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Developing a sustainable destination policy framework for Indonesia's spice route: balancing heritage conservation and tourism development

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Abstract. Indonesia's historic Spice Route represents an invaluable cultural heritage asset with significant potential for sustainable tourism development. This research examines the development of a comprehensive policy framework for transforming Indonesia's Spice Route into a network of sustainable tourism destinations that balance heritage conservation with economic development. The study employed a qualitative methodology combining in-depth interviews, direct observations, and document analysis across three strategic locations: the Banda Islands, Banten, and Aceh, selected for their historical significance in international spice trade networks. Data collection involved multiple stakeholders including government officials from the Ministry of Education and Culture, tourism managers, local communities, and industry practitioners. Findings reveal that Indonesia possesses exceptional spice heritage assets, including 60 species of valuable spices, historical trading infrastructure, and rich culinary traditions that offer significant tourism potential. However, seventeen major challenges impede sustainable development, with infrastructure and facility limitations, public awareness deficits, stakeholder coordination issues, ineffective promotional strategies, environmental concerns, and funding constraints identified as primary barriers. The research concludes that successful Spice Route tourism development requires integrated policy interventions that address institutional capacity, infrastructure development, community empowerment, and promotional strategies simultaneously. The proposed policy framework provides a roadmap for leveraging Indonesia's unique spice heritage while ensuring sustainable economic benefits, cultural preservation, and environmental stewardship.

Keywords. sustainable tourism, spice route, policy development

Introduction

Indonesia, known as the archipelago of Nusantara, has a long cultural history and holds a strategic position along international maritime routes (Ardiwidjaja, 2021). Archaeological findings from the University of Washington on Ay Island, Central Maluku, reveal the use of nutmeg as a food ingredient dating back 3,500 years, affirming the historic role of the Banda Islands in international spice trade networks (Rahman, 2019). This scientific evidence strengthens the position of the Spice Route as a symbol of maritime and agrarian civilization of

the Nusantara people, which according to Utomo (2016) even surpassed the fame of the Silk Road.

However, the management of the Spice Route destinations as part of Indonesia's cultural heritage still faces various challenges, particularly in ensuring their sustainability as history and culture-based destinations. Although the government has designated the Spice Route as a national program and proposed it as a UNESCO World Heritage site, the implementation of policies and management strategies has not yet been fully integrated into a sustainable destination framework. One of the main obstacles is the lack of coordination among various stakeholders, including central and local governments, local communities, and the private sector, in efforts to preserve and develop these destinations.

The development of the Spice Route has demonstrated positive impacts on Indonesia's economic potential, particularly in the spice trade sector. This is reflected in Indonesia's spice export data for January-April 2020, which reached US\$218.69 million, showing a significant increase of 19.28% compared to the same period in the previous year. Indonesia's achievements in the spice industry have also been internationally recognized, with the Food and Agriculture Organization (FAO) placing Indonesia fourth as a global spice-producing country in 2016 (Indonesian Ministry of Tourism, 2021).

This positive trend has continued into 2023, as indicated by data from the Central Statistics Agency (BPS), which recorded spice export volumes during the January-November 2023 period reaching 148.22 thousand tons, an increase of 29.77% compared to the same period in the previous year. Although the total export value experienced a slight decrease to USD564.12 million (down 4.16%), the significant increase in export volume indicates that global demand for Indonesian spices remains strong, even amid the phenomenon of declining aggregate spice prices. This confirms the economic sustainability potential of the Spice Route as a strategic asset in Indonesia's international trade.

This situation highlights the role of sustainable tourism in the development of tourist destinations along the Spice Route. Sustainable tourism is a concept, tool, or development approach that fully considers not only current and future economic, social, cultural, and environmental impacts but also takes into account the needs of tourists, industry, environment, and local communities in destinations (UNWTO, 2006). Sustainability-based tourism (Ardiwidjaja, 2021) is a complex and multidimensional concept, where tourism is not only considered an end goal but as a tool or approach to achieve broader objectives.

