

A Strategy for Strengthening Ecotourism Based on the Dayak Meratus's Local Wisdom Governance for Ecosystem Conservation

Ahmad¹, Mutiani², Muhammad Asraf bin Abdullah³, Rifiana⁴, Nurmelati Septiana⁵

¹ Universitas Lambung Mangkurat; ahmadalimbachri@ulm.ac.id

² Universitas Lambung Mangkurat; mutiani@ulm.ac.id

³ Universiti Malaysia Sarawak; amasraf@unimas.my

⁴ Universitas Lambung Mangkurat; rifiana@ulm.ac.id

⁵ Universitas Lambung Mangkurat; nurmelati.septiana@ulm.ac.id

ARTICLE INFO

Keywords:

Ekowisata;
Local Wisdom; Dayak Meratus;
Governance; Ecosystem
Conservation

Article history:

Received 2026-08-26

Revised 2026-08-27

Accepted 2026-08-27

Published 2026-09-01

ABSTRACT

The Meratus Mountains in South Kalimantan feature a landscape of significant ecological, social, and cultural importance for the sustainability of the Dayak Meratus Indigenous Community. This area also represents a living space managed through ecological knowledge and customary institutions that have been passed down from generation to generation. However, the area has evolved into an ecotourism destination that is popular among people looking to spend their vacations. This article aims to analyze strategies for strengthening ecotourism based on the Dayak Meratus's local wisdom as an approach that can reconcile ecosystem conservation goals with the recognition and strengthening of indigenous peoples' rights. The research employs a descriptive qualitative approach through a literature review and document analysis of indexed journal articles. Data were analyzed using thematic content analysis to identify relevant patterns, practices, and governance strategies. The study's findings indicate that the local wisdom of the Dayak Meratus—reflected in the management of pamali forests, the practice of shifting cultivation (manugal), the aruh ritual, and the institutional roles of the damang and balian—not only serves cultural functions but also forms community-based conservation mechanisms. Based on these findings, efforts to strengthen ecotourism are directed through four main strategies, namely: strengthening customary institutions as co-managers of the area; accelerating the recognition of customary forests and village forests as the basis for partition zoning. Based on these findings, efforts to strengthen ecotourism are guided by four main strategies: strengthening indigenous institutions as co-managers of the area; accelerating the recognition of indigenous forests and village forests as the foundation for participatory zoning; integrating traditional ecological knowledge into tourism interpretation and conservation education; and developing mechanisms for the equitable distribution of economic benefits through community-based enterprises. This study confirms that ecotourism rooted in local wisdom and managed through collaborative governance has the potential to

serve as an instrument for strengthening ecosystem conservation while simultaneously enhancing participation, economic self-reliance, and recognition of the rights of indigenous communities. Thus, this model can be developed as a more inclusive, equitable, and sustainable conservation approach in the Meratus Mountains region.

Corresponding Author:

Ahmad

Universitas Lambung Mangkurat; ahmadalimbachri@ulm.ac.id

1. INTRODUCTION

The Meratus Mountains form a landscape in South Kalimantan that is closely intertwined with the ecological functions, social life, and cultural sustainability of the local communities. Stretching approximately 600 kilometers and serving as the only major mountain range in South Kalimantan Province, this area is characterized by ancient geology, highland tropical rainforests, and a hydrological function as a watershed for several river basins that sustain the livelihoods of communities in downstream areas. This ecological and geological significance has gained increasing international recognition following the designation of the Meratus Geopark as a UNESCO Global Geopark in 2025. This status places the Meratus Mountains within a management framework that emphasizes not only the conservation of geological heritage and biodiversity but also education and sustainable local economic development (Kompas, 2025; Sinta, 2025). The sustainability of the Meratus Mountains cannot be understood solely as a matter of ecosystem conservation, but also as a matter of how ecological values, local knowledge, and community well-being can be integrated into the management of the region.

The sociocultural dimensions of the Meratus Mountains are becoming increasingly important because the area serves as the living space of the Dayak Meratus Indigenous Community, which has, for generations, cultivated ecological, social, and spiritual relationships with its surrounding environment (Wardhani et al., 2024). The Dayak Meratus people do not view the forest merely as a source of food or a space for production, but as an integral part of their lives, identity, belief system, and community sustainability. Ecological knowledge passed down through generations is reflected in various customary rules, practices, and institutions that govern the relationship between humans and nature (Holilah, 2016; Muhaimin, 2015). The “pamali” forest—or sacred forest—for example, is a space protected by customary norms, thereby contributing to the sustainability of the area’s vegetation and ecological functions (Candraningsih et al., 2018; Hamidi et al., 2022). Similarly, the practice of shifting cultivation (manugal) is not merely a food production system but embodies knowledge regarding land-use cycles, soil fertility restoration, and mechanisms of mutual aid in the social life of the community (Efendi et al., 2020). Meanwhile, the aruh ritual represents the symbolic and spiritual connection between humans, the earth’s bounty, and the environment, while simultaneously strengthening the social cohesion of indigenous communities (Edi Suharto, 2019; Wardhani et al., 2024). These practices demonstrate that local wisdom is, in essence, part of an ecological management system that serves a conservation function.

