



Rashid, Ismail Rishwaan¹ – Juhász, Gábor²

Sustainable Tourism and Climate Resilience in the Maldives

ABSTRACT

This study examines the sustainability and climate resilience of tourism in Small Island Developing States (SIDS), with a primary focus on the Maldives. While tourism has played a crucial role in the economic development of many SIDS, it has also contributed to environmental degradation, social inequality, and institutional fragmentation. Employing a narrative literature review approach, this paper explores how tourism in the Maldives interacts with three key domains essential to sustainability in SIDS: environmental vulnerability, social inclusion and climate resilience, and governance and policy coherence. The analysis reveals that tourism development has placed significant pressure on environmental ecosystems through reef damage, inadequate waste management, and excessive freshwater consumption. Although community-based tourism initiatives show potential, they are still constrained by unequal power relations and insufficient institutional support. Furthermore, governance challenges—such as fragmented inter-agency coordination and regulatory capture—continue to hinder long-term sustainability efforts. The findings highlight that building a climate-resilient tourism sector requires the integration of community participation in environmental governance, the incorporation of Indigenous knowledge systems, and enhanced policy coherence between tourism and environmental objectives. These insights underscore the need for future research aimed at expanding empirical understanding of localized adaptation strategies and evaluating the long-term impacts of governance reforms intended to strengthen resilience in tourism-dependent SIDS.

Keywords: sustainable tourism, climate resilience, Small Island Developing States (SIDS), Maldives, Community-Based Tourism (CBT)

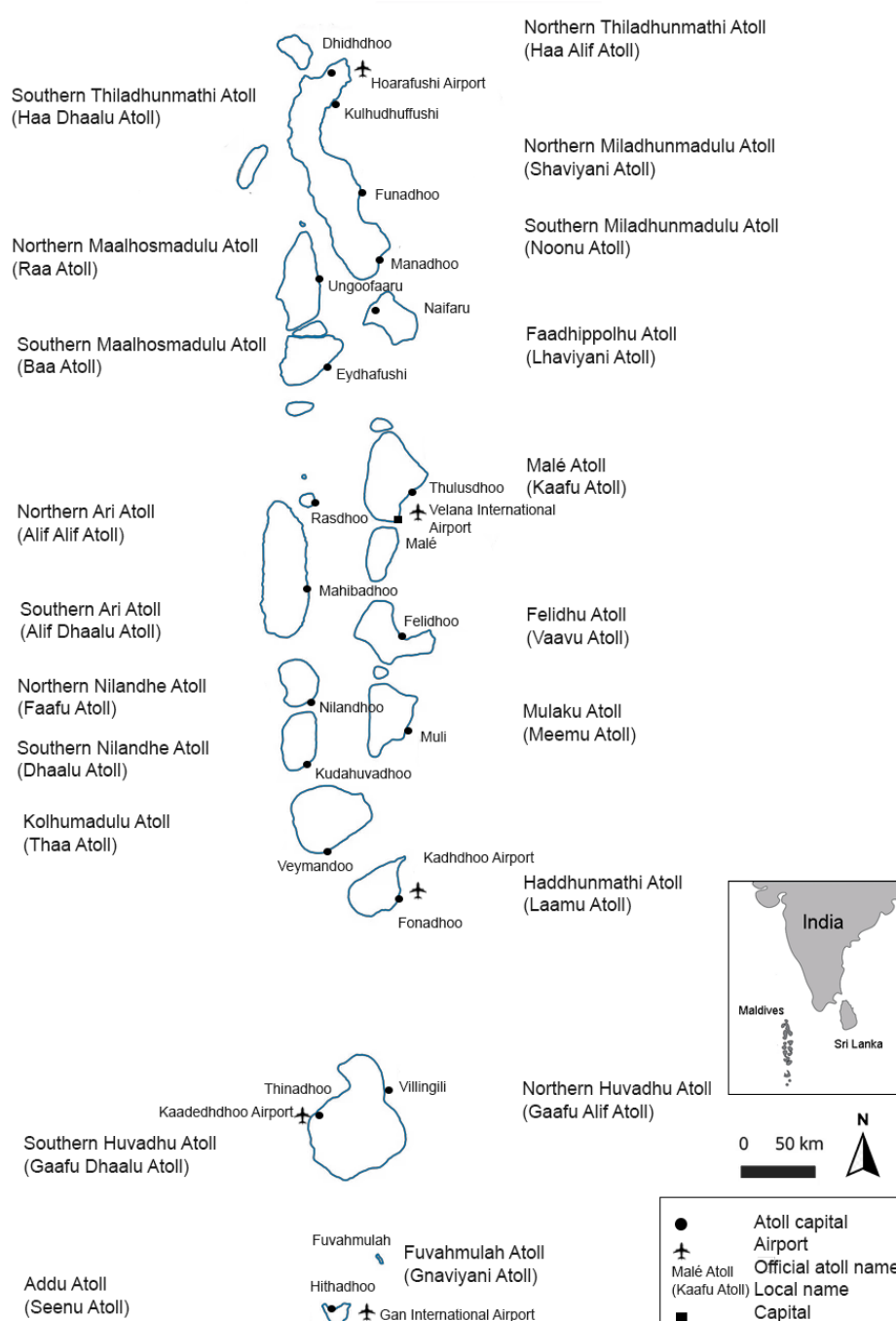
¹ Maldives Association of Human Resource Professionals, Address: M. Maamuli, Handhuvaree hingun, Male', 20316 Maldives. Tel: 9607977544. PhD Student, Doctoral School of Regional Policy and Economics, Faculty of Business and Economics, University of Pécs, H-7622 Pécs, Rákóczi út 80., Tel.: +36206612848, Email: rashidhrishvan@gmail.com, <https://orcid.org/0009-0005-7614-1429>

