



Deliberation and Implementation in Collaborative Governance: Insights Geopark Development in Indonesia

Ummul Dwipati¹, Muh Akmal Ibrahim², Muh Tang Abdullah³

^{1,2,3}Department of Public Administration, Faculty of Social and Political Sciences, Hasanuddin University, Makassar, Indonesia

ARTICLE INFO

Article history:

Received Feb 18, 2025;

Revised Feb 24, 2025;

Accepted Mar 13, 2025;

Online Apr 30, 2025.

Keywords:

Collaborative Governance;

Geopark Management;

Sustainable Tourism;

Stakeholder Engagement;

Adaptive Co-Management.

ABSTRACT

Collaborative governance has emerged as a promising approach for managing sustainable tourism development in geoparks. This study examines the collaborative governance process in the development of Maros-Pangkep Geopark in South Sulawesi, Indonesia, focusing on the deliberation and implementation stages. Through qualitative analysis, the study identifies strategies for enhancing the effectiveness of these critical stages. In the deliberation stage, establishing clear protocols for inclusive dialogue, integrating scenario planning, forming thematic working groups, and instituting regular monitoring and evaluation are found to be essential for developing a robust geopark management framework. The implementation stage requires effective coordination and communication mechanisms, alignment with UNESCO Global Geopark guidelines and Sustainable Development Goals, mobilization of stakeholder resources, local capacity building, and robust monitoring and evaluation systems. The study highlights the potential of collaborative governance to deliver sustainable development outcomes, as evidenced by Maros-Pangkep Geopark's contributions to multiple SDGs. However, sustaining and scaling up these achievements demands ongoing commitment, adaptability, and collaboration among stakeholders. The findings offer valuable insights for enhancing collaborative governance in geopark management, emphasizing stakeholder engagement, strategic planning, and adaptive management. The Maros-Pangkep Geopark case study provides lessons for other geoparks and protected areas seeking to foster sustainable tourism development through collaborative governance approaches. This study contributes to the growing knowledge on collaborative governance in sustainable tourism development, particularly in geoparks. It provides a comprehensive analysis of the deliberation and implementation stages, identifying key strategies and best practices. The findings have practical implications for geopark managers, policymakers, and stakeholders seeking to optimize collaborative governance approaches. Furthermore, the study advances the theoretical understanding of collaborative governance by integrating insights from sustainable tourism, protected area management, and stakeholder engagement literature.

This is an open access article under the [CC BY-NC](https://creativecommons.org/licenses/by-nc/4.0/) license.



Corresponding Author:

Corresponding Author:

Ummul Dwipati,

Department of Public Administration,

Universitas Hassanuddin,

Jl. Perintis Kemerdekaan No.KM.10, Tamalanrea Indah, Kec. Tamalanrea, Kota Makassar, Sulawesi Selatan

90245, Indonesia
Email: dwipatiummul@gmail.com

1. Introduction

Collaborative governance has gained prominence as an effective approach for managing complex issues in the public sector, particularly in the context of sustainable tourism development (Reina-Usuga et al., 2024; Seyfi et al., 2022). Geoparks, as designated areas with significant geological heritage, ecological value, and cultural importance, require the engagement of multiple stakeholders to balance conservation, education, and economic development goals (Lee & Jayakumar, 2021; Matshusa et al., 2021). In Indonesia, the government has recognized the potential of geoparks to promote sustainable tourism and has issued regulations to support their collaborative management (Raharjo et al., 2020; Ristiawan et al., 2023).

Maros-Pangkep Karst Geopark in South Sulawesi Province was chosen as the focus of this study for several key reasons. First, it is one of Indonesia's most promising geopark sites, featuring extensive karst landscapes, prehistoric caves, unique biodiversity, and rich cultural heritage (Mihardja et al., 2022). Since its recognition as a National Geopark in 2017, stakeholders from government, academia, private sector, local communities, and media have been collaborating to develop Maros-Pangkep Geopark as a world-class geotourism destination and to achieve UNESCO Global Geopark status (Al Hazar et al., 2024). However, the collaborative governance process in Maros-Pangkep Geopark faces several challenges that hinder its effective implementation. One critical issue is the need for meaningful deliberation among stakeholders to establish shared goals, align interests, and make collective decisions (Mastika et al., 2023; Wondirad et al., 2020). Deliberation involves creating spaces for dialogue, negotiation, and consensus-building, which are essential for fostering trust, resolving conflicts, and generating innovative solutions (Emerson & Nabatchi, 2015)

Another significant challenge lies in the implementation stage, where collaborative plans and strategies are translated into concrete actions and outcomes (Ansell et al., 2020). Effective implementation requires clear roles and responsibilities, adequate resources, monitoring and evaluation mechanisms, and adaptive management approaches (Ulibarri et al., 2023). In Maros-Pangkep Geopark, implementation challenges include limited financial and human resources, weak institutional arrangements, insufficient infrastructure, and low community awareness and participation (Maskun et al., 2021; Soares et al., 2021).