The problem is that this ecological knowledge and these indigenous institutions are not always considered the foundation for formulating area management policies. A conservation approach

focused on the designation of protected areas and state-led control has the potential to create tensions when conservation boundaries do not align with the living spaces and management systems of indigenous communities (Handy et al., 2022; Kumar, 2021). These dynamics are evident in the plan to convert part of the Meratus Mountains protected forest into a national park—a process set to begin in 2024 covering an area of approximately 119,000 hectares (Hariandja, 2025). Opposition from several indigenous communities indicates that conservation issues are not merely about the status of an area but also concern participation, access, control over space, and the sustainability of the communities' socio-ecological systems—which had developed long before the advent of formal conservation regimes. A study by Zulaikha, Hamid, Baihakki, and Mattiro (2026) even identified the potential for “green grabbing”—the process of seizing or restricting access to living spaces under the guise of environmental conservation. This perspective reveals that conservation that is insensitive to the rights and knowledge of indigenous communities risks creating a paradox: policies intended to protect ecosystems may actually weaken the very local actors who have long contributed to the maintenance of those ecosystems.

In this context, the development of ecotourism offers an opportunity to build more constructive relationships between conservation, culture, and community well-being. Ecotourism should not be viewed merely as an economic activity that capitalizes on natural and cultural attractions, but rather as a management approach that links environmental protection with education, empowerment, and the distribution of benefits to local communities. The International Ecotourism Society (2015) identifies responsible travel to natural areas, environmental conservation, the well-being of local communities, as well as interpretation and education as key elements of ecotourism (Afifah et al., 2023; Andari, 2023). From a more participatory perspective, community-based ecotourism requires community involvement from the planning and management stages through to the receipt of economic benefits (Asy'ari et al., 2021; Husamah & Hudha, 2018). Therefore, for the Meratus Mountains, ecotourism development holds strategic relevance if it can position indigenous communities as active participants in management—not merely as supplementary elements of cultural attractions or passive recipients of economic benefits.

This opportunity has become increasingly relevant as the Meratus Mountains region has emerged as one of the leading natural and cultural tourism destinations in South Kalimantan. Loksado, for example, has long been known as a tourist destination that combines forest landscapes, rivers, nature-based activities, and the culture of the Dayak Meratus people. The growth of tourism activities indicates that the Meratus Mountains possess an appeal capable of reconciling conservation interests with the economic needs of the community. However, the increase in tourist visits also presents governance challenges that must be anticipated, particularly regarding pressure on ecosystems, the commercialization of culture, inequitable distribution of benefits, and the potential marginalization of local communities if destination development prioritizes market-driven goals over socio-ecological sustainability. A study by Anwar et al. (2018) indicates that tourism development based on local wisdom in South Kalimantan still faces challenges related to institutional frameworks, human resource capacity, shifts in cultural values, and a lack of understanding among tourism stakeholders regarding the principles of sustainable tourism management. These conditions underscore that natural and cultural attractions alone are not sufficient to ensure the sustainability of ecotourism; governance is needed that can reconcile the interests of conservation, local institutions, ecological knowledge, and the equitable distribution of benefits.

It is at this point that the local wisdom of the Dayak Meratus people assumes a strategic role in the development of ecotourism governance. Local wisdom can be viewed not only as material for tourism

interpretation or as a destination's cultural identity, but also as a governance asset that provides principles, rules, practices, and social mechanisms for managing natural resources (Arisanty et al., 2024). The "pamali" forest exemplifies restrictions on land use based on customary norms; "manugal" demonstrates land management mechanisms that prioritize ecological sustainability and social solidarity; the "aruh" ritual strengthens the spiritual connection between the community and the environment; while customary institutions such as the "damang" and "balian" play a role in preserving norms, knowledge, and the continuity of the community's socio-cultural practices. If these elements are integrated into ecotourism management, tourism will not only generate economic value but can also serve as a tool to preserve ecological knowledge, strengthen community institutions, and raise conservation awareness (Binsasi & Bani, 2021).

The literature on the Meratus Mountains still largely focuses on local wisdom, indigenous communities' conservation practices, tourism potential, or conflicts over the management of specific areas. Few studies have systematically linked these four dimensions within a single ecotourism governance framework that positions indigenous institutions as managing actors while also establishing traditional ecological knowledge as the foundation for conservation. It is crucial to address this gap because the success of ecotourism in areas inhabited by indigenous communities cannot be measured solely by growth in tourist visits or increased income, but also by the ability of the management model to maintain ecosystem integrity, strengthen community capacity, recognize rights to living space, and ensure the equitable distribution of benefits. Thus, the crucial question is not merely how to develop tourism in the Meratus Mountains, but how ecotourism can be designed as a governance mechanism that strengthens conservation while preserving the existence and role of indigenous communities.

