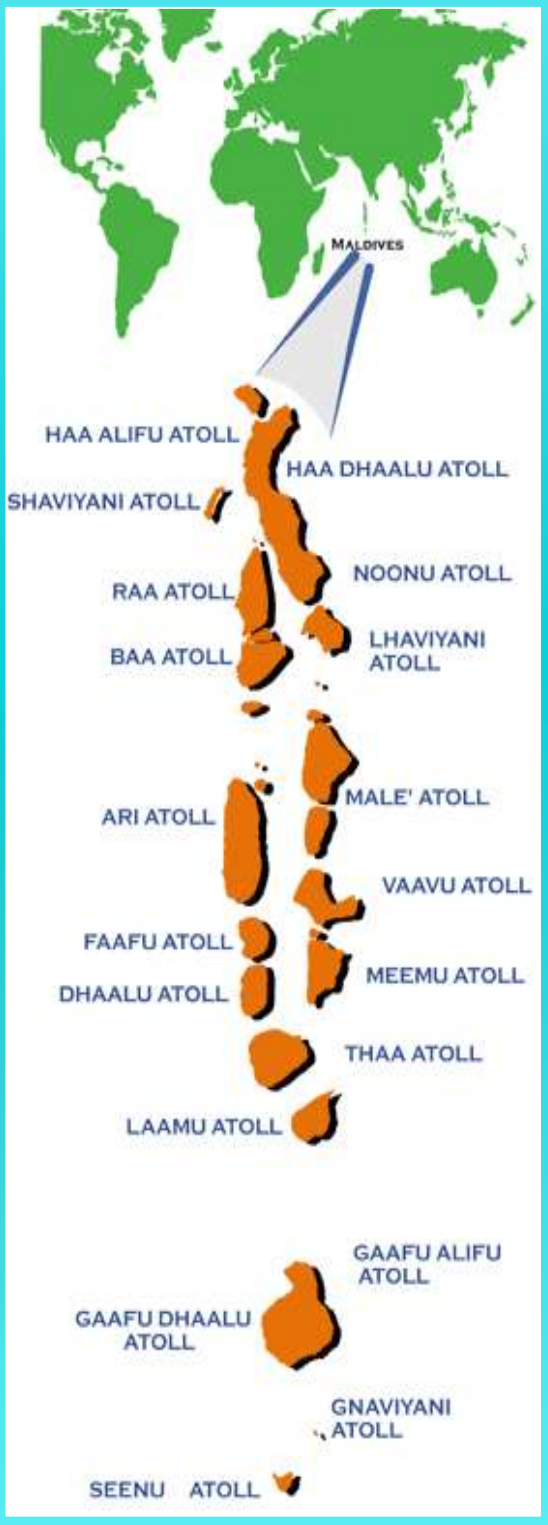
ASIAN DISASTER REDUCTION CENTRE

Visiting Researcher Program – FY2015B

COUNTRY REPORT: REPUBLIC OF MALDIVES



Captain Mohamed Inayath MSc.DRM
Director, Programs
National Disaster Management Authority
mohamed.inayath@ndmc.gov.mv
mohamed.inayath@outlook.com

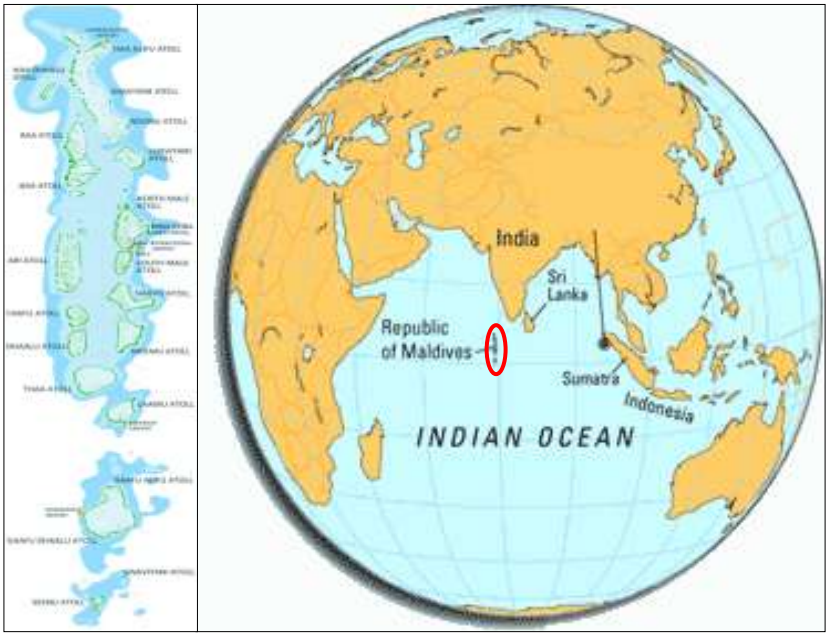
CONTENTS

Disclaimer

This report was compiled by an ADRC visiting researcher (VR) from ADRC member countries.