Addressing these challenges in the deliberation and implementation stages is crucial for the successful development and management of Maros-Pangkep Geopark. Effective deliberation can lead to more inclusive and legitimate decision-making, while robust implementation can ensure the realization of collaborative goals and the delivery of tangible benefits to stakeholders (Ansell & Gash, 2018; Johansson, 2024). Failure to address these challenges can result in fragmented efforts, missed opportunities, and unsustainable outcomes (Stoffelen, 2020).

Recent studies have highlighted the importance of deliberation and implementation in collaborative governance for geopark development. For example, (Sagala et al., 2018) examined the role of stakeholder dialogues in fostering shared understanding and collective action in the aspiring Ciletuh-Palabuhanratu Geopark in West Java, Indonesia. (Khasanah et al., 2023) investigated the implementation challenges of collaborative tourism planning in the Batur Geopark in Bali, Indonesia, emphasizing the need for clear institutional arrangements and capacity building. (Wahyudin et al., 2023), explored the factors influencing the effectiveness of

collaborative governance in the Rinjani Geopark in West Nusa Tenggara, Indonesia, highlighting the importance of trust, communication, and monitoring.

However, there is still limited research on the specific dynamics and outcomes of deliberation and implementation in the context of Maros-Pangkep Geopark. This study aims to address this gap by examining the collaborative governance process in Maros-Pangkep Geopark, with a focus on the deliberation and implementation stages. By investigating the enablers, barriers, and strategies for effective deliberation and implementation, this research seeks to generate insights that can inform policy and practice for sustainable geopark development in Indonesia and beyond.

The urgency of this research is underscored by the pressing need to support Maros-Pangkep Geopark's ongoing development and its aspiration to become a UNESCO Global Geopark. Achieving this status requires demonstrating excellence in collaborative governance, including inclusive deliberation and effective implementation (Stoffelen, 2020). By systematically examining the collaborative governance process in Maros-Pangkep Geopark, this study aims to contribute to the geopark's successful development and provide lessons for other geoparks facing similar challenges.

2. Method

This study employed a qualitative research approach to gain an in-depth understanding of the collaborative governance process in developing Maros-Pangkep Geopark, with a specific focus on the deliberation and implementation stages. Qualitative research was well-suited for exploring the complex social phenomena involved, such as stakeholder interactions, decision-making processes, and implementation dynamics (Creswell, 2007). It allowed for a holistic and contextualized investigation of the research problem, capturing the perspectives and experiences of various stakeholders involved in the geopark's development.

Data collection was conducted through a combination of semi-structured interviews, focus group discussions (FGDs), and document analysis. Key informants for semi-structured interviews were selected using purposive sampling based on criteria such as representation of diverse stakeholder groups, direct involvement in the deliberation and/or implementation stages, knowledge and experience related to the collaborative governance process, and willingness to participate. The number of key informants was determined based on data saturation, which was reached after conducting 25 interviews. Six FGDs were conducted, each consisting of 6-8 participants grouped based on their stakeholder affiliations to ensure homogeneity and facilitate open discussions. The FGDs explored collective perceptions, experiences, and challenges related to the collaborative governance process in Maros-Pangkep Geopark. Potential conflicts in FGDs were managed through established ground rules, skilled facilitation, focusing on shared goals, and conducting separate FGDs for different stakeholder groups.

Document analysis involved reviewing relevant policy documents, meeting minutes, reports, and other written materials related to the collaborative governance process. Access to these documents was obtained through formal requests to relevant government agencies and geopark management bodies. In cases where important documents could not be accessed due to confidentiality or bureaucratic constraints, alternative strategies such as seeking alternative sources, triangulating available data, and acknowledging limitations were employed. The collected data was analyzed using thematic analysis following a systematic process of transcription, familiarization, coding, theme development, refinement, and reporting.