² Associate Professor, Head of Research Center, Faculty of Business and Economics, Department of Leadership and Organizational Sciences, University of Pécs, H-7622 Pécs, Rákóczi út 80., Tel.: +36302475819, Email: juhasz.gabor@ktk.pte.hu, <https://orcid.org/0009-0003-6078-3545>, Corresponding Author

INTRODUCTION

Small Island Developing States (SIDS) have long captivated the world with their stunning landscapes and rich biodiversity. However, beneath these picturesque scenes lies a complex array of structural vulnerabilities shaped by climate risks, limited resources, and a heavy dependence on tourism. The Maldives, comprising 1,192 coral islands grouped into 26 atolls, exemplifies these broader challenges. Located in the Indian Ocean and spanning 90,000 square kilometers of ocean, the country has only 298 square kilometers of land area, making it one of the most geographically dispersed and environmentally fragile nations in the world (Figure 1).

Figure 1. Administrative map of the Maldives showing atoll divisions and capitals.



Source: own editing based on National Bureau of Statistics, 2011

Since the 1970s, the Maldives has transformed from an isolated island nation into a globally renowned luxury tourism destination, attracting over 2 million visitors in 2024 (Corporate Maldives, 2024). Today, tourism is the largest contributor to GDP and accounts for a significant share of employment (Hampton & Jeyacheya, 2020; Marinakou, 2025; Shakeela & Weaver, 2018). However, this rapid expansion has also brought substantial challenges — such as ecological degradation, freshwater scarcity, growing social inequality, and heightened climate vulnerability — both globally and within the study area (Ghina, 2003; Scheyvens, 2011; Lekgau et al., 2025; Kiss et al., 2025; Iirmdu & Donaldson, 2024; Gonda & Rátz, 2024).

This study explores how the Maldives can transition to a sustainable and climate-resilient tourism model by analyzing three interrelated domains: environmental vulnerability, social inclusion and climate resilience, and governance and policy coherence. These domains, derived from extensive literature on SIDS, serve as analytical lenses to assess both Maldivian and cross-regional dynamics in tourism sustainability.

Research on the Maldives has intensified in recent years, highlighting critical concerns such as environmental degradation, overreliance on tourism, and governance limitations (Acciarri et al., 2021; Ali & Jaleel, 2024; Domroes, 2001; Ghina, 2003; Scheyvens, 2011; Shakeela & Weaver, 2018; Zuhair & Kurian, 2016). However, much of this research remains fragmented, with limited synthesis across thematic areas or comparative analysis with other Small Island Developing States (SIDS) facing similar challenges. Many existing studies tend to overlook how environmental, social, and institutional factors interact to shape sustainability outcomes.

To address this gap, the present study situates the Maldivian experience within broader perspectives from the Caribbean, AIMS, and Pacific regions. By emphasizing equity, environmental integrity, and institutional coherence, this study aims to reframe tourism sustainability in the Maldives as an interdependent challenge requiring systemic, locally grounded solutions.

METHODS

This study employs a narrative literature review approach to examine tourism sustainability and climate resilience in Small Island Developing States (SIDS), with a particular focus on the Maldives. The analysis is organized around three thematic lenses identified in contemporary scholarly discourse: environmental vulnerability, social inclusion and climate resilience, and governance and policy coherence. A narrative review was selected for its capacity to synthesize a broad, multidisciplinary body of knowledge and to facilitate detailed comparisons across diverse contexts (Cronin et al., 2008; Popay et al., 2006).

The literature search and selection were carried out using academic databases such as Scopus and Web of Science. A variety of sources were reviewed, including peer-reviewed journal articles, book chapters, expert reports, and government publications. The analysis involved thematic coding and synthesis, establishing connections between empirical findings, theoretical insights, and exemplary

practice models across SIDS regions. Particular emphasis was placed on drawing lessons applicable to the Maldivian context, while also acknowledging specific limitations and opportunities.

In addition to the literature review, several case studies were analyzed to explore changes and crises affecting the social, economic, and natural environments. Ideal subjects for case study research include emerging phenomena or issues situated within interdisciplinary frameworks that impact these domains.

RESULTS

This section analyzes key insights from the narrative literature review through the three analytical domains that structure the study: environmental vulnerability; social inclusion and climate resilience; and governance and policy coherence. The findings are contextualized within the broader discourse on sustainable tourism in SIDS, with a specific focus on the Maldives.

Environmental vulnerability

In the Maldives, tourism development has significantly increased ecological stress on both marine and terrestrial environments (Domroes, 2001). Resort construction often requires land reclamation and dredging, which destroy coral reefs—vital ecosystems that provide essential ecological services and generate substantial economic benefits through tourism (Jaleel, 2013; Pancrazi et al., 2020, 2023; Zubair et al., 2011). These pressures are compounded by rising ocean temperatures, leading to widespread coral bleaching events (Andersson, 2007; Bessell-Browne et al., 2021; Edwards et al., 2001; McClanahan, 2000; Morri et al., 2015; Schuhmacher et al., 2005). In addition to these climate-related stressors, tourist activities such as reef walking, anchoring, and unregulated diving further degrade coral health and marine biodiversity (Cavallini et al., 2023; Forrester et al., 2015; Hernández-Delgado, 2023; Lin, 2021; Williamson et al., 2017).

