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Alignment and Coherence of Tourism Related Policies to Policy Instruments on Sustainable Waste Management at Hotels in Zanzibar

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ABSTRACT

This study investigates the alignment and coherence of four tourism-related policies in Zanzibar—Tourism Policy, Environmental Management Policy, Investment Policy, and Blue Economy Policy—with policy instruments for sustainable waste management in hotels. Employing an exploratory research design, the study used Qualitative Document Analysis (QDA) and content analysis of the policy documents, guided by indicators of policy instruments derived from the literature. Findings show a strong alignment of all four policies with legal and regulatory instruments, but limited alignment with economic incentives, informational tools, and voluntary (partnership-based) instruments. The policies also exhibit partial coherence, which hampers effective resolution of hotel waste management challenges. The study underscores the need for a comprehensive policy review to enhance alignment and coherence with sustainable waste management

instruments, ultimately supporting the development of environmentally responsible hotel practices in Zanzibar.

Keywords: Sustainable waste management; policy instruments; policy alignment; policy coherence; Zanzibar hotels.

INTRODUCTION

The critical role of policies, particularly those addressing environmental sustainability, is universally recognized. These frameworks guide decision-making processes and shape behaviors to achieve specific societal goals when implemented effectively. Established by governments, institutions, or organizations, policies serve as essential tools for directing actions and ensuring rational outcomes within particular sectors. They operate across various levels of governance, from local to national scales, addressing targeted issues while regulating stakeholder conduct.

The challenge of solid waste management within tourism represents a complex, cross-sectoral issue that demands comprehensive policy solutions. In Zanzibar's context, the management of hotel waste currently falls under several broader policy frameworks rather than benefiting from dedicated legislation. This study focuses on four key policy documents that significantly influence sustainable tourism development: the National Tourism Policy, Environmental Management Policy, Zanzibar Investment Policy, and Blue Economy Policy. These were selected for their direct relevance to tourism operations and environmental sustainability in hotel settings.

Proper waste management policies play a vital role in environmental protection, preventing contamination of crucial natural resources. Effective policy frameworks are necessary to address the environmental impacts of waste, with well-structured regulations proving essential for pollution control and ecosystem preservation. The consequences of inadequate waste management extend beyond environmental damage, posing serious public health risks through disease vectors and toxic exposure.

Conversely, well-designed waste policies can generate significant economic benefits while addressing environmental concerns. Sustainable waste practices create opportunities for energy generation, recycling industries, and job creation, contributing to broader economic development. Environmentally sound waste treatment methods also help mitigate climate change by reducing harmful emissions compared to traditional disposal approaches. However, policy development in developing nations often encounters obstacles due to limited technical capacity and expertise. This makes thorough policy analysis particularly valuable for identifying weaknesses, improving coordination between instruments, and enhancing overall governance effectiveness. Such examinations typically consider various aspects including policy objectives, implementation mechanisms, comparative effectiveness, and evolving trends.

This research specifically investigates how Zanzibar's tourism-related policies align with four fundamental policy instruments - legal, economic, informational, and voluntary approaches. The study seeks to determine the current level of policy coherence while identifying opportunities for improvement in addressing hotel waste management challenges. By examining these dimensions, the analysis aims to contribute to more effective and integrated policy solutions for sustainable tourism development.

THEORETICAL FRAMEWORK FOR POLICY INSTRUMENT ANALYSIS

This study employs an established policy analysis framework that organizes policy instruments into four distinct categories: regulatory, economic, informational, and volun-

tary approaches (Bemelmans-Videc et al., 2011; Howlett, 2024). This classification system enables systematic evaluation of policy effectiveness and informs implementation strategies for sustainable waste management.

Regulation or legal instruments

The foundation of environmental governance rests on Legal/regulatory instruments, commonly referred to as command-and-control mechanisms (Bell et al., 2017). These legally binding measures establish specific prohibitions, mandate technologies, or set environmental performance standards (Malloy, 2010). Regulatory approaches typically employ environmental quality standards, technical specifications, and restrictions to modify stakeholder behavior (Ulibarri et al., 2022). Through monitoring systems and sanctions for non-compliance, these instruments provide clear behavioral expectations and enforcement mechanisms.

Economic Policy Instruments

Market-based economic instruments create financial incentives to align private decision-making with societal environmental goals (Tietenberg & Lewis, 2020). These tools address market failures by internalizing environmental externalities into pricing structures, thereby discouraging resource overuse and pollution (Tietenberg & Lewis, 2020). Common applications include pollution taxes, financial incentives for sustainable practices, tradable permit systems, and deposit-refund programs that encourage product returns for recycling (Ulibarri et al., 2022). By altering cost-benefit calculations, economic instruments promote voluntary adoption of environmentally preferable behaviors.

Informational Policy Instruments

Informational approaches leverage knowledge dissemination and transparency requirements to influence decision-making (Xiong et al., 2023). The digital revolution has significantly enhanced the cost-effectiveness of these instruments through improved information distribution channels (Xiong et al., 2023). Governments implement informational strategies through public awareness campaigns, policy guidance documents, and mandatory disclosure requirements.

Regulated entities may be compelled to report environmental metrics such as waste generation or energy consumption, enabling stakeholders to make informed sustainability choices (Ulibarri et al., 2022). The efficacy of these instruments depends on both the quality of information provided and the receptiveness of target audiences (Li, 2018; Xiong et al., 2023).

Voluntary Policy Instruments

Voluntary agreements facilitate environmental improvements through commitments that exceed regulatory requirements (DeLeon & Rivera, 2010). These collaborative arrangements can take various forms, including unilateral commitments by polluters, private agreements between affected parties, or negotiated industry standards (Ulibarri et al., 2022). While lacking legal enforcement mechanisms, voluntary approaches can drive innovation and achieve environmental performance beyond minimum compliance levels when participants have sufficient motivation.