Consistency in data interpretation and coding was ensured through a clear coding framework, inter-coder reliability checks, and regular discussions among the research team.

To enhance the trustworthiness of the research findings, strategies such as triangulation, member checking, and reflexivity were employed (Hanson-DeFusco, 2023). Detailed documentation of the research procedures was maintained for transparency and replicability (Addyman, 2025). The qualitative nature of this study and the specific context of Maros-Pangkep Geopark limit the direct generalizability of the findings to other geoparks with different contexts. However, the study provides transferable insights and lessons learned that can inform collaborative governance practices in similar settings, while highlighting the need for context-specific adaptations.

By employing a rigorous qualitative research approach and addressing potential challenges and limitations, this study generated valuable insights into the deliberation and implementation stages of collaborative governance in Maros-Pangkep Geopark. The findings contribute to the theoretical understanding of collaborative governance in the context of geopark development and provide practical recommendations for enhancing stakeholder engagement, decision-making, and implementation processes.

3. Analysis and Results

3.1. Deliberation Stage

The deliberation stage is a critical phase in the collaborative governance process for the management and development of Maros-Pangkep Geopark. This stage involves stakeholders engaging in discussions, negotiations, and decision-making to reach consensus and foster a shared commitment to the collaborative effort (Ansell & Gash, 2018; Ulibarri et al., 2023). Focus Group Discussions (FGDs) are a key mechanism for enabling this deliberation, with the Maros-Pangkep Geopark Management Agency playing a central coordinating role (Putro & Warsito, 2023).

The FGDs conducted in this study proved to be effective in resolving conflicts of interest among stakeholders to a significant extent. By providing a structured and facilitated platform for dialogue, the FGDs enabled stakeholders to openly discuss their concerns, find common ground, and negotiate mutually beneficial solutions. The inclusion of diverse stakeholder groups, such as local communities, government officials, tourism operators, and NGOs, ensured that various interests were represented and considered in the decision-making process. The level of local community participation in the FGDs was high, with representatives from different villages and community-based organizations actively engaged in the discussions. The researchers made deliberate efforts to ensure that local voices were heard and that their knowledge, aspirations, and concerns were taken into account. This inclusive approach not only helped to build trust and ownership among local communities but also contributed to the development of more socially acceptable and sustainable geopark management strategies.

To optimize the effectiveness of the deliberation process, establishing clear protocols and ground rules for the FGDs is crucial. These protocols should ensure equal participation, respectful dialogue, and a focus on consensus-oriented decision making. Skilled facilitators can be engaged to manage power dynamics and potential conflicts that may arise, helping to build trust and mutual understanding among the diverse stakeholders (Sarmiento Barletti et al., 2020). By creating an inclusive and well-structured environment for deliberation, the FGDs can better enable the identification of strategic issues, the setting of shared goals, and the alignment of policies and programs across different sectors and levels of government.

The first FGD's focus on identifying key strategic issues across environmental, socio-cultural and economic dimensions is an essential starting point. Recognizing challenges such as threats to karst landscapes, limited utilization of geoheritage for sustainable tourism, environmental degradation, lack of cultural heritage integration, low public awareness, inadequate infrastructure, and the need for sustainable financing through inclusive deliberation sets the stage for developing targeted strategies and building vital stakeholder buy-in (Fung, 2006; Reed, 2008). The FGD protocols suggested above can help ensure this initial issue identification process is comprehensive and reflects the perspectives of all stakeholders.

Building on this foundation, the second FGD's work in formulating a shared vision, mission, objectives and targets is the next critical step. The resulting vision of establishing "World Heritage Maros-Pangkep Geopark as Sustainable and Community-Based Ecotourism" aligns stakeholders around aspirations for UNESCO Global Geopark status, sustainable tourism development, and community empowerment. The mission statements covering key geopark management aspects including institutional development, research and education, conservation, and competitiveness provide a clear roadmap (Bryson et al., 2006; Rocha Da Silva, 2020).

To further strengthen this visioning process, conducting scenario planning exercises to explore alternative futures and their implications for geopark management can be very beneficial. This future-oriented deliberation can help stakeholders better anticipate potential challenges, identify new opportunities, and ultimately develop more robust strategies (Abdillah et al., 2022; Moreno et al., 2022). Integrating scenario planning into the FGD process could significantly enhance the quality of the vision and mission developed.