The conventional tourism development model, which tends to be economically-centric, has created numerous problems, one of which is the degradation of natural and cultural environments due to highly exploitative resource management. Over-tourism occupies the top position in the list of crucial issues due to its direct consequences on ecosystem sustainability, local infrastructure, and community quality of life. Over-tourism is a situation where tourism impacts at a certain time and in certain locations have exceeded the threshold of physical, ecological, social, economic, psychological, and political capacity (Cahyadi & Newsome, 2021). This often leads to environmental degradation that not only harms ecosystems but also reduces long-term tourist attraction (Feryl Ilyasa et al., 2020).

The paradigm shift and global tourism trends have encouraged tourism operations to always consider and prioritize the existence and sustainability of the environment, both natural and cultural. These changes have influenced tourism forms, which are divided into mass tourism and segmented tourism (niche market), known as special interest tourism or alternative tourism (Weiler and Hall, 1992). The government has shown its seriousness in supporting the development of sustainable tourism destinations through the issuance of the Minister of

Tourism and Creative Economy/Head of Tourism and Creative Economy Agency Regulation Number 9 of 2021. This regulation contains guidelines for sustainable tourism destinations designed in accordance with international standards from the Global Sustainable Tourism Council (GSTC).

The relationship between local food and tourism has received increasing attention from academics, policymakers, and industry practitioners (National Restaurant Association, 2020; Vorasiha, 2019; Wijanarti & Purusottama, 2022). The reason behind this lies in the complex relationship between local cuisine and destination identity. Specific to Indonesia, local cuisine and spices rich in cultural heritage and history offer potential that has not been fully utilized in the context of sustainable tourism (Ariwibowo et al., 2022; Fadillah et al., 2021; Meutia et al., 2019; Mildaniati, 2022). Additionally, the role of spices, which are an integral part of cuisine in the Indonesian region, has not been extensively researched in the context of "spice tourism," a form of food tourism that has great potential for development (Zhang, 2019). Spices not only function as food seasonings but also have antimicrobial properties and are used in various other industries such as cosmetics and pharmaceuticals.

Considering the urgent need for integrated sustainable tourism development (Butler, 1999; Ivars-Baidal et al., 2021), this study will focus on the potential of Indonesian spices and local food in enhancing economic, socio-cultural, and environmental sustainability in the region. This is important, especially since food is one of the most powerful aspects in expressing national, regional, and personal identity (Bessi re, 1998; Chang et al., 2010; Henderson, 2009). The management of spices in Indonesia to date is considered suboptimal, both in terms of production, distribution, preservation of cultural history, and their utilization in the creative economy and tourism sectors. In fact, Indonesia has a long history as a center of world spice trade, as depicted in the Spice Route, which was once an important axis in global economic and cultural dynamics. However, this potential has not been comprehensively integrated into sustainable tourism sector development policies.

Various studies show that the preservation and utilization of heritage such as the spice route can encourage the strengthening of cultural identity, empowerment of local communities, and the creation of authentic and educational tourism experiences. On the other hand, there are still challenges in terms of cross-sector coordination, minimal supporting infrastructure, and a lack of integrated strategies to make the spice route a leading tourist attraction. Therefore, a sustainable tourism development policy based on the spice route is needed that prioritizes the preservation of historical values, strengthening of the local economy, and responsible environmental management. This policy is expected to bridge the gap between historical heritage and current development interests, while also making the spice route a model for the development of sustainable and inclusive thematic destinations.

This research aims to analyze how Indonesia's spice heritage and local culinary traditions can be preserved and promoted through contemporary sustainable tourism practices, identify challenges and barriers hindering the successful integration of spice and culinary tourism with sustainable tourism development, and develop a comprehensive policy model that transforms Indonesia's historic Spice Route into a network of sustainable tourism destinations while balancing heritage conservation, economic development, social inclusivity, and environmental protection to establish the Spice Route as a distinctive, high-value tourism asset for Indonesia.