Integrated Policy Instrument Approach

The framework recognizes that effective environmental governance requires strategic combinations of different instrument types. Regulatory measures establish baseline requirements, while economic incentives encourage performance beyond compliance. Informational campaigns build understanding and support, and voluntary initiatives

foster collaborative problem-solving (Ulibarri et al., 2022). This balanced approach creates multiple pathways for achieving sustainability goals while accommodating diverse stakeholder needs and capacities within Zanzibar's hotel sector. The optimal policy mix depends on careful consideration of contextual factors including specific waste management challenges, institutional capabilities, and stakeholder characteristics. A summary of the policy instrument, their description and indicators adopted for use in this study is shown in Table 1.

Table 1: Description of policy instruments

Policy Instrument	Descriptions	Indicators
Legal/Regulation	Legislation or policy requiring or limiting actions.	<ul style="list-style-type: none"> - Quality standards - Technical/emission standards - Restriction - Bans - Control regulations
Economic incentive	Utilization of taxes, subsidies, insurance, or alternative financial related methods to change behavior	<ul style="list-style-type: none"> - Polluter pay principle (Taxes, use charges) - Internalizing external cost (Subsidies, soft loans, Tax reduction) - Tradable permit schemes (Tradable quota, tax reduction) - Deposit refund schemes
Information based	Efforts to enhance awareness or advocate for specific actions by providing information	<ul style="list-style-type: none"> - Government information provision (General and specific targets) - Information disclosure (data on waste generation, toxic waste subsidies, consumption, less sustainable options) - Public awareness campaigns - Education and information dissemination
Voluntary instruments Partnership/Networks	Collaborative efforts among players in the tourism industry and networks or organizations to device and execute waste management strategies	<ul style="list-style-type: none"> - Self-regulation - Unilateral commitment (Polluters) - Partnerships and Private agreements (Polluter and affected) - Negotiated agreements (Strong legislative power) - Voluntary programmes (ISO 14000 series, agreement on standards)

Source: (Ulibarri et al., 2022)

METHODOLOGY

The study used Qualitative Document Analysis (QDA) approach to analyze the alignments and coherence of the tourism related policies to policy instruments on sustainable waste management in Zanzibar. QDA is deemed to be a very useful approach in exploring and gaining deeper insights of documental materials based on the context of

research question (Bowen, 2009; Miles et al., 2014; Yin, 2018). Due to limited availability of literature on tourism policy instruments alignment and coherence with special reference to sustainable waste management in Zanzibar, the study, therefore adopted an exploratory research design, which is regarded as a foundation approach and flexible groundwork for investigating relatively new phenomenon (Babbie, 2021; Yin, 2018).

The study adopted a structured eight steps of QDA as provided by O’Leary (2017), which are gathering relevant texts, developing an organization and management scheme, making copies of the originals for annotations, assessing the authenticity of document, exploring document’s agenda, exploring background information (eg. tone, style, purpose), ask questions about the document (who produced it? Why? When? Type of the data?) and exploring the content.

In the first step of gathering relevant texts, the four policies, which are related to the waste management in tourism sector on Zanzibar were identified. These policies includes the National Tourism Policy, Environmental Management Policy, Zanzibar Investment Policy, and Blue Economy Policy. This first step also identified literature relevant to policy instruments. The major criteria for selecting these policies were the explicit major objective of these policies which is tourism sustainability and specifically sustainable tourism development and waste management in tourism sector (Bramwell & Lane, 2011; Dodds & Butler, 2010). In the second step, an organization and management scheme was developed to simplify the process of analyzing multiple policies. In this step, four commonly used instruments were identified (legal, information, economic incentives, voluntary initiatives/partnerships) and scoring criteria were developed (Table 2 and 7). In the third step, the policy documents were gathered electronically to facilitate the process of annotation during data collection. The fourth step involved making sure that the policy documents were from relevant authorities in Zanzibar to ensure the authenticity of the policy documents. The fifth step involved the exploration of the policy document agenda with special reference to the sustainable solid waste management in tourism sector in Zanzibar.

The sixth step involved the exploration of background information especially the purpose of the policy document in relation to the tourism sector. The seventh step involved exploring the actual contents of the policy documents. In the process, O’Leary (2017) proposes the use of interview technique where the researcher is argued to treat the policy document as respondent. In due course of the process the researcher asks questions, about the availability of policy instruments in the policies and then highlights answers in the text and noted the occurrences policy instruments concepts (O’Leary, 2017). The eighth step involved the exploration of the findings in terms of alignment and coherence and making sure that content is not distorted from the original policy document. Table 2 indicates the scoring criteria for waste management related policies alignments in Zanzibar.

Table 2: Scoring criteria for alignment of waste management related policies in tourism with policy instrument building blocks in Zanzibar

Type of Alignment	Description of Alignment	Score
High Alignment	The sector policy closely aligns and conforms to the indicators of policy instrument building blocks. It focuses on individual building blocks and outlines specific actions to achieve the particular block.	3
Partial Alignment	While the policy supports the different indicators of specific policy instrument building block, it lacks clarity regarding how these indicators and individual building blocks can be	2

	effectively realized. There is limited evidence demonstrating practical methods for achieving the specific indicators and building block outlined in the policy.	
Limited Alignment	The policy endorses a specific indicator of the policy instrument building blocks, but there is insufficient or lack of evidence to substantiate its alignment with it.	1
No Alignment	The document lacks evidence indicating that the policy either supports or promotes the implementation of the policy instrument building block.	0

Source: Modified from Gouais. & Wach (2013)

FINDINGS AND DISCUSSION

The first objective of this study was to assess how well Zanzibar's hotel waste management policies align with common policy instruments, which are legal, economic, informational, and partnership-based. Four key documents were analyzed using QDA: the Zanzibar Tourism Policy, Environmental Policy, Investment Policy, and Blue Economy Policy and the results are presented herewith.

Alignment of Tourism Related Policies to Policy Instruments

The first research question aimed to determine how well tourism-related policies align with key instruments for promoting sustainable waste management in Zanzibar's hotel sector. The following sections show the study findings.