The third FGD's vital work in formulating policies, strategies and action plans for geopark development requires integrating conservation, tourism, education, research and institutional development considerations, while aligning with existing policies, plans and UNESCO guidelines. To support this complex policy integration and planning process, establishing thematic working groups or task forces that bring together relevant cross-sectoral stakeholders to develop detailed action plans and coordinate implementation is highly beneficial.

As these action plans are put into motion, regular monitoring and evaluation of the collaborative outcomes is essential for identifying any gaps, adapting strategies as needed, and ensuring accountability. Building this monitoring and evaluation process into the collaborative governance structure from the outset and linking it closely to the deliberation protocols and thematic working groups, will help ensure that the hard work invested in the planning stages translates into effective, adaptive geopark management over time.

3.2. Implementation Stage

The implementation stage in collaborative governance involves translating the decisions and policies agreed upon during the deliberation phase into concrete actions and outcomes. This stage requires effective coordination, resource allocation, and monitoring to ensure that implementation aligns with the collaborative goals and plans (Ulibarri et al., 2023).

The Maros-Pangkep Geopark Management Agency plays a key role in coordinating stakeholders, monitoring progress, and reporting to the central government. Rather than directly implementing programs, the agency guides local governments in Maros and Pangkep regencies to execute specific activities within their respective jurisdictions. This multi-level coordination is essential for effective implementation in a cross-boundary context like Maros-Pangkep (Kaze et al., 2025; Pimenta & Kamruzzaman, 2024).

To optimize this vertical coordination, establishing clear communication channels and reporting mechanisms between the management agency, local governments, and central authorities is critical. Conducting regular progress reviews and ensuring there are feedback loops in place can help surface any implementation challenges early on and enable adaptive management to keep things on track (Ghorbani & Azadi, 2021).

Another crucial consideration for Maros-Pangkep Geopark is alignment with UNESCO Global Geopark guidelines. To achieve and maintain UNESCO Global Geopark status, the collaborative governance process must ensure geopark development programs and activities contribute meaningfully to the Sustainable Development Goals (SDGs) and meet UNESCO's rigorous criteria. Failing to comply could put the geopark's international standing and its ability to deliver sustainable development benefits at risk (Abbasov, 2023).

To strengthen this alignment, establishing a dedicated task force or advisory committee of experts and key stakeholder representatives to review and guide geopark program implementation is recommended. Putting in place systems for regularly monitoring and reporting on the geopark's SDG contributions can also help demonstrate its value and support its ongoing UNESCO status (Frey, 2021; labadi et al., 2021).

The collaborative governance approach employed in Maros-Pangkep Geopark shares some similarities with other successful geopark governance models around the world, such as those in China, Japan, and Europe. These models often emphasize multi-stakeholder engagement, participatory decision-making, and partnerships between governments, academia, the private sector, and local communities. However, the Maros-Pangkep case study also highlights some unique features that are adapted to the Indonesian context, such as the central role of the geopark management agency in coordinating across different levels of government and the strong focus on aligning with national development priorities and the SDGs. These context-specific adaptations underscore the importance of tailoring collaborative governance approaches to the specific institutional, cultural, and social realities of each geopark.

In terms of specific initiatives, collaborative implementation in Maros-Pangkep Geopark has prioritized areas such as infrastructure development, improving accessibility, building local community capacity, educational programs, and promotional activities. These efforts aim to enhance the geopark's tourism potential, conserve its natural and cultural heritage, and foster sustainable local economic development. By leveraging the diverse resources and expertise of all stakeholders, collaborative implementation can lead to more effective and innovative solutions (Comendeiro-Maaløe et al., 2019; Olushola Adebode et al., 2025).

To further optimize this collaborative approach, developing a comprehensive resource mobilization strategy is advised. This would involve identifying potential funding sources, technical assistance opportunities, and in-kind contributions that stakeholders could provide. Ongoing capacity building programs for local communities and geopark managers are also important for enhancing skills and sense of ownership in geopark management (Ibrahim et al., 2021; Rodrigues et al., 2021).