This article aims to analyze strategies for strengthening ecotourism based on the local wisdom of the Dayak Meratus as an approach to reconciling the ecosystem conservation agenda with the recognition and empowerment of indigenous communities. This approach shifts the role of indigenous communities from being objects of conservation and tourist attractions to becoming co-managers who play a role in decision-making, resource management, tourism product development, cultural interpretation, and the distribution of economic benefits. Within this framework, recognition of customary forests and village forests can serve as a crucial foundation for participatory zoning; traditional ecological knowledge can be integrated into tourism interpretation and conservation education; while community-based enterprise development and benefit-sharing mechanisms can ensure that the economic value of tourism flows back to the communities that safeguard the area. Such governance ensures that the conservation agenda does not operate separately from the community's development agenda, but rather evolves as a mutually reinforcing socio-ecological system.

2. METHODS

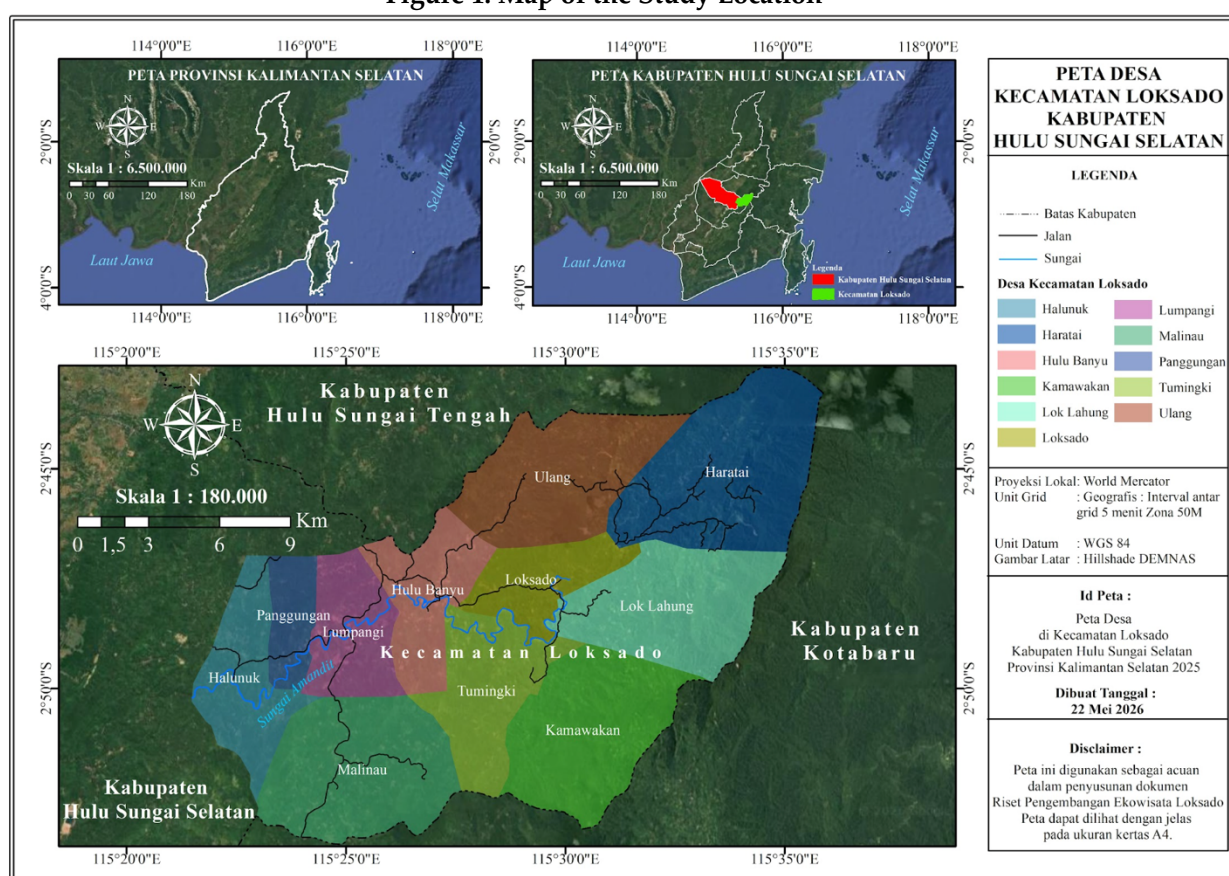
This study employs a descriptive qualitative approach using a literature review design combined with document analysis. In principle, this study emphasizes that an in-depth understanding of a social phenomenon can be developed through a systematic review of various sources of literature. The data sources in this study consist of secondary data collected from two categories of documents, namely: 1) articles from nationally (Sinta) and internationally indexed scientific journals; and 2) relevant policy and regulatory documents, including Law No. 32 of 2024 concerning Amendments to Law No. 5 of 1990 on the Conservation of Biological Resources and Their Ecosystems, Presidential Regulation No. 5 of 2025 on the Regulation of Forest Areas, and Law No. 23 of 2014 on Regional Government. Data collection was conducted through a systematic literature review using the keywords "Dayak Meratus local wisdom," "Meratus Mountains ecotourism," "indigenous community-based conservation

management,” and “Meratus Geopark.” Data analysis was conducted using thematic content analysis following the steps outlined by Miles and Huberman, namely data reduction (extracting relevant information from documents), data presentation (grouping findings into themes of local wisdom, governance challenges, and potential strategies), as well as drawing conclusions and verifying them through triangulation across sources—comparing academic research findings, official policy data, and field reports to ensure the consistency of the information (Miles & Huberman, 2020).