Theoretical framework

Sustainable Tourism Development

The concept of sustainable tourism development is grounded in the broader framework of sustainable development, which serves as a central foundation for contemporary development approaches. According to Streimikiene et al. (2020), tourism plays a significant role in economic, environmental, and social aspects of the modern world, necessitating that the sector's development carefully consider these three dimensions of sustainability. Tourism's influence extends to economic growth, rural and urban regional development, employment opportunities, environmental conditions, and overall sustainability. However, managing these impacts requires careful balancing between ecosystem benefits and the preservation of social and cultural identities (Roxas et al., 2020). Hardy, Beeton, and Pearson (2002) observe that within the sustainable tourism industry, emphasis is often placed on environmental and economic impacts, while aspects related to tourism's influence on communities receive inadequate attention. Streimikiene et al. (2020) suggest that competitiveness concerns and environmental and social issues arising from sustainable tourism development can be addressed simultaneously by implementing innovations and promoting sustainable principles that contribute to the welfare and needs of local communities while prioritizing sustainable tourism development. Angelevska-Najdeska and Rakicevik (2012) assert that sustainable development can only succeed when its four elements: economic, social, cultural, and environmental aspects—maintain balanced interests, power, and interconnections without any single element dominating the others.

Institutional Theory in Sustainable Tourism Development

Institutional theory provides a critical framework for understanding how formal and informal governance structures influence sustainable tourism development. Quality institutions can enhance environmental quality through the implementation of good governance practices and policies that support emission reduction and renewable energy utilization (Bekun et al., 2021). The environmental performance in tourism is significantly influenced by policies governing waste management and natural resource conservation, highlighting the crucial role of institutional frameworks in achieving sustainability objectives (Usman et al., 2020; Musa et al., 2021). The success of sustainable tourism destination development depends fundamentally on effective governance through interaction and collaboration among various stakeholders, including government entities, business sectors, and local communities (Roxas et al., 2020; Rasoolimanesh et al., 2020). Higher education institutions also play a significant role in building relationships between tourists and local stakeholders, potentially contributing to economic sustainability through education-based tourism initiatives (Tomasi et al., 2020).

Furthermore, collaborative strategies between administrative bodies and political sectors are key to creating social value and environmental sustainability in tourism contexts (Li et al., 2022). Consistent and coherent policies are essential for enhancing the competitiveness of tourism destinations and maximizing sustainable economic benefits (Khan et al., 2020). This underscores the importance of well-designed institutional arrangements and policy frameworks in achieving the triple bottom line of sustainable tourism development: economic prosperity, social equity, and environmental protection.

Sustainable Tourism Development Policy

Tourism policy frameworks serve as essential mechanisms for guiding sustainable destination management and development in today's competitive global landscape. National

tourism policies function as promotional instruments designed to increase tourist arrivals with the ultimate objective of enhancing destination image and competitiveness (Gun and Var, 2002:106). These policies are systematically structured into programs, implemented as projects, and realized through activities executed by government entities, local communities, or collaborative partnerships between stakeholders (Syukri, Fithra, and Akmal, 2022). The formulation of effective tourism policies represents a crucial responsibility for governments seeking to develop and maintain tourism as an integral component of their economic development strategy (Gee, 2000:28).

The implementation of sustainable tourism development extends beyond merely transforming public perspectives; it fundamentally aims to apply sustainable tourism principles through carefully crafted policy frameworks (Guo, Jiang, and Li, 2019). The concept of sustainable tourism policy constitutes a holistic approach to tourism management that integrates ecological integrity, social equity, and economic viability considerations (Damiasih, 2023). Within this framework, natural and cultural resources are recognized as key assets in tourism destination development, necessitating responsible stewardship through comprehensive policies that ensure their preservation and enhancement (Khan, et al., 2021).