Alignment of the Zanzibar Tourism Policy to policy instruments

The results revealed that tourism policy is partially aligned to legal/regulations policy instrument with a score of 2.5. Moreover, the policy possesses limited alignment with both economic instrument and information instrument with scores of 1.5 and 1, respectively. Further, the results indicated that tourism policy does align whatsoever with partnership instrument. With the overall average alignment score of 1.25, the tourism policy proved to possess limited alignment to the policy instruments in relation to sustainable waste management in Zanzibar hotels (Table 3).

Table 3: Tourism policy alignment scores to policy instruments on waste management in hotels in Zanzibar

Policy Instruments	Evidence of alignment	Score
Legal	1. Tourism business shall adhere to national and international regulations (Tourism Act 2009/2010) 2. Requirements for hotels on waste management (collection frequency, and higher standards for specific Hotels) (Zanzibar Tourism Regulations 2014).	2.5
Economic	3. Fines for committing waste related offences (The Zanzibar Tourism Act 2009/2010)	1.5
Information	4. Promotion of appropriate infrastructure for waste management in tourism industry (Zanzibar Tourism Policy 2017)	1
Partnerships	5. Nil	0

Overall Alignment with policy instruments	1.25 Limited alignment
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These results generally imply that the role played by tourism policy in addressing waste management in Zanzibar hotels is inadequate. Even though there are a few general statements in the policy such;

‘Tourists and visitors should not commit...any act considered criminal by the laws of the country and must abstain from any conduct ...likely to damage the local environment...’ (Revolutionary Government of Zanzibar, 2017)

and

‘The government should encourage the use of renewable energy and promote proper and appropriate infrastructure services required for waste management in the tourism sector.’ (Revolutionary Government of Zanzibar, 2017)

There is still a general lack of specific strategies and actions in the policy that might be essential in dealing with waste management in Zanzibar based hotels. Moreover, the policy does not place any necessary obligations to the hotel owners or investors that will necessitate their active involvement in management of wastes produced by their hotels. All these put together, translates into the fact that the tourism policy of Zanzibar is poorly aligned with policy instruments as far as waste management in the tourism sector, particularly hotels’ waste management, is concerned.

Alignment of the Zanzibar Environmental Policy to policy instruments

Concerning the environmental policy, the results revealed that the policy has high alignment to legal policy instrument with a perfect score of 3, limited alignment to economic policy instrument with a score of 1.5, partial alignment to information policy instrument with a score of 2.5 and high alignment with partnership policy instrument with a perfect score of 3 (Table 4). Generally, the environmental policy attained an overall average score 2.5 which exhibits that the policy has partial alignment to the policy instruments used in this study in relation to sustainable waste management in hotels in Zanzibar.

Table 4: Environmental policy alignment scores to policy instruments in hotel waste management in Zanzibar

Policy Instruments	Evidence of alignment	Score
Legal	<ol style="list-style-type: none"> 1. EIA, & Prevention of inadequate disposal (NEP 1992) 2. Mainstreaming environment and social concerns in tourism (ZEP 2013) 3. Government to ensure strong and intra and inter-sectoral coordination for effective environmental practices and law enforcement (ZEP 2013) 4. Intro to precautionary principle, Ecosystem integrity (Zanzibar Environmental Management Act 2015) 	3
Economic	<ol style="list-style-type: none"> 5. Fines for committing waste related offences Environmental Management for Sustainable Development Act (1996) 6. Promotion of polluter pay principles (Zanzibar Environmental Policy 2013) 	1.5

Information	7. Training environmental scientists and managers to implement the policy (National Environmental Policy for Zanzibar 1992). 8. Increase public knowledge on environment, responsible natural resources use and waste disposal (Zanzibar Environmental Policy 2013). 9. Guidelines on EIA contents for new activities (National Environmental Policy for Zanzibar 1992). 10. Maintain and use of organized Bank of environmental management information (National Environmental Policy for Zanzibar 1992).	2.5
Partnerships	11. Help local groups and institutions to devise self-help schemes for waste disposal (National Environmental management policy 1992) 12. Promotion of participatory eco-tourism planning and implementation (Zanzibar Environmental Policy 2013). 13. Introduction of principle of international co-operation in environmental management (common but differentiated responsibilities) (Zanzibar Environmental Management Act 2015). 14. Multi-stakeholder collaboration on improvement of waste (Zanzibar Environmental Policy 2013). 15. Intro of public participation in policies, plans and processes for managing environment (Zanzibar Environmental Management Act 2015). 16. Establish permanent monitoring programmes with areas dedicated to waste disposal (National Environmental Policy for Zanzibar 1992).	3
Overall Alignment with policy instruments		2.5 Partial alignment

Of the four policies that this study focused on, the ZEP exhibited the strongest alignment to the used policy instruments in promoting sustainable waste management in hotels in Zanzibar.

The policy highlights the legal frameworks, the economic tools, the informational strategies as well as the partnership initiatives to be implemented in order to enhance sustainable tourism practices relating to waste management in Zanzibar. However, the economic tools highlighted in the policy relies on more of a reactive approach than proactive, as they focus on fines and penalty payments for environmental polluters (Revolutionary Government of Zanzibar, 2013). Moreover, the information tools are less exhaustive of all necessary strategies and channels through which waste management awareness can be promoted among the community and the hotels in particular. Nevertheless, the policy lacks specific statements dealing with waste produced by hotels and whose impact on the Zanzibar environment is generally substantial (Maduhu & Makori, 2019).

Alignment of Zanzibar Investment Policy to policy instruments

The results (Table 5) indicated that investment policy possesses partial alignment to the legal policy instrument with a score of 2.5, but did not align with the rest of the instruments, i.e., economic instrument, information instrument, and partnership/voluntary initiatives instrument. The overall average score was 0.625,

indicating that this policy possesses a limited alignment with the policy instruments used in this study in addressing sustainable waste management in hotels in Zanzibar.

