



SAARC
Disaster Management Centre (IU)



Regional Workshop
on
Assessing Drought Risks using Earth Observation Data
&
Launch of South Asia Drought Management System (SADMS)
Utility of SADMS tool for operational drought decision support across South Asia

◆————◆
Date: 31st August to 2nd September, 2022
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Gandhinagar, Gujarat, India

Session – III Drought Management efforts in South Asia



MALDIVES

Drought Management efforts in South Asia

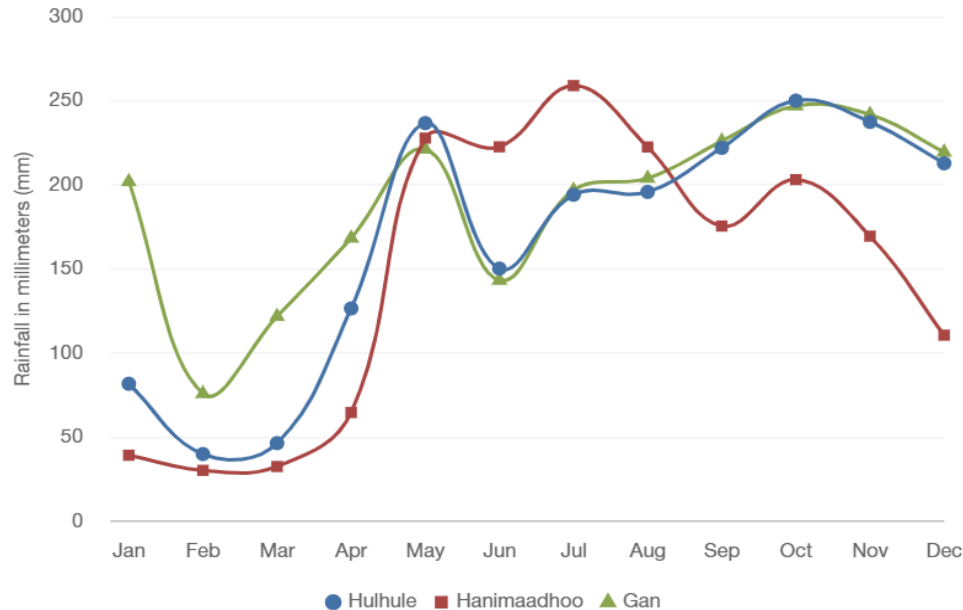


Ministry of Environment, Climate Change and Technology
Male', Maldives

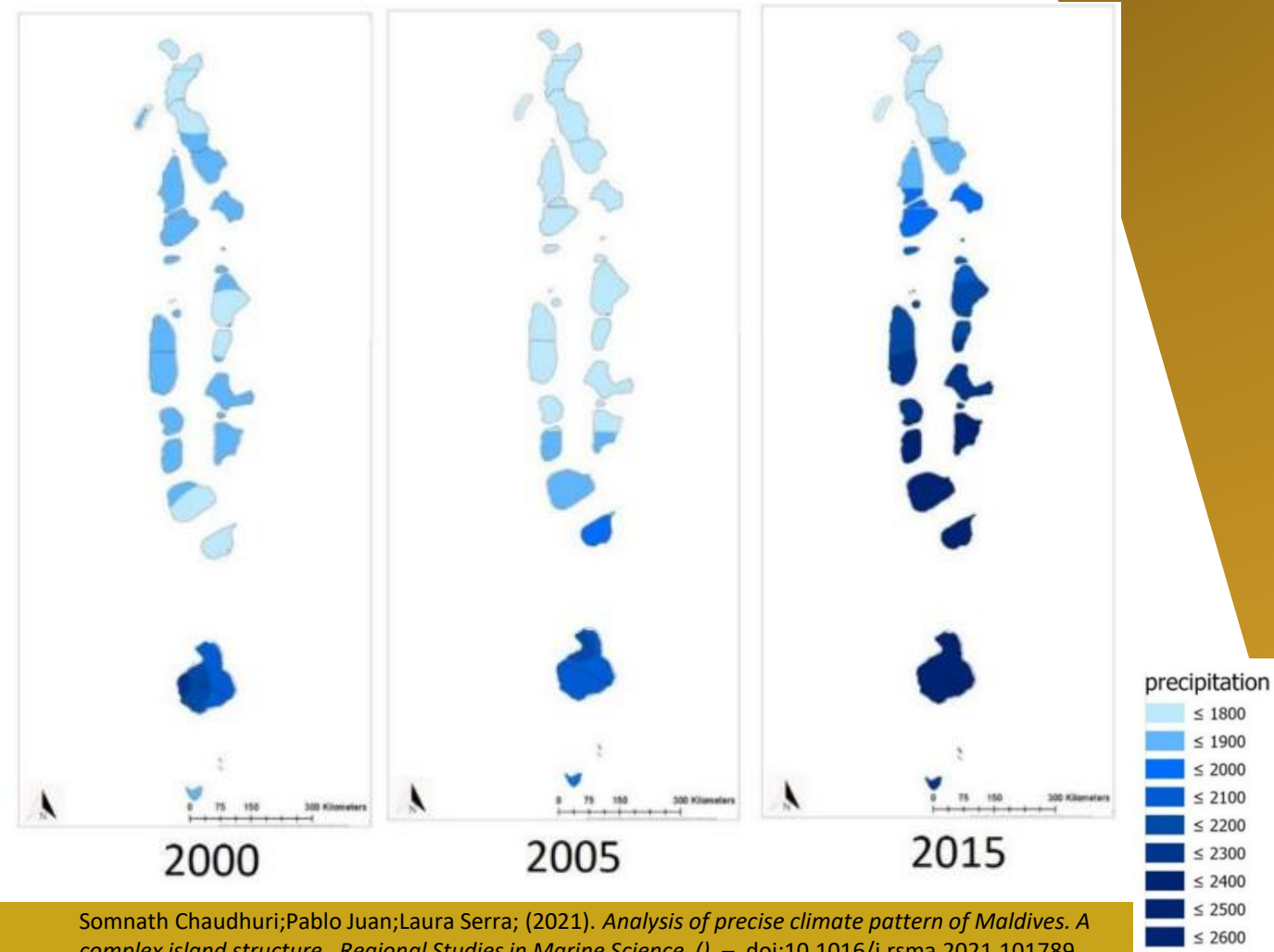
Management of drought: Current scenario

