

THE IMPACTS OF TRADITIONAL VALUES IN SUSTAINABLE TOURISM
CASE STUDY IN RAJA AMPAT PAPUAKetut Budarma^{1*}, Ni Made Rai Erawati², I Ketut Suarja³¹ketutbudarma@pnb.ac.id, ²maderaierawati@pnb.ac.id,³ketutsuarja@pnb.ac.id^{1,2,3}Politeknik Negeri Bali

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Abstract

This study examines the complex relationship between traditional practices, cultural preservation, and the conservation of marine biodiversity in Raja Ampat, Indonesia, focusing on the role of the Sasi system. The Sasi system, deeply rooted in Papuan tradition, entails temporary closures to facilitate natural regeneration and is integral to the local community's marine resource management. Through qualitative data analysis, including stakeholder interviews and observational data, the research highlights stakeholders' recognition of the symbiotic relationship between cultural heritage and ecological sustainability. Stakeholders in Raja Ampat's tourism industry endorse the integration of Sasi into sustainable tourism initiatives, viewing it as a cornerstone of cultural authenticity and environmental integrity. However, the study also identifies critical challenges, including issues of connectivity, unregulated tourist activities, and unsustainable accommodation development, which pose significant threats to the region's ecological health and socio-cultural fabric. The findings emphasize the urgency of comprehensive management and regulation of tourism activities, incorporating sustainable practices and community-based resource management strategies. The research accentuates the broader implications of integrating indigenous knowledge systems into sustainable tourism development, offering insights for ecologically sensitive regions worldwide. Limitations of the study are acknowledged, suggesting possibilities for future research to further explore the dynamics of sustainable tourism development in Raja Ampat and similar contexts.

Key words: *Traditional practices, Cultural preservation, Conservation, Sustainable tourism, Indigenous knowledge systems*

Introduction

Raja Ampat is known for its high tropical marine biodiversity, which is attributed to its location within the Coral Triangle, a region that includes parts of Indonesia, Malaysia, Papua New Guinea, the Philippines, Solomon Islands, and Timor-Leste (<https://rajaampatmarinepark.com/the-reefs/>). The area is home to over 500 species of reef-building corals, roughly half of all Indo-Pacific reef fishes, and almost half of the world's reef fishes (<https://rajaampatbiodiversity.com/raja-ampat-the-facts-top-diving-destination>). The Coral Triangle is recognized as the worldwide epicenter of marine biodiversity, not only for corals and fish but also for many other marine organisms². Before it became a definitive district based on Law number 26 of 2002, Raja Ampat was part of the Sorong regency. The waters of Raja

Ampat were strategic fishing areas and the best fish producers for fishermen from the city and regency of Sorong, Ternate, and Tidore, and several surrounding areas close to Raja Ampat. However, the high intensity of fishing activity by outside fishermen using various modern fishing technologies can damage and destroy the beauty and richness of the area's marine life. This condition is exacerbated by local fishermen collaborating with outside fishermen to jointly use destructive fishing equipment such as potassium, fish poison, bombs, nets, and diving compressors. To celebrate the 19th anniversary of Raja Ampat Regency, West Papua, various ceremonies and celebrations were held, including cultural attractions and development exhibitions. The development exhibition showcased the coastal waters, seas, and small islands in Raja Ampat, which have high tropical marine biodiversity due to the variety of marine biota and high-endemic fish, white sand and clear water, towering karst islands lined up to form a collection of small islands that add to the beauty of tropical marine biodiversity in the waters of Raja Ampat.