Table 5: Investment policy alignment scores to policy instruments in hotel waste management in Zanzibar

Policy Instruments	Evidence of alignment	Score
Legal	1. The government will be responsible for putting in place an effective regulatory framework in order to ... protect the environment and to guarantee quality of products 2. Investors are obliged to observe all environmental protection laws and regulations	2.5
Economic	3. Nil	0
Information	4. Nil	0
Voluntary initiative	5. Nil	0
Overall Alignment with policy instruments		0.625 Limited alignment

Surprisingly, the Zanzibar Investment Policy was the least aligned with the policy instruments used in this study in addressing the waste management in Zanzibar hotels. The policy only includes general statements touching the legal aspects of environmental protection in the investments made in Zanzibar as it states:

‘Investors are obliged to observe all environmental protection laws and regulations’
(Revolutionary Government of Zanzibar, 2004).

However, the policy does not make a good use of other important policy instruments that might be essential in addressing the environmental impact of investments made in the Zanzibar archipelago, such as the economic instrument, informational instrument and partnerships instruments (Bemelmans-Videc et al., 2011). Moreover, the policy does not specifically address the waste management issue, let alone the management of wastes produced by hotels in Zanzibar. For this reason, ZIP is deemed having a very limited alignment with the policy instruments with respect to sustainable waste management in hotels in Zanzibar.

Alignment of blue economy policy to policy instruments

Lastly, the results revealed the blue economy policy possesses high alignment to legal policy instruments with a perfect score of 3. Further, the policy was found to be partially aligned to both economic, information and voluntary initiatives policy instruments with the respective scores of scores of 2.5, 2 and 2 (Table 5). With the overall average score of 2.375, the results suggest that the blue economy policy has, generally, a partial alignment to the used policy instrument in relation to sustainable waste management in hotels in Zanzibar.

Table 6: Blue economy policy alignment scores to policy instruments in hotel waste management in Zanzibar

Policy Instruments	Evidence of alignment	Score
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Legal	<ol style="list-style-type: none"> 1. Ministry responsible for maritime transport to ensure the implementation of certain maritime laws under the International Maritime Organization responsible for the prevention of oil spill pollution through the Zanzibar Maritime Authority 2. Regulations in place to safeguard the environment from pollution and waste. 3. Strengthening law enforcement to protect MPAs in order to address illegal, unreported and unregulated fishing as well as to maintain coral reefs and mangroves 4. Strengthening the institutional and regulatory framework to conform with UNCLOS and emerging areas 5. In relation to wastewater management, hotels must have a septic tank with a soak pit 	3
Economic	<ol style="list-style-type: none"> 6. Ministry responsible for local government to enforce environmental policies through penalties, fees and recognitions for investors and local communities 7. Ensuring efficient, transparent and accountable collection and management of BE revenues (including fees and fines related to waste disposal) 8. Introducing a Blue Fund to facilitate the financing of BE-related programmes and projects (including waste management) 	2.5
Information	<ol style="list-style-type: none"> 9. Tourism-oriented establishments, such as hotels and restaurants, contribute disproportionately to waste production, representing roughly 80% of all waste generated in Zanzibar 10. Investing in local experts' capacity through the provision of training courses on O&G and RE (i.e., O&G and RE usage will help to reduce waste disposed to environment) 11. Facilitating and promoting the use of green energy in industries and investment areas (i.e., green energy will help to reduce waste disposed to environment) 12. Empowering local government authorities to carry out effective and sustainable waste collection, particularly in coastal areas with a high concentration of hotels and tourist activities 13. Undertaking research on the feasibility of introducing alternative sources of energy from the sea, including wind and tidal energy (i.e., alternative sources of energy will help to reduce waste disposed to environment) 	2
Voluntary initiatives	<ol style="list-style-type: none"> 14. Promoting RE use by improving coordination between the public sector and the private sector 	2

	<p>as well as NGOs through stakeholder consultations and collaborative ventures</p> <p>15. Ministry responsible for environment to conserve and protect artisanal and deep sea fishing from potential pollution and degradation in collaboration with other partners</p> <p>16. Creating a sustainable tourism label to encourage tourism-focused establishments to adopt sustainability practices, focusing on energy and carbon reduction; habitat and ecosystem improvement; water, sanitation and hygiene management as well as economic and social investments for the local population</p>	
Overall alignment with policy instruments		2.375 Partial alignment

Even though the results indicate that the blue economy policy has put to use at least every policy instrument used in this study to address environmental-related concerns in the Zanzibar archipelago, the policy has not achieved a high level of alignment with the tools in ensuring that waste produced by hotels is effectively managed. For instance, the policy has not put in place any unequivocal waste management framework that aims at reducing waste generation as well as establishing proper waste transformation and safe final waste disposal practices including reuse and recycling. Moreover, the policy does not stipulate clear strategies and actions specifically addressing the major waste producers in Zanzibar, i.e., tourism-based establishments such as hotels and restaurants, which contribute to about 80% of all waste generated in Zanzibar (Revolutionary Government of Zanzibar, (2020)).

The results (Table 7) indicate that the policies have a high alignment with the legal or regulations instrument with the overall average score of 2.75, while demonstrating limited alignment with the rest of policy instruments; i.e., economic, informational, and voluntary agreements, with the overall average score of 1.375, 1.375 and 1.25, respectively.

Table 7: Summary of policy alignment to policy instruments on sustainable waste management in hotels in Zanzibar

		Alignment Scores				
		Tourism Policy	Environmental Policy	Investment Policy	Blue Economy Policy	Average Score
Policy Instruments	Legal/Regulations	2.5	3	2.5	3	2.75
	Economic	1.5	1.5	0	2.5	1.375
	Information	1	2.5	0	2	1.375
	Partnerships/Voluntary Agreements	0	3	0	2	1.25

Schematically and in summary, Figure 1 shows the alignment of the four policies which are closely related to the waste management in the tourism industry and particularly in hotels on Zanzibar.