Waste management practices on resort islands also exacerbate marine degradation. Solid waste is commonly transported to Thilafushi—the Maldives’ designated landfill island—where poor handling results in leachate runoff and air pollution, harming nearby ecosystems and public health (Munshi et al., 2022). These practices reflect a systemic failure to integrate sustainability into core operational standards across the tourism sector.

Freshwater scarcity constitutes another significant environmental strain, as resorts consume water at rates disproportionate to those of surrounding communities (Acciarri et al., 2021; Belmar et al., 2016; Deng & Bailey, 2017; Forde et al., 2024; Jaleel et al., 2020; Winters et al., 2022). Groundwater extraction for tourism purposes accelerates salinization and depletes already limited aquifers—particularly on smaller islands with fragile hydrological systems. This resource competition highlights broader equity concerns in the allocation of natural resources between tourism operators and local populations.

Moreover, the Maldives' extremely low elevation exacerbates its vulnerability to sea-level rise, a well-documented threat across multiple SIDS (Adloff & Rehdanz, 2024; Ali & Jaleel, 2024; Amores et al., 2021; Biasio, 2024; Doorga et al., 2024; Hernández-Delgado, 2024; Martyr-Koller et al., 2021; Wong, 2018; Woodworth, 2005). Despite receiving international attention and making national commitments to climate resilience, progress remains slow. Coastal management initiatives have failed to keep pace with the rapid expansion of tourism infrastructure. The persistence of these environmental threats underscores a profound disconnect between sustainability rhetoric and the enforcement of effective regulatory measures.

Social inclusion and climate resilience

In the Maldives and across SIDS, inclusive development is critical for achieving economic equity, sustainability, and climate resilience. Although the tourism sector has driven economic growth, it frequently marginalizes local populations. Expatriates obtain the majority of formal employment opportunities in the tourism industry, while many Maldivians are confined to low-wage, precarious jobs (Shakeela & Cooper, 2009; Shiyar et al., 2023). While most SIDS national policies emphasize the importance of localization, structural barriers—such as inadequate vocational training, language constraints, and centralized recruitment systems—impede meaningful inclusion (Baum, 2012; Praptiwi et al., 2021). As Domroes (2001) and Scheyvens (2011) noted decades ago, a persistent disconnect exists between local communities and the Maldivian tourism economy, particularly in outer atolls, where communities bear the ecological burdens of tourism yet receive minimal economic benefit.

Social inclusion in tourism planning is essential not only for equitable development but also for enhancing environmental stewardship (Soulard et al., 2024). Exclusion reduces community engagement in conservation, whereas inclusion fosters a sense of ownership and responsibility. The marginalization of locals in tourism governance across many SIDS reflects deeper power asymmetries that obstruct effective environmental management (Scheyvens & Momsen, 2008; Tosun, 2000). In the absence of participatory methods, top-down strategies often disregard local knowledge systems and cultural values that are crucial for sustainable practices. Research from other SIDS demonstrates that empowering communities with voice and agency can lead to more adaptive and resilient tourism systems (Dłużewska & Giampiccoli, 2021; Jackson, 2025).

Community-based tourism (CBT) is increasingly recognized as a promising strategy to advance Sustainable Development Goal (SDG) 1 (No Poverty) and SDG 8 (Decent Work and Economic Growth) (Jackson, 2025). CBT promotes local economic participation and sustainable livelihoods by ensuring that revenues generated from tourism remain within the community. This stands in stark contrast to mass tourism, which often results in economic leakage and the exclusion of local stakeholders. Dangi and Jamal (2016) emphasize that a comprehensive strategy integrating sustainable tourism and CBT is essential. Neither approach alone is sufficient to address complex challenges such as climate change and poverty alleviation. Consequently, sustainability efforts must be aligned with local priorities,

including community empowerment, capacity building, and sustainable income generation, to ensure the long-term success and resilience of CBT initiatives.

Tourism in guesthouses across the Maldives showcases how inclusive and community-oriented tourism can contribute to sustainability. Research shows that this model has diversified local income streams, created new employment opportunities, and enabled more Maldivians to engage in tourism as entrepreneurs and hosts rather than merely as employees (Chia & Muiz, 2021; Shenaan & Schänzel, 2024; Zubair & Bouchon, 2014). This form of community participation marks a significant shift in access to tourism benefits; however, it should not be equated with genuine participatory governance. Communities still have limited influence over tourism planning, regulation, and its integration into broader development agendas. Shakeela and Weaver (2018) emphasize that residents are frequently excluded from formal planning processes in guesthouse-heavy areas, which restricts their role in shaping tourism policy and hinders the pursuit of sustainable, community-driven futures.

The vulnerability of the guesthouse sector became especially apparent during the COVID-19 pandemic. Shareef et al. (2025) report that guesthouse owners were largely unprepared for the crisis, lacking both financial reserves and institutional support. This economic fragility reduced their resilience and discouraged long-term sustainability efforts. These findings underscore that inclusion must go beyond participation to encompass preparedness, social protection, and institutional resilience.

To develop climate-resilient tourism systems, it is essential to incorporate local perspectives and Indigenous knowledge into planning and adaptation strategies. Research from other small island contexts shows that when communities are empowered to embed cultural values and environmental priorities into tourism governance, outcomes tend to be more socially just and ecologically sound (Hiwasaki et al., 2014; Mercer et al., 2010). In the Maldives, this means deepening community engagement in tourism (Giourgali et al., 2024), while ensuring it serves as a foundation for environmental stewardship, adaptive capacity, and collective resilience.

