





DESK REVIEW OF GUESTHOUSE REGULATIONS IN THE MALDIVES

Small Island Geographic Society (SIGS)

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I. INTRODUCTION

The USAID Climate Adaptation Project is a five-year project designed to enhance the adaptive capacities of the public and private sectors and local communities in the Maldives to climate change impacts in ways that contribute to sustained, inclusive market-based growth. The Climate Adaptation Project focuses on addressing challenges in the following three objectives.

- Objective I: Identify and scale up innovative solutions to adaptively manage climate-related risks through market-driven private sector and community engagement.
- Objective 2: Strengthen central and/or local governance to address climate-related risks; and
- Objective 3: Improve availability and access to high-quality information for decision-making to reduce vulnerability to climate change.

"Resilient Retreats: Enhancing Sustainable Climate Adaptation PracticEs (ESCAPE)" is a project implemented by the Small Islands Geographic Society (SIGS) under a grant from USAID's Climate Adaptation Project. The ESCAPE project is focused on building resilience of local guesthouses to climate change and natural hazards through development of climate resilient designs and draft guidelines that developers can implement. Tourism guesthouses and related infrastructure are big investments that are under risk from climate change impacts such as erosion and inundation, extreme winds and storm events, salinization of groundwater, water scarcity among others. The main objective of the grant is to provide information to guesthouse developers on climate resilient design.

The initial activities of the ESCAPE project focus on understanding the current situation regarding climate risks faced by guesthouses in the Maldives as well as understanding current guesthouse designs. This report provides the findings of the desk review analysis conducted to understand how climate resilience is incorporated into current regulations and guidelines relevant to guesthouse building. A total of 17 documents were analyzed for the review.



2. BACKGROUND

The Maldives is an archipelago of 26 low-lying coral atolls consisting of 1,192 small tropical islands. About 358 islands are used for economic activities and human settlement of which 198 islands are residential (Ministry of Environment and Energy, 2016). Maldives is one of the smallest and lowest countries in the world, with 80% of the total land area is less than 1 meter above mean sea level. More than 70% of the islands have an area of less than 10 ha and of these 34% are less than 1 ha!. This means that a large portion of the dwellings, industries and infrastructure are primarily located within 100m of the coastline (Ministry of Environment and Energy, 2015), making them vulnerable to climate change risks like beach erosion, flooding from swells and rain, and extreme storm events. Prolonged dry spells have also affected availability of fresh water (Ministry of Environment and Energy, 2016). In addition, the Maldives' economy is highly dependent on the natural environment. The tourism sector, which directly and indirectly contribute to local livelihoods and economy, is one sector which is very vulnerable to climate risks.

Following the development of the Maldives Guesthouse Regulation under the Tourism Law (2/99) in 2010, tourism establishments were allowed on local islands. According to the Ministry of Tourism (2022) the Maldives had 797 registered guest houses with a total bed capacity of 13,410 by end of 2021. Tourism guesthouses and related infrastructure are big investments that are at risk from climate impacts such as erosion, inundation, extreme winds, storm events, salinization of groundwater, and water scarcity. Currently, the extent that



guesthouses are impacted by climate risks, and the adoption of risk reduction and adaptation strategies is unknown. While designs consider the local climate, the extent to which climate change impacts is considered in design is not visible in current guesthouse designs. Currently, there are no guidelines in the Maldives to help local guesthouse developers to consider climate resilient designs, or comprehensive information on climate impacts and risk reduction solutions. The ESCAPE project addresses the need for the tourism industry to develop more climate resilient guesthouses.

Investment in climate-resilient infrastructures today will benefit developers and investors in the future to reduce costs to address damages from climate risks as well as in obtaining better insurance. Maldives is highly vulnerable to climate impacts such as flooding and there are some studies demonstrating that investing in adaptation measures in the tourism sector is beneficial compared to the cost of adaptation (Hosterman & Smith, 2015). However, there is no literature on individual guesthouses. Similarly bulk of global literature focuses on an areas-based approach as opposed to individual buildings. One such study shows that long-term damage can be significantly high and investing in adaptation measures can significantly reduce flood impact costs (Han & Mozumder, 2021).