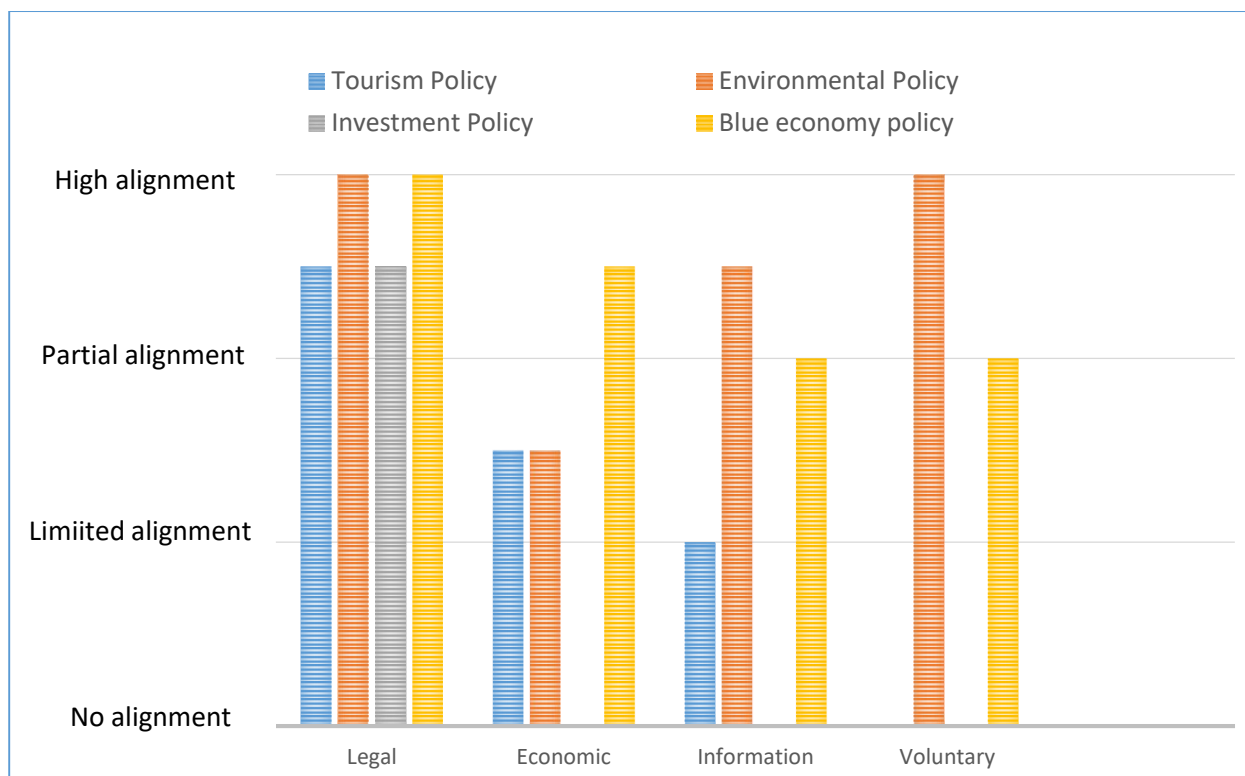


Figure 1: Alignment of tourism related policies to policy instruments on sustainable waste management in hotels on Zanzibar

Coherence Between Tourism-Related Policies on Sustainable Waste Management

After ascertaining the alignment of policies to policy instruments, an analysis was made to establish the coherence of policies among themselves in relation to sustainable management of waste generated by hotels operating in Zanzibar. The analysis of policy coherence was based on the scoring system presented in Table 8.

Table 8: Scoring system for policy coherence

Type of Coherence	Description of coherence	Score
High coherence	The policy aligns strongly with other policies. Policy devotes specific attention to alignments within these other policies in relation to waste management in tourism sector and particularly in hotels in Zanzibar. It includes numerous and detailed complementary activities (including projects) for achieving that.	3
Partial coherence	The specific policy supports other policies, although it is less clear and distinct as to how it could be achieved. Relatively fewer details and activities are included within the policy.	2
Limited coherence	The specific policy supports other policies. Lack of relative details in terms of activities and plans.	1
No coherence	There is no evidence in the policy to suggest alignment with other sectors.	0

Coherence between tourism policy and the other policies

Based on the used scoring system, tourism policy was found to be highly coherent with environmental policy with the perfect score of 3. Specifically, tourism policy recognizes that environmental conservation is crucial for the pursuit of quality and sustainable tourism, and provides specific details on the roles of the government, the ministries, the private sector, the NGOs and the general public in relation to environmental conservation and waste management through the statements such as;

‘...the ministry responsible for land, water, energy and environment will be responsible for regulations and procedures to mitigate environmental impacts of tourist developments’ (Revolutionary Government of Zanzibar, 2017).

Further, the policy highlights strategies for proper waste management in tourism sector as it intends to;

‘...to encourage the use of renewable energy and promote proper and appropriate infrastructure services required for waste management in the tourism sector’ (Revolutionary Government of Zanzibar, 2017).

The coherence score between the tourism policy and the investment policy was 1, indicating the limited coherence between the two policies. This implies that the tourism policy only highlights the importance of promoting investments in the tourism sector, but it lacks specific details in terms of plans and activities by the investors to deal with waste management. Further, the tourism policy did not indicate any sectoral coherence with the blue economy policy.

Generally, the Zanzibar tourism policy indicated limited coherence with the other three policies, with an average coherence score of 1.33.

Coherence between environmental policy and the other policies

With the coherence score of 3, the environmental policy was found to possess high coherence with the tourism policy as it clearly identifies environmental issues resulting from tourism activities such as destruction of the coastal habitats, increasing solid waste, littering and wastewater generation. The policy goes ahead to highlight the strategies to address these challenges through sectoral coordination by mainstreaming of environmental concerns into tourism projects and promotion of eco-tourism. This is exhibited by policy statements such as;

‘The Government will ensure strong coordination in the mainstreaming of environmental and social concerns into tourism projects through strategies such as strengthening the enforcement of national tourism zoning plan; promoting environmental and social assessment in the tourism projects; promoting best practices of waste management handling and disposal techniques; promoting participatory eco-tourism planning and implementation; promoting public awareness on environmental and social tourism practices; and promoting sustainable tourism for all’ (Revolutionary Government of Zanzibar, 2013).