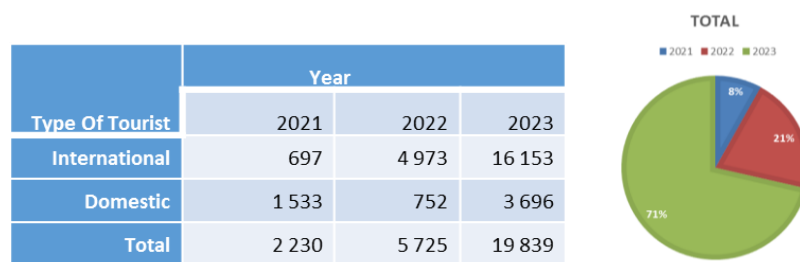


Figure 1. Number of tourists visiting Raja Ampat in the last 3 years

In the context of sustainable tourism, traditional values play a crucial role in preserving and conserving local culture and heritage. The traditional values of the Raja Ampat community in Papua have been instrumental in shaping the sustainable tourism practices in the region (King, Chloe. 2017). These values, deeply rooted in the local culture, have led to a strong emphasis on environmental conservation community involvement, and the promotion of authentic experiences for visitors. Raja Ampat community's respect for nature and the understanding of the delicate balance between human activities and the environment have greatly contributed to the protection of the area's rich biodiversity (Hallatu, T G R., Palittin, I D., Supriyadi, S., Yampap, U., Purwanty, R., & Ilyas, A., 2020).

Description of the Marine Conservation Area in Raja Ampat	Scuba diving	Snorkling	Kayak	Jet ski	fishing	Dropping anchor
Core Zone A conservation zone based on high ecological values, it is only accessible with tight permission process with a very specific objective (for research and Education)	No	No	No	No	No	No
Sub-zone of Food Security and Tourism, known as No Catching Zone. All fishing activities are forbidden in this zone. Sustainable	Yes	Yes	Yes	No	No	No

tourism activities are allowed in this zone.						
Sub-zone of Sasi and Traditional Utilization Specific zone for local activities, such as sustainable fishing, and local culture practices. Sustainable tourism activities are allowed in this zone.	Yes	Yes	Yes	No	Yes	No
Aquaculture and sustainable fishery Zone. Fish farming and limited commercial fishery activities are allowed in this zone. Sustainable tourism activities are allowed in this zone.	Yes	Yes	Yes	No	Yes	No

Figure 2. Conservation Zone Description of Raja Ampat
Source: Raja Ampat Statistic Office, 2024

Despite the significant conservation efforts in Raja Ampat, there is a need to further explore and understand the complex relationships between the local community, traditional practices, and the conservation of marine biodiversity in the region. This includes examining the role of the Sasi system, a traditional Papuan practice of temporary closures for natural regeneration, and its potential integration with modern conservation strategies. This research exposed two research questions “How do traditional practices, such as Sasi, contribute to the conservation of marine biodiversity in Raja Ampat, and what are the implications for modern conservation strategies?” and “How can the intersection of traditional and modern conservation approaches be optimized to ensure the long-term protection of Raja Ampat's rich marine biodiversity?”

The research addresses the juncture of traditional ecological knowledge and modern conservation practices. The study contributes to the growing body of literature on indigenous conservation methods. Previous research (e.g., Berkes, 2018) has highlighted the effectiveness of traditional knowledge in sustaining ecosystems and biodiversity. This study builds upon these findings by examining how traditional practices shape conservation efforts within specific spaces, providing insights into the cultural, ecological, and social dimensions of conservation.

Traditional values play a crucial role in sustainable tourism, as they provide a unique and authentic experience for tourists while also promoting the conservation of noble socio-cultural and environmental values. The value of local wisdom that can be a tourist attraction includes village celebration events, cultural festivals, natural tourist attractions, and community life that has educational value. These tourist attractions are not only oriented towards economic benefits but also act as a medium for the conservation of noble socio-cultural and environmental values as well as having educational value for tourists. (Andari et al, 2020). Sociocultural values are complementary to natural values and are based on developing interaction between visitors and residents, the exchange of experiences, education, and a joint role in tourist activities. Strengthening the role of residents in tourism development and development control is essential. The forms of nature-based and cultural tourism can significantly impact the sustainable development of tourism (Stojanović et al. 2024).