For specific contexts such as Indonesia's Spice Route, Ardiwidjaja (2021) has developed a strategic framework for sustainable destination development that incorporates three essential elements: systematic mapping and assessment of tourism components, robust education and interpretation initiatives, and effective sustainable destination governance mechanisms. The success of such tourism development initiatives depends significantly on the alignment between policies, planning processes, and management systems that collectively guide tourism development trajectories and determine the equitable distribution of benefits and impacts across stakeholders (Pazhuhan and Shiri, 2020; Dredge and Jamal, 2015). In this integrated approach, planning and policy function as complementary instruments that establish development directions and regulate the activities of tourism industry participants (Ariyani and Fauzi, 2022).

In the Indonesian context, the Sustainable Tourism Destination Guidelines established under the Minister of Tourism and Creative Economy Regulation Number 9 of 2021 provide a comprehensive reference framework for managing tourism destinations according to sustainability principles. These guidelines address four interconnected dimensions: sustainable management practices, socio-economic sustainability measures, cultural heritage preservation strategies, and environmental conservation protocols. Together, these policy elements create a robust foundation for developing tourism destinations that balance economic prosperity, social responsibility, cultural authenticity, and environmental stewardship in line with global sustainable development goals.

METHODOLOGY

This research will employ a comprehensive qualitative approach to gain an in-depth understanding of the dynamics and complexities involved in developing sustainable tourism destination policies for Indonesia's Spice Route. Through in-depth interviews, direct observations, and document analysis, the research will enable thorough exploration of the perspectives, experiences, and expectations of various stakeholders involved in the Spice Route tourism ecosystem, including tourists, tourism service providers, local communities, local SME operators, and policy makers. The qualitative methodology has been selected for its ability to provide deeper insights into local contexts, relationship dynamics among stakeholders, and factors influencing the success or failure of sustainable destination policy development

initiatives. This approach aligns with the complex nature of heritage tourism development, where cultural, historical, economic, and environmental factors are deeply intertwined.

The research will focus on three primary locations along Indonesia's historic Spice Route: Banda, Banten, and Aceh. These locations have been strategically selected based on their historical and strategic roles in the spice trade throughout the Indonesian archipelago, representing different geographical regions with distinct cultural and historical contexts within the broader Spice Route narrative. Data collection will combine multiple methods to ensure comprehensive coverage of the research questions. In-depth interviews with key stakeholders will capture nuanced perspectives on policy development challenges and opportunities. Direct observations at the selected destinations will provide first-hand insights into current tourism practices, infrastructure conditions, and heritage conservation efforts. Document analysis will examine existing policies, development plans, and historical records to understand the policy landscape and identify gaps in sustainable tourism development frameworks.

The research will employ several analytical techniques to process and interpret the collected data. Thematic analysis will identify patterns and recurring themes across stakeholder perspectives and observational data. SWOT analysis will systematically evaluate the strengths, weaknesses, opportunities, and threats associated with sustainable tourism development at each location. Policy modeling with foresight analysis will help develop forward-looking policy frameworks that anticipate future challenges and opportunities in spice heritage tourism development. This multi-faceted analytical approach, combining spice heritage analysis, triangulation analysis, analysis of challenges and barriers to Spice Route integration, and analysis of sustainable tourism policy development models, will provide a comprehensive foundation for developing evidence-based recommendations for sustainable tourism policy development along Indonesia's historic Spice Route.

Result and discussion

The analysis of sustainable tourism development policies for Indonesia's Spice Route reveals a complex interplay of historical significance, contemporary challenges, and future opportunities that requires careful consideration of multiple stakeholder perspectives and contextual factors. Through comprehensive examination of the three strategic locations—Banda, Banten, and Aceh—this research has identified critical patterns in how heritage preservation intersects with sustainable tourism development, highlighting both the immense potential of Indonesia's spice heritage as a tourism asset and the significant barriers that currently impede its optimal utilization. The findings demonstrate that while Indonesia possesses exceptional cultural and historical resources along its historic Spice Route, the translation of this heritage into sustainable tourism products requires nuanced policy interventions that address coordination challenges among stakeholders, infrastructure limitations, and the need for integrated approaches that balance economic development with cultural preservation and environmental sustainability. The following discussion examines these key themes and their implications for developing effective policy frameworks that can transform Indonesia's Spice Route into a model for heritage-based sustainable tourism development.