Governance and policy coherence

Governance is crucial for aligning tourism development with environmental sustainability and climate adaptation. However, decades of policy fragmentation and weak enforcement have resulted in significant institutional blind spots (Al Suood, 2023; Brown et al., 1997; Rasheed, 2014; Zubair et al., 2011). Although multiple strategic documents—such as the *Tourism Master Plans* (Ministry of Tourism, 2023)—articulate sustainability goals, implementation is often undermined by poor inter-agency coordination and overlapping mandates (Domroes, 2001; Scheyvens, 2011; Zubair et al., 2011; Zuhair & Kurian, 2016).

Lessons from other SIDS suggest that coherent policy environments and integrated planning frameworks are essential for tourism resilience (Sharpley & Ussi, 2014). In countries like Fiji and Barbados, national tourism plans have successfully embedded disaster risk reduction and climate adaptation measures into zoning regulations, insurance schemes, and infrastructure investments

(Becken, 2005; Mycoo & Chadwick, 2012; Mycoo, 2014, 2018). These examples highlight the value of institutionalizing resilience within tourism governance structures.

In the Maldives, deeper systemic challenges persist. The tourism sector is characterized by regulatory capture and elite dominance, with entities such as the Maldives Association of Tourism Industry (MATI) wielding disproportionate influence over policy formulation and land-use decisions (Scheyvens, 2011). This dynamic often leads to policies that prioritize commercial interests over ecological integrity and social equity, eroding public trust and restricting local stakeholder participation.

Scobie (2016) observes that even in contexts where climate governance is formally prioritized, fragmented institutional setups, limited data sharing, and reliance on short-term, project-based funding weaken policy coherence. These challenges are evident in the Maldives, where siloed operations between the Ministry of Tourism and environmental agencies hinder integrated, forward-looking planning.

CONCLUSIONS

The review highlights persistent structural tensions at the heart of sustainable tourism in Small Island Developing States (SIDS), particularly in the Maldives. A recurring theme across the literature is environmental degradation, directly linked to tourism expansion. In the Maldives, rapid development has intensified ecological stress, especially on fragile coral reef systems, freshwater reserves, and waste management infrastructure. These findings reflect broader trends identified across SIDS, where tourism often accelerates the depletion of critical natural resources due to inadequate planning and fragmented environmental governance. Sustainability goals are rarely achieved when ecological protections are reactive or weakly enforced, and when tourism infrastructure is prioritized over ecosystem resilience. The Maldives thus exemplifies the broader challenge faced by SIDS: balancing economic dependence on tourism with the need to protect the very environments that sustain it.

The second theme underscores the importance of social inclusion as a foundation for environmental stewardship and climate resilience. The guesthouse tourism model in the Maldives has expanded opportunities for income diversification and community participation. However, this engagement is often superficial. True participatory governance—where communities meaningfully influence tourism planning and policy—remains absent. Genuine community empowerment, particularly when it incorporates traditional knowledge systems and localized adaptation practices, can foster more durable and context-sensitive forms of tourism governance. Without deeper institutional reform to promote inclusive governance, the potential of guesthouse tourism to act as a vehicle for resilience in the Maldives remains unrealized.

The exclusion of local populations from economic decision-making increases the incidence of social dilemmas and deviant behavior, thereby limiting the development of social well-being and sustainability.

Despite numerous policy instruments, Maldivian institutions remain siloed, with limited collaboration between environmental agencies and tourism authorities. The literature reveals that

this fragmentation is not unique. In other SIDS, weak inter-agency coordination, political capture, and top-down policy implementation are common governance challenges that hinder sustainability transitions. The review illustrates that meaningful policy coherence requires more than drafting national frameworks; it necessitates structural reforms that integrate climate risk considerations across tourism, finance, infrastructure, and local governance sectors. Institutional models from other SIDS demonstrate how inclusive governance structures can translate high-level policy into tangible outcomes.

The findings demonstrate that sustainable tourism in SIDS must be approached as a dynamic, intersectoral challenge. For the Maldives to lead in this area, it must adopt a systems perspective that places environmental integrity, equity, and adaptive governance at the core of its tourism development model. Only then can tourism be transformed from a risk-laden dependency into a vehicle for sustainable and inclusive prosperity. Building resilience also requires embedding participatory justice into tourism and climate governance frameworks, ensuring that local communities become genuine partners rather than passive beneficiaries.

In addition to case study analyses, this study conducts a narrative review of extensive literature, critically examining three interlinked domains—environmental vulnerability, social inclusion and climate resilience, and governance and policy coherence—that influence tourism sustainability in SIDS. It highlights that tourism growth in the Maldives has resulted in significant environmental degradation, particularly through coral reef damage, pressure on freshwater resources, and inadequate waste management. Although awareness is increasing, environmental pressures continue to exceed the capacity of existing regulatory protections. The situation in the Maldives reflects broader patterns across Small Island Developing States (SIDS), where tourism infrastructure and weak environmental governance place increasing strain on fragile ecosystems.