It has been recognized by UNWTO, reflecting the belief that "Tourism should make optimal use of environmental resources that are crucial for tourism development, maintaining essential ecological processes and helping to conserve natural heritage for future generations" (Artal-Tur et al., 2019) (Bichurova & Yordanova-Dinova, 2019). The traditional value system that exists within the community is defined as "the inherited wisdom, beliefs, customs, and practices that shape how a community interacts with its natural environment and cultural heritage" (Zeng et al., 2022).

Practically, the research offers empirical insights for policymakers, conservationists, and local communities. By understanding the traditional values and practices of the Raja Ampat community, stakeholders can develop more effective conservation strategies that are culturally sensitive and locally relevant. Incorporating traditional knowledge into conservation initiatives not only enhances their effectiveness but also fosters community ownership and engagement, which are critical for long-term sustainability. Previous literature (e.g., West et al., 2014; McGregor et al., 2019) has demonstrated the importance of community involvement in conservation efforts, and this research reinforces the significance of participatory approaches.

The research has implications for sustainable tourism development. By highlighting the role of traditional values in shaping responsible tourism practices, the study informs efforts to promote tourism that benefits both the local economy and the marine environment. Previous studies (e.g., Hall et al., 2015; Gössling et al., 2020) have emphasized the need for sustainable tourism practices in ecologically sensitive areas, and this research provides specific insights into how traditional values can guide such practice

Since the reliance of most community members in Raja Ampat on natural resources for their livelihoods, they have a vested interest in ensuring the sustainability of these resources. As most of the community members are Christians, biblical teachings on sustainable tourism, such as stewardship, responsible resource management, and taking care of the earth, have become integrated into their culture, known as *sasi* (Hallatu et al., 2020). *Sasi*, a traditional system of resource management, has been practiced by the community for generations. It involves setting temporary closures of certain areas or species to allow for regeneration and ensure the long-term sustainability of resources. These traditional values and practices have had a positive impact on the sustainability of tourism in Raja Ampat (Kusumawardhana et al, 2020)

The primary objective of this research is to investigate the intersection of traditional practices and modern conservation strategies in Raja Ampat, Indonesia, with a focus on the role of the *Sasi* system in conserving marine biodiversity. The goal is to develop a more comprehensive understanding of how traditional practices can be integrated into modern conservation approaches to ensure the long-term protection of Raja Ampat's rich marine biodiversity.

The implementation method

A qualitative approach was utilized to address the multifaceted challenges confronting the community of Raja Ampat, Papua, particularly concerning marine conservation and sustainable tourism. This qualitative methodology emphasizes a

deep understanding of the community's perspectives, practices, and cultural context. At the beginning field observations were conducted to immerse researchers in the daily activities and interactions within the community. Researchers documented observations using detailed field notes, capturing nuances in behavior, environmental conditions, and human-environment interactions. This qualitative data treated as a foundation for understanding the community's relationship with the marine environment and identifying key areas for intervention.

Followed by in-depth interviews with divers stakeholders, including community leaders, local elders, fishermen, and tourism operators. These interviews were semi-structured, allowing for open-ended discussions that delved into participants' experiences, beliefs, and concerns regarding marine conservation and sustainable tourism. Interviews were conducted in Indonesian language to ensure effective communication and cultural sensitivity, with researchers employing active listening techniques to encourage expected responses. Furthermore, longitudinal engagement with the community was prioritized, fostering trust and collaboration over time. Researchers actively participated in community activities, attending meetings and gatherings to build rapport and gain insights into local perspectives and priorities. This ongoing engagement allowed researchers to adapt their approach based on emerging insights and community feedback, ensuring the relevance and effectiveness of interventions.

Qualitative data analysis involved thematic coding of interview transcripts and field notes, identifying recurring themes, patterns, and divergent viewpoints. Researchers employed reflexivity, acknowledging their own biases and perspectives, to ensure the integrity of the analysis. Through iterative analysis and discussion, researchers synthesized qualitative findings into actionable recommendations that reflected the community's values and aspirations.