Spice Heritage

The analysis of Indonesia's spice heritage and local culinary traditions reveals a rich tapestry of historical significance, cultural uniqueness, and substantial potential for sustainable tourism development. The research findings demonstrate that Indonesia's spice and food

heritage possess distinctive historical and cultural characteristics that have played pivotal roles in global trade networks, positioning the archipelago as a central hub in international spice commerce.

The historical significance and role in spice trade demonstrate the enduring legacy of Indonesia's position in global commerce. Historical data indicate that numerous ancient ports along the Spice Route continue to function today, supported by diverse communities that maintain their cultural connections to maritime trade traditions. This continuity represents an invaluable asset for heritage tourism development, as these living communities provide authentic cultural experiences for visitors. Furthermore, research has identified at least 60 species of spices and aromatic plants with special value, offering significant opportunities for development as tourist attractions within agroforestry garden settings (Hakim et al., 2016). This biodiversity of spice varieties represents a unique competitive advantage that distinguishes Indonesia's spice heritage from other global destinations.

The historical remnants found throughout the Spice Route provide tangible evidence of Indonesia's central role in global spice trade. In the old city site of Banten Lama, historical artifacts such as French pepper warehouses, grinding turbines, and spice mills serve as physical testimonies to the sophisticated infrastructure that supported international spice commerce. The diplomatic correspondence sent by Sultan Ageng Tirtayasa to King Charles of England in 1664, accompanied by gifts of spices including black pepper and ginger as symbols of friendship and diplomacy, illustrates how spices transcended mere commercial value to become instruments of international relations and cultural exchange.

Contemporary spice tourism development has begun to realize the potential identified in historical analysis. The Banten Islands have emerged as attractive destinations for divers and spice enthusiasts, leveraging both marine biodiversity and spice heritage. The extraordinary underwater wealth of these islands, combined with the diverse natural and cultural potential at coastal points along the Spice Route, positions tourism as a powerful tool for establishing Indonesia as a global maritime tourism destination (Siregar and Mochtar, 2022). This development demonstrates how intercultural interaction and idea exchange continue to influence not only cultural development but also economic activities (Ariwibowo et al., 2021). The historical dependence of Banten's economy on spice trade, particularly pepper, while requiring food imports from other islands, illustrates both the specialization that made these regions wealthy and the interconnectedness that characterized the spice trade network.

The culinary heritage and cultural legacy component reveals how spice heritage has been preserved and transformed through local cuisine. Indonesian cuisine, renowned for its variety and flavor complexity, has been shaped by natural, historical, and cultural factors that reflect the archipelago's position at the crossroads of global trade routes (Wijaya, 2019). Traditional dishes such as Rabeg from Banten, representing a culinary heritage from the Sultanate era, demonstrate how spice knowledge has been preserved and transmitted through generations via food culture. These culinary traditions serve as living museums that maintain historical knowledge while providing authentic cultural experiences for visitors.

The integration of spice heritage preservation with sustainable tourism promotion offers significant potential for generating economic, social, and cultural benefits for Indonesian communities. The emergence of spice tours, which provide unique experiences visiting spice farms and production facilities, represents a growing niche tourism market that capitalizes on Indonesia's competitive advantages (Datta, 2022). This development indicates a promising pathway for transforming historical assets into contemporary economic opportunities while maintaining cultural authenticity and environmental sustainability.

