RISKS TO RESILIENCE

Ministry of Environment
Climate Change Department

OUTLINE

- Climate Risks in the Maldives

- Water Security

- Coastal Resilience

- Tourism Adaptation

- Coral Rehabilitation

- Human Health

CLIMATE RISK IN THE MALDIVES

- Extreme Rainfall

- Drought

- Sea Level Rise

- Damaging winds

- Extreme higher temperature

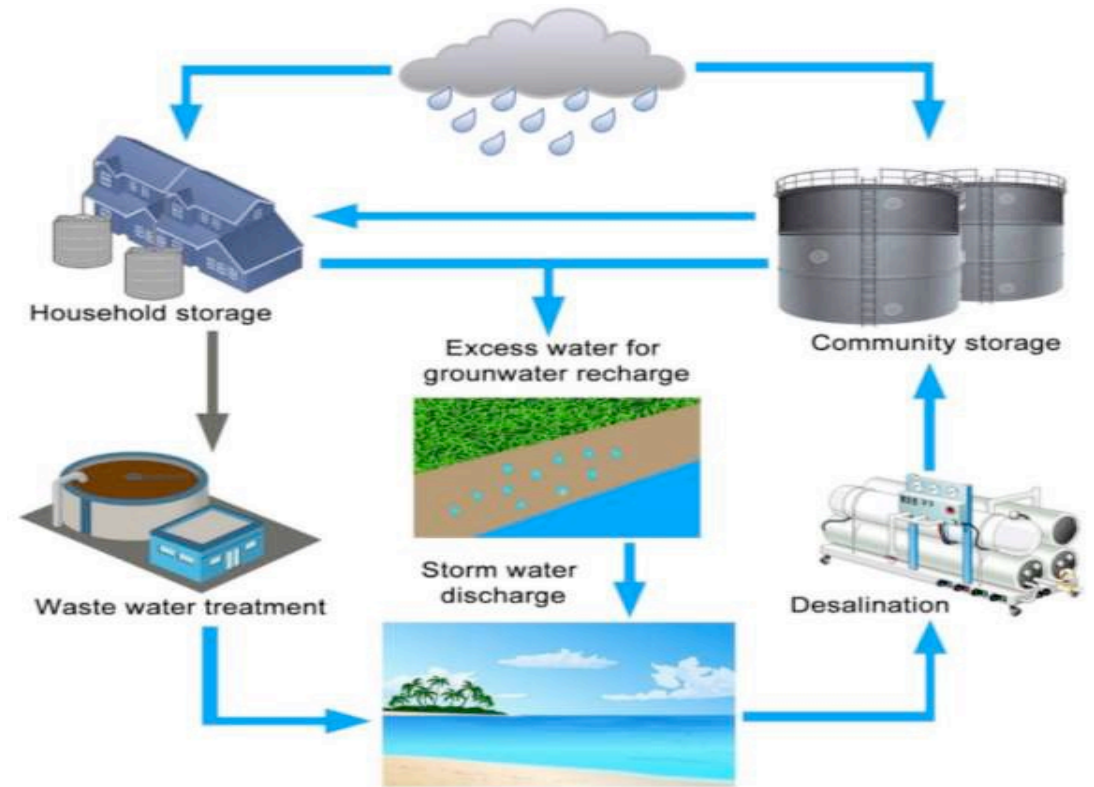- Tides

WATER SECURITY

Then

- Depended on groundwater and rainwater as portable water

- No proper water networks

- Over extraction leading to salinization

- Limited water storage capacity

WATER SECURITY

Now

- Implementing Integrated Water Resource Management (IWRM)
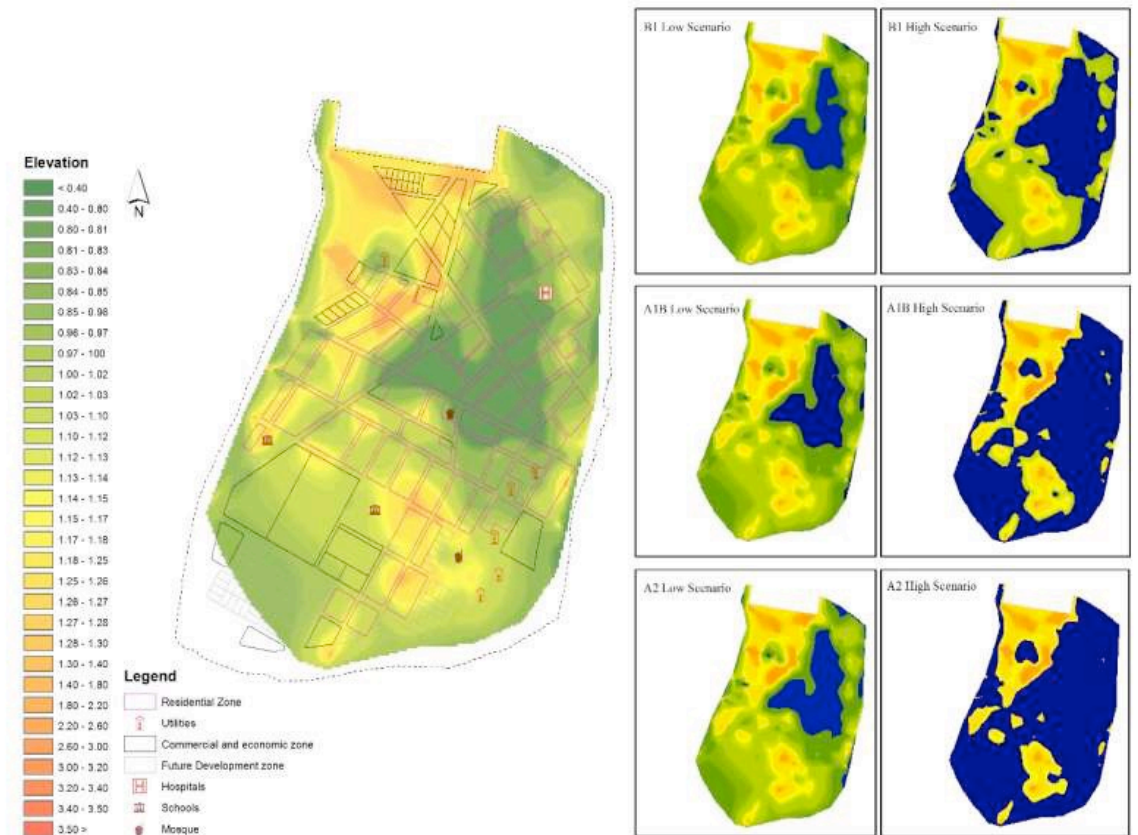
WATER SECURITY

Where we want to go

- Increase storage capacity and catchment management

- Establish water distribution network with treatment facilities

- Waste water recycling technologies for enhancement of groundwater aquifers

COASTAL RESILIENCE

Then

- Islands are highly dynamic

- Erosion in the islands is recorded as early as 1970s

- All the islands in the Maldives reports moderate to severe erosion and beach loss

- According to IPCC AR4 Scenario islands would loose significant amount of land

COASTAL RESILIENCE

Now

- Hard and soft coastal measures are undertaken across the Maldives

- Male': A case for Hard coastal measures

- Hulhumale': A case for soft coastal measure

COASTAL RESILIENCE

Where we want to go

- Amalgamation of soft and hard engineering techniques for coastal resilience and management

- Boosting natural coastal resilience of the island through climate proofing technologies and nature-based solutions

- Decrease level of net erosion in all the islands

TOURISM ADAPTATION

Then

- Four decades since inception of first tourist in the Maldives (Kurumba Maldives)
- Biggest contributor to the National GDP
- One Island One Resort concept
- Beach Villas

Now

- Maintain as largest contributor to the National GDP
- 135 Resort Islands as of 2017 *(Tourism Year Book 2018)*
- Overwater and underwater villas, restaurants
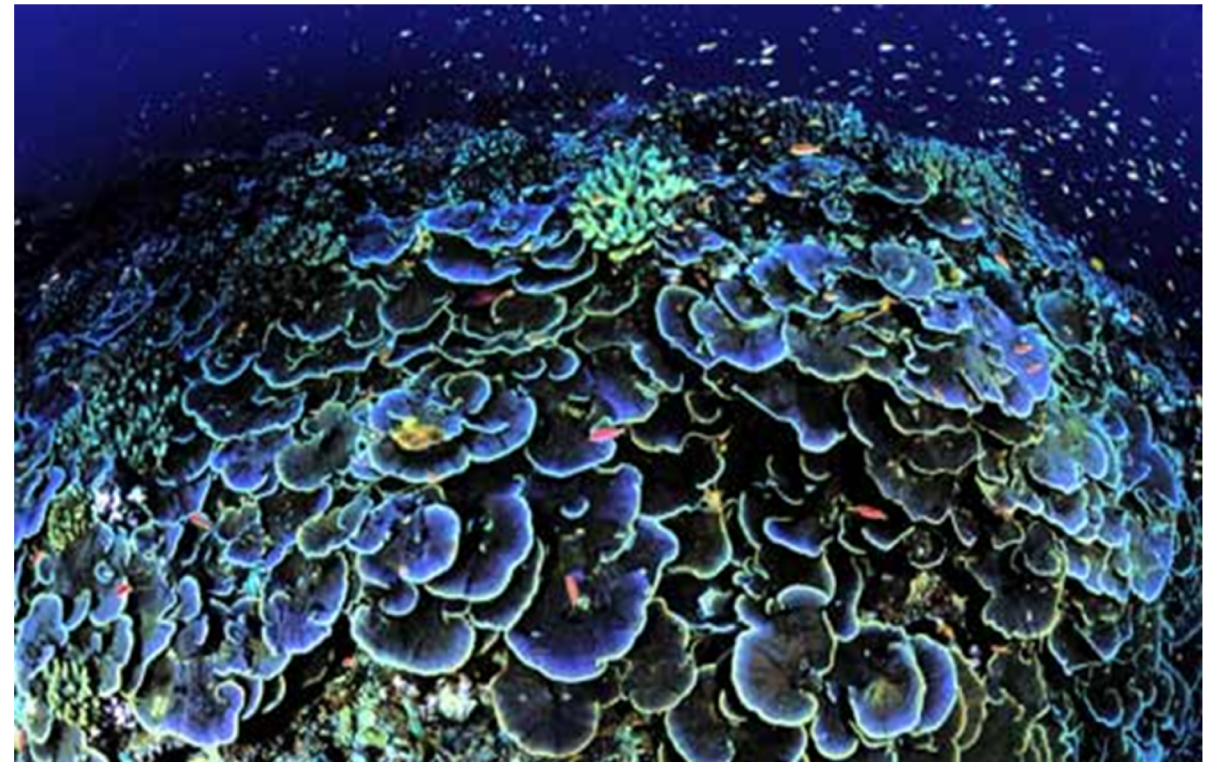
TOURISM ADAPTATION

Where we want to go

- Devise stronger governance and grievance mechanism for sustainable use of island ecosystems

- Increase energy efficiency and alterative energy in tourism service industry

CORAL REHABILITATION

Then

- One of the largest reef systems in the world

- Increase sea-level, change in ocean pH, increase in SST leads to coral bleaching

- Damage to coral reef could increase severity of beach erosion and also impacts tourism and fisheries.

- 1998 Elnio have caused significant bleaching event across the archipelago

CORAL REHABILITATION

Now

- Coral Reef Monitoring Programme is undertaken

- UNESCO Biosphere Reserve is established which circles around reef systems and its ecosystems

HUMAN HEALTH

Now

- All the inhabited islands have primary healthcare

- Three Tertiary hospitals (located in Male')

- Dengue, Chikungunya and Scrub typhus are vector borne diseases of immediate concern