Moreover, achieving inclusive development remains elusive. While community-based guesthouse tourism has created expanded opportunities for local entrepreneurship, it has not led to genuine participatory governance. Local communities remain marginalized in policy planning processes, limiting their ability to shape tourism's trajectory and weakening incentives for environmental stewardship. Studies from other SIDS emphasize the importance of incorporating Indigenous knowledge and empowering local stakeholders to strengthen climate resilience from the ground up—an area in which the Maldives has yet to fully succeed.

The paper also discusses how fragmented institutions and elite capture significantly impede sustainability. Policy frameworks frequently operate in isolation, and national adaptation strategies often lack cohesion between tourism and environmental governance. Insights from other island nations indicate that building resilience requires coherent policies, cross-sectoral collaboration, and the decentralization of authority to local governments.

Tourism can serve as a catalyst for resilience in the Maldives, provided it undergoes restructuring through inclusive governance, robust environmental planning, and reforms aligned with climate priorities. Adopting a systems-based approach that views tourism not only as an economic sector but also as a vehicle for sustainable development is crucial to transforming the Maldives and other Small Island Developing States into destinations with climate-resilient futures.

Future research should focus on empirical evaluations of integrated governance approaches in the Maldives and other SIDS, assess the long-term outcomes of community-based tourism initiatives, and explore how localized climate adaptation strategies can be operationalized through tourism frameworks. Such research will help bridge existing knowledge gaps and guide the practical transformation of tourism systems in climate-vulnerable island contexts.

REFERENCES

- Acciarri, M. F., Checola, S., Galli, P., Magatti, G., & Stefani, S. (2021). Water Resource Management and Sustainability: A Case Study in Faafu Atoll in the Republic of Maldives. *Sustainability*, 13(6), 3484. <https://doi.org/10.3390/su13063484>
- Adloff, S., & Rehdanz, K. (2024). Responsibility attribution and community support of coastal adaptation to climate change: Evidence from a choice experiment in the Maldives. *Journal of Choice Modelling*, 50, 100468. <https://doi.org/10.1016/j.jocm.2024.100468>
- Al Suood, H. (2023). Maldives Constitution of 2008: What Makes It Stand Out from its Predecessors? *SSRN Electronic Journal* [Preprint]. <https://doi.org/10.2139/ssrn.4580874>
- Ali, M. H., & Jaleel, M. (2024). Socioeconomic Ramifications of Sea Level Rise in the Maldives: A Holistic Assessment of Impacts and Adaptation Strategies. *Journal of Environmental and Geographical Studies*, 3(1), 1–16.
- Amores, A., Marcos, M., Pedreros, R., Le Cozannet, G., Lecacheux, S., Rohmer, J., Hinkel, J., Gussmann, G., van der Pol, T., Shareef, A., & Khaleel, Z. (2021). Coastal Flooding in the Maldives Induced by Mean Sea-Level Rise and Wind-Waves: From Global to Local Coastal Modelling. *Frontiers in Marine Science*, 8. <https://doi.org/10.3389/fmars.2021.665672>
- Andersson, J. E. C. (2007). The recreational cost of coral bleaching — A stated and revealed preference study of international tourists. *Ecological Economics*, 62(3), 704–715. <https://doi.org/10.1016/j.ecolecon.2006.09.001>
- Baum, T. (2012). Human resource management in tourism: a small island perspective. *International Journal of Culture, Tourism and Hospitality Research*. 6(2), 124–132. <https://doi.org/10.1108/17506181211233054>
- Becken, S. (2005). Harmonising climate change adaptation and mitigation: The case of tourist resorts in Fiji. *Global Environmental Change*, 15(4), 381–393. <https://doi.org/10.1016/j.gloenvcha.2005.08.001>
- Belmar, Y. N., McNamara, K. E., & Morrison, T. H. (2016). Water security in small island developing states: the limited utility of evolving governance paradigms. *WIREs Water*, 3(2), 181–193. <https://doi.org/10.1002/wat2.1129>
- Bessell-Browne, P., Epstein, H. E., Hall, N., Buerger, P., & Berry, K. (2021). Severe Heat Stress Resulted in High Coral Mortality on Maldivian Reefs following the 2015–2016 El Niño Event. *Oceans*, 2(1), 233–245. <https://doi.org/10.3390/oceans2010014>