3. FINDINGS AND DISCUSSION

This article outlines four subtopics to describe strategies for strengthening ecotourism. This study was conducted in Loksado, Hulu Sungai Tengah Regency. Specifically, the study location can be seen on the map below:

Figure 1. Map of the Study Location



The Local Wisdom of the Dayak Meratus as the Foundation for Community-Based Conservation

The study's findings indicate that the way of life of the Dayak Meratus Customary Law Community cannot be understood merely as an expression of traditional culture, but rather as a system of knowledge and socio-ecological governance that serves a tangible conservation function. This system manifests in various practices, particularly through the existence of pamali forests, the traditional manugal shifting cultivation system, as well as customary rituals and institutions. These three elements form an interconnected resource management mechanism that balances spiritual values, economic needs, social relations, and ecological sustainability. Thus, conservation in the context of the Dayak Meratus does not exist as a sectoral activity separate from community life, but is embedded within the community's social structure and daily practices.

The pamali forest is the most tangible manifestation of the institutionalization of conservation values in the lives of the Dayak Meratus people. This area is regarded as a sacred space, and its use is therefore restricted by customary norms and prohibitions. The presence of 327 vegetation species at various growth stages in the pamali forest of Kampung Kiyu (Candraningsih et al., 2018; Hamidi et al., 2022) indicates that protection mechanisms based on customary values contribute to the sustainability of the forest ecosystem's structure. These findings show that compliance with conservation rules does not always have to be enforced through formal monitoring and administrative sanctions but can emerge through the internalization of values, collective beliefs, and social legitimacy passed down across generations.

In addition to the pamali forest, the practice of manugal demonstrates the community's knowledge in managing the relationship between production needs and the ecological capacity of the land. The shifting cultivation system, which operates through specific cycles, essentially reflects an understanding of the importance of environmental recovery periods. In this context, manugal cannot be reduced to merely a form of traditional agriculture, as the practice incorporates social and ecological mechanisms that regulate the collective use of space. Forest garden management patterns that combine productive crops with natural vegetation also demonstrate a form of local agroforestry that allows communities to derive economic benefits without completely eliminating the area's ecological functions.

These findings indicate that the Dayak Meratus community had essentially developed a community-based conservation system long before modern conservation concepts were formally introduced. Pamali forests can be understood as a form of protective zoning; manugal and agroforestry reflect the principle of sustainable use; while rituals and customary institutions function as instruments of social control (Hamidi et al., 2022; Kambu et al., 2023). From an environmental governance perspective, these three mechanisms demonstrate that conservation effectiveness is determined not only by the legal status of an area but also by the level of social legitimacy of the rules governing resource use.

Traditional rituals and institutions reinforce this argument because both serve as means of reproducing conservation values. Aruh rituals, including aruh ganal and aruh baharin, not only possess a spiritual dimension but also serve as social spaces to strengthen collective identity and transmit knowledge about the relationship between humans and nature. Meanwhile, the presence of damang and balian indicates the existence of a local authority structure that plays a role in regulating community life, resolving conflicts, and upholding customary norms. Therefore, conservation based on local wisdom in the Meratus Mountains actually possesses institutional capital that has been historically established and is inseparable from the way of life of the Dayak Meratus community (Syarifuddin et al., 2025).

Tensions Between Formal Conservation and Recognition of Indigenous Peoples' Rights

Although the Dayak Meratus community possesses a relatively strong social and cultural conservation system, the study's findings reveal tensions between formal conservation governance and the recognition of indigenous peoples' rights. These tensions arise primarily in plans to change the status of portions of protected forest areas into national parks. The main issue is not merely a change in nomenclature or the status of the area, but rather the decision-making process and the role of indigenous peoples in determining the future of their own living spaces. The lack of community involvement in this process indicates a tendency toward top-down governance (Adam et al., 2021; Jamin & Hermawan, 2024; Tisna & Rizki, 2025).

This situation has the potential to create a conservation paradox. On the one hand, the state seeks to strengthen ecosystem protection through formal conservation area instruments. On the other hand, however, these policies risk restricting access for community groups whose resource management practices have, in fact, contributed to the preservation of these areas. In other words, conservation risks losing its social foundation if indigenous communities are treated merely as objects of regulation.

Studies on the risks of “green grabbing” underscore this issue by showing that conservation policies lacking recognition of rights can lead to social marginalization, restricted access to resources, and the erosion of local ecological knowledge.