Challenges and Barriers in Integrating Spice and Local Food Tourism with Sustainable Tourism Development

The identification of challenges and barriers in integrating spice and local food tourism with sustainable tourism development across the Banda Islands, Banten, and Aceh, coupled with insights from Ministry of Education and Culture experts, reveals a complex web of interconnected obstacles that significantly impede the realization of Indonesia's spice heritage tourism potential. These challenges manifest across multiple dimensions, creating systemic barriers that require comprehensive and coordinated solutions.

Infrastructure and facility development emerges as a primary constraint limiting the accessibility and viability of spice tourism destinations. The inadequate accessibility to historical sites and spice routes in Banten, characterized by poor road conditions and limited public transportation systems, creates fundamental barriers that prevent tourists from experiencing the rich heritage of these locations. This infrastructure deficit is compounded by insufficient tourism facilities, including hotels, restaurants, and entertainment venues around historical sites and spice routes, making it difficult for visitors to find appropriate accommodations that meet their needs. The lack of basic infrastructure creates a cascade effect, where even the most compelling cultural and historical assets remain underutilized due to practical accessibility challenges.

Educational and awareness challenges represent another critical dimension that undermines sustainable spice tourism development. The research findings indicate insufficient public awareness regarding the importance of spice and local food heritage in Indonesia's trading history, creating difficulties in promoting this heritage as a tourist attraction. This awareness gap is further exacerbated by educational curricula that inadequately address spice and local food history and culture, resulting in younger generations who are ill-equipped to recognize and appreciate this heritage. The educational deficit creates a vicious cycle where communities cannot effectively serve as cultural ambassadors for their own heritage, limiting the authenticity and quality of tourism experiences while reducing local ownership and pride in cultural assets.

Coordination and collaboration deficiencies between government levels and private sector entities constitute significant structural barriers to sustainable development. The ineffective cooperation between regional and central governments in supporting the development of historical sites, spice routes, and tourism facilities results in resource allocation challenges and fragmented development approaches. Similarly, limited private sector collaboration in developing essential tourism infrastructure such as hotels, restaurants, and supporting facilities constrains the comprehensive development required for sustainable tourism ecosystems. These coordination failures reflect deeper institutional weaknesses that prevent the holistic planning and implementation necessary for successful heritage tourism development.

Research and conservation program inadequacies pose long-term threats to the sustainability of spice heritage tourism. Insufficient continuous research and conservation programs to study and understand spice history and trading heritage in Indonesia limit the depth of knowledge available for tourism interpretation and education. The lack of comprehensive heritage conservation efforts for spices and historical sites creates risks of heritage loss or deterioration, potentially eliminating the very assets upon which sustainable tourism development depends. This research and conservation deficit undermines both the authenticity of tourism experiences and the long-term viability of heritage-based tourism products.

Marketing and promotional challenges significantly limit the visibility and attractiveness of Indonesia's spice heritage tourism offerings. Ineffective marketing programs for promoting spice heritage and historical sites fail to reach target audiences and generate sufficient tourist interest. The lack of innovative promotional strategies that fail to achieve expected tourist engagement targets reflects a broader disconnect between heritage assets and contemporary tourism marketing practices. These promotional deficiencies are particularly problematic in today's competitive global tourism market, where destinations must actively compete for visitor attention and engagement.

The comprehensive analysis reveals that heritage development challenges span multiple interconnected areas, from physical infrastructure and educational foundations to institutional coordination and promotional effectiveness. The insufficient development of spice route connections, cultural heritage preservation, culinary heritage promotion, historical site conservation, and sustainable tourism frameworks creates a fragmented landscape where individual efforts fail to achieve cumulative impact. The recurring theme of inadequate development across various heritage dimensions—including cultural heritage, culinary traditions, historical sites, international trading heritage, and sustainable development frameworks—indicates systematic underinvestment in the foundational elements necessary for successful heritage tourism development.

These interrelated challenges demonstrate that successful integration of spice and local food tourism with sustainable tourism development requires comprehensive, coordinated approaches that address infrastructure, education, governance, research, marketing, and heritage preservation simultaneously. The complexity and interconnectedness of these barriers suggest that piecemeal solutions will likely prove insufficient, necessitating integrated policy frameworks that can address multiple challenge dimensions coherently and sustainably.