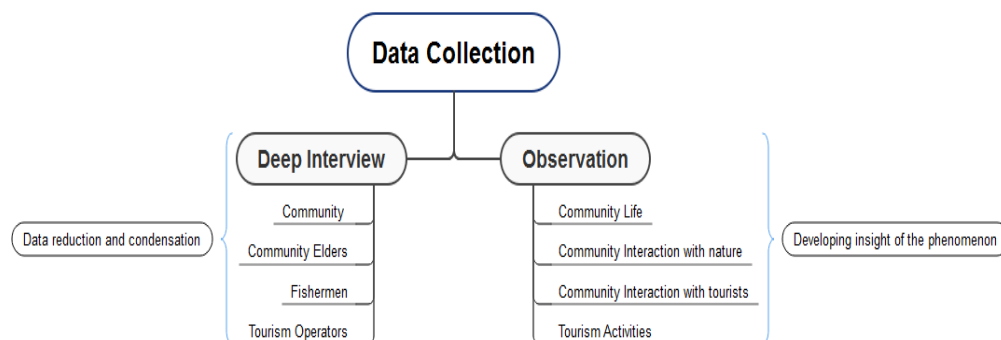


Figure 3. Methodology of the research

Overall, the qualitative approach employed in this implementation method prioritizes understanding the nuances of the community's experiences and perspectives. By listening attentively, engaging meaningfully, and analyzing qualitatively rich data, researchers aimed to develop culturally sensitive and contextually relevant solutions to the complex challenges of marine conservation and sustainable tourism in Raja Ampat, Papua.

Result and Discussions

As indicated in the introduction, the research aimed to explore the complex relationships between the local community, traditional practices, and the conservation of marine biodiversity in Raja Ampat, Indonesia. Specifically, it examined the role of the Sasi system, a traditional Papuan practice of temporary closures for natural regeneration, and its potential integration with modern conservation strategies. The Sasi system, which is rooted in the clan system in Raja Ampat, is a form of customary marine tenure that recognizes ownership rights to marine resources based on clan affiliation. This system has been practiced for generations and has a long history in Raja Ampat, with rules addressing which marine species can be harvested, the type of fishing gear that can be used, and the way that the resources are managed (McLeod, Elizabeth, Szuster, Brian and Salm, Rodney (2009).

Stakeholders of tourism in Raja Ampat all articulated the importance of the cultural preservation and natural conservation. They considered Sasi as the local genius of the community has a pivotal role in developing Raja Ampat as a sustainable tourism destination in Papua Province.

Stakeholder Group	Percentage of Participation	Approach to Sustainability
Community Leaders	25%	Focus on long-term environmental conservation and preservation of cultural heritage, traditional practices like Sasi.
Local Elders	20%	Deep ecological knowledge and cultural wisdom. Advocate for maintaining traditional customs and rituals in harmony with nature.
Fishermen	30%	Prioritize livelihoods while recognizing the importance of sustainable fishing practices.
Tourism Operators	25%	Stability of economic interests with environmental conservation. Contribute in eco-friendly practices and community development projects.

Figure 4. Summary of the research results

The data summery demonstrates that the stakeholders involved in tourism in Raja Ampat collectively agreed upon the importance of both cultural preservation and natural conservation in sustainable tourism frame work in the region (King et al., 2017). Their recognition of these two pillars underscores a profound understanding of the intrinsic linkages between cultural heritage and ecological sustainability within the region. This integration orchestrates to a shared commitment to safeguarding Raja Ampat's rich biodiversity while simultaneously honoring and preserving its indigenous philosophy and traditions. Scientific literature corroborates this perspective, highlighting the synergistic relationship between cultural practices and environmental stewardship. Studies in environmental anthropology and conservation biology consistently demonstrate that indigenous knowledge systems often serve as effective mechanisms for

promoting sustainable resource management and biodiversity conservation (Berkes, 2018; Gavin et al., 2015, Ahmad Suhaimi et al., 2014).

