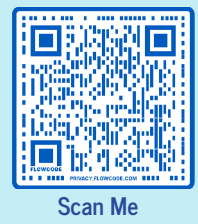


# Coastal Tourism Sustainability in Abu Dhabi, United Arab Emirates: Environment, Protected Areas, and Culture

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## ABSTRACT

The globalization of tourism has influenced human activity in coastal environments, and consequently increased coastal tourism and tourism associated activities everywhere, including the Emirate of Abu Dhabi in the United Arab Emirates (UAE). Since coastal tourism activities usually fall along a continuum from sustainable to unsustainable, assessing the contexts of coastal tourism in Abu Dhabi is an urgent and unmet need. This research explores coastal tourism sustainability in Abu Dhabi across three major coastal characteristics - environment, protected areas, and culture.

Sustainable coastal tourism in Abu Dhabi is a dynamic interaction between components of culture, environment, society, tourism, and development that support the natural characteristics of the region. This outcome is the result of a strong relationship between regional identity and the natural environment, signifying its heritage and culture as a maritime and coastal Emirate. Despite robust policies for integrating sustainable tourism practices, there is a lack of awareness on what constitutes environmentally responsible tourism as well as conflicting stakeholder perspectives which can hinder the efficient management and development of coastal environments.

This research provides recommendations and strategies to incorporate sustainability in the development of coastal tourism characteristics. It also contributes to the evolving body of tourism literature relative to the field of marine and environmental affairs.

## BACKGROUND

As tourism continues to expand at an unprecedented rate, the recognition of social and environmental tradeoffs associated with the coastal tourism sector and its unintended externalities have led to debates against ideals of sustainable development and what this looks like for coastal environments and associated societies. Sustainable development in coastal tourism comprises three key questions. The first is "what is being balanced?" regarding risks with development. The second question is, "what is meant by balancing?" or "are there alternative development methods?" The third question discusses "how can balancing be accomplished?" which aims to respond to risks responsibly across environmental, socio-cultural, political, and economic systems.

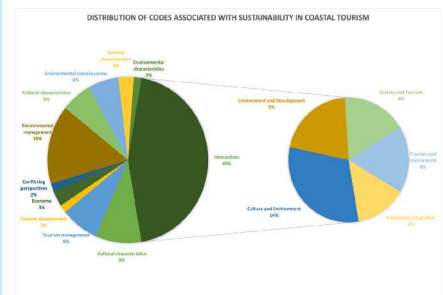
	QUALITATIVE APPROACH	QUANTITATIVE APPROACH
<b>DATA COLLECTION</b>	<ul style="list-style-type: none"> <li>Semi-structured Interviews</li> <li>Limited Participant Observation (LPO)</li> <li>Secondary Source Information</li> </ul>	<ul style="list-style-type: none"> <li>Surveys</li> </ul>
<b>DATA ANALYSIS</b>	<ul style="list-style-type: none"> <li><b>Semi-structured Interviews:</b> Interview Content Analysis</li> <li><b>LPO:</b> Behavior, reactions, body language, photographs, field notes</li> <li><b>Secondary Source Information:</b> Local newspapers, documentaries, travel guides, government reports, books</li> </ul>	<ul style="list-style-type: none"> <li>Likert Scale</li> <li>Chi-square test</li> <li>Descriptive Statistics</li> <li>Frequency</li> <li>Range</li> </ul>
<b>VISUALIZATION</b>	<ul style="list-style-type: none"> <li>Pie Charts</li> <li>Word Cloud Analysis</li> </ul>	<ul style="list-style-type: none"> <li>Pie Charts</li> <li>Bar graphs</li> </ul>
<b>NUMBER OF PARTICIPANTS</b>	<ul style="list-style-type: none"> <li>N=10 Subject Matter Experts</li> </ul>	<ul style="list-style-type: none"> <li>N=108 Survey responses (English = 86 and Arabic = 22)</li> </ul>

## RESEARCH QUESTIONS

- RQ1:** What is it like to live in a hotspot for tourism in a region composed of different nationalities?
- RQ2:** What types of interactions and experiences do the residential community and visitors have with coastal characteristics, specifically the natural environment and cultural elements?
- RQ3:** What is sustainability within the context of coastal tourism in Abu Dhabi, and how do brokers, locals, and tourists understand it?
- RQ4:** What are the prospectives and impacts of tourism development on environmental and cultural sustainability regarding coastal tourism in Abu Dhabi?

## INTERVIEW RESULTS

**Example:** RQ3: What is sustainability within the context of coastal tourism in Abu Dhabi, and how do brokers, locals, and tourists understand it?



**11 codes identified from 65 quotes**

**9 out of 10 participants**

**Prominent codes:** Interactive elements between the environment, tourism, development, and culture; environmental management; cultural characteristics; tourism management; political characteristics



**Brokers' views of sustainability across cultural, environmental, social, economic, and political factors**

**Prominent words:** Aaliastidama (Arabic for 'sustainability'), people, tourism, development, culture, climate, species.

**Other Keywords:** Mitigating, consciousness, protect, management, proactive, eco-friendly, footprint, responsibility, legal, balance, laws, network, meaningful, education, connectivity, monitoring, preservation, conservation, communities, well-being, knowledge, adaptation, respect, heritage, environment, innovation, minimize, regulate, awareness, nationalities, quality, support

## SURVEY RESULTS

- The success of tourism was considered to be 'important' or 'very important' (86%).
- Cultural tourism is important for destination image, community, and sustainability in the region (p-value: 0.0106).
- Participants were 'somewhat familiar' with the concept of sustainability (44%).
- 79% of participants 'agree' or 'strongly agree' with the benefits of sustainable tourism.
- 67% of participants 'agree' or 'strongly agree' with tourism and resource conservation.
- 77% of participants 'agree' or 'strongly agree' with the compatibility of tourism and the conservation of culture.
- 71% of participants understand the significance of marine protected areas and its benefits for tourism.
- UAE' natural environment is integral to culture (p-value: 0.0144).

## CONCLUSION

- Coastal tourism in Abu Dhabi is a relationship between environmental and cultural characteristics of the region.
- The sustainability of coastal tourism comprises various interactive elements that aim to support the preservation of natural characteristics through tourism-related activities and sustain the socio-cultural landscapes of the destination.
- The sustainability of coastal tourism is contingent on factors such as the quality of the environment (natural and man-made), cultural creativity, regional identity, political will, societal well-being, infrastructure development, outreach, etc., amidst processes of globalization and modernization.

## DISCUSSION

**Sustainability on the coast recognizes socio-cultural, political, economic, and environmental factors that create 'meaningful' experiences through tourism for all stakeholders involved.** The sustainability of culture ensures accounts for the inclusion, adaptability, and awareness of people and their interactions with the environment by mitigating impacts and ensuring societal well-being. Political characteristics integrate sustainability through informed decision-making. Environmental sustainability on the coast broadly falls into two categories – management of ecological systems and resources, and instilling environmental values as the precursor to supporting the health and well-being of environments and entities encompassed in them for generations. Sustainability entails "stability, security, efficiency, and opportunity" through mitigation of risks and continuity within environments, culture, society, and economy.

**Without accounting for all facets of sustainability, irresponsible development and management of tourism can threaten the biological viability and quality of environments leading to multidimensional impacts resulting from mass tourism.** Although tourism development creates opportunities for new forms of employment, consequently reducing dependency on traditional gas and oil sectors, the globalization of tourism can reduce economic sustainability when profits do not support communities and the environment. This is exacerbated by the influx of tourists, demands for tourism services, and changes in values and societal structures. The uncontrolled expansion of tourism on the coast can increase the impact on local physical, biological, and cultural characteristics of sensitive areas, indicative of the complexity of interactions between coastal tourism components.

**The interactive processes between coastal components have added value to local heritage, culture, and natural resources by integrating sustainability and raising social awareness among residents and tourists through their experience.** The emphasis on the integration of heritage within environments tied to the region of Abu Dhabi embraces natural, historic, and cultural elements shaping regional and national identity. Sustainable coastal tourism in Abu Dhabi thrives due to the space-specificity and interactions between different management brokers, and the incorporation of multiple demographics and disciplines, given the region's diversity.

## RECOMMENDATIONS

- Integrate awareness for marine citizenship through investments in outreach and relationships between community members and relevant stakeholders.**
  - Frame conservation initiatives with personal relevance to people.
  - Make scientific research and results accessible, comprehensible, and equitable.
  - Create opportunities that induce collective behavioral change.
  - Expand on methods, tools, and resources to engage people in sustainability conservations.
- Integrate social, economic, political, technological, and environmental factors in developing sustainability models for the strategic management of resources.**
  - Account for the diversity of modeling approaches - nature and scale of economic, ecological, and social processes, and the diversity of contexts in and purpose for which models are used.
  - Improve adaptability relative to the range of uncertainties, alternative scenarios, and distributional impacts of management strategies.
  - Evaluate the effectiveness of policies through regular monitoring, risk assessments, and comparing observed and desired outcomes.
- Support cultural heritage by emphasizing cultural education, programs, and resources to build local ecosystems and individuals while reaching diverse audiences.**
  - Recognize and support cultural authenticity alongside sustainability objectives.
  - Repurpose knowledge to sustain historic and regional identity through facets of development across different sectors.
  - Include creativity and adaptability alongside community visions of respect, tolerance, and cross-cultural dialogue.