- Establishment of an integrated disease surveillance system (SIDAS) throughout the country.
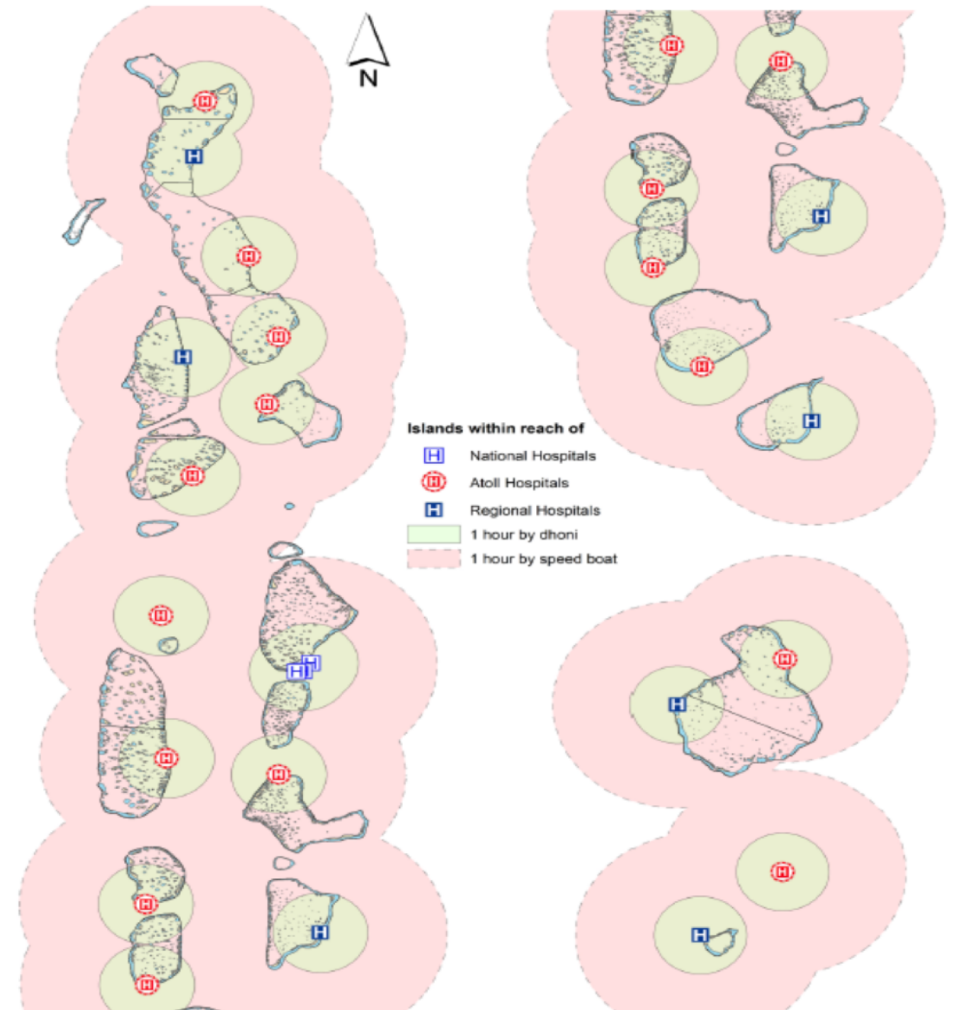

Islands within reach of
- National Hospitals
- Atoll Hospitals
- Regional Hospitals
- 1 hour by dhoni
- 1 hour by speed boat

Figure 7-14: *Spatial distribution of secondary and tertiary health facilities in the Maldives.*

HUMAN HEALTH

Where we want to go

- Establishment of the Green Climate-Smart Health Care

Climate Smart Resilient Islands: *A holistic approach for SIDS in a changing climate*

Objectives

- Utilizing natural solutions,

- Promoting innovation and new technologies with associated capacity building,

- Enhancing access to finance.

10 Partner Organization

28 SIDS Countries

Scope or Areas

- Environmental Protected Areas
- Climate Services
- Inter-island Connectivity
- Food Security
- Green Tourism
- Climate proof Infrastructure
- Self-sustaining, sustainable and smart energy systems
- Water Security
- Smart Health Care Facilities
- Gender Equality and Intergenerational Partnership

Climate Smart Resilient Islands: *A holistic approach for SIDS in a changing climate*

Mode of Operation

- Sectorial Working Group

- CSRI Implementation Plan

- Biennial High-Level Meetings of SIDS

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