Essential to the synthesis on sustainable tourism development in Raja Ampat is the acknowledgment of Sasi as a cornerstone of the local community's genius. Sasi, a traditional resource management practice involving the periodic closure of certain areas or species to facilitate natural regeneration, emerges as a linchpin in the stakeholders' vision for sustainable tourism. The stakeholders recognize Sasi not only as a traditional ritual but as a dynamic and adaptive system and strategy with a tremendous implication for ecological resilience and community well-being (Abdul kohar et al., 2016). This recognition aligns with academic research, which emphasized the efficacy of indigenous conservation practices like Sasi in reinforcing ecosystem health and resilience (Cinner et al., 2018; Berkes, 2009).

Recognizing Sasi as an agent of sustainable tourism development, stakeholders implicitly endorse an approach to tourism that is rooted in cultural authenticity and environmental integrity. By integrating Sasi into tourism initiatives, Raja Ampat offers visitors not just a superficial encounter with nature but a profound immersion into the interconnected web of human and ecological relationships. Such an approach resonates with the principles of sustainable tourism, which emphasize the value of authenticity (Seeley et al., 2016).

However, the observation data from Raja Ampat reveals critical insights into the environmental and socio-economic impacts of tourism activities in the region. These observations highlight the complex interplay between tourism development, environmental conservation, and community well-being.

Connectivity emerges as a central concern, with the necessity of using speed boats, ships, or traditional boats to reach tourism destinations underlining the high traffic of vessels in the area. This influx of boats contributes to noise, air, and water pollution, posing significant threats to the region's delicate marine ecosystems (Smith et al., 2020). Scientific research supports these observations, indicating that increased boat traffic can disrupt marine life, damage coral reefs, and degrade water quality through pollutants such as fuel spills and engine emissions (Jones & De Vos, 2018).

Moreover, the data highlights the diverse range of tourist activities in Raja Ampat, including diving, snorkeling, and trekking. While these activities offer unique experiences to visitors, they also have the potential to cause ecological damage if not responsibly managed. Unregulated diving and snorkeling may cause physical damage to coral reefs and disturbance to marine life, while unmanaged trekking trails can result in habitat degradation and soil erosion (Beeden et al., 2014). Studies in marine ecology and tourism management affirm the importance of effective regulations and enforcement mechanisms to mitigate these impacts and ensure the long-term sustainability of tourism activities (Hughes et al., 2017).

No	Elements	Result	Impacts
1	Connectivity	To reach the tourism objects in Raja Ampat they have to use speed	The high traffic of the boats and ships both for tourist and fishing cause noise, air and water pollution that might endanger

		boats, ships or traditional boats	corral, fish or bio diversity in general.
2	Tourist Activities	• Diving • Snorkeling • Trekking	Those three major tourist activities in Raja Ampat, if they are not tightly controlled and regulated may bring adversarial impacts for the marine environment
3	Accommodation	• Mostly erected right on the beach • Using local materials (wood)	Regardless the traditional rules, excessive use of wood for tourist accommodation may threaten the environment. Spatial rules of the accommodation site have not been well managed.
4	Community Living Support	• Fishing • Service Provider	Limited living support, may exploit resources.

Figure 5. Summary of the Observation

Accommodation development has raised another significant issue, with most accommodations in Raja Ampat erected right on the beach and utilizing local materials such as wood. The excessive use of wood for tourist accommodation followed by inadequate spatial management of accommodation sites, poses threats to forest and mangrove ecosystems (Weeks et al., 2014). Environmental impact assessments and sustainable construction practices are essential to alleviate these negative effects and preserve natural habitats (Diedrich & Stoeckl, 2012).