The views expressed in the report do not necessarily reflect the views of the ADRC. The boundaries and names shown and the designations used on the maps in the report also do not imply official endorsement or acceptance by the ADRC.

GENERAL DESCRIPTION



Maldives, officially the Republic of the Maldives, is a small island country lies between latitude 7° 6' 35" N, crossing the equator and extending up to 0° 42' 24" S and between longitudes 72° 33' 19" E to 73° 46' 13" E in the south-west of Sri Lanka and India. Maldives is comprised of 20 administrative atolls encompassing 1,192 small low-lying coral islands, of which 188 are inhabited and more than 100 islands are exclusive tourist resorts. The tiny islands stretch 820 km north to south and 120 km east to west. Total area is about 115,300 sq. km of which about 99% is water and total land area is about 298 square kilometers. The population of the Maldives is 344,023 (Census, 2014), of which 38 percent live in Male' City, the Capital of Maldives. Tourism is the backbone of the economy; fishing and agriculture also significantly contribute to the livelihood of the people. Two seasons; dry season "Iruvai" is from December to April, northwest monsoon and rainy season "Hulhangu" is from May to November, southwest monsoon dominate the Maldives' weather. Maldives is one of the most vulnerable countries in the world. Being the most flat and the lowest elevated nation with average height of 1.5 meters, Maldives faces multi-hazard risks and threats from the global warming and climate change induced sea level rise and extreme weather events.

GEOGRAPHY

The Maldives is a chain of small islands stretching across the equator to the south west of Sri Lanka. The 1,192 islands – of which only 188 are inhabited – form an archipelago of 26 natural atolls (groups of neighbouring coral islands). Each of the 26 atolls that make up the Maldives is enclosed by a coral reef cut by several deep, natural channels and a lagoon.

Figure 2: Geographical feature of Maldives (Atolls)

The Maldives archipelago stretches 820 km north to south and 120 km east to west. Over 99% of the Maldives is made up of the sea: only 0.331% (115 square miles) of its 35,000 square mile surface area is dry land.

Figure 3: A typical island of Maldives

How the islands actually formed is something of a mystery. The theory that has most support was first suggested by Charles Darwin in 1842 (after he had studied similar atolls in the Pacific and Atlantic Oceans). Darwin's theory suggests that the islands were formed when volcanoes rose from the sea and coral reefs grew around their edges. The volcanoes subsequently sank back into the sea leaving the coral reefs to circle a shallow water-filled lagoon. Islands then formed when currents and tides swept dead coral and other organic debris into the lagoons which in turn became filled-in and were eventually colonized by plants and trees.

The islands that make up the Maldives are very small (most can be walked across in 10 minutes; only a few are longer than 2 square kilometers) and low-lying (they rarely reach more than six feet above sea-level). This makes them particularly vulnerable to beach erosion. In 1812 and again in 1955, devastating gales destroyed many northern islands, while in 1987 the capital, Male, was flooded by a severe storm surge. If, as some

scientists predict, global sea levels continue to rise as a consequence of global warming, it will pose a particular risk to the Maldives.

CLIMATE

The Maldives has a tropical climate with warm temperatures throughout the year and many hours of sunshine. With a maximum temperature of 33°C and an average minimum temperature of 26°C there are only minor variations in daily temperature throughout the year. There are two monsoon periods: the southwest monsoon (the wet period from May to November) and the northeast monsoon (the dry period from January to March).

Figure 4: south west monsoon (rainy season)

Figure 5: North east monsoon (Dry season)

DEMOGRAPHY

The population of the Maldives is 344,023 (census 2014). Maldivians are ethnically from South Indians, Sinhalese, and Arabs. Islam is the religion of the State and Maldives is a hundred percent Muslim country. Dhivehi is the national language and *thaana,* derived from Arabic is the script used in Maldives. Even though not officially quoted, English is the second language of the Maldives and the majority of the populace can speak and write in English.

Figure 6: Islamic Centre- the biggest mosque in Maldives

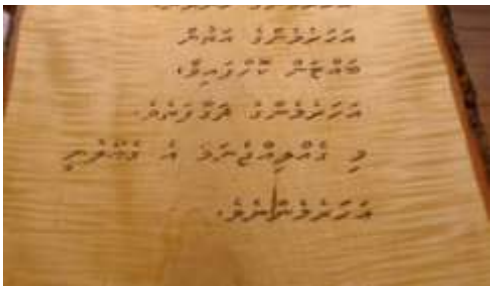


Figure 7: Thaana– the script used in Maldives

GOVERNMENT

Maldives is a presidential republic, with the President as head of government and head of state. The President heads the executive branch and appoints the cabinet which is approved by the People's Majlis (Parliament). Following the introduction of a new constitution in 2008, direct elections for the President take place every five years, with a limit of two terms in office for any individual. The current President is Abdulla Yameen. Members of the unicameral Majlis serve five-year terms, with the total number of members determined by atoll populations. At the 2014, 85 members were elected. The People's Majlis, located in Male, houses members from all over the country.