- Maldives has two seasonal monsoons- Northeast Monsoon & Southwest Monsoon
- Average annual rainfall- 2000 mm/year
- Due to climate change it is difficult to predict the weather

Rainfall in three different areas in Maldives

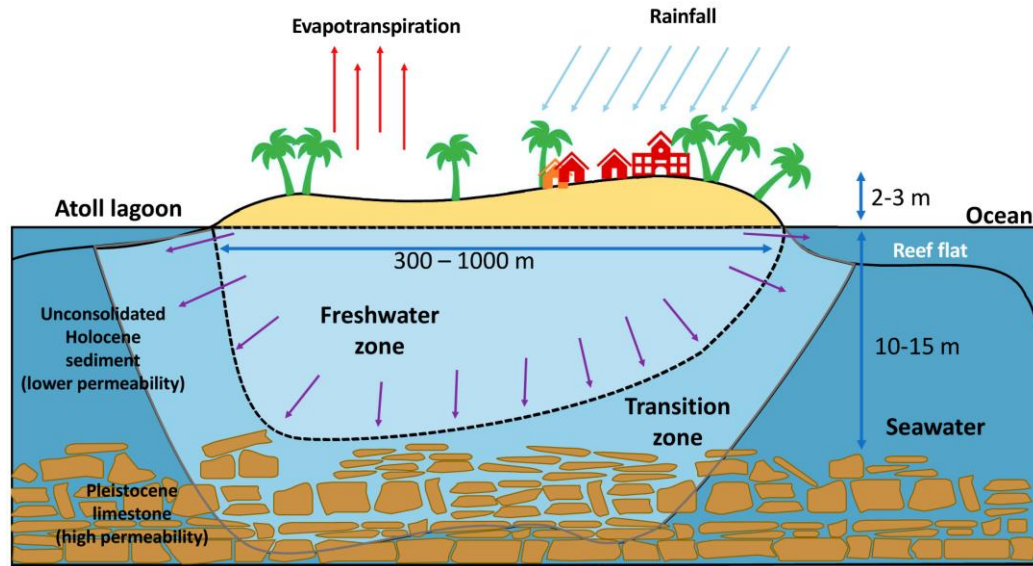


Rainfall graph source: Maldives Meteorological Service website



Somnath Chaudhuri;Pablo Juan;Laura Serra; (2021). Analysis of precise climate pattern of Maldives. A complex island structure . Regional Studies in Marine Science, (), -. doi:10.1016/j.rsma.2021.101789

Management of drought: Current scenario



A conceptual image of a typical aquifer of the islands, adapted from Terry et al. [2013].