From a sustainability perspective, an exclusive approach to conservation carries the risk of being counterproductive. Restricting access without participatory mechanisms can diminish communities’ sense of ownership regarding conservation policies and weaken collective incentives to safeguard ecosystems. Conversely, recognizing indigenous communities as conservation actors can expand the capacity for monitoring and managing the area through the utilization of local knowledge that has developed over the long term. Therefore, the main issue in the governance of the Meratus Mountains is not choosing between conservation and indigenous communities, but designing institutional mechanisms that allow both to be part of the same system.

These challenges are further complicated by ongoing issues of institutional capacity and overlapping regulatory frameworks. The development of community-based ecotourism requires organizational skills, business management, environmental interpretation, tourism services, and benefit-sharing mechanisms that may not be equally available at the community level. On the other hand, formal authority over conservation areas lies within a governmental structure distinct from the social spaces where indigenous communities practice their traditional management systems (Karso, 2025). This situation creates a gap between the institutional legitimacy of indigenous communities and the legal legitimacy granted by the state. These governance challenges indicate that the success of conservation and ecotourism is largely determined by the ability to bridge these two institutional systems (Nugroho et al., 2018; Rahman et al., 2017).

Ecotourism as a Space for Integrating Conservation and Community Well-being

Further findings indicate that ecotourism has the potential to serve as an integrative tool for reconciling the interests of ecosystem conservation with the sustainable livelihoods of indigenous communities. The designation of the Meratus Geopark as a UNESCO Global Geopark opens new avenues for the development of a governance framework that is not only focused on area protection but also on education, the preservation of natural and cultural heritage, and the economic empowerment of local communities. This is significant because the geopark framework allows conservation to be understood more broadly as an integrated management process encompassing geological heritage, biodiversity, culture, and community life (Da Silva et al., 2025).

In this context, Loksado can be viewed as a space where the natural potential of the area meets the cultural practices of the Dayak Meratus people. The presence of forests, waterfalls, hot springs, and bamboo rafting activities demonstrates that the area’s tourist appeal stems not only from its natural landscape but also from the community’s relationship with its environment. The authentic value of the destination lies precisely in the existence of living cultural practices. Therefore, ecotourism development that focuses solely on increasing visitor numbers risks reducing indigenous communities to mere tourist attractions, whereas a community-based approach positions the community as the holders of knowledge, decision-makers, and beneficiaries (Zainal et al., 2024).

Ecotourism can thus serve as a mechanism for creating conservation incentives. When the preservation of forests, culture, and landscapes becomes a source of economic benefits that are fairly managed by the community, there is a more direct link between the interest in protecting the environment and improved well-being. However, this relationship does not occur automatically (Bai & Weng, 2023). Ecotourism will only strengthen conservation if its governance structure ensures substantive community participation, equitable distribution of benefits, protection of traditional knowledge, and limits on excessive environmental exploitation and the commercialization of culture.

Thus, ecotourism can be viewed as a middle ground between conservation approaches—which have traditionally tended to be state-centered—and the community’s need to preserve their living space and sources of livelihood. This approach shifts the paradigm from restriction-based conservation to

collaboration-based conservation. Within this paradigm, the Dayak Meratus community is not viewed as an obstacle to the development of conservation areas, but rather as co-producers of conservation who possess the knowledge, institutions, and experience necessary to maintain ecosystem sustainability.

Strategic Model for Strengthening Ecotourism Based on Local Wisdom

Based on a synthesis of the study's findings, this research formulates a strategic model for strengthening ecotourism based on the Dayak Meratus's traditional governance through five interrelated pillars. The first pillar is the strengthening of traditional institutions as co-managers in the governance of the area. The roles of damang, balian, and other traditional institutions need to be given a more substantive place in the processes of planning, decision-making, monitoring, and evaluation of the area's management (Yang et al., 2026). Such recognition is crucial for transforming the position of indigenous communities from merely being consulted parties to becoming actors with real authority in the governance of conservation and ecotourism.

The second pillar is accelerating the recognition of customary territories, customary forests, and village forests as the basis for establishing participatory zoning. The zoning established is not based solely on ecological considerations from a technocratic perspective, but also takes into account the history of land use, sacred values, livelihood areas, and the spatial knowledge of local communities. Pamali forests, for example, can be designated as high-protection areas because they already possess strong customary legitimacy. Meanwhile, certain areas can be developed on a limited basis for ecotourism and community economic activities while still taking environmental carrying capacity into account.

The third pillar is the integration of traditional ecological knowledge into tourism interpretation systems and conservation education. The "hutan pamali," the "manugal" philosophy, agroforestry systems, and "aruh" rituals can be developed as part of a destination's interpretive narrative without undermining the cultural meaning and authority of indigenous communities. This strategy serves a dual purpose: enhancing tourists' experiences and understanding of conservation values while ensuring the sustainable transfer of knowledge to the younger generation of the Dayak Meratus. In the context of a geopark, this approach can strengthen the connection between education, conservation, and local identity.

The fourth pillar is the development of community-based enterprises through fair and transparent economic mechanisms. Community groups can play a role in providing guiding services, local transportation, traditional tourism activities, homestays, culinary experiences, handicrafts, and non-timber forest products. However, the success of this strategy requires strengthening managerial capacity, entrepreneurial literacy, service standards, and a clear benefit-sharing system. Economic benefits must be directly linked to the communities safeguarding the area so that tourism activities create tangible incentives to preserve ecological and cultural functions (Suyatna et al., 2024).

The fifth pillar is the development of collaborative governance that establishes the principle of Free, Prior, and Informed Consent (FPIC) as the foundation for every policy affecting indigenous territories. This principle is essential to ensure that conservation and ecotourism development do not proceed through unilateral decision-making mechanisms. Collectively, these five pillars form an integrated governance model that links the recognition of rights, the strengthening of indigenous institutions, ecosystem conservation, environmental education, and community economic empowerment (Hua et al., 2025). This model emphasizes that the success of ecotourism in the Meratus Mountains cannot be achieved through sectoral interventions, but rather requires multistakeholder collaboration that places the Meratus Dayak community at the center of the region's development and conservation efforts.

4. CONCLUSION

This study shows that the local wisdom of the Dayak Meratus Indigenous Community—as reflected in the practices of pamali forests, manugal, agroforestry, the aruh ritual, and the damang and balian institutions—plays a crucial role in maintaining ecosystem sustainability. These practices are not only part of their cultural identity but also function as a system for resource management and the transmission of ecological knowledge. However, conservation governance still faces challenges in the form of limited community involvement, uncertainty regarding the recognition of rights, and a disconnect between customary institutions and formal management systems. Ecotourism in Loksado has the potential to serve as a means of integrating ecosystem conservation, cultural preservation, and improved well-being for the Dayak Meratus community. To achieve this, this study formulates five key strategies: strengthening indigenous institutions as co-managers; recognizing indigenous territories and forests as the basis for participatory zoning; integrating local ecological knowledge into education and tourism interpretation; developing community-based enterprises with equitable benefit-sharing; and implementing collaborative governance. Through this approach, the Dayak Meratus community will not merely be beneficiaries but will be positioned as key actors in conservation and the development of sustainable ecotourism. This study is still descriptive and qualitative in nature, based on a literature review, and therefore has limitations in empirically verifying its findings in the field; therefore, further participatory research—involving field observations and direct interviews with the Dayak Meratus Customary Law Community—is needed to test the effectiveness of these five strategies and to measure their impact on ecosystem conservation and community well-being in a more quantifiable manner.

Acknowledgments: In this section, you can acknowledge any support given which is not covered by the author's contribution or funding sections. This may include administrative and technical support or donations in kind (e.g., materials used for experiments).

Conflicts of Interest: Declare conflicts of interest or state, “The authors declare no conflict of interest.” Authors must identify and declare any personal circumstances or interests that may be perceived as inappropriately influencing the representation or interpretation of reported research results.

REFERENCES

- Adam, A. A., Othman, N., & Halim, A. A. (2021). Indigenous Knowledge Transfer Among Dusuns and Bajaus in Kota Belud, Sabah, Malaysia: Approaches and Challenges. *International Journal of Academic Research in Business and Social Sciences*, 11(11). <https://doi.org/10.6007/ijarbs/v11-i11/11656>
- Afifah, R. N., Putri, A., Hartanti, A. N., Negari, S. I. T., Pratama, M. S. R., Zuaini, P. A. K., Madani, A. R. A., Muryanto, B. S., Muhammad, F., Astikasari, L., Indriyani, S., Kurniawati, I., Sunarto, S., Kusumaningrum, L., Budiharta, S., Flores, A. B., & Setyawan, A. D. (2023). Ecotourism development as a community-based conservation effort in Ayah Mangrove Forest, Kebumen, Central Java, Indonesia. *Asian Journal of Forestry*, 7(1). <https://doi.org/10.13057/asianjfor/r070105>
- Andari, R. (2023). Educational Tourism and Community-Based Ecotourism: Diversification for Tourist Education. *Journal of Tourism Education*, 3(2), 97–108. <https://doi.org/10.17509/jote.v3i2.66099>
- Arisanty, D., Hastuti, K. P., Aristin, N. F., Angriani, P., Alviawati, E., Rajiani, I., & Rosadi, D. (2024). The value of local wisdom for peatland fire risk reduction in the wetland area of South Kalimantan. *IOP Conference Series: Earth and Environmental Science*, 1314(1), 012093. <https://doi.org/10.1088/1755-1315/1314/1/012093>
- Asy'ari, R., Dienaputra, R. D., Nugraha, A., Tahir, R., Rakhman, C. U., & Putra, R. R. (2021). KAJIAN KONSEP EKOWISATA BERBASIS MASYARAKAT DALAM MENUNJANG

- PENGEMBANGAN PARIWISATA: SEBUAH STUDI LITERATUR. PARIWISATA BUDAYA: JURNAL ILMIAH AGAMA DAN BUDAYA, 6(1), 9. <https://doi.org/10.25078/pba.v6i1.1969>
- Bai, L., & Weng, S. (2023). New Perspective of Cultural Sustainability: Exploring Tourism Commodification and Cultural Layers. *Sustainability*, 15(13), 9880. <https://doi.org/10.3390/su15139880>
- Binsasi, R., & Bani, P. W. (2021). Exploration and Utilization of Local Biodiversity With the Potential for Empowerment of Conservation Village Models Fatusene Village, North Central Timor Subdistrict. *Media Konservasi*, 26(2), 164–171. <https://doi.org/10.29244/medkon.26.2.164-171>
- Candraningsih, I. A. K., Pujaastawa, I. B. G., & Sudiarna, I. G. P. (2018). Konservasi Hutan Berbasis Kearifan Lokal di Desa Tigawasa, Kecamatan Banjar, Kabupaten Buleleng. *Humanis*, 22(2), 311–319. <https://doi.org/10.24843/JH.2018.v22.i02.p06>
- Da Silva, A. E., Maracajá, K. F. B., Batalhão, A. C. S., Silva, V. F., & Borges, I. M. S. (2025). Ecotourism and Co-Management: Strengthening Socio-Ecological Resilience in Local Food Systems. *Sustainability*, 17(6), 2443. <https://doi.org/10.3390/su17062443>
- Edi Suharto, P. D. (2019). *Membangun Masyarakat Memberdayakan Rakyat Kajian Strategis Pembangunan Kesejahteraan Sosial dan Pekerjaan Sosial* (S. Aep Gunarsa, - Iman Taufik, & S. Aep Gunarsa, Eds.). PT Refika Aditama. <https://difarepositories.uin-suka.ac.id/246/>
- Efendi, M., Sahrul, M., & Salma, S. (2020). Nilai Kearifan Lokal Tradisi Manugal Masyarakat Dayak Meratus Kalimantan Selatan Pada Materi Geografi Bidang Lingkungan Hidup (Kajian Etnografi). *PADARINGAN (Jurnal Pendidikan Sosiologi Antropologi)*, 2(2), 260. <https://doi.org/10.20527/padaringan.v2i2.2158>
- Hamidi, M., Hafizianor, H., & Peran, S. B. (2022). KEARIFAN LOKAL MASYARAKAT SUKU DAYAK MERATUS TERHADAP HUTAN PAMALI (HUTAN KERAMAT) DI KAMPUNG KIYU. *Jurnal Sylva Scientae*, 5(2), 178. <https://doi.org/10.20527/jss.v5i2.5370>
- Handy, M. R. N., Abbas, E. W., Mutiani, M., Putra, M. A. H., Azhari, R. P., & Firyal, R. A. (2022). Konservasi Bekantan Melalui Penanaman Mangrove Rambai (*Sonneratia Caseolaris*) Di Pulau Curiak Kabupaten Barito Kuala. *Jurnal Pengabdian Al-Ikhlas*, 8(2). <https://doi.org/10.31602/jpaiuniska.v8i2.6677>
- Hariandja, R. (2025, April 14). Masyarakat Adat Was-was Meratus jadi Kawasan Konservasi. *Mongabay.co.id*. <https://mongabay.co.id/2025/04/14/masyarakat-adat-was-was-meratus-jadi-kawasan-konservasi/>
- Holilah, M. (2016). KEARIFAN EKOLOGIS BUDAYA LOKAL MASYARAKAT ADAT CIGUGUR SEBAGAI SUMBER BELAJAR IPS. *JURNAL PENDIDIKAN ILMU SOSIAL*, 24, 163. <https://doi.org/10.17509/jpis.v24i2.1453>
- Hua, A. K., Sulaiman, S., & Jubit, N. (2025). EMPOWERING INDIGENOUS COMMUNITIES THROUGH SOCIAL INNOVATION: A CASE STUDY OF ECOTOURISM HOMESTAYS IN SABAH. *Quantum Journal of Social Sciences and Humanities*, 6(5), 512–530. <https://doi.org/10.55197/qjssh.v6i5.1004>
- Husamah, H., & Hudha, A. M. (2018). EVALUASI IMPLEMENTASI PRINSIP EKOWISATA BERBASIS MASYARAKAT DALAM PENGELOLAAN CLUNGUP MANGROVE CONSERVATION SUMBERMANJING WETAN, MALANG. *Jurnal Pengelolaan Sumberdaya Alam Dan Lingkungan (Journal of Natural Resources and Environmental Management)*, 8(1), 86–95. <https://doi.org/10.29244/jpsl.8.1.86-95>
- Ilhami, M. R., Abbas, E. W., Subiyakto, B., & Mutiani. (2026, February). Analysis of mangrove rehabilitation program to support wetland environmental conservation. In *IOP Conference Series: Earth and Environmental Science* (Vol. 1586, No. 1, p. 012082). IOP Publishing.
- Ilhami, M.R., Abbas, E.W., Subiyakto, B. and Mutiani, 2026. Community roles model in the buffer zone of the proboscis monkey habitat for wetland environmental conservation. *Nature Environment and Pollution Technology*, 25(3), D1873. <https://doi.org/10.46488/NEPT.2026.v25i03.D1873>

- Jamin, M., & Hermawan, S. (2024). VALUING INDIGENOUS RIGHTS OVER FOREST GOVERNANCE IN SIX ASEAN MEMBER COUNTRIES. *UUM Journal of Legal Studies*, 15(2), 585–621. <https://doi.org/10.32890/uumjls2024.15.2.8>
- Kambu, J., Marwa, J., & Murdjoko, A. (2023). POLA PENGELOLAAN RUANG AREA HUTAN BERBASIS KEARIFAN LOKAL MASYARAKAT DISTRIK AYAMARU TIMUR SELATAN, KABUPATEN MAYBRAT. *JURNAL KEHUTANAN PAPUASIA*, 9(2), 252–262. <https://doi.org/10.46703/jurnalpapuasia.Vol9.Iss2.500>
- Karso, A. J. (2025). Natural resources governance and the vulnerability of indigenous communities in Indonesia. *Frontiers in Political Science*, 7, 1601480. <https://doi.org/10.3389/fpos.2025.1601480>
- Kompas. (2025). Mengenal Geopark Meratus yang Resmi Masuk dalam UNESCO Global Geoparks. Kompas. <https://www.kompas.com/tren/read/2025/05/05/101500765/mengenal-geopark-meratus-yang-resmi-masuk-dalam-unesco-global-geoparks>
- Kumar, P. (2021). Environmental Degradation by Invasive Alien Plants in the Anthropocene: Challenges and Prospects for Sustainable Restoration. *Anthropocene Science*, 1(1), 5–28. <https://doi.org/10.1007/s44177-021-00004-y>
- Miles, H., & Huberman, A. M. (2020). Qualitative data analysis: A methods sourcebook. New York: Sage Publications, Inc.
- Muhaimin. (2015). *Membangun Kecerdasan Ekologis—Muhaimin | Shopee Indonesia*. Alfabeta. <https://shopee.co.id/Membangun-Kecerdasan-Ekologis-Muhaimin-i.11661108.995202944>
- Nugroho, I., Fiqih Hari Pramukanto, Negara, P. D., Purnomowati, W., & Wulandari, W. (2018). *Promoting the Rural Development through the Ecotourism Activities in Indonesia*. 290483 Bytes. <https://doi.org/10.6084/M9.FIGSHARE.6265169>
- Rahman, H. M. T., Ville, A. S. S., Song, A. M., Po, J. Y. T., Berthet, E., Brammer, J. R., Brunet, N. D., Jayaprakash, L. G., Lowitt, K. N., Rastogi, A., Reed, G., & Hickey, G. M. (2017). A framework for analyzing institutional gaps in natural resource governance. *International Journal of the Commons*, 11(2), 823–853. <https://doi.org/10.18352/ijc.758>
- Sinta. (2025, July 18). Geopark Meratus Resmi Berstatus UNESCO Global Geopark, Pemprov Kalsel Mantapkan Komitmen Pengelolaan Berkelanjutan. *Media Center Provinsi Kalimantan Selatan*. <https://diskominformc.kalselprov.go.id/2025/07/18/geopark-meratus-resmi-berstatus-unesco-global-geopark-pemprov-kalsel-mantapkan-komitmen-pengelolaan-berkelanjutan/>
- Suyatna, H., Indroyono, P., Yuda, T. K., & Firdaus, R. S. M. (2024). How Community-based Tourism Improves Community Welfare? A Practical Case Study of ‘Governing the Commons’ in Rural Nglanggeran, Indonesia. *The International Journal of Community and Social Development*, 6(1), 77–96. <https://doi.org/10.1177/25166026241228717>
- Syarifuddin, S., Sigit, M. H., Rahman, M., Andini, N., & Aprillia, F. (2025). Forest Management Vulnerability of Dayak Communities in Lok Lahung to Climate Change Impacts. *Journal of Wetlands Environmental Management*, 13(1). <https://doi.org/10.20527/ijwem.v13i1.22535>
- Tisna, R., & Rizki, R. D. (2025, November 19). *Indigenous Dayak resist new southern Borneo national park amid global protection deficit*. <https://doi.org/10.66709/news-309722>
- Wardhani, D., Arisanty, D., Nugroho, A., & Utami, U. (2024). Environmental Education Model Based on Local Wisdom of the Dayak Paramasan Tribe Indonesia. *Nature Environment and Pollution Technology*, 23(4), 2259–2272.
- Yang, Y., Mashi, S. A., & Nnachi, N. I. (2026). Integrating Traditional Ecological Knowledge Into Forest Governance: Pathways to Sustainable Development in Protected Forest Ecosystems. *Environmental Policy and Governance*, eet.70117. <https://doi.org/10.1002/eet.70117>
- Zainal, S., Nirzalin, Fakhurrazi, Yunanda, R., Ilham, I., & Badaruddin. (2024). Actualizing local knowledge for sustainable ecotourism development in a protected forest area: Insights from the Gayonese in Aceh Tengah, Indonesia. *Cogent Social Sciences*, 10(1), 2302212. <https://doi.org/10.1080/23311886.2024.2302212>