Moreover, the ZEP was found to possess partial coherence with the investment policy with a coherence score 2. This is evidenced by the policy statements, which emphasizes the need for application of environmental assessment tools such as Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) to all investment and development projects before their establishment.

Further, the results indicated that the policy has a limited coherence with the blue economy policy with the coherence score of 1. This is because the environmental policy only identifies the need for protecting the coastal and marine environment, including marine natural resources and aquatic life, and restoring the ecological balance and integrity of the coastal and marine ecosystems, as well as establishing the Marine

Conservation Areas (MCAs). However, the policy lacks specific details on how the efforts might propagate a blue economy.

Overall, the Zanzibar environmental policy was found to possess an average coherence score of 2.0, which implies partial coherence between the policy and the other three policies in the study.

Coherence between investment policy and the other policies

The results indicated that the Investment policy has limited coherence with the tourism policy with a coherence score of 1. Actually, the investment policy acknowledges tourism as a promising sector for attracting private investments (Revolutionary Government of Zanzibar, 2004). It further highlights its objectives to strengthen tourism sector through provision of supporting services such as infrastructure, strengthening tourism institutions, promoting high quality tourism services, and attracting tourism investments in areas with strong linkages with other socio-economic activities (Revolutionary Government of Zanzibar, 2004). However, there is a lack of details on the specific plans and activities to accomplish these objectives and how these efforts result into waste management as related to tourism sector, particularly in Zanzibar based hotels.

Again, a coherence score between the investment policy and the environmental policy was 1, hence limited coherence. This is evidenced by general statements in the policy that aims at mobilizing investments that are environmentally sound and putting in place regulatory and legal framework that investors should observe to protect the environment. However, the policy does not provide details on strategies, activities or plans to accomplish, nor does the policy contain specific details concerning solid waste management, particularly, the waste produced by hotels.

In addition, the investment policy showed coherence score of 1 with the blue economy policy implying that the two policies have a limited coherence. The investment policy hints on its intention to transform the Zanzibar economy to a more diversified and semi industrialized economy, with emphasis on fishing and marine product processing. A few blue economy activities are highlighted in the policy such as to attract investments in deep-sea fishing, to promote investment in production of marine products and fish processing for both domestic and export markets. However, the policy lacks specific details on how these blue economy investments will handle waste management concerns, especially in the tourism sector. With an average coherence score of 1.00, the Zanzibar investment policy has shown an overall limited coherence with the other three policies involved in this study.

Coherence between blue economy policy and the other policies

The Zanzibar blue economy policy showed high coherence with the tourism policy with a coherence score of 3 in accordance with the used scoring system. The policy admitted that tourism-oriented establishments, such as hotels and restaurants, contribute disproportionately to waste production, representing roughly 80% of all waste generated in Zanzibar. It goes on to identify the plans to deal with the waste problem through the strategies stipulated in the policy such as:

‘...empowering local government authorities to carry out effective and sustainable waste collection, particularly in coastal areas with a high concentration of hotels and tourist activities’ (Revolutionary Government of Zanzibar, 2020).

Moreover, the blue economy policy has indicated to possess high coherence with the Zanzibar environmental policy, having a coherence score of 3. This is shown by the clear statements in the policy that recognizes the negative impact of blue economy activities on the environment and details specific actions to address the problems such as:

‘...enforcing environmental policies through penalties, fees and recognitions for investors’ and local communities’ initiatives to conserve the environment’ (Revolutionary Government of Zanzibar, 2020).

...facilitating and promoting the use of green energy and renewable in industries and investment areas in order to reduce waste disposed to environment (Revolutionary Government of Zanzibar, 2020).

...undertaking research on the feasibility of introducing alternative sources of energy from the sea, including wind and tidal energy so as to reduce waste disposed to environment (Revolutionary Government of Zanzibar, 2020)

...the Ministry responsible for environment to conserve and protect artisanal and deep sea fishing from potential pollution and degradation in collaboration with other partners (Revolutionary Government of Zanzibar, 2020)

Lastly, the results have indicated that the blue economy policy has a partial coherence with the investment policy having the coherence score of 2 according to the used scoring system. This is because the blue economy policy admits being informed by Zanzibar Investment Policy, which promote investments that are socially and economically beneficial as well as environmentally sound. However, the policy has not stipulated sufficient details concerning the activities and plans for achieving this goal.

Overall, the blue economy policy has exhibited an average coherence score of 2.67, which indicates a high level of coherence between this policy and the other three analyzed policies. Table 9, provides detailed results on coherence among the four policies involved in this study in relation to policy instruments to address sustainable waste management in hotels in Zanzibar.

Table 9: Coherence between policies on instruments to address solid waste problems in hotels on Zanzibar

Policy	Tourism Policy	Environmental Policy	Investment Policy	Blue Economy Policy
Tourism Policy	N/A	(3) Clearly identifies environmental issues resulting from tourism activities and highlights the strategies to address these challenges. Moreover, it emphasizes on the importance of sectoral coordination by mainstreaming of environmental concerns into tourism projects and promotion of eco-tourism.	(1) Acknowledges tourism as a promising sector for attracting private investments. It further highlights its objectives to strengthen tourism sector through provision of supporting services. However, there is a lack of details on the specific plans and activities to	(3) Admits that tourism-oriented establishments, such as hotels and restaurants, contributes to roughly 80% of all waste generated in Zanzibar, and goes on to identify the policy plans and activities to deal with the waste problem.