Management of drought: Current scenario

- After 2004 Tsunami, government initiated a nation wide program to install rainwater harvesting tanks to each household
- Government and public community installed rainwater harvesting tanks in islands to establish water security
- Alternative source -desalinated water



Management of drought: Current scenario

Water supplied to islands during dry period

	2021	2020	2019	2018	2017
Total number of TONS of water supplied	1,518.98	3,348.96	3,886.67	1,459.52	1,375.50
Total number of Islands water supplied	28	73	82	48	33
Expenditure (USD)	287K	613K	733K	220K	267K

Data Source: Ministry of Environment, Climate Change and Technology

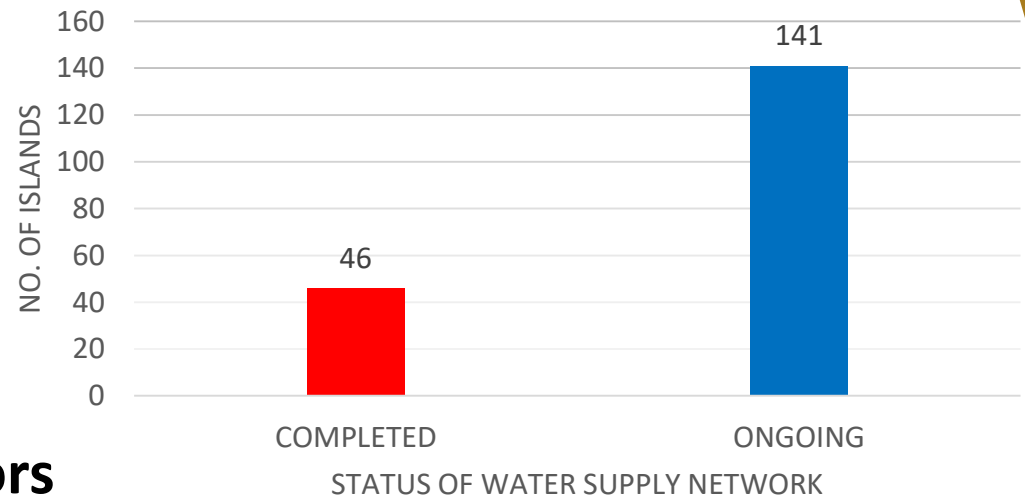
Current policies for drought management

- 2004- 2017 NDMA was mandated to deliver emergency water supply
- From 2017 onwards, mandate transferred to Ministry of Environment, Climate Change and Technology

Drought resilience initiatives across multiple sectors

- Government's target- establish IWRM as sustainable water supply in all islands by the end of 2023

DEVELOPMENT OF WATER SUPPLY NETWORKS



Current procedures & policies to promote timely contingency measures

Responsibilities of council

Regular monitoring of water availability at public water tanks

Request for emergency water through the application form, before 14 days of the estimated date of water run out

Clean the water tanks before sending the water to the island

Receive the water supplied and sign the delivery note

Responsibilities of water supplier/contractor

Verify the form submitted by councils through their branch offices (storage capacity of public water tanks, status of water availability, etc..)

Supply the requested water to the island public water tanks which are within 4000 ft from harbour

Water to be supplied as per the standard set by MFDA

Complete the delivery note

Report to Ministry weekly and submit all the documents

Responsibilities of Ministry

Monitor the whole operation and get updates weekly

Address to any issues by the council and supplier

Process the payments to the supplier

Future needs and expectations

- Every system needs a backup and preparation for worst case scenario.
- Capacity Building is an important pillar for the sustainable operation and maintenance of any system



Male' water crisis 2015

Thank you