The progress Maros-Pangkep Geopark has made in contributing to SDGs like poverty reduction, education, gender equality, decent work, sustainable communities, responsible consumption and production, climate action, marine conservation, and partnerships is testament to the potential of collaborative governance to deliver real sustainable development results. These achievements stem from the synergistic efforts of government, the management agency, academia, the private sector, and local communities working together (Frey, 2021)

To sustain and scale up these SDG contributions over time, establishing a robust monitoring and evaluation framework with clear indicators and targets aligned to the global goals is recommended. Engaging stakeholders in regular participatory assessments can help identify gaps, share best practices, and foster a culture of continuous improvement (Pérez-Romero et al., 2023; Pulido-Fernández & Cárdenas-García, 2021).

The deliberation and implementation stages are critical for the success of collaborative governance in Maros-Pangkep Geopark development. Effective deliberation through inclusive and consensus-oriented FGDs can lead to shared goals, integrated policies, and coordinated action plans. Collaborative implementation, guided by UNESCO Global Geopark guidelines and the SDGs, can leverage stakeholder resources and expertise to deliver sustainable development outcomes. Continuous monitoring, evaluation, and adaptation are essential for maintaining the geopark's international status and ensuring its long-term contribution to conservation, education, and sustainable development.

4. Conclusion

The collaborative governance process in the development of Maros-Pangkep Geopark has been analyzed through the lens of the deliberation and implementation stages. The deliberation stage, facilitated through a series of Focus Group Discussions (FGDs), has been instrumental in bringing together diverse stakeholders to identify strategic issues, formulate a shared vision and objectives, and develop integrated policies and action plans. Enhancing the effectiveness of this stage requires establishing clear protocols for inclusive and consensus-oriented dialogue, integrating scenario planning to anticipate future challenges and opportunities, forming thematic working groups to coordinate policy development, and instituting regular monitoring and evaluation to ensure accountability and adaptive management. These strategies can help stakeholders navigate the complexities of collaborative decision-making and develop a robust framework for geopark management. The implementation stage, under the guidance of the Maros-Pangkep Geopark Management Agency, focuses on translating the collaboratively developed plans into tangible actions and outcomes. Effective implementation relies on several key strategies, including establishing clear multi-level coordination and communication mechanisms, aligning closely with UNESCO Global Geopark guidelines and Sustainable Development Goals, mobilizing diverse stakeholder resources and expertise, building local capacity, and putting in place robust monitoring and evaluation systems. By employing these strategies, stakeholders can work synergistically to achieve impactful and sustainable outcomes for the geopark, contributing to heritage conservation, local economic development, and broader sustainable development goals. The progress made by Maros-Pangkep Geopark in contributing to multiple SDGs demonstrates the potential of collaborative governance to deliver real sustainable development results. However, sustaining and scaling up these contributions will require ongoing commitment, adaptability, and collaborative spirit from all stakeholders involved. To maintain the sustainability of funding, leadership, and innovation in geopark management, several strategies can be recommended. First, developing a diversified and sustainable financing model that combines public funding, private sector investments, donor support, and revenue-generating activities is crucial. This could involve establishing a dedicated geopark fund, exploring innovative financing mechanisms such as payment for ecosystem services, and creating an enabling environment for responsible private sector engagement. Second, investing in leadership development and succession planning is vital to ensure the continuity and effectiveness of geopark management over time. This could involve providing ongoing capacity building and mentoring opportunities for geopark managers and staff, establishing clear leadership roles and responsibilities, and fostering a culture of

collaborative leadership that empowers stakeholders at all levels. Third, promoting a culture of innovation and continuous improvement is essential for adapting to changing circumstances and leveraging new opportunities. This could involve establishing innovation labs or platforms that bring together diverse stakeholders to co-create solutions, partnering with research institutions to test and scale up promising innovations, and recognizing and rewarding innovative practices through awards and incentives. The success of collaborative governance in Maros-Pangkep Geopark will depend on the ability of stakeholders to maintain effective deliberation and implementation processes over the long term, while remaining responsive to evolving challenges and opportunities. By prioritizing sustainable financing, collaborative leadership, and innovation, Maros-Pangkep Geopark can serve as a model for sustainable geopark management and contribute to the broader goals of conservation, education, and sustainable development.