Policy Model Analysis for Transforming the Spice Route into Indonesia's Tourism Destination

The development of a comprehensive policy model for establishing Indonesia's Spice Route as a sustainable tourism destination employed prospective analysis methodology, beginning with the identification and selection of driving factors through collaborative processes involving key stakeholders. Focus Group Discussions (FGD) with experts from the Ministry of Education and Culture, tourism managers from the Banda Islands, Banten, and Aceh revealed the necessity of establishing the Spice Route as an integrated tourism destination that encompasses culinary tourism, cultural tourism, maritime tourism, and historical tourism components.

The prospective analysis identified and prioritized driving factors according to their significance and importance, establishing a hierarchical framework consisting of institutional reorganization, institutional strengthening, local community involvement as partners, financial incentives for tourism industry actors, culinary tourism, maritime tourism, and cultural tourism. Through in-depth interviews and stakeholder FGDs, the relationships between these factors were assessed, revealing the interconnected nature of sustainable tourism development within the spice heritage context.

The analysis positioned maritime tourism as the determining or driving factor for the success of the Spice Route tourism destination model, while institutional reorganization, institutional strengthening, inter-institutional relationships, local community involvement as business actors, incentive and disincentive funding, cultural tourism, and culinary tourism function as supporting factors for model success. This positioning reflects the maritime heritage

foundation of the historic Spice Route, where oceanic connectivity enabled the cultural and economic exchanges that created the heritage assets now available for tourism development.

The scenario development for the Spice Route policy model towards sustainable tourism destinations anticipates future policy frameworks through three operational conditions. Condition 1 represents scenarios where key factors operate without external intervention, essentially maintaining current trajectories. Condition 2 involves limited intervention that does not extend to site-level implementation, representing partial policy engagement. Condition 3 represents integrated and optimal operation of key factors, based on comprehensive intervention strategies that address systemic challenges holistically.

Table 1 Key Factors and Future Conditions

No	Key Factors	Future Condition 1	Future Condition 2	Future Condition 3
1	Institutional Reorganization	No reorganization	Reorganization at the national level for the spice route	Reorganization at the provincial level
2	Institutional Strengthening Program	No institutional strengthening program	Institutional strengthening program is implemented but not optimal	Institutional strengthening program based on provincial-level needs
3	Inter-Institutional Relations	Weak inter-institutional relations	Relations exist but lack collaboration	Established collaboration among institutions
4	Local Community Involvement as Partners	Weak involvement merely to fulfill obligations	Moderate partner involvement	Involvement to build integrated and sustainable tourism
5	Incentive Funding for Tourism Industry	No incentive or disincentive funding	Incentive and disincentive funding not well implemented	Incentive funding available for businesses developing integrated tourism on the spice route
6	Culinary Tourism	Culinary offerings are still very basic	Culinary varieties have been developed by the community	Government provides assistance for culinary development
7	Marine Tourism	Marine tourism has not been developed	Marine tourism has been developed	Marine tourism developed in collaboration with business actors
8	Cultural Tourism	Cultural tourism has not been developed	Cultural tourism has been developed	Cultural tourism has been optimally developed

Based on these operational conditions, three distinct policy model combinations emerge to guide future development strategies. The business-as-usual model demonstrates no intervention in key factors, utilizing factor combinations that maintain existing approaches without strategic enhancement. The current Spice Route destination policy model shows partner involvement intervention, though this engagement remains suboptimal and fragmented,

representing partially implemented development strategies. The innovative Spice Route destination model incorporates strong, integrated intervention that addresses sustainability requirements across economic, social, and ecological dimensions through coordinated engagement of communities, business actors, government entities, and private companies.