- Biasio, V. D. (2024). Not Just “Sinking Islands”: Climate Change and Adaptation in Small Island Developing States. *Political Studies*, 00323217241298848. <https://doi.org/10.1177/00323217241298848>
- Brown, K., Turner, R. K., Hameed, H., & Bateman, I. (1997). Environmental carrying capacity and tourism development in the Maldives and Nepal. *Environmental Conservation*, 24(4), 316–325. <https://doi.org/10.1017/S0376892997000428>
- Cavallini, I., Marzo, D., Scaccia, L., Scipioni, S., & Niccolini, F. (2023). Scuba diving tourism and the challenge of sustainability: evidence from an explorative study in North African-Mediterranean countries. *EuroMed Journal of Business*, 20(5), 1–26. <https://doi.org/10.1108/EMJB-04-2022-0085>
- Chia, K. W., & Muiz, A. (2021). The nature and challenges of guest house business in the Maldives: An exploratory study. *Tourism and Hospitality Research*, 21(1), 3–14.
- Corporate Maldives. (2024). Maldives Breaks Tourism Record, Reaches 2 Millionth Arrival in 2024. *corporatemaldives.com*, 26 December. <https://corporatemaldives.com/maldives-breaks-tourism-record-reaches-2-millionth-arrival-in-2024/>
- Cronin, P., Ryan, F., & Coughlan, M. (2008). Undertaking a literature review: a step-by-step approach. *British Journal of Nursing*, 17(1), 38–43. <https://doi.org/10.12968/bjon.2008.17.1.28059>
- Dangi, T. B., & Jamal, T. (2016). An Integrated Approach to “Sustainable Community-Based Tourism”. *Sustainability*, 8(5), 475. <https://doi.org/10.3390/su8050475>
- Deng, C., & Bailey, R. T. (2017). Assessing groundwater availability of the Maldives under future climate conditions. *Hydrological Processes*, 31(19), 3334–3349. <https://doi.org/10.1002/hyp.11246>
- Dłużewska, A., & Giampiccoli, A. (2021). Enhancing island tourism’s local benefits: A proposed community-based tourism-oriented general model. *Sustainable Development*, 29(1), 272–283. <https://doi.org/10.1002/sd.2141>
- Domroes, M. (2001). Conceptualising State-Controlled Resort Islands for an Environment-Friendly Development of Tourism: The Maldivian Experience. *Singapore Journal of Tropical Geography*, 22(2), 122–137. <https://doi.org/10.1111/1467-9493.00098>
- Doorga, J. R. S., Bernardie-Tahir, N., Deenapanray, P. N. K., Dindoyal, Y., Mycoo, M., & Moncada, S. (2024). Surging seas, rising sea levels, and sinking communities: The urgent need for climate adaptation in small island states. *Environmental Science & Policy*, 157, 103788. <https://doi.org/10.1016/j.envsci.2024.103788>
- Edwards, A. J., Clark, S., Zahir, H., Rajasuriya, A., Naseer, A., & Rubens, J. (2001). Coral Bleaching and Mortality on Artificial and Natural Reefs in Maldives in 1998, Sea Surface Temperature Anomalies and Initial Recovery. *Marine Pollution Bulletin*, 42(1), 7–15. [https://doi.org/10.1016/S0025-326X\(00\)00200-9](https://doi.org/10.1016/S0025-326X(00)00200-9)
- Forde, M. S., Cashman, A., & Mitchell, K. (2024). Sustainability of water resources in Caribbean small island developing states: an overview. *Discover Sustainability*, 5(1), 265. <https://doi.org/10.1007/s43621-024-00478-x>

- Forrester, G. E., Flynn, R. L., Forrester, L. M., & Jarecki, L. L. (2015). Episodic Disturbance from Boat Anchoring Is a Major Contributor to, but Does Not Alter the Trajectory of, Long-Term Coral Reef Decline. *PLOS ONE*, 10(12), e0144498. <https://doi.org/10.1371/journal.pone.0144498>
- Ghina, F. (2003). Sustainable Development in Small Island Developing States. *Environment, Development and Sustainability*, 5(1), 139–165. <https://doi.org/10.1023/A:1025300804112>
- Giourgali, A., Poulaki, I., & Katsoni, V. (2024). Sustainable Tourism Strategies Amidst Contemporary Crises: An Overview. *Journal of Tourism & Development*, 47, 53–73. <https://doi.org/10.34624/rtd.v47i0.38706>
- Gonda, T., & Rátz, T. (2024). A felelősségteljes magatartás erősödése a turisták körében [Strengthening Responsible Behavior among Tourists]. *Modern Geográfia*, 19(4), 147–164. <https://doi.org/10.15170/MG.2024.19.04.08>
- Hampton, M. P., & Jeyacheya, J. (2020). Tourism-Dependent Small Islands, Inclusive Growth, and the Blue Economy. *One Earth*, 2(1), 8–10. <https://doi.org/10.1016/j.oneear.2019.12.017>
- Hernández-Delgado, E. A. (2023). Long-Term Persistence of Propeller and Anchor Damage to Seagrass Canopy and Demersal Biodiversity in Puerto Rico. *Open Journal of Ecology*, 13(10), 671–710. <https://doi.org/10.4236/oje.2023.1310042>
- Hernández-Delgado, E. A. (2024). Coastal Restoration Challenges and Strategies for Small Island Developing States in the Face of Sea Level Rise and Climate Change. *Coasts*, 4(2), 235–286. <https://doi.org/10.3390/coasts4020014>
- Hiwasaki, L., Luna, E., Syamsidik, & Shaw, R. (2014). Process for integrating local and indigenous knowledge with science for hydro-meteorological disaster risk reduction and climate change adaptation in coastal and small island communities. *International Journal of Disaster Risk Reduction*, 10, 15–27. <https://doi.org/10.1016/j.ijdr.2014.07.007>
- Iirmdu, T. O., & Donaldson, R. (2024). Risk Management Strategies: An Empirical Analysis of Strategies Employed by Tourism Business Managers in Plateau State, Nigeria during the COVID-19 Pandemic. *Modern Geográfia*, 19(1), 81–98. <https://doi.org/10.15170/MG.2024.19.01.05>
- Jackson, L. A. (2025). Community-Based Tourism: A Catalyst for Achieving the United Nations Sustainable Development Goals One and Eight. *Tourism and Hospitality*, 6(1), 29. <https://doi.org/10.3390/tourhosp6010029>
- Jaleel, A. (2013). The status of the coral reefs and the management approaches: The case of the Maldives. *Ocean & Coastal Management*, 82, 104–118. <https://doi.org/10.1016/j.ocecoaman.2013.05.009>
- Jaleel, M. I., Ibrahim, S. A., Hussain, A., Mustafa, M., & Pathirana, A. (2020). A Screening Approach for Assessing Groundwater Quality for Consumption in Small Islands: Case Study of 45 Inhabited Islands in the Maldives. *Water*, 12(8), 2209. <https://doi.org/10.3390/w12082209>
- Kiss, R., Patev, P., & Lan, K.-W. (2025). The Impact of COVID-19 on Domestic Travel: The Spatial Changes in Taiwan. *Modern Geográfia*, 20(1), 129–156. <https://doi.org/10.15170/MG.2025.20.01.07>