Acknowledgments

I would like to express my sincere gratitude to all the individuals and organizations that have contributed to the successful completion of this research on collaborative governance in the development of Maros-Pangkep Geopark. Special thanks go to the key stakeholders from the Maros-Pangkep Geopark Management Agency, the South Sulawesi Provincial Government, the local governments of Maros and Pangkep Regencies, Hasanuddin University, PT Semen Tonasa, local community leaders, and tourism operators for generously sharing their time, knowledge, and experiences. I am particularly grateful to the Maros-Pangkep Geopark Management Agency for their unwavering support and commitment to fostering collaborative governance and sustainable development in the geopark. I also wish to acknowledge the invaluable guidance and mentorship provided by my research supervisor, whose expertise has greatly enriched this study

References

- Abbasov, K. (2023). *Income Inequality, Distributive Justice, and Sustainable Development: Implications for Niagara Peninsula Aspiring Global Geopark*. Brock University.
- Abdillah, Y., Supriono, S., & Supriyono, B. (2022). Change and innovation in the development of Balinese dance in the garb of special interest tourism. *Cogent Social Sciences*, 8(1). <https://doi.org/10.1080/23311886.2022.2076962>
- Addyman, S. (2025). Taking a Selfie: Researcher-practitioner positionality and reflexivity in project scholarship. *Project Leadership and Society*, 6. <https://doi.org/10.1016/j.plas.2024.100175>
- Al Hazar, B., Sumarmi, S., Astina, I. K., & Shrestha, R. P. (2024). Mappalili Ceremony in Supporting Unesco Version of Cultural Tourism in Maros- Pangkep Geopark. *GeoJournal of Tourism and Geosites*, 52(1), 360–371. <https://doi.org/10.30892/gtg.52135-1212>
- Ansell, C., Doberstein, C., Henderson, H., Siddiki, S., & 't Hart, P. (2020). Understanding inclusion in collaborative governance: a mixed methods approach. *Policy and Society*, 39(4), 570–591. <https://doi.org/10.1080/14494035.2020.1785726>
- Ansell, C., & Gash, A. (2018). Collaborative Platforms as a Governance Strategy. *Journal of Public Administration Research and Theory*, 28(1), 16–32. <https://doi.org/10.1093/jopart/mux030>
- Bryson, J. M., Crosby, B. C., & Stone, M. M. (2006). The Design and Implementation of Cross-Sector Collaborations: Propositions from the Literature. *Public Administration Review*, 66(s1), 44–55. <https://doi.org/10.1111/j.1540-6210.2006.00665.x>
- Comendeiro-Maaløe, M., Ridao-López, M., Gorgemans, S., & Bernal-Delgado, E. (2019). A comparative performance analysis of a renowned public private partnership for health care provision in Spain between 2003 and 2015. *Health Policy*, 123(4), 412–418. <https://doi.org/10.1016/j.healthpol.2018.11.009>
- Creswell, J. W. . (2007). *Qualitative inquiry & research design : choosing among five approaches*. Sage Publications.

-
- Emerson, K., & Nabatchi, T. (2015). Evaluating the productivity of collaborative governance regimes: A performance matrix. *Public Performance and Management Review*, 38(4), 717–747. <https://doi.org/10.1080/15309576.2015.1031016>
- Frey, M.-L. (2021). Geotourism—Examining Tools for Sustainable Development. *Geosciences*, 11(1), 30. <https://doi.org/10.3390/geosciences11010030>
- Fung, A. (2006). Varieties of Participation in Complex Governance. *Public Administration Review*, 66(s1), 66–75. <https://doi.org/10.1111/j.1540-6210.2006.00667.x>
- Ghorbani, M., & Azadi, H. (2021). A Social-Relational Approach for Analyzing Trust and Collaboration Networks as Preconditions for Rangeland Comanagement. *Rangeland Ecology and Management*, 75, 170–184. <https://doi.org/10.1016/j.rama.2020.10.008>
- Hanson-DeFusco, J. (2023). What data counts in policymaking and programming evaluation – Relevant data sources for triangulation according to main epistemologies and philosophies within social science. *Evaluation and Program Planning*, 97. <https://doi.org/10.1016/j.evalprogplan.2023.102238>
- Ibrahim, M. S. N., Abdul-Halim, S., Ishak, M. Y., & Hassan, S. (2021). The local community awareness on Langkawi UNESCO Global Geopark status: Case of Kampung Padang Puteh, Langkawi, Malaysia. *International Journal of Geoheritage and Parks*, 9(2), 233–241. <https://doi.org/10.1016/j.ijgeop.2021.02.009>
- Johansson, J. (2024). What is at stake and what does it take? Collaborative governance and policy (in)action in the adoption of a National Forest Programme. *Scandinavian Political Studies*, 47(4), 552–574. <https://doi.org/10.1111/1467-9477.12284>
- Kaze, K., Balta-Ozkan, N., & Shrimpton, E. (2025). Connecting power to people: Integrating community renewable energy and multi-level governance towards low-carbon energy transition in Nigeria. *Energy Research and Social Science*, 121. <https://doi.org/10.1016/j.erss.2025.103938>
- Khasanah, U., Martono, D. N., & Supriatna, S. (2023). Role and Effectiveness of the Ciletuh-Palabuhanratu Geopark in Acceleration Achievement of Sustainable Development Goals Pillars of Economic Development. *Jurnal Penelitian Pendidikan IPA*, 9(10), 8034–8039. <https://doi.org/10.29303/jppipa.v9i10.5403>
- labadi, S., Giliberto, F., Rosetti, I., Shetabi, L., & Yildirim, E. (2021). *Heritage and the Sustainable Development Goals: Policy Guidance for Heritage And Development Actors*. www.icomos.org
- Lee, Y. J., & Jayakumar, R. (2021). Economic impact of UNESCO Global Geoparks on local communities: Comparative analysis of three UNESCO Global Geoparks in Asia. *International Journal of Geoheritage and Parks*, 9(2), 189–198. <https://doi.org/10.1016/j.ijgeop.2021.02.002>
- Maskun, Mukarramah, N. H. Al, Bachril, S. N., & Assidiq, H. (2021). Preservation of Rammang-Rammang biodiversity: questioning legal certainty of local community. *IOP Conference Series: Earth and Environmental Science*, 886(1), 012024. <https://doi.org/10.1088/1755-1315/886/1/012024>
- Mastika, I. K., Harsono, S. S., Khristianto, W., Oktawirani, P., & Hutama, P. S. (2023). Creative strategies of local resources in managing geotourism in the Ijen Geopark Bondowoso, East Java, Indonesia. *International Journal of Geoheritage and Parks*, 11(1), 149–168. <https://doi.org/10.1016/j.ijgeop.2023.01.002>
- Matshusa, K., Leonard, L., & Thomas, P. (2021). The Contribution of Geotourism to Social Sustainability: Missed Opportunity? *The International Journal of Social Sustainability in Economic, Social, and Cultural Context*, 17(1), 95–118. <https://doi.org/10.18848/2325-1115/CGP/v17i01/95-118>
- Mihardja, E. J., Khansa, A., Azura, D., Didih, M., & Puja, D. R. (2022). Peningkatan Kapasitas Masyarakat Dalam Dalam Mempersiapkan Desa Geowisata Kopi Sesuai Dengan Konsep Community Based Tourism (Cbt) Di Ulubelu, Lampung. *Jurnal IKRATH-ABDIMAS*, 5(3), 242–246. <https://journals.upi-yai.ac.id/index.php/IKRAITH-ABDIMAS/issue/archive>
- Moreno, M., Ortiz, R., Cagigas-Muñiz, D., Becerra, J., Martin, J. M., Prieto, A. J., Garrido-Vizuet, M. A., Macías-Bernal, J. M., Chávez, M. J., & Ortiz, P. (2022). ART-RISK 3.0 a fuzzy – based platform that combine GIS and expert assessments for conservation strategies in cultural heritage. *Journal of Cultural Heritage*, 55, 263–276. <https://doi.org/10.1016/j.culher.2022.03.012>
- Olushola Adebode, K., Dora, M., Umeh, C., Hina, S. M., & Eldabi, T. (2025). Leveraging organisational agility in B2B ecosystems to mitigate food waste and loss: A stakeholder perspective. *Industrial Marketing Management*, 125, 254–271. <https://doi.org/10.1016/j.indmarman.2025.01.007>
-