			accomplish these objectives. Moreover, the policy lacks details on waste management as related to tourism sector.	
Environmental Policy	(3) Recognizes that environmental conservations is crucial for the pursuit of quality and sustainable tourism, and provides specific details on the roles of the government, the ministries, the private sector, the NGOs and the general public in relation to environmental conservation and waste management.	N/A	(1) General statements on mobilizing investments that are environmentally sound and regulatory/legal framework that investors should observe to protect the environment, but without any details on strategies, activities or plans to accomplish it. Further, it lack details concerning solid waste management.	(3) Recognizes the negative impact of blue economy activities on the environment and details specific actions to address the problems.
Investment Policy	(1) Highlights the importance of promoting investments in tourism sector, but it lacks specific details in terms of plans and activities by the investors to deal with	(2) Promotes the need for application of environmental assessment tools such as Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) to all investment and	N/A	(2) Admits being informed by Zanzibar Investment Policy which promote investments that are socially and economically beneficial as well as environmentally sound.

	waste management.	development projects before their establishment.		
Blue Economy Policy	(o) No specific statement to suggest sectoral alignment with the blue economy policy.	(1) Identifies the need for protecting the coastal and marine environment, including marine natural resources and aquatic life, and restoring the ecological balance and integrity of the coastal and marine ecosystems, as well as establishing the marine conservation areas (MCAs). However, lacks the specific details on how the efforts might propagate blue economy.	(1) A general statement on transforming the Zanzibar economy to a more diversified and semi industrialized economy, with emphasis on blue economy activities such as to attract investments in deep sea fishing, to promote investment in production of marine products and fish processing for both domestic and export markets. But it lacks specific details on waste management will be handled in these blue economy investments.	N/A
Content Analysis Average	1.33 (limited coherence)	2.00 (partial coherence)	1.00 (limited coherence)	2.67 (high coherence)

Generally, as summarized in Table 10 and Figure 2, the results indicate that the blue economy policy have an overall high coherence to the other policies as far as sustainable waste management in Zanzibar based hotels is concerned, with an average score of 2.67. Further, the environmental policy has demonstrated partial coherence to the other policies with the average coherence score of 2.00, whereas, both the tourism policy and the investment policy have shown limited coherence to the other three policies with average coherence scores of 1.33 and 1.00, respectively. However, the average coefficient of coherence between the four policies is 1.75. This score implies that collectively the four policies are partially coherent among themselves in addressing sustainable waste

management in hotels operating in Zanzibar, in relation to the common core policy instruments applied by this study.

Table 10: Summary of coherence between policies on sustainable waste management in hotels in Zanzibar

		Coherence Scores				
		Tourism Policy	Environmental Policy	Investment Policy	Blue Economy Policy	Average Score
Tourism-Related Policies	Tourism Policy	N/A	3	1	0	1.33
	Environmental Policy	3	N/A	2	1	2.00
	Investment Policy	1	1	N/A	1	1.00
	Blue Economy Policy	3	3	2	N/A	2.67
Overall Average Score						1.75

Additionally, Figure 2 provides a schematic representation of the coherence among the four tourism-related policies in addressing solid waste issues in Zanzibar's hotel sector.

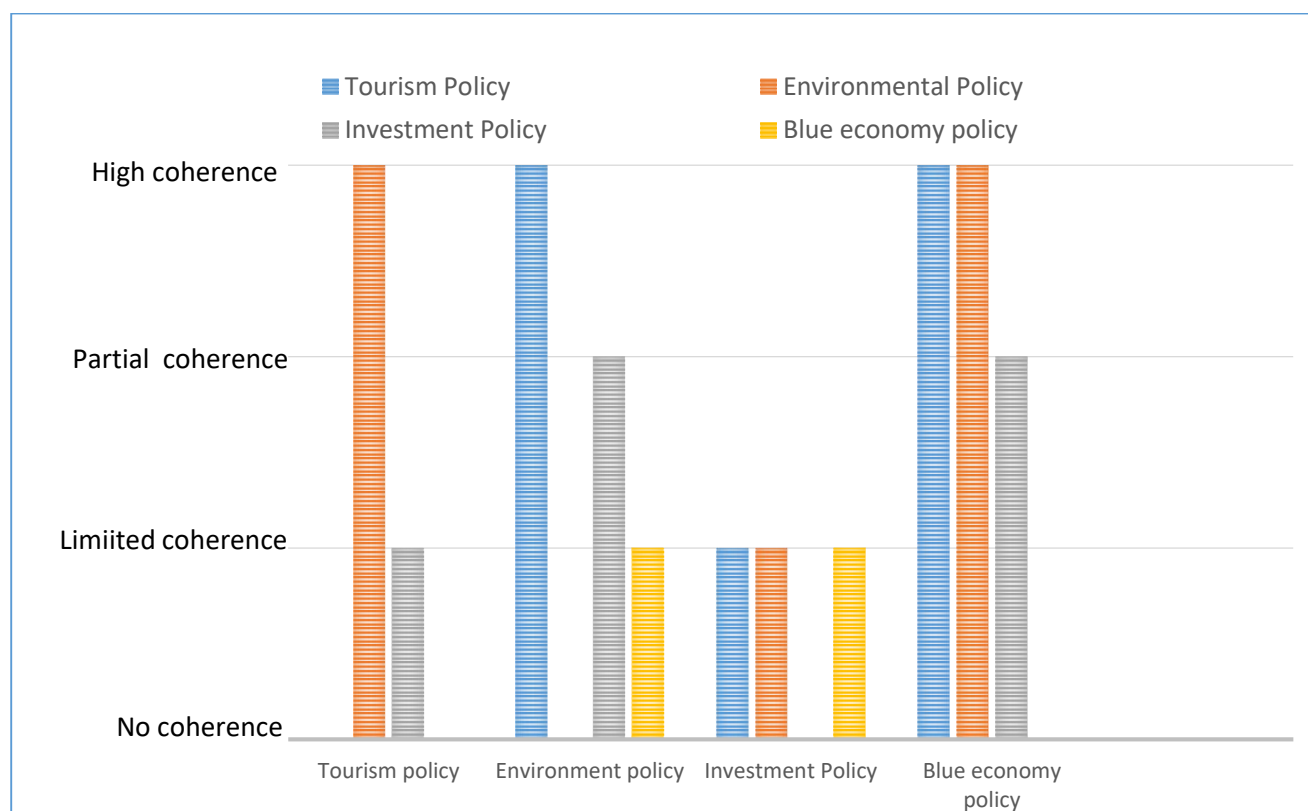


Figure 2: Coherence across policies which are related to waste management in hotels on Zanzibar

CONCLUSIONS

This policy documents review study highlights significant findings regarding the interplay between various tourism related policies and their effectiveness in managing hotel waste sustainably in Zanzibar.