Additionally, the data highlights the reliance of local communities on fishing and service provision for their livelihoods. However, limited living support may lead to overexploitation of resources and unsustainable practices by service providers. Collaborative resource management strategies, such as community-based fisheries management and sustainable tourism certification programs, can help ensure the long-term viability of local livelihoods while protecting natural resources (Cinner et al., 2018).

The observation data indicates the urgent need for comprehensive management and regulation of tourism activities in Raja Ampat. Sustainable connectivity, strict regulations for tourist activities, environmentally conscious accommodation development, and community-based resource management initiatives are essential for achieving a harmony between tourism development and environmental conservation (Gehring et al., 2013). By addressing these challenges holistically, Raja Ampat can uphold its status as an ecologically valuable region while ensuring the well-being of its communities as well as the visitors.

Conclusion

The research conducted in Raja Ampat, Indonesia finds the critical role of traditional practices, particularly the Sasi system, in shaping sustainable tourism development. Stakeholders' acknowledgement of the importance of cultural preservation and natural conservation highlights a shared commitment to safeguarding the region's rich biodiversity while honoring indigenous traditions

(Hidayati, et al., 2022). Integrating Sasi into tourism initiatives reflects an approach rooted in cultural authenticity and environmental integrity, offering visitors authentic experiences while raising ecological resilience and community well-being. However, challenges such as connectivity issues, unregulated tourist activities, and unsustainable development practices cause significant threats to the region's ecological health and socio-cultural integrity. Mitigating these challenges requires comprehensive management and regulation of tourism activities, integrating sustainable practices and community-based resource management strategies. The implications of this research extend beyond Raja Ampat to other ecologically sensitive regions grappling with sustainable tourism development. By embracing indigenous knowledge systems and fostering collaborative approaches between stakeholders, destinations can achieve a harmonious balance between tourism development and environmental conservation. However, the research has limitations, including its scope and potential biases. Future studies should aim to address these limitations and further explore the nuanced interactions shaping sustainable tourism development in Raja Ampat and similar regions worldwide.

References

- Abdul Kohar, Mudzakir, Anggoro, Sutrisno, handayani, handayani, Hendrarto, Boedi. 2016. Analysis of management effectiveness of Local Marine Conservation Area (KKLD) Mayalibit Bay, Raja Ampat Regency, West Papua Province. <https://core.ac.uk/download/328823799.pdf>
- Ahmad Suhaimi, Siti Rohani, Mohd Azmee, Nadia Anis, Mohd Rosli, Nur Fakhira. 2014. Involvement in sustainable tourism development in Bandar Hilir, Melaka / Siti Rohani Ahmad Suhaimi, Nur Fakhira Mohd Rosli and Nadia Anis Mohd Azmee. <https://core.ac.uk/download/83288639.pdf>
- Artal-Tur, A., Peñalver, A J B., Conesa, J A B., & Martínez-Salgado, O. 2019. Rural community tourism and sustainable advantages in Nicaragua. <https://doi.org/10.1108/ijchm-05-2018-0429>
- Berkes, F. 2017. Sacred Ecology (4th ed.). Routledge. <https://doi.org/10.4324/9781315114644>
- Berkes, F. 2009. Indigenous Ways of Knowing and the Study of Environmental Change. Journal of the Royal Society of New Zealand, 39, 151-156. <https://doi.org/10.1080/03014220909510568>
- Bichurova, I., & Yordanova-Dinova, P. 2019. The Green Idea in The Context of Sustainable Development of Tourism. <https://doi.org/10.35120/kij34051553b>
- Cinner, J.E., Adger, W.N., Allison, E.H. 2018. Building adaptive capacity to climate change in tropical coastal communities. Nature Clim Change 8, 117–123 (2018). <https://doi.org/10.1038/s41558-017-0065-x>
- Gehring, Markus, Kent, Avidan. 2013. Innovative Regulatory Frameworks Promoting Green Economy for Sustainable Development and Poverty Eradication in Europe. <https://core.ac.uk/download/41991363.pdf>
- Ginting, N., & Michaela. 2020. The uniqueness of the environmental aspects of sustainable tourism on Samosir Island. <https://doi.org/10.1088/1755-1315/452/1/012120>
- Hallatu, T G R., Palittin, I D., Supriyadi, S., Yampap, U., Purwanty, R., & Ilyas, A. 2020. The role of religious sasi in environmental conservations. IOP