The operational scenarios for transforming the Spice Route into a sustainable tourism destination require comprehensive examination across multiple sustainability dimensions. Social and economic sustainability aspects demand provincial-level reorganization coordinated with central government initiatives, institutional strengthening programs that enhance capacity according to identified needs, and meaningful community involvement as business actors along coastal areas of the Spice Route. This community engagement serves as the cornerstone of model success, recognizing that local populations represent the most authentic interpreters and guardians of spice heritage.

Integrated tourism aspects encompass the optimization of culinary tourism, maritime tourism, and cultural tourism components that currently remain underdeveloped despite their potential for creating comprehensive destination experiences. The central government's role proves crucial in establishing the Spice Route as a sustainable tourism destination, requiring coordinated support from business actors and communities to achieve integrated development objectives.

Effective management and sustainable funding aspects emerge through inter-institutional relationships and incentive funding mechanisms, requiring coordinated efforts among multiple government levels and agencies. The Ministry of Human Development and Cultural Affairs Coordination, through its Deputy for Mental Revolution, Cultural Advancement, and Sports Achievement Coordination, promotes the Spice Route Priority Program as cultural development and utilization initiative. This program requires agreement and synergy among related ministries and institutions to support Spice Route success while accelerating UNESCO World Heritage recognition. Consequently, inter-agency and inter-ministerial cooperation becomes critical for establishing the Spice Route as a sustainable tourism destination.

The policy model demonstrates that successful transformation of Indonesia's Spice Route into a sustainable tourism destination requires integrated approaches that address institutional capacity, community engagement, tourism product development, and inter-governmental coordination simultaneously. The model's emphasis on maritime tourism as the driving factor, supported by comprehensive institutional and community engagement strategies, provides a framework for leveraging Indonesia's unique spice heritage while ensuring long-term sustainability across economic, social, and environmental dimensions.

Conclusions

This research demonstrates that developing Indonesia's Spice Route as a sustainable tourism destination requires comprehensive policy interventions that address multiple interconnected challenges while leveraging the country's unique maritime heritage assets. The study reveals that current promotional efforts for establishing the Spice Route as a tourism destination encompass various initiatives including UNESCO World Heritage nomination, cultural goodwill activities, historical education and internalization programs, festival events, social media campaigns, and local community collaborations. However, these promotional activities remain fragmented and require more strategic coordination to achieve optimal impact.

The identification of seventeen distinct challenges and barriers reveals the complexity of transforming heritage assets into sustainable tourism products. The primary obstacles include

inadequate infrastructure and facilities that limit accessibility and visitor experiences, followed by insufficient public awareness and education about spice heritage significance. Additional barriers encompass ineffective stakeholder coordination and management, suboptimal promotional strategies, environmental and social impact concerns, and funding limitations that constrain comprehensive development initiatives.

The proposed sustainable tourism destination policy model for the Spice Route offers an integrated approach that positions maritime tourism as the primary driving factor for success, recognizing the oceanic foundations of historical spice trade networks. This model is supported by seven complementary factors: institutional reorganization, institutional strengthening, inter-agency relationships, local community involvement as business operators, incentive and disincentive funding mechanisms, culinary tourism development, and cultural tourism enhancement. The model emphasizes that sustainable transformation requires simultaneous attention to economic viability, social inclusivity, and environmental stewardship while maintaining the authenticity of Indonesia's spice heritage.

The research concludes that successful implementation of sustainable Spice Route tourism policy requires coordinated interventions across institutional, community, infrastructure, and promotional dimensions, with maritime tourism serving as the foundation for integrated destination development that can preserve cultural heritage while generating sustainable economic benefits for local communities.

Declaration of generative ai and AI-assisted technologies in the writing process

In preparing this paper, the author(s) used CLAUDE.AI for translating Indonesian to English ensures faster, more accurate, and context-aware translations. Following the use of this tool/service, the author(s) have reviewed and edited the content as necessary and take full responsibility for the content of the published article.

This statement does not apply to the use of basic tools such as grammar, spelling and reference checking tools. If authors have nothing to disclose, they do not need to add a statement.

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