The research indicates that while the tourism, environmental, investment, and blue economy policies in Zanzibar have demonstrated strong alignment with legal and regulatory policy instruments, they exhibit limited alignment with the economic, informational, and voluntary partnership instruments. Specifically, tourism policy has demonstrated partial alignment with legal instrument, limited alignment with both economic and information instruments, while demonstrating no coherence at all with the voluntary partnerships instruments. Environmental policy, has demonstrated high alignment with legal instrument, limited coherence with economic incentives, partial coherence with information instruments and high coherence with voluntary partnerships instruments. Except for the legal instruments, with which the investment policy has shown partial alignment, it has demonstrated no coherence whatsoever with the economic, informational and partnership instruments.

Lastly, the blue economy policy has demonstrated high alignment with the legal instruments while exhibiting partial coherence with both the economic, information and voluntary partnership instruments. According to these findings, the existing policy framework in Zanzibar predominantly relies on command-and-control approaches, primarily through laws and regulations, to manage waste generated by hotels. This over-reliance on legal instruments, while essential, is insufficient when it comes to fostering a comprehensive and effective waste management strategy. The absence of efficient economic incentives, such as tax breaks or subsidies for hotels that adopt sustainable waste practices, limits the potential for encouraging proactive behavior among hotel operators as far as waste management is concerned. Additionally, the limited presence of voluntary partnership and informational campaigns instruments, which could facilitate collaboration between the government, hotels, and local communities, further hampers the development of a cohesive waste management strategy (Salim, 2022).

Furthermore, the results indicated that tourism and investment policies have an overall limited coherence with the other policies analyzed. The environmental policy has an overall partial coherence with the other three policies; and blue economy policy has an overall high coherence with the rest of the policies. However, since the overall coherence among all four policies is only partial, it can be concluded that collective efforts of the existing policies to effectively address the pressing issue of waste management in hotels across the Zanzibar archipelago cannot yield desirable results. This is because, inconsistencies and gaps across the various policy documents can lead to conflicting priorities and inefficient resource allocation, making it difficult for stakeholders to coordinate their efforts effectively (Araya-Córdova et al., 2021). This lack of alignment not only undermines the implementation of sustainable waste management practices but also creates barriers to achieving the desired environmental outcomes.

POLICY RECOMMENDATIONS

Based on the results and drawn conclusions, it is clear that there is a pressing need for review of policies to ensure that tourism-related policies are highly coherent and much aligned with the policy instruments in promoting sustainable waste management for hotels in Zanzibar. Therefore, several policy recommendations can be made for each of the four policies in relation to their corresponding policy instruments as follows.

The tourism policy should be updated by providing clear policy statements that aligns the policy with economic, informational and partnership instruments. These may include a policy declaration by the government on intentions to provide tax incentives or

subsidies for hotels that invest in waste reduction and recycling initiatives, promoting the development of voluntary partnership between the public and private sector and engagement with local communities in waste management efforts. Moreover, the policy should establish coherence with investment and blue economy policies by providing clear plans, activities, targets and timelines for waste reduction across the other sectors.

The environmental policy should be reviewed to focus on strengthening its alignment with economic instruments through strategies such as establishing a green fund to support hotels in implementing sustainable waste management technologies and integrating sustainable waste management requirements into hotel licensing and certification processes. Furthermore, the coherence of this policy to other policies like investment policy and blue economy policy should be improved not only by identifying the need for protecting the environment and natural resources in the investments made, but by clarifying specific details and guidelines on how the blue economy investments would propagate waste reduction and effective solid waste management initiatives.

Of all four policies involved in this study, the Zanzibar investment policy requires an extensive review work. This policy should be reviewed and realigned with all four policy instruments used in the study, with particular emphasis on economic, information and partnership instruments. The investment policy must clearly provide the sustainable waste management criteria when attracting and approving hotel investments, provide economic incentives for hotels that incorporate sustainable waste management systems, and put in place the role of stakeholders such as investors, hotel owners, the NGOs and the general public in adhering to sustainable waste management practices in all investments made in Zanzibar. Moreover, the policy should be made coherent with the other sectorial policies by clearly stating the specific plans and activities to accomplish sustainable waste management in the tourism sector, environmental conservation and in blue economy initiatives.

Lastly, slight adjustments are necessary to the blue economy policy to align it better with sustainable waste management practices for protecting the marine environment from hotel waste pollution, especially using informational and voluntary agreements instruments. The policy needs to be enhanced in promoting the development of voluntary partnerships, such as hotel-community initiatives, and fostering collaborative efforts to protect the marine environment and coastal areas from hotel waste pollution. Overall, little is needed to improve the blue economy policy coherence, as the policy has exhibited high coherence with other policies, except for the need to include sufficient details of the plans and activities that are necessary in promoting investments that are socially and economically beneficial as well as environmentally sound.

By aligning these policies with a broader range of policy instruments and enhancing coherence among them, the Revolutionary Government of Zanzibar may create a more enabling environment for sustainable waste management in hotels. This comprehensive approach not only has the potential to improve waste management practices and reduce environmental and human health impacts but also encourages collaboration among stakeholders to address the complex challenges associated with hotel waste management in Zanzibar.

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CONFLICT OF INTEREST

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