- Lekgau, R. J., Daniels, T., & Tichaawa, T. M. (2025). The Sharing Economy, Inclusive Tourism Development and Entrepreneurship: A Case Study from South Africa. *Modern Geografía*, 20(1), 65–82. <https://doi.org/10.15170/MG.2025.20.01.04>
- Lin, B. (2021). Close encounters of the worst kind: reforms needed to curb coral reef damage by recreational divers. *Coral Reefs*, 40(5), 1429–1435. <https://doi.org/10.1007/s00338-021-02153-3>
- Marinakou, E. (Lia). (2025). The Case of the Maldives: Has the COVID-19 Pandemic Changed Luxury Consumers' Behavior Toward Sustainability? *Sustainability*, 17(3), 1108. <https://doi.org/10.3390/su17031108>
- Martyr-Koller, R., Thomas, A., Schleussner, C.-F., Nauels, A., & Lissner, T. (2021). Loss and damage implications of sea-level rise on Small Island Developing States. *Current Opinion in Environmental Sustainability*, 50, 245–259. <https://doi.org/10.1016/j.cosust.2021.05.001>
- McClanahan, T. R. (2000). Bleaching Damage and Recovery Potential of Maldivian Coral Reefs. *Marine Pollution Bulletin*, 40(7), 587–597. [https://doi.org/10.1016/S0025-326X\(00\)00064-3](https://doi.org/10.1016/S0025-326X(00)00064-3)
- Mercer, J., Kelman, I., Taranis, L., & Suchet-Pearson, S. (2010). Framework for integrating indigenous and scientific knowledge for disaster risk reduction. *Disasters*, 34(1), 214–239. <https://doi.org/10.1111/j.1467-7717.2009.01126.x>
- Ministry of Tourism. (2023). *Maldives Fifth Tourism Master Plan 2023–2027*. https://www.tourism.gov.mv/en/downloads/master_plan
- Morri, C., Montefalcone, M., Lasagna, R., Gatti, G., Rovere, A., Parravicini, V., Baldelli, G., Colantoni, P., & Bianchi, C. N. (2015). Through bleaching and tsunamis: Coral reef recovery in the Maldives. *Marine Pollution Bulletin*, 98(1), 188–200. <https://doi.org/10.1016/j.marpolbul.2015.06.050>
- Munshi, S., Banerjee, S., & Chakraborty, I. (2022). Thilafushi a Toxic Bomb: Learning from an Island's SWM Practice. *International Journal of Architecture and Infrastructure Planning*, 8(2), 1–12. <https://doi.org/10.37628/jaip.v8i2.954>
- Mycoo, M. (2014). Sustainable tourism, climate change and sea level rise adaptation policies in Barbados, *Natural Resources Forum*, 38(1), 47–57. <https://doi.org/10.1111/1477-8947.12033>
- Mycoo, M., & Chadwick, A. (2012). Adaptation to climate change: the coastal zone of Barbados, *Proceedings of the Institution of Civil Engineers - Maritime Engineering*, 165(4), 159–168. <https://doi.org/10.1680/maen.2011.19>
- Mycoo, M. A. (2018). Beyond 1.5 °C: vulnerabilities and adaptation strategies for Caribbean Small Island Developing States. *Regional Environmental Change*, 18(8), 2341–2353. <https://doi.org/10.1007/s10113-017-1248-8>
- Pancrazi, I. et al. (2020). Synergic effect of global thermal anomalies and local dredging activities on coral reefs of the Maldives. *Marine Pollution Bulletin*, 160, 111585. <https://doi.org/10.1016/j.marpolbul.2020.111585>
- Pancrazi, I., Ahmed, H., Cerrano, C., & Montefalcone, M. (2023). Active Coral Restoration to Preserve the Biodiversity of a Highly Impacted Reef in the Maldives. *Diversity*, 15(9), 1022. <https://doi.org/10.3390/d15091022>

- Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M., Britten, N., Roen, K., & Duffy, S. (2006). *Guidance on the conduct of narrative synthesis in systematic reviews: A product from the ESRC Methods Programme*. Lancaster University. <https://doi.org/10.13140/2.1.1018.4643>
- Praptiwi, R. A., Maharja, C., Fortnam, M., Chaigneau, T., Evans, L., Garniati, L., & Sugardjito, J. (2021). Tourism-Based Alternative Livelihoods for Small Island Communities Transitioning towards a Blue Economy. *Sustainability*, 13(12), 6655. <https://doi.org/10.3390/su13126655>
- Rasheed, A. A. (2014). Historical institutionalism in the Maldives: A case of governance failure. *The Maldives National Journal of Research*, 2(1), 7–28. <https://doi.org/10.62338/f6t9ct57>
- Scheyvens, R. (2011). The challenge of sustainable tourism development in the Maldives: Understanding the social and political dimensions of sustainability. *Asia Pacific Viewpoint*, 52(2), 148–164. <https://doi.org/10.1111/j.1467-8373.2011.01447.x>
- Scheyvens, R., & Momsen, J. H. (2008). Tourism and Poverty Reduction: Issues for Small Island States. *Tourism Geographies*, 10(1), 22–41. <https://doi.org/10.1080/14616680701825115>
- Schuhmacher, H., Loch, K., Loch, W., & See, W. R. (2005). The aftermath of coral bleaching on a Maldivian reef—a quantitative study. *Facies*, 51(1), 80–92. <https://doi.org/10.1007/s10347-005-0020-6>
- Scobie, M. (2016). Policy coherence in climate governance in Caribbean Small Island Developing States. *Environmental Science & Policy*, 58, 16–28. <https://doi.org/10.1016/j.envsci.2015.12.008>
- Shakeela, A., & Cooper, C. (2009). Human Resource Issues in a Small Island Setting The Case of the Maldivian Tourism Industry. *Tourism Recreation Research* [Preprint]. <https://www.tandfonline.com/doi/abs/10.1080/02508281.2009.11081576>
- Shakeela, A., & Weaver, D. (2018). Participatory Planning and Tourism Development in the Maldives: A Pre-requisite of Sustainability? In Y. Wang, A. Shakeela, A. Kwek, C. Khoo-Lattimore (Eds.), *Managing Asian Destinations* (pp. 73–85). Springer Singapore (Perspectives on Asian Tourism). https://doi.org/10.1007/978-981-10-8426-3_5
- Shareef, F. I., Habeeb, Z., Balasubramanian, K., Kumar, J., Konar, R., & Mohd Shahril, A. (2025). The Effects of COVID-19 on the Development and Well-being of the Maldives Guest House Community. *Pertanika Journal of Social Sciences and Humanities*, 33(S1). <https://doi.org/10.47836/pjssh.33.S1.08>
- Sharpley, R., & Ussi, M. (2014). Tourism and Governance in Small Island Developing States (SIDS): The Case of Zanzibar. *International Journal of Tourism Research*, 16, 87–96. <https://doi.org/10.1002/jtr.1904>
- Shenaan, M., & Schänzel, H. (2024). The Guesthouse Phenomenon in the Maldives – Development and Issues. *Tourism Cases*, p. tourism202400010. <https://doi.org/10.1079/tourism.2024.0010>
- Shiyar, I., Adnan, H., Mukhthar, A. A., Naseer, H., Sabah, H., Shirumeen, A., Solih, Z., & Rasheed, M. S. (2023). Workforce localisation in the resort sector of the Maldives. *The Maldives National Journal of Research*, 11(2), 40–64. <https://doi.org/10.62338/9ytgw295>
- Soulard, J., Lundin, E., & Zou, S. S. (2024). Exploring inclusivity perceptions among residents: insights from rural tourism destinations. *Journal of Sustainable Tourism*, 32(12), 2580–2602. <https://doi.org/10.1080/09669582.2023.2295815>

- Tosun, C. (2000). Limits to community participation in the tourism development process in developing countries. *Tourism Management*, 21(6), 613–633. [https://doi.org/10.1016/S0261-5177\(00\)00009-1](https://doi.org/10.1016/S0261-5177(00)00009-1)
- Williamson, J. E., Byrnes, E. E., Clark, J. A., Connolly, D. M., Schiller, S. E., Thompson, J. A., Tosetto, L., Martinelli, J. C., & Raoult, V. (2017). Ecological impacts and management implications of reef walking on a tropical reef flat community. *Marine Pollution Bulletin*, 114(2), 742–750. <https://doi.org/10.1016/j.marpolbul.2016.10.069>
- Winters, Z. S., Crisman, T. L., & Dumke, D. T. (2022). Sustainability of the Water-Energy-Food Nexus in Caribbean Small Island Developing States. *Water*, 14(3), 322. <https://doi.org/10.3390/w14030322>
- Wong, P. P. (2018). Coastal Protection Measures – Case of Small Island Developing States to Address Sea-level Rise. *Asian Journal of Environment & Ecology*, 1–14. <https://doi.org/10.9734/AJEE/2018/41019>
- Woodworth, P. L. (2005). Have there been large recent sea level changes in the Maldives Islands? *Global and Planetary Change*, 49(1), 1–18. <https://doi.org/10.1016/j.gloplacha.2005.04.001>
- Zubair, F. N. I., & Bouchon, F. (2014). Maldives as a Backpacker’s Destination: Supply and Demand Perspectives. *Procedia - Social and Behavioral Sciences*, 144, 256–263. <https://doi.org/10.1016/j.sbspro.2014.07.294>
- Zubair, S., Bowen, D., & Elwin, J. (2011). Not quite paradise: Inadequacies of environmental impact assessment in the Maldives. *Tourism Management*, 32(2), 225–234. <https://doi.org/10.1016/j.tourman.2009.12.007>
- Zuhair, M. H., & Kurian, P. A. (2016). Socio-economic and political barriers to public participation in EIA: implications for sustainable development in the Maldives. *Impact Assessment and Project Appraisal*, 34(2), 129–142. <https://doi.org/10.1080/14615517.2016.1176404>

Ez a mű a Creative Commons Nevezd meg! – Ne add el! – Ne változtasd! 4.0 nemzetközi licence-feltételeinek megfelelően felhasználható. (CC BY-NC-ND 4.0)

<https://creativecommons.org/licenses/by-nc-nd/4.0/>

This open access article may be used under the international license terms of Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 (CC BY-NC-ND 4.0)

<https://creativecommons.org/licenses/by-nc-nd/4.0/>