- Conference Series: Earth and Environmental Science, 473(1), 012082-012082. <https://doi.org/10.1088/1755-1315/473/1/012082>
- Hidayati, Syafitri, Rachmawati, Dr Eva, Rahayuningsih, Tri. 2022. Community Involvement and Social Empowerment In Tourism Development. <https://core.ac.uk/download/523215415.pdf>
- Hugh Kirkman, Robert Bensted-Smith. 2010. Comparison of Approaches to Management of Large Marine Areas. <https://core.ac.uk/download/75777358.pdf>
- Julio Rosales-Tijerino, Luis Rivera, Ricardo Monge-Gonzalez. Productive Development Policies in Costa Rica: Market Failures, Government Failures, and Policy Outcomes. <https://core.ac.uk/download/pdf/6359990.pdf>
- King, Chloe. 2017. Tourism in Raja Ampat: New Chances and Challenges. <https://core.ac.uk/download/232739627.pdf>
- Kusumawardhana, I., Lemy, D M., Nathalia, T C., & Kristiana, Y. 2021. Towards a common goal for a sustainable tourism destination: Case study of Biak Numfor, Papua, Indonesia. IOP conference series. Earth and environmental science, 729(1), 012097-012097. <https://doi.org/10.1088/1755-1315/729/1/012097>
- Maulana, F I., & Pratama, F C. 2021. The sustainable development goals in boon pring tourism village turen malang with swot methods. <https://hcvalidate.perfdrive.com/fb803c746e9148689b3984a31fccd902/?sa=82fcf5a8-1b42-46ff-b6b7->
- Rachmawati, D., Soedarso., Suryani, A., Wibowo, B M., Muklason, A., & Endarko, E. 2021. Sustainable tourism development based on local participation: Case study on Dalegan District for the East Java tourism industry. IOP conference series. Earth and environmental science, 777(1), 012037-012037. <https://doi.org/10.1088/1755-1315/777/1/012037>
- Rero, L S., & Sanam, S R. 2021. Amenity Readiness of Rural Tourism in Fatumnasi Village East Nusa Tenggara Towards Sustainability. Advances in social science, education and humanities research. <https://doi.org/10.2991/assehr.k.210424.041>
- Seeley, Sorina. 2016. An Economic Justification for the Development and Establishment of Seascapes in the Coral Triangle. <https://core.ac.uk/download/542852275.pdf>
- Tandaju, T., Kawatak, S Y., & Kadepa, M. 2020. Identifying A Sustainable Tourism Development Model for The Amungme Tribe Community at Mimika Regency Papua Province. Journal of International Conference Proceedings, 3(2), 156-163. <https://doi.org/10.32535/jicp.v0i0.915>
- Zeng, L., Li, R Y M., Jotikasthira, N., Sun, J., & Mao, Y. 2022. Economic Development and Mountain Tourism Research from 2010 to 2020: Bibliometric Analysis and Science Mapping Approach. Sustainability, 14(1), 562-562. <https://doi.org/10.3390/su14010562>
- McLeod, Elizabeth, Szuster, Brian and Salm, Rodney. 2009. Sasi and Marine Conservation in Raja Ampat, Indonesia', Coastal Management, 37: 6, 65-676, First published on: 01 November 2009 (iFirst) DOI: 10.1080/08920750903244143
<https://rajaampatmarinepark.com/the-reefs/>
<https://rajaampatbiodiversity.com/raja-ampat-the-facts-top-diving-destination>