

DEVELOPING A CLIMATE CHANGE RESILIENCY STRATEGY FOR THE TOURISM INDUSTRY IN DUBAI, THE UNITED ARAB EMIRATES THROUGH POLICY ANALYSIS

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INTRODUCTION & BACKGROUND

A region's climate defines the length of its tourist season, affects attraction operations, and influences environmental conditions that either attract or deter visitors.¹ The instability of climatic conditions anticipated by anthropogenic climate change threatens tourism flow.² And for cities like Dubai, which invest heavily in tourism infrastructure, shorter tourist seasons mean less intensive utilization of facilities and a slower return on investments.³ Given the relationship between tourism and climatic conditions of destinations, research into the resiliency of tourism industries in deserts is lacking. Current research has focused on the skiing industry^{4,5,6} and coastal or island economies.^{7,8,9} For tourism to successfully contribute to Dubai's (and the United Arab Emirates') economic growth, a strong national coordination between government entities must be developed in order to ensure resilience of the tourism sector to climate change.

KEY DEFINITIONS¹⁰

ECONOMIC RESILIENCY:	A systems' ability to sustain revenue generation and employment, this includes livelihood diversification and alternative tourist attractions.
SOCIAL RESILIENCY:	Communities' abilities to cope with disturbance and can include social norms, awareness and concern, civic engagement.
GOVERNANCE RESILIENCY:	The responsiveness of institutions to disturbance and stakeholder collaboration and includes community engagement.
ENVIRONMENTAL RESILIENCY:	The level of disturbance ecosystems are able to withstand without altering their structure and ability to self-organise

RESEARCH QUESTION & OBJECTIVES

What are the available global, national and local climate change resilience policies that can be transferred to Dubai's tourism sector in order to safeguard its long-term viability, and what local and national institutions should be involved to coordinate such a strategy in Dubai?

- Identify recommendations based on the 4 dimensions of resilience
- Provide recommendations using the policy triangle framework that defines context, content, and process for implementation of policies in the traditional policy approach

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METHODOLOGY

LITERATURE REVIEW: Identify the relevant governing bodies and to identify relevant federal and local laws and regulations in the UAE as pertaining to tourism and climate change.

POLICY ANALYSIS: A policy transfer approach wherein mechanisms of learning from global, national, and local policies would define recommendations for Dubai's climate resilience strategy to be transferred partially or completely via learning and mimicry mechanisms.¹¹ Country policies of interest were selected for specific arid land typologies and availability of climate resilience policy. Policy recommendations utilized the policy triangle framework, defining the context, content and implementation process for suggested governance, social, economic, and environmental resilience strategies.¹²

RELEVANT GOVERNING BODIES & JURISDICTIONS

GOVERNING BODY	JURISDICTION
National Emergency, Crisis and Disaster Management Authority (NCEMA)	Federal
Ministry of Climate Change and Environment (MOCCA)	Federal
Ministry of Finance	Federal
Ministry of Economy	Federal
Ministry of Health and Prevention	Federal
Ministry of Infrastructure Development	Federal
UAE Food Security Office	Federal
Dubai Economic Department	Emirate of Dubai
Department of Tourism and Commerce Marketing	Emirate of Dubai
Road and Transport Authority (RTA)	Emirate of Dubai
Dubai Electricity and Water Authority (DEWA)	Emirate of Dubai
Dubai Municipality	Emirate of Dubai

RECOMMENDATIONS

ENVIRONMENTAL RESILIENCY	SOCIAL RESILIENCY	GOVERNANCE RESILIENCY	ECONOMIC RESILIENCY
<ul style="list-style-type: none"> Proactive infrastructure planning based on climate projections and historical records¹⁵ Climate resilient infrastructure to protect tourism assets Conservation research on natural ecosystem's ability to adapt to climate change conditions Landscape management that promotes green spaces containing native species and use treated waste water irrigation systems 	<ul style="list-style-type: none"> Relief packages post-crisis support tour operators and small businesses who may not be able to maintain operations due to disrupted tourist seasons Hazard mapping to identify at-risk populations¹⁵ Early warning systems supported by knowledge dissemination strategies promote positive collective action an increase community resilience during crises¹⁸ 	<ul style="list-style-type: none"> Improved communication between governing bodies in the tourism sector to better implement strategies¹³ Harmonisation of information and legislation distinguishes institutional jurisdiction, which is necessary for crisis response Land Use Planning through provisioning of licenses and permits to tour operators and developers¹⁴ 	<ul style="list-style-type: none"> Diversify tourism offerings and appeal to new markets¹⁷ Effecting liability insurance to protect tourism infrastructure¹⁵

Relevant Governing Bodies: Dubai Municipality, MOCCA, DTCM, DEWA

Relevant Governing Bodies: NCEMA, MOCCA, DTCM, Ministry of Economy

POLICY ANALYSIS

List of policies analysed from which relevant resilience strategies were extrapolated, categorised by territoriality level.



CONCLUSION

Unlike natural disasters whose durations are limited, climate change imposes permanent regional and seasonal climatic shifts, which stresses critical natural resources in arid desert environments.¹⁹ The development of a climate change resilience strategy considers climate change responses to establish an economically and environmentally viable tourism industry for the long-term. The resilience strategy is a jumping-off point for tourism sector climate adaptation policies in desert climates and is a basis for the development of climate resilience strategies in other sectors such as financial services, manufacturing, and retail.