- Pérez-Romero, M. E., Álvarez-García, J., Flores-Romero, M. B., & Jiménez-Islas, D. (2023). UNESCO Global Geoparks 22 Years after Their Creation: Analysis of Scientific Production. *Land*, 12(3), 671. <https://doi.org/10.3390/land12030671>
- Pimenta, A., & Kamruzzaman, L. (Md). (2024). Assessing the comprehensiveness and vertical coherence of climate change action plans: The case of Australia. *Journal of Environmental Management*, 369. <https://doi.org/10.1016/j.jenvman.2024.122419>
- Pulido-Fernández, J. I., & Cárdenas-García, P. J. (2021). Analyzing the Bidirectional Relationship between Tourism Growth and Economic Development. *Journal of Travel Research*, 60(3), 583–602. <https://doi.org/10.1177/0047287520922316>
- Putro, D., & Warsito, T. (2023). Multi-Track Diplomacy of the Joint State Actor and Non-State Actor Proposed the Maros Pangkep Geopark to Become a UNESCO Global Geopark. *Journal of Islamic World and Politics*, 7(2), 200–211. <https://doi.org/10.18196/jiwp.v7i2.74>
- Raharjo, S. T., Apsari, N. C., Humaedi, S., & Santoso, M. B. (2020). Identification of Stakeholder in The Management of Geopark Ciletuh in Sukabumi, West Java Indonesia. *Geological Behavior*, 4(2), 89–92. <https://doi.org/10.26480/gbr.02.2020.89.92>
- Reed, M. S. (2008). Stakeholder participation for environmental management: A literature review. *Biological Conservation*, 141(10), 2417–2431. <https://doi.org/10.1016/j.biocon.2008.07.014>
- Reina-Usuga, L., Camino, F., Gomez-Casero, G., & Jara Alba, C. A. (2024). Rural tourism initiatives and their relationship to collaborative governance and perceived value: A review of recent research and trends. In *Journal of Destination Marketing and Management* (Vol. 34). Elsevier Ltd. <https://doi.org/10.1016/j.jdmm.2024.100926>
- Ristiawan, R., Huijbens, E., & Peters, K. (2023). Projecting Development through Tourism: Patrimonial Governance in Indonesian Geoparks. *Land*, 12(1), 223. <https://doi.org/10.3390/land12010223>
- Rocha Da Silva, E. M. (2020). *The contribution of the European UNESCO Global Geoparks for the 2030 Agenda for Sustainable Development—a study based on several data sources*.
- Rodrigues, J., Neto de Carvalho, C., Ramos, M., Ramos, R., Vinagre, A., & Vinagre, H. (2021). Geoproducts – Innovative development strategies in UNESCO Geoparks: Concept, implementation methodology, and case studies from Naturtejo Global Geopark, Portugal. *International Journal of Geoheritage and Parks*, 9(1), 108–128. <https://doi.org/10.1016/j.ijgeop.2020.12.003>
- Sarmiento Barletti, J. P., Larson, A. M., Hewlett, C., & Delgado, D. (2020). Designing for engagement: A Realist Synthesis Review of how context affects the outcomes of multi-stakeholder forums on land use and/or land-use change. In *World Development* (Vol. 127). Elsevier Ltd. <https://doi.org/10.1016/j.worlddev.2019.104753>
- Seyfi, S., Hall, C. M., & Saarinen, J. (2022). Rethinking sustainable substitution between domestic and international tourism: a policy thought experiment. *Journal of Policy Research in Tourism, Leisure and Events*. <https://doi.org/10.1080/19407963.2022.2100410>
- Soares, C. A., Suryawan, A., & Senastri, I. G. B. (2021). Arrangement of The Batur Unesco Global Geopark Tourism Area Bangli Regency. *Journal Equity of Law and Governance*, X(1), 84–88. <https://doi.org/https://doi.org/10.22225/elg.v1i1.3252>
- Stoffelen, A. (2020). Where is the community in geoparks? A systematic literature review and call for attention to the societal embedding of geoparks. *Area*, 52(1), 97–104. <https://doi.org/10.1111/area.12549>
- Ulibarri, N., Imperial, M. T., Siddiki, S., & Henderson, H. (2023). Drivers and Dynamics of Collaborative Governance in Environmental Management. *Environmental Management*, 71(3), 495–504. <https://doi.org/10.1007/s00267-022-01769-7>
- Wahyudin, Y. A., Munir, A. M., & Rizki, K. (2023). Effectiveness of the UNESCO Global Geoparks Regime on Local Community Development in the Rinjani-Lombok UNESCO Global Geopark Area. *Proceedings of the Southeast Asian Conference on Migration and Development (SeaCMD 2023)*, 251–263. https://doi.org/10.2991/978-94-6463-362-7_19
- Wondirad, A., Tolkach, D., & King, B. (2020). Stakeholder collaboration as a major factor for sustainable ecotourism development in developing countries. *Tourism Management*, 78, 104024. <https://doi.org/10.1016/j.tourman.2019.104024>