Based on data available from OneMap (https://onemap.mv/) by the Maldives Land and Survey Authority

3. DESK REVIEW DOCUMENTS

A total of 17 documents were analyzed for the desk review (Table 1). This includes 9 documents which were tourism related, 7 related to planning and building infrastructure and 1 related to groundwater usage.

Table 1. List of regulations and guidelines that were reviewed.

#	Published date	Name of Document	Issued by	
Toui	rism related			
I	16/05/99	The Maldives Tourism Act (2/99) - Unofficial translation	Ministry of Tourism	
2	5/07/07	Third Tourism Master Plan	Ministry of Tourism	
3	20/12/09	Guesthouse regulation	Ministry of Tourism	
4	01/09/13	Fourth Tourism Master Plan - Volume 2	Ministry of Tourism	
5	03/08/15	EIA regulation for the development of tourist resorts, guesthouses and hotel and yacht marinas in the Maldives (2015/R-157)	Ministry of Tourism	
6	21/06/17	Amendment I to EIA regulation for the development of tourist resorts, guesthouses and hotel and yacht marinas in the Maldives (2017/R-48)	Ministry of Tourism	
7	18/12/17	Guideline on Beach Nourishment	Ministry of Tourism	
8	24/05/23	Maldives Fifth Tourism Master Plan 2023 - 2027	Ministry of Tourism	
9	30/08/23	Maldives Tourism Climate Action Plan: Strategic Pathways for Climate Resiliency in Tourism	Ministry of Tourism/USAID	
Plan	ning & building rela	ated		
10	30/05/05	Binaaveshi Planning gavaaidhu (with Annex I & Annex 2)	Ministry of Housing and Urban Development	
П	1501/13	Hulhumale planning and building regulation (2013/R-3)	Housing Development Corporation Ltd	
12	20/05/15	Male Planning Regulation ((2015/R-140)	Ministry of Housing and Infrastructure	
13	23/04/2017	Construction Act (4/2017)	Ministry of Housing and Infrastructure	
14	August 2020	Managing Risks for a Safer Built Environment in the Maldives. Building Regulatory Capacity Assessment.	The World Bank Group	
15	02/11/21	Building Code	Ministry of National Planning and Infrastructure	
16	Draft	Maldives Energy Efficiency Guidelines for Buildings	Ministry of Environment	
Other relevant				
17	03/02/21	Ground water usage regulation (2021/R-20)	Ministry of Environment	

4. REVIEW FINDINGS

4.1 Tourism Sector

The main legislation guiding the tourism sector is the Maldives Tourism Act (2/99). Under the Act, there are 2 regulations which are relevant for development of guesthouses in residential islands.

- I. The Maldives Guesthouse Regulation of 2009 Focuses on operation of guesthouses in inhabited islands of Maldives.
- 2. The Environment Impact Assessment Regulations for the development of resorts, guesthouses, and hotels and yacht marinas in the Maldives (2015/R-157) Provides guidance on how to develop EIA reports, submit and approval procedures before establishment of the guesthouse.

Both regulations do not contain specific guidelines on designing climate resilient infrastructure. For example, the Guesthouse Regulation gives guidelines of services and facilities to be maintained in guesthouses, but they mainly focus on comfort and safety of guests and do not contain guidelines to directly address climate risks. However, there are some recommendations that are not specifically given in the context of climate resilience but still applicable:

- Requirement for good ventilation in rooms, toilets and restaurants.
- Kitchen walls should be made of water-proof and fire-proof material.
- Insurance and safety measures towards incidences of fire.
- All guesthouses are required to take whole cover insurance but there is no requirement for specific climate insurance.

Strategic Planning in the Tourism Sector

The tourism sector has been developing with good strategic planning and has developed the sector under guidance from master plans for the sector (Table 2). From inception, the industry has given priority to maintaining a pristine natural environment.

Table 2. A list of Tourism Master Plans used in developing the tourism sector.

Year	Master Plan	Key Objective
1983	First Tourism Master Plan	To develop tourism in parts of the country where economic development was required
1996	Second Tourism Master Plan	To oversee and manage the development of the tourism sector to allow it to grow, but enabling it to produce economic benefits in a more environmentally sustainable manner.
2007	Third Tourism Master Plan	To continue the economic and social development of the tourism sector, and to develop Maldivian tourism as a model of environmentally responsible development.
2013	Fourth Tourism Master Plan	To develop a five-year strategic action plan to develop the tourism sector by involving both the public and private sectors.
2023	Fifth Tourism Master Plan	To continue the development of the tourism sector with a focus on business-environment, human resources, conservation of environment, and conservation of culture.

In recent years, developing climate resilience has been given a stronger focus within the sector. Planning for climate risks and disasters is first mentioned in the third Master Plan which is after the Indian Ocean tsunami incident in 2004. This plan stressed the importance of developing disaster preparedness plans but primarily for the resort sector.

4th Tourism Master Plan (4TMP)

Climate change and associated risks were given more emphasis in the 4th Tourism Master Plan (4TMP). The plan recognized the increasing risks from climate change and the high risk to tourism infrastructure from hazards such as flooding and erosion. Environment and conservation are identified as one of the 6 themes in the 4TMP.

- Strategy 2.5 addresses implementing a climate change adaptation programme for tourism industry.
 - There is mention of capacity building and awareness raising on climate risks and adaptation, climate risk insurance as well as formulating a national climate change adaptation for the tourism sector.
 - Actions under this are mostly focused on resorts and not guesthouses.
 - The strategy specifies formulating an addendum to the National Building Code and incrementally changing the Code to incorporate climate resilience in all new tourist resort developments.
- Strategy 2.6 includes implementing a low carbon programme for tourism industry in general.

5th Tourism Master Plan (5TMP)

- The Maldives Fifth Tourism Master Plan (2023-2027) builds on from the previous master plan and considers building climate resilience and protecting natural assets under the priority goals for tourism development (Goal 4). Strategy 5 under this goal focuses on improving planning guidelines, knowledge sharing, and access to finance to adapt to climate change and build climate resilience into tourism infrastructure.
- Specific actions are more geared towards information sharing and climate financing and insurance.

Climate Action Plan for the Tourism Sector

The Ministry of Tourism recently, in August 2023, released a Climate Action Plan for the sector.

- Objective 2 of the plan: "Protect Destination Assets", is directly relevant for this project as there is focus on addressing direct climate impacts such as infrastructure damage, interruptions to food and water supply, business interruptions and insurance costs.
- Relevant actions under this objective are:
 - Action 2.2 Increase Insurance Coverage for Business Assets which highlights the need for guesthouses to take additional risk management measures to reduce insurance premiums. It also urges guesthouses to be proactive in undertaking adaptation measures to improve creditworthiness.
 - Action 2.3 Share Resources for Businesses to Understand Their Climate Risk focuses on the need for businesses to have information about climate risks and to guide them on how to access relevant resources to understand their climate risks

- The Action Plan further identifies 10 business climate action investments for implementation which include coastal erosion prevention that can reduce risks to guesthouses but will be applicable at an island level and more relevant to resorts.
- Water security and resilient energy infrastructure are 2 investments that will be relevant to guesthouse designs.
- The main investment action relevant to ESCAPE is nature inclusive building design and construction which encourages biophilic designs to complement surroundings as well as natural adaptation solutions to withstand extreme weather events.

These business climate investment actions and actions identified in the action plan provide a general guidance on focusing but need more specific activities. For example, formulation of a climate resilient building design can be an output which businesses can directly use. The plan explains the benefits of these investments and directs businesses on ways to finance them and seek additional information. The resilient building designs and recommendation under ESCAPE will be directly applicable to Objective 2 of the Action Plan.

4.2 Land Use Planning and Building Development

Binaaveshi Planning Regulations

The earliest formal policy document relevant to building is the Binaaveshi Planning Regulations of 2005. This regulation is aimed at responsibly developing the built environment in a way that is safe for people and considering impacts on the natural environment. The regulation provides policies and guidelines for land use planning focusing on 1) allocation of land for different purposes, 2) types of land allocation and 3) critical infrastructure.



The regulation does not consider specifically residential buildings and as this was before the Guesthouse Regulation, guesthouses are not included. The following observations were made regarding the regulation:

- Climate considerations are included in development of powerhouses. Powerhouses need to
 consider seasonal winds, but this is considered more for emissions and human health than for the
 safety of the building or power infrastructure from climate risks.
- The guidelines for allocation of land for various purposes do not include any criteria such as distance from shoreline which would be relevant to impacts from climate risks.
- The guidelines, however, stipulate that each residential island should develop their own building guidelines.