Figure 8: President Abdullah Yamin Abdul Gayyom

Figure 9: The people's majlis - Parliament

Maldives is divided into 20 administrative divisions (atolls), each headed by an atoll council with the exception of Addu Atoll (Seenu Atoll) which, along with the capital Male' has been declared as a cities. Addu and Male' city has a city council. Every other island has an island council and operates under a decentralized system. All the councilors are elected after a referendum at the respective levels.

ECONOMY

The currency of the Maldives is *Rufiyaa* (MVR) at an exchange rate of 15.42 MVR for 1 USD. Maldives consisting of ninety-nine percent water, the main source of food is from the sea. Tuna is a significant source of income in the island nation. Canned tuna, dried tuna, salted tuna, and various products made from tuna are exported to Asian and European countries. There are companies, private and government-owned that takes part in this industry.

Figure 10: Canned tuna – main export

Maldives is famous for her natural beauty and remains an attractive destination for vacationers. Tourism began in the Maldives in 1972 and to this day, there are more than hundred resorts in the Maldives. Maldives is heavily dependent on the import of goods and tourism is the main source of foreign income into the country. The Gross Domestic Profit (GDP) is estimated at around 3.06 billion USD with an estimated GDP per capita of 7,375 USD (2014).

Figure 11: Beach side of a tourist resort

OVERVIEW OF HAZARDS AND DISASTER RISK

Maldives is generally luckier in terms of mega disasters in the past. However, Indian Ocean Tsunami 2004 was an eye-opener for the people of Maldives. It was the first ever disaster of cataclysmic magnitude to hit the Island country. Generally, urban or rural, all the islands are coastal communities. All the human settlements, industries and critical infrastructure are located near the shoreline. Airports, hospitals, schools, power plants and more than 40 per cent of houses lie less than 100 meters from the sea. Due to the close proximity to the coastline, several households are prone to severe climate hazards. The country's geographic location, physical and geo-climatic features of its islands near the equator in the Indian Ocean exposes the country to different natural hazards from earthquakes (particularly the Southern region), tropical cyclones, storms, thunderstorms, heavy rainfall, drought, floods induced by heavy rainfall to storm surges, swell waves and tsunami. It regularly experiences extensive risks in terms of high frequency, low impact events such as monsoonal flooding, sea surges and other chronic phenomena including coastal erosion, saltwater intrusion and other climate risks. In addition, many islands of the Maldives experience fresh water shortage during the dry season because of increased salinity and contamination of the ground water since the 2004 Indian Ocean Tsunami. Government spends several millions to supply emergency drinking water to the affected island communities every year.

STORMS / CYCLONES

At times, tropical cyclones hitting Maldives are destructive due to associated strong winds that exceed speeds of 150 km per hour, rainfall above 30 to 40 cm in 24 hours and storm tides that often exceed 4 or 5 m. The combined effect of surge and tide is known as storm tide'. Storm tides can cause catastrophe in low-lying areas, flat coasts and islands such as Maldives.

Figure 12: A storm

The islands of Maldives are less prone to tropical cyclones. The northern islands of the country were affected by weak cyclones that formed in the southern part of the Bay of

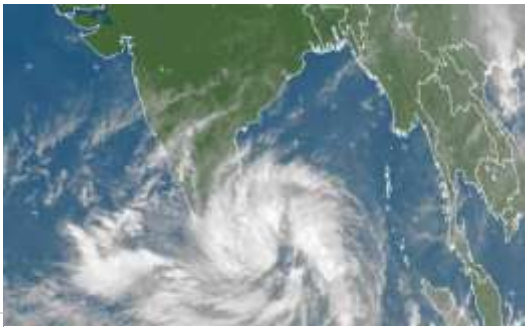


Figure 13: Cyclone Nilaam - 2013

Bengal and the Arabian Sea. The number of cyclones directly crossing Maldives is small. Only 11 cyclones, which were formed during the months of October to January, crossed the islands over 128 years.

The vulnerability of the islands in the northern atolls is heightened due to their poor accessibility compared to other parts of the country. In a post cyclone situation, affected areas are inaccessible for several days due to poor weather and rough sea conditions. In cyclones, risk to livelihoods in the primary sectors such as agriculture and fishing, and in the service sectors is high.

SEA LEVEL RISE

Sea level rise due to climate change threatens the entire country. Estimations are that the projected sea level rise of 0.09 m to 0.88 m is going to take place between 1990 - 2100. As three quarters of the land area of Maldives is less than a meter above mean sea level, the slightest rise in sea level will prove extremely threatening. As per an estimate, 15 % land area of Male will be inundated by 2025 and 50% by 2100. For people living on low-lying islands, a rise in sea levels by 50 cm could see significant portions of the islands being inundated or washed away by erosion.

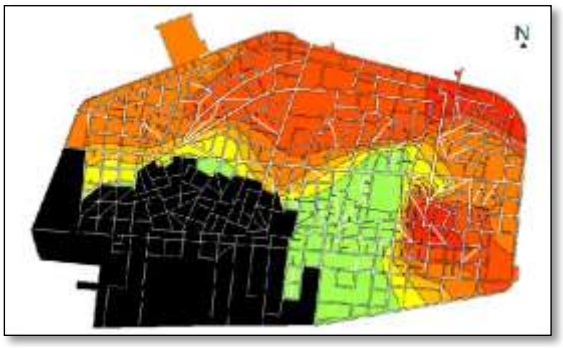


Figure 14: Male' in the year 2050 - 31% of Male' inundated under IPCC worst case scenario (IS92e)

Figure 15: Damages caused to the beach due to sea level rise

As a result of the rise in sea level, a variety of impacts may be expected in Maldives. These include loss of land, flooding of low lying coastal areas, displacement of population, loss of crop yield, impacts on coastal aquaculture, and erosion of sandy beaches.

Figure 16: Damages caused to livelihood of people due to sea level rise

As most of the economic activities in Maldives are heavily dependent on the coastal ecosystem, sea level rise will impact

the social and economic development of the country. Residential areas, industry and vital infrastructure of the country lie close to the shoreline, within 0.8 to 2 m of mean sea level. Even now some islands are seriously affected by loss not only of shoreline but also of houses, schools and other infrastructure, compelling the government to initiate urgent coastal protection measures.

WATER SHORTAGE

Freshwater is in short supply in the Maldives, where the traditional reliance on groundwater supplies for both potable and non-potable uses has recently been brought into question - particularly on densely populated islands - as a result of:

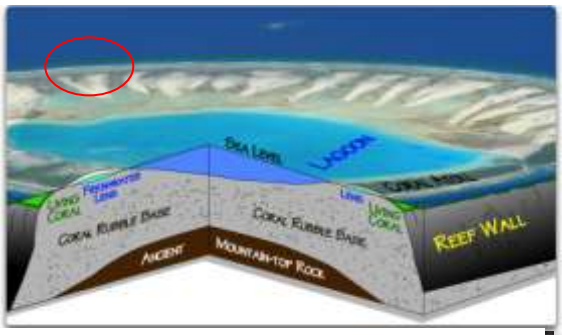


Figure 17: Diagram showing a fresh water lens of an island

- Over-extraction of groundwater by growing populations
- Contamination of groundwater, with toxins reaching the aquifer as a result of poor sanitation
- Salinisation of aquifers during storm surges, and especially as a result of the 2004 tsunami, which seriously damaged public perceptions of groundwater quality and led to calls for sewerage systems and the provision of other sources of freshwater.

Figure 18: Dhonies carrying water to islands

Although not considered as a disaster, but due to the programming and logistical costs, the government faces every year it is considered as a crisis.

Figure 19: Re filling the water containers during dry seasons in islands

The government provides thousands of tons of freshwater to islands in order for drinking and cooking.

Figure 20: Distribution of water with the help of MNDF- Water crisis in Male' – December 2014

TSUNAMI

In Maldives, islands along the east are more prone to tsunami hazard than those along the north, south and west ones, where the threat is considered low. As such, the islands with lower elevation and higher population are at greater risk.

Figure 21: Damages caused due to tsunami - 2004

The Indian Ocean Tsunami in 2004 was the first Tsunami to hit Maldives. It caused great damage to the delicate islands as well as the economy of the country and the livelihood of its people.

Figure 22: Damages caused due to tsunami - 2004

And it is possible that a tsunami to be generated from the active seismic zones around Sumatra, Western India and in the waters west and south west of Maldives. The Waters of ocean lying south of Maldives and the Carlsberg oceanic ridge zone, which has a high level of seismic activity.

Figure 23: Damages caused due to tsunami - 2004

Figure 24: International Airport on tsunami - 2004

EARTHQUAKE

Situated on the Indo-Australian plate, the Maldives is tectonically very stable and aseismic. It is located far away from high-seismicity regions. But traumas have been felt by people across a wide area and on many islands. These traumas are said that, were not caused by nearby seismic events, but by the relatively large events that have occurred in the western Indian and Sumatra region. But it is possible that a major earthquake to suddenly occur in a region that has not been seismically active in the past. And attention is given to the possibility of a tsunami generated from the active seismic zones around Sumatra, Western India and in the waters west and south west of Maldives. The Waters of ocean lying south of Maldives and the Carlsberg oceanic ridge zone, which has a high level of seismic activity.

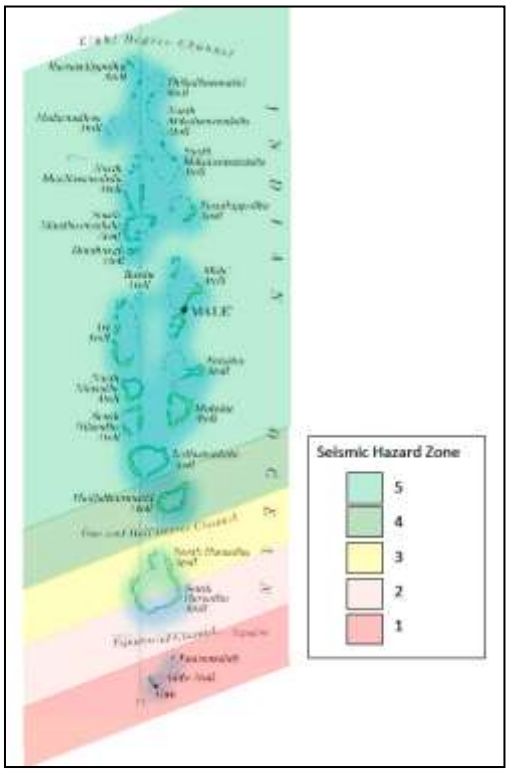


Figure 25: Seismic hazard map

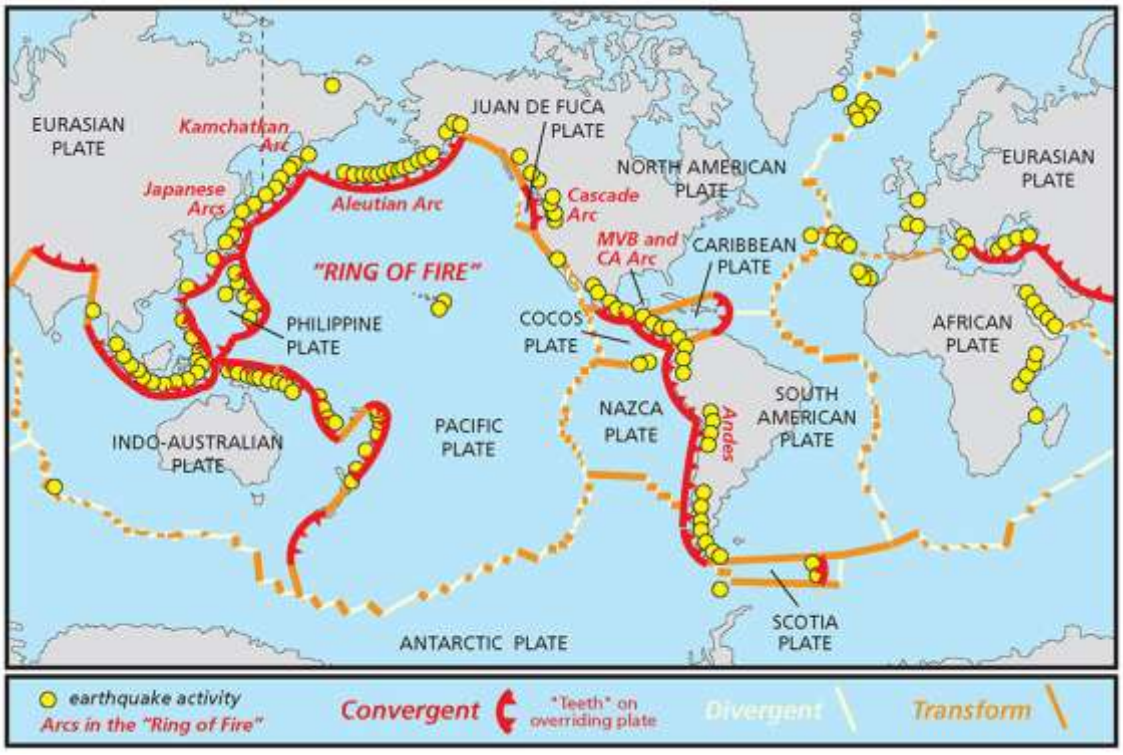


Figure 26: Map of world seismic activity and tectonic plates

RECENT MAJOR DISASTERS IN MALDIVES

Addu City Flood Crisis (24-25 November 2015)

Addu Atoll in the south of the Maldives has been hit by severe flooding after several hours of torrential rainfall. Homes and businesses in Addu City have been inundated by floodwaters and the storm damage has been described as the worst in 40 years. The City experienced 228.4 mm rainfall between 8am Tuesday to 8am Wednesday and was the highest recorded in the country history in 24 hours. It also experienced an alarmingly high rainfall in an hour with 54.9mm. The islands of Feydhoo, Maradhoofeydhoo and Maradhoo households were severely affected. About 297 houses got flooded and loss is estimated at US$0.3 million.

Male Water Crisis (4 December 2014)

A serious fire broke out on 4 December 2014 inside the Maldives Water and Sewerage Company (MWSC)'s Generator Unit and has disrupted Male' City's water supply. The water supply was suspended across the capital city as MWSC is the sole provider of clean desalinated water in the capital and the unit was severely damaged in the fire. A national crisis was declared by the government of Maldives and an operation to distribute safe drinking water in the Male' City started. Maldives National Defense Force (MNDF) and the Maldives Police Service (MPS) are being tasked to manage the distribution of safe drinking water. Meanwhile, the Maldives Red Crescent and various private sector companies have been supporting and deployed to assist in the wider delivery of clean water to the households. The loss and the cost of relief operation were estimated to be US$20 million and lasted for 10 days.

Cyclone Nilam (October-November 2012)

Tropical cyclone that originated from the Bay of Bengal hit Maldives late October and continued until the first few days of November flooding 51 islands. 28 islands were severely flooded, and 4 islands were in a critical state. The cyclone affected 33,826 people and caused an estimated US$ 133,090 in damage.

Surge Waves (15-17 May 2007)

On 15-17 May 2007, a series of swells, between 10 - 15 feet, hit an estimated 68 islands in 16 Atolls across the Maldives, causing the inundation of up to 600 meters from the coastline. The most affected atolls were Gaafu Dhaalu, Dhaalu, Thaa and Laamu, which include over 24 islands. There were no human fatalities from the coastal flooding.

However, 1649 people were evacuated from their homes. A total of 579 housing units were damaged by the high tide floods. 33 islands were affected by salt water intrusions that caused significant damage to crops, agriculture farms, home gardens and vegetation, which most people depend upon for livelihood and food supplies. The wave surges also caused minor damage to harbors and jetties in 17 islands and 58 out of the 68 islands inundated have reported to have significant area of the coastlines eroded.

Indian Ocean Tsunami (December 2004)

Indian Ocean Tsunami occurred off the Sumatra Island on 26 December 2004 devastated the Maldives, causing 82 people killed, 26 people missing and more than 27,214 people affected. The total economic loss was approx. US$ 470 million, about 62% GDP. Total (World Bank, 2005).

WATER SHORTAGES

Due to over- extraction, contamination and as a result of Stalinization of aquifers during storm surges, and especially as a result of the 2004 tsunami, the fresh water lens of Maldives is almost destroyed. And now the only source of fresh water to the country is rain water. But the amount of rain water that is collected during the rainy season is not enough to cover the whole year's consumption. As a result there is a shortage of fresh water during the dry season of each year. Since the island communities do not have the capacity to provide for themselves, the government sends emergency water supplies to these islands.

Year	No. of Islands	Total amount of water delivered (in tons)	Total amount spent (in USD)
2005	91	2,728	159,221.80
2006	86	2,905	145,525.30
2007	82	2,694	131,031.10
2008	74	2,088	101,556.40
2009	117	7.469	472,144.70
2010	*Water provided by province offices*		
2011	108	3,920	142,178.30

2012	86	2,500	286,075.80
2013	28	1,225	537,363.60
2014	77	2,909	349,691.75
2015	77 (98 requested)	4457.85	507,331.28

Table 1: water provided to islands during water shortages

DISASTER MANAGEMENT SYSTEM

ADMINISTRATIVE SYSTEM IN MALDIVES

Structure of local government in Maldives

- Local government within the country

Local government is two-tier, comprising island councils and city councils, all of which are accountable to an atoll council.

- Ministerial oversight

The Local Government Authority (LGA) has responsibility for local government and advises atoll councils on the formulation of regulations and by-laws.

- Atoll councils:

These are mandated to oversee administrative and development work and to coordinate and monitor the activities and functioning of the island councils. The atoll council comprises members elected for a three year term from the electoral constituencies of the administrative divisions within its boundaries.

- City councils:

City councils must have a population of more than 25,000, the necessary capacity to deliver the appropriate services and a minimum level of gross productivity as specified by central government from time to time. There are two city councils, with between them a total of 17 councilors.

- Island councils:

Every inhabited island in the Maldives, except islands where city councils are established, is governed by an elected island council which prepares island

development plans in consultation with the community, and submits them to the atoll council. They are also mandated to take all necessary measures to establish a safe and peaceful environment on the island in collaboration with the police. Island councils comprise elected members from that particular island

LEGAL SYSTEM AND FRAMEWORK

The Disaster Management Act 28/2015, which was published in the government gazette on 6 September 2015, stipulates the basic tenets and principles that govern the disaster management in the Maldives. The Act states the policies, rules and guidelines that need to be formulated to realize the purposes specified by this Act; to save and protect the Maldives' geographical area, the Maldivian people, the property of the Maldivian people, and the natural and urban environment from hazards and disasters of natural and other causes; and to reduce the disaster risk from various hazards considering the vulnerability; and to be prepared for and safe from disasters, in the event of such an incident or state of emergency. This Act seeks to provide a framework and a platform at all levels to address all the Phases of disaster mitigation, preparedness, response, and recovery.

ORGANIZATIONAL / INSTITUTIONAL MECHANISM

A presidential decree established the National Disaster Management Centre (NDMC) soon after the 2004 Indian Ocean Tsunami. Initially, its mandate was to coordinate the recovery process for the tsunami response and relief effort. However, as things progressed, the government handed the mandate of disaster preparedness and risk reduction as well to the NDMC. With the Disaster Management Act 28/2015 the National Disaster Management Authority (NDMA) was created.

Currently, the NDMA serves as the national authority and institution with the mandate to lead disaster management and disaster risk reduction in the country. It also serves as the national platform to coordinate multi-sectorial disaster management activities in the Maldives and leads government commitment to protecting its people and the implementation of international standards such the HFA (2005-2015) and moving forward with SFA (2015-2030). At present, NDMC is under the Ministry of Defense and National Security. Maldives commemorates 26 December every year as the "National Unity Day".

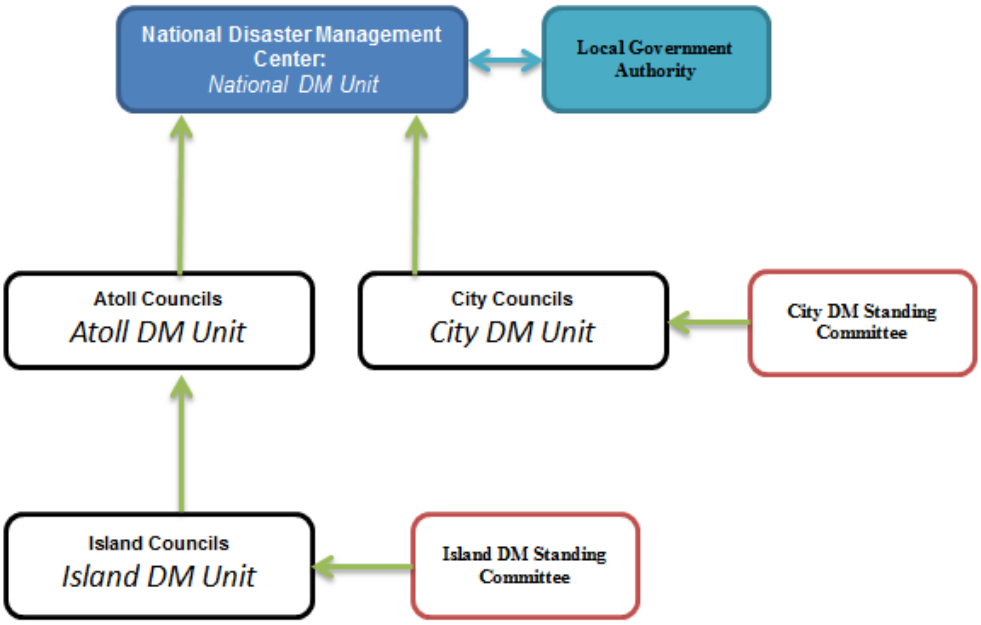


Figure 27: Island disaster management structure

NATIONAL ORGANIZATIONS FOR DISASTER RISK REDUCTION

Apart from the NDMC, Maldives have very few national organizations that undertake the DRR process. Maldivian Red Crescent conducts programs and workshops mainly focusing on disaster management as a core strategic area. And the United Nations office in the Maldives provides funding and conducts various programs in coordination with the Maldivian government. And National Disaster Management Centre conducts workshops and awareness programs in atoll and in islands, in collaboration with Maldives National Defence Force to rise disaster risk reduction capabilities at the island and atoll level.

Figure 28: MRC - emergency first response service

Figure 29: MNDF Conducting CBDRR workshops in island communities

Maldives National Defence Force also conducts annual emergency management workshops in different areas of the country aimed at local councilors and staff who work at schools, health sector, Maldives Police Service, and other government agencies. These workshops introduce them to the concept of managing a crisis before help could arrive, how to deal with evacuations, and to raise awareness about the importance of being prepared.

LOCAL ORGANIZATIONS FOR DISASTER RISK REDUCTION

Non-governmental Organizations such as CARE Society, Maldives Youth Climate Network etc have a focus on DRR and Climate Change.
Other thematic NGOs working in areas such as women, children, people with disabilities, autism, heart disease etc advocate for mainstreaming DRR into development and the planning processes that cater to the needs of the most vulnerable people.

DISASTER MANAGEMENT STRATEGY, POLICY, AND PLAN

The Third Constitution of the Maldives and the Disaster Management Act provide statements of the highest national policies and priorities of the nation. In addition, the Strategic National Action Plan (SNAP) for Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) aims to promote collaboration among policy makers, experts and practitioners of disaster risk reduction and climate change adaptation throughout the country in order to develop a comprehensive risk management approach.

The work to formulate national disaster management plan (NDMP) is underway and the national emergency operational plan (NEOP) is in the final draft stage. DM Act compels to produce and maintain these two plans. Other plans include the establishment national early warning system, commissioning of disaster management plan for tourism sector, development of Safe Island Strategy and integration and mainstreaming of climate change adaptation and disaster risk reduction into the resilient island development planning of the Maldives.

BUDGET SIZE ON NATIONAL LEVEL

NDMC deals with running the DRR and awareness programs and the funding is to be through the government budget. But there is no state budget for preparedness and awareness. NDMC budget only covers administrative costs and staff salaries and did not receive funding for any proposed programs for disaster related activities. Mostly the DRR activities are run by partnership projects from international organizations. But usually partnership projects do not allow for investment in infrastructure and equipment. A separate fund for response is allocated at the Ministry of Finance and Treasury.

PROGRESS OF THE IMPLEMENTATION OF HYOGO FRAMEWORK FOR ACTION (HFA) IN THE MALDIVES

The progress of implementation of Hyogo Framework for Action (HFA) 2005-2015: Building the resilience of nations and communities to disasters has been going on in the Maldives since the time of its inception. In order to achieve the goals outlined by the HFA, the Government of the Maldives committed to HFA's five priority for action. Following is a summary of the National Progress Report on the implementation of HFA in the Maldives from 2011-2013, reported by the National Disaster Management Centre.

AREA 1:

The more effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction.

Outcome:

Disaster risks consideration has been integrated in the Government's National Development Plan. Specifically, 2011 Strategic National Action Plan on Climate Change Adaptation and Disaster Risk Reduction for 2010-2020 was designed to promote collaboration among policymakers, experts and practitioners of DRR and climate

change adaptation in the country for the development of a comprehensive risk management approach. It aims to build resilience of the nation and the island communities to disasters by sustaining the progress made by consolidating learned best practices and by incorporating risk reduction into the strategy for decentralization. Once harmonized with the policies, plans and sustainable development strategy, it will identify a consolidated set of programs and projects that can be undertaken with Government budget and considered for donor assistance. Few government agencies' programs have already integrated disaster considerations such as the Safe Island program; a new proposal for mosques as safe shelters has been developed. These mosques will act as a base for food and water storage, and communication equipment, acting as a stronghold in each island in case of disaster.

AREA 2:

The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards

Outcome:

Established government institutions lack adequate capacity and resources thus have limitations in implementing DRR initiatives at all levels including interventions for communities. The Disaster Management Act 28/2015, which was published in the government gazette on 6 September 2015, stipulates the basic tenets and principles that govern the disaster management in the Maldives. The Act states the policies, rules and guidelines that need to be formulated in order to reduce disaster risk and manage disasters. The implementation of Decentralization Act also hindered by the lack of sufficient capacity and resources all national, atolls and islands levels including communities. In the absence of a legal DRR framework and insufficient funding, government agencies have collaborated on ad hoc basis to implement programs. The approach has mobilized trained staff from different Ministries and institutions at the national and international level in disaster management, risk reduction and other related fields with many yet to be fully utilized. The civil society organizations have made good progress in conducting trainings to strengthen capacities of government agencies, private sectors and communities.

AREA 3:

The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities.

Outcome:

The government agencies, private sector and civil society organization have supported key sectors and several communities on emergency preparedness, response and recovery. This includes development of Community-based Disaster Preparedness Plans for affected communities with guidance on preparedness, response and recovery based on Vulnerability and Capacity Assessments (VCA). During the process, trainings for response including trainings for 1st Aid, search and rescue, psycho-social support and early warning were provided as well as simulation exercises conducted for some islands. School level Standard Operating Procedures (SOPs) were completed for most schools in the country with staff being trained on emergency preparedness and decentralized management including regular mock drills being conducted within the school as well as activities carried out for community awareness with the involvement of parents in DRR. Ministry of Health and Family have specific SOP for the health sector while Ministry of National Defence Force, Ministry of Tourism, Arts and Culture SOPs in place for their respective sectors.

RECENT MAJOR PROJECTS ON DISASTER RISK REDUCTION IN THE MALDIVES

Major projects on DRR are few in the Maldives. Most of the projects thus far have been small programs conducted by the NDMC, MNDF and the Maldivian Red Crescent with a focus on DRR at the island level. DRR is implemented mainly through partnership projects. The ongoing projects include.

1. UNDP
2. ADPC
3. UNICEF
4. Resort programmers

But these partnership projects do not allow for investment in infrastructure and equipment.

UNDP PROJECT

Enhance National Capacity for Disaster Risk Reduction and Management in Maldives:

1. The establishment of the institutional and legal systems for DRR and effective DRR organizations/institutions;
2. The strengthening of the end-to-end early warning systems and facilitates implementation of public awareness campaigns and knowledge building on DRR and climate change adaptation.
3. In increasing community capacities for disaster preparedness for effective response, and will entail a multi-hazard approach involving a multi-stakeholder engagement.
4. The National Disaster Management Centre to be engaged as the primary implementing partner for the project to ensure sustainability and ownership. Assessing and strengthening the capacities of the NDMC as the lead national institution on

disaster risk reduction/disaster risk management coordination, will also be a key component of this project.

ADPC PROJECT

Mainstreaming Local Level DRR and CCA into Local Development Programmes

1. National templates on preparedness and response plans
2. National guideline on integrating CBDRR activities into local government authorities programs
3. Training package modules
4. Jointly organize workshop on National ToT
5. Organize orientation workshop for key stakeholders to finalize National Community based DRR framework

UNICEF PROJECT

Development of standards and protocols to strengthen NDMC's coordination role with island communities' pre and post emergencies

1. Develop an organizational five year action plan for emergency operations functions in Disaster Management Center
2. Develop roles and responsibilities, institutional arrangements and set-ups, capacity building strategies, tools for stakeholder capacity building, resource allocation and utilization mechanisms
3. Develop SOP's to strengthen NDMC's coordination role with atoll / island councils and other relevant authorities and Sectors to prepare, plan and response to emergencies
4. Develop Regulatory framework for National Emergency fund
5. Develop Strategies for Voluntary Response force
6. Develop a Relief Distribution Mechanