Tanlayu* (*Edelweiss Javanica*), a protected species in Indonesia, and 5) the ceremony represents the harmonious relationship between humans and their environment.

As a means of preserving cultural norms and local wisdom traditions, the ceremony symbolizes the spirits of the ancestors from the Hila-Hila region, depicted through the offerings of "*Gedang Ayu*" (decorated bananas) as part of *Leliwet* attributes. The ceremony denotes a medium for worship, reverence, and communication with the ancestors to protect the community. It utilizes agricultural products, as illustrated in the following figures.



Figure 2. Banana Leaves



Figure 3. ***Regen Gedang Ayu***



Figure 4. ***Rakan Kembang Gubahan Pitung Japit***



Figure 5. ***Rakan Kembang Gubahan Limang Japit***

The *Leliwet* reflects the stages of life, social life, the scope of work, health, and other factors. The relationship between nature and the environment embodies sources of values, ancestral wisdom, and adaptation to the environment. The ceremony is understood as a worldview of daily life, as symbolized by the banana leaves, portraying that humans should not live their lives by looking back ("*tolah toleh*"). The focus on life fosters the mindset for making long-term decisions. The meaning of the banana leaves as "regen" represents a part of the human body. "*Regen*" serves as a container for placing "*gedang ayu*," symbolizing the human body in the ceremony.

The ceremony represents the life of the endemic flora and fauna characteristic of Wonokitri Village. The "*Ingkung*" symbolizes the life of fauna, while the flora is represented by "*Rakan kembang*" arranged in the "*pitung japit*" (Figure 4) and "*limang japit*" (Figure 5). These attributes, along with the *Tanlayu*, utilize natural materials such as *Tanlayu* leaves, white rice, banana leaves, corn rice, *jadah* (traditional rice cake), pepes pasung (grilled fish wrapped in banana leaves), vegetables, chili, side dishes, bananas, and chicken. *Leliwet* reflects the belief in preserving the environment with the belief that their ancestors influenced their lives. Although difficult to prove, this belief is widely accepted. The community's actions are devoted to preserving the nature and the environment, shaped by their experiences living in the upland region. The experience paves the understanding of environment and initiatives in adapting to nature through communal participation in customary ceremonies (Yuanjaya & Meiwanda, 2021). The value of environmental preservation is established as a customary regulation for all community members in living harmoniously with Mount Bromo.

For the community, ecological knowledge is essential for safeguarding the environment. Environmental preservation plays crucial roles for humanity, preventing damage and actions that could alter the ecosystem. The *Leliwet* tradition contributes to maintaining water quality and the cultivation of Edelweiss for ceremonial purposes. The educational value lies in its ability to foster understanding and awareness, encouraging the cultivation of *Tanlayu* in fields or gardens. The following figures capture the stages of *Leliwet* ceremony, including the preparation of offerings, recitation of prayers, and

the placement of ceremonial offerings at agricultural fields or water sources.



Figure 6. Creation of *Sajen Leliwet*



Figure 7. Recitation of Prayers



Figure 8. Placement of Ceremonial Offerings at Field



Figure 9. Placement of ceremonial offerings at water source

The ceremony's cultural significance offers insight into the community's respect for nature and the environment. The learning through local knowledge is key to passing down a lifestyle that aligns with the environment. The spatial ethnographic model of traditional agricultural landscapes illustrates ecological productivity, as presented through the meaning embedded in cultural traditions (Yang et al., 2022). The interplay between the social and economic activities of Tengger community impacts the complexity of rural culture. The efforts to preserve the environment in the upland area help maintain soil and water quality. Adaptation and mitigation of climate change through a sustainable environmental care mindset are rooted in the traditional knowledge passed down through generations (Singh & Singh, 2017).

The living practices reflect the adaptations to the landscape and cultural traditions that support cultural preservation and biodiversity conservation in the national park area. *Leliwet* symbolizes social and familial bonds, contributing to emotional connections, regardless of ethnicity, origin, religion, or educational background. The expression of for the harvest is reflected in the offerings as an identity of social and economic life. Furthermore, the cultural behavior through the ceremony mirrors ideas, natural conditions, and social life. The ceremony represents a response to the environment, and the action of environmental care is implemented in the community's daily life.

The belief in the relationship between humans and God, along with the importance of maintaining harmony with the environment, forms a coherent example of real-life practice. The ceremony emphasizes the values of prayer, reflection, and surrender, seeking divine protection from negative events. The Tengger people, living in the upland area prone to the eruptions of the active Mount Bromo, have a close connection between nature and human life (Bachri et al., 2015). The ceremony encourages the community to pray before engaging in customary activities such as farming, gardening,

harvesting, and other daily tasks. The village serves as a habitat for wildlife and plants within the Bromo Tengger Semeru National Park (TNBTS).

The meaning of *Leliwet* ceremony also represents the preservation of water, particularly regarding locations and places highly regarded. Water is an essential component of the environmental ecosystem, and its use must be carried out wisely. The community uses water to reduce land transformation caused by human activities or land use changes. Using water by planting *Tanlayu* reflects this commitment. The community's belief in preserving trees, as sources of water, serves as a symbol of their local wisdom. The inheritance passed down by ancestors regarding the symbols of life (water sources) and the living environment (forests) must be respected in the human-nature interaction (Ismail, 2017). The preservation of water sources is aimed at reducing human greed in resource utilization.

The local culture concerning water sources provides ecological knowledge to the community, which is fostered by local traditions, such as *Leliwet* ceremony, which emphasizes protecting water sources (see Figure 9). The local wisdom gained from this practice forges a dynamic in Tengger civilization, promoting sustainable environmental conservation. Cultural heritage serves as a guide to civilization, cultural landscapes, and environmental identity in spatial terms (Pajouh et al., 2013). The community, deeply rooted in Hindu beliefs, pays great attention to the relationship between humans and nature to preserve the environment at water source locations to meet daily needs.

3.2 The Symbolic Meanings of Domains and Components of *Leliwet* Ceremony

The *Leliwet* Ceremony is performed annually by the community, and it involves offerings made from local produce, flowers, vegetables, and agricultural products as part of the ceremonial activities. The initial step involves preparing the offerings, arranged according to the instructions of the village's customary leader. The ceremony follows a structured process with specific guidelines, rules, and the delivery of messages, with each stage being led by the village's customary leader. The relationship between traditional knowledge and practical application forms the basis for analyzing the domain and components. The process of analyzing the domain and components serves as an interpretive conceptual model, focusing on the interviews results, core conceptual sequences, and data descriptions that contribute to philosophical knowledge (Pidgeon et al., 1991). The domain of *Leliwet* tradition is presented in Table 2. The domain analysis aims to examine the symbolic meaning of culture, while the taxonomic analysis represents the depiction of relationships between key domains in ethnographic analysis (Onwuegbuzie & Leech, 2012).

Table 2. The Symbolic Meanings in *Leliwet* Ceremony

No.	Informant	Domain	Taxonomic	Components
1.	Informant 1	History of *Leliwet*	- Colonization time - National independence - The present time	- Performed as a reinforcement for the Tenggerese community. - The introduction of religion in Wonokitri Village. - Performed as an expression of gratitude for the harvest and as a form of protection from misfortune.
2.	Informant 4	Beliefs	Animism	Offerings to the ancestral spirits as guards (*pelinggih*).
3.	Informant 1	Functions and roles of *Leliwet*	Worship and offerings to God.	A form of worship and gratitude for the harvest.
4.	Informant 10	Actors of *Leliwet*	- Family - Organization	A practice at every house and organization in Wonokitri Village.

No.	Informant	Domain	Taxonomic	Components
5.	Informant 2	The process of *Leliwet*	- Ceremony preparation - Ceremony execution - Post ceremony	A practice involving several steps from preparation, creation of offerings, recital of prayers, and placement of offerings.
6.	Informant 11	Prohibitions	*Bulan Kepitu* and *Kesanga*	No ceremony is conducted in the seventh or ninth month in Tengger calendar.
7.	Informant 12	Attributes of *Leliwet*	*Gedang ayu, Jenang abang, Jenang putih, Sega liwet, Lontong burat wangi, brakulup, Rakan kembang gubahan pitung japit, Tumpeng pras among, Banyu watu tiga mas, Tamping, Kebaseng*.	Made from leaves, flowers, cakes, and cattles
8.	Informant 5	Human activities	Earnings	Farming, settlement, and public facilities
9.	informant 3	Topographies	The use of land and water	Farming (vegetable gardener), farmer, traders, and so on

The *Leliwet* tradition of the Tengger community in Wonokitri Village serves as a key link between humans, nature, and God through the practice of environmental conservation. This tradition represents gratitude towards God and imparts ecological knowledge aimed at preserving the natural environment in accordance with local cultural values. The meaning conveyed by the *Leliwet* ceremony illustrates the construction of cultural significance passed down through propositions. The interpretation derived from the symbolic meaning of the *Leliwet* ceremony results in the following propositions:

- **Proposition 1**: The ceremony serves as a foundational philosophy for the environmental sustainability and the interaction between humans and the environment, emphasizing respect for all of God's creations. It is interpreted as an act of environmental conservation.
- **Proposition 2:** The symbolic meanings demonstrate the relationship between humans and other humans, as well as the relationship between humans and God.
- **Proposition 3:** The ceremony depicts the outcomes of the integration of daily life, shaping character and positive behaviour in actions, conduct, and the regulation of harmonious relationships with nature, with the mutual cooperation in preserving the ecosystem.

The critical discourse analysis of *Leliwet* ceremony provides the main discourse meaning as outlined in the proposition above. The proposition analysis captures the relationship between the *Leliwet* ceremony and the community's gratitude for the fertility of land and water through environmental care actions. This ancestral tradition symbolizes the relationship between humans and the environment, with a distinct interpretation derived from the activities of *Leliwet* ceremony. The elements of interest and the community's knowledge form an identity, encompassing the values and cultural meanings associated with the local identity. The meaning of the offerings (*sajen*) or *gunungan* symbolizes the community's gratitude while preserving the local wisdom in the volcanic slopes zone (Rakhmawati et al., 2024). This uniqueness represents the

place, the situation, facts, and events associated with the *Leliwet* ceremony.

The symbolism in *Leliwet* ceremony represents a key aspect of the relationship between cultural traditions and environmental conservation efforts. The prominent meaning of the ceremony embodies ritual practices, teachings of environmental preservation, and devotion to God. The materials used for the offerings serve as an important means of fostering human character to care for the environment and live harmoniously. *Leliwet* carries spiritual messages and values of goodness for humanity, urging the protection of the environment from harm. This cultural symbolism forms the foundation of cultural identity and local wisdom that supports the quality of the ecosystem. Therefore, *Leliwet* becomes a powerful symbol of spirituality and values, urging responsible living and the preservation of God's creation.

3.3 Local Wisdom *Leliwet* Ceremony as an Environmental Care Actions Practice Sustainable Conservation

Leliwet ceremony creates a significant impact on Tengger community by emphasizing cultural values and spiritual practices. The ceremony strengthens the relationship between humans and the environment, particularly in the natural activities. The offerings, which include flowers, vegetables, and livestock products known as *Tanlayu*, are essential components of the *Leliwet* ceremony. *Tanlayu* is a protected species by the Ministry of Environment and Forestry, reflecting the community's commitment to preserving nature. The increasing impact of these intrinsic cultural values becomes key to preserving the environmental conditions. Besides, the emphasis on anthropocentrism represents the ecological landscape, human activities, biodiversity, and cultural meaning that are interconnected within a specific spatial context. Understanding the role of sustainable cultural representation is crucial for environmental knowledge, environmental preservation, and the promotion of local wisdom (Soini & Dessein, 2016).

The empowerment of *Tanlayu* goes beyond its use in the ceremony and extends to its role as a tourist attraction. A local prohibition on harvesting *Tanlayu* is enforced to ensure the ecological sustainability and conservation of the area. This environmental care underscores the importance of maintaining harmony between humans and nature, to safeguard the geosystem of the region. The ceremony emphasizes the community's belief in preserving plant biodiversity, ensuring the conservation of the sacred mountain. The traditional beliefs and alternative views on conservation practiced are not solely influenced by government policies but are deeply rooted in local customs. The ritual use of plants like *Tanlayu* serves as a continuous reminder of the need for environmental conservation (Geng et al., 2017). This practice influences the behavior of the Tengger community, and *Tanlayu* has become an integral component of the ceremony.

The cultural values embedded in the *Leliwet* tradition shape individuals' perceptions and responses to the environmental changes. Understanding the human-environment system is crucial for identifying the psychological aspects of conservation and fostering environmentally conscious actions rooted in local wisdom. The consistency of environmental care is a key priority in the *Leliwet* ceremony. The psychological orientation of environmental values determines the relationship between individuals and the natural environment, grounded in traditional cultural principles. The significance of preserving geographic locations in the Upland area influences spatial, temporal, and human activity dimensions. The integration of temporal and contextual dimensions forms a cultural ecosystem value, shaped by the local community's activities. By emphasizing the preservation of land and water within the ecological framework, the *Leliwet* ceremony instils values of care, tolerance, and protection according to cultural traditions. The reverence for water sources and agricultural land underscore the importance of these resources as symbols of life and the environment.

Leliwet teaches the care for the environment, emphasizing the importance of living in harmony with nature in the upland zone. The community's awareness of environmental preservation goes beyond planting *Tanlayu*; it extends to actions to maintain the availability of water. This belief instils in the community the understanding that maintaining the quality of water and soil is a traditional conservation. The ceremony becomes an informal tradition that promotes conservation and protection of the ecosystem through community activities. Local traditions, customary beliefs, customary laws, and systems of prohibitions serve as tools for ecosystem conservation against environmental degradation caused by climate change (Maru et al., 2020). As such, the protection of these beliefs and traditional rules aids in building conservation awareness and fostering environmental care. Local practices and knowledge encourage sustainable natural resource management based

on tradition, aimed to preserve the environment through the conservation of *Tanlayu* plants, as shown in Figure 10. The local cultural practices in the Upland area of Mount Bromo stand as an example of sustainable conservation. These practices are a testament to how traditional knowledge and local customs can play a vital role in environmental protection.



Figure 10. *Tanlayu* in Wonokitri Village
(Source: Research Data, 2024)

The naming *Tanlayu* is pivotal for maintaining the quality of water and soil in the upland areas. The action of planting *Tanlayu* represents an environmental care and daily practice of cultivating these plants for the ceremony, ensuring that this tradition prevails in the future. The ceremony serves as a tool for environmental and cultural education for younger generations, which is key to preserving cultural identity. This ceremony has proven effective as a form of education in both environmental and cultural aspects, allowing the younger generation to internalize local cultural values. The involvement of multiple generations in the ceremony opens up opportunities for understanding, loving, and appreciating local wisdom, ultimately fostering agents of cultural and environmental preservation. These findings cohere with the findings in Prasetyo (2023) noting that rituals serve not only as religious practices but also as powerful vehicles to raise environmental awareness and preserve local culture. Local traditions offer important insights and serve as valuable tools for education and research, cementing the understanding of the inherent connection between culture and nature. This orientation is aligned with a global sustainable development, culture, and conservation through interdisciplinary efforts aimed at addressing pressing environmental and cultural concerns.

The knowledge system of environmental ecosystem management based on the ceremony provides unique strength to Tengger community. The transmission of *Leliwet* cultural knowledge is shared orally, through rituals, daily life, and customs, which contains both formal and informal environmental education. Notwithstanding, the practice of ecosystem conservation presents a key challenge: the synergy between traditional conservation models and *Leliwet* ceremony. This ecological conservation tradition, adapted to the region's distinct conditions, becomes central to rural community concerns. The heritage of *Leliwet* ceremony supports the measures to promote environmental care and ecological preservation for a better life. Cultural traditions play a significant role in spreading environmental conservation efforts, fostering protection for the traditional, endemic ecological models specific to the region. The traditional knowledge serves as a foundation for beliefs, guidance, and regulations regarding environmental preservation.

Science and methodology are key to exploring the unique characteristics of places in the upland region. The environment's quality is influenced by the community's belief in the importance of water and soil quality for sustaining life. The special significance of these places is documented through the application of appropriate scientific methodologies, adding value to environmental education activities. The location of *Leliwet* ceremony becomes an identity that encourages

a more mindful approach to maintaining harmony between humans and the environment. Places hold symbolic meaning for the preservation of human culture and nature in the mountain region. The concept of environmental education helps preserve nature by fostering human qualities such as cultural assimilation and the relationship between a specific place and the protection from exploitation and spatial change (Swan, 1983). Efforts to prevent the global ecological crisis by maintaining environmental quality through local cultural traditions influence the dynamics of local wisdom, practices, and unique knowledge. The balance between humans and nature, as embedded in local traditions, aids in preserving ecosystems and plant life (Qodim, 2023). Therefore, the harmony between humans, the environment, nature, and the divine serves as the foundation for environmental care practices in the conservation of natural resources, based on the traditional ecological knowledge of Tengger community.

4. Conclusion

Leliwet ceremony instils an environmental care value for ecological conservation and the preservation of water sources for Tengger community in the Bromo region. The belief is that the natural condition does not negatively impact human life in the upland zone, but rather brings ample blessings. The way humans honor nature is reflected in this annual ceremony. This expression of gratitude for the blessings is demonstrated through offerings of agricultural products, vegetables, and livestock goods. These offerings are intended as a form of worship to God (*Hyang Widhi*) and the gods, symbolized in the form of offerings (*sajen*). The value of the ceremony contributes to the additional appeal of agroforestry land management and cultural tourism, highlighting the harmony between humans and their environment. The spatial dimension of the relationship between humans, place, environment, and process emerges as an identity of environmental care action, which embodies the cultural meaning as local wisdom of Tengger community.

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