Male' Planning Guidelines

Currently, planning guidelines exist for Male', Villimale and Hulhumale. According to information from the Local Government Authority, such a building code has not been gazetted for any other island. However, local councils can adapt the existing guidelines to develop their own guidelines².

- Male' planning guidelines provides guidelines on height, ventilation, and lighting mainly with the aim of providing a healthy and safe built environment for people.
- The guidelines for Villingili island can be applied for other islands in case there are no building guidelines.
- Guidelines are also provided on maintaining safety for people and adjoining buildings during construction.

A Construction Act was introduced in 2017 under which a building code is required to be formulated.

- The main purpose of the Construction Act is safety and well-being. However, safety from climate risks is not addressed.
- The Building Code has been formulated in 2021, and guesthouses are covered under Type I buildings. However, the Code requires compliance documents to be formulated and these are in the process of being developed.

A 2020 review of the building regulatory capacity assessment of the Maldives done by The World Bank Group³ had also identified the need to address climate and hazard resilient features in building designs.

- It identified that currently single-storey houses (many small-scale guesthouses are single-storey) are exempt from building regulations and there is no guidance to build resilience of such buildings to natural hazards.
- The report also highlighted that reference standards or design codes (compliance documents) are not developed under the Building Code.

Recommendations of the World bank review relevant to the ESCAPE project are given below:

I.Recommendations for the national legislative and institutional framework

- 1.3 The 2017 Construction Act should be updated to include the tourism sector, which is currently exempt, on the principle that no sector should be exempt from the Act.
- I.6. Integrate Disaster Risk Reduction into the National Development Plan and into environmental, planning, and building regulatory frameworks.
- I.II. Include Ministry of Tourism and National Disaster Management Authority as key stakeholders of the building regulatory framework and in drafting the code compliance documents.

2. Recommendations for Building Code development and maintenance

2.1. Develop compliance documents to implement the Building Code of Maldives, making them locally relevant in terms of hazards, design & construction practices, and resource constraints.

² During the guesthouse survey conducted in the baseline assessment of ESCAPE, it was found that some Island Councils where local tourism is in place, restriction of maximum building height is enforced.

³ World Bank. (2020). *Managing Risks for a Safer Built Environment in the Maldives*. Building Regulatory Capacity Assessment. Washington, DC: World Bank.

https://www.gfdrr.org/sites/default/files/publication/ML%20BRCA%20ES_202008.pdf

2.6. Develop a guideline for including hazard-resilient features in low-engineered buildings.

Maldives Energy Efficiency Guidelines for Buildings

The Ministry of Environment, Climate Change and Energy, has published the Maldives Energy Efficiency Guidelines for Buildings⁴.

- The guidelines cover hotel and guesthouses, but only in Male' and Hulhumale'.
- It includes guidelines for bio-climatic design that considers the natural climate of Maldives. These guidelines cover:
 - o Building form and orientation
 - Window to wall ratio
 - Shading, daylighting
 - o Ventilation.
- These will need to be considered for guesthouses on islands too as it will be relevant for risks associated with extreme heat.

Apart from regulations directly on planning and building of infrastructure, the Ministry of Environment has a groundwater usage regulation (2021/R-20) enforced in 2021 which requires groundwater usage, including dewatering for any infrastructure development to be carried out only following permissions from the Utilities Regulatory Authority or other authority assigned by them. There is a need to strengthen groundwater usage during guesthouse operations as well. The guesthouse survey conducted in ESCAPE found a high use of groundwater in guesthouse operations, and

5. CONCLUSION

An overall conclusion that can be drawn from this review is that climate and natural hazard risks are not adequately addressed in building policies and regulations. In the tourism industry, the main focus of infrastructure protection from climate risks is geared towards resort islands. As resorts are developed in one island, currently the focus is adaptation measures for protection of the whole island. The review identifies a need to develop adaptation measures to reduce risks to buildings. The proposed climate resilient design responses and recommendations for guesthouses in the ESCAPE project will benefit the tourism industry as well as contribute to improving current building regulations.

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⁴ Available at: https://www.environment.gov.mv/v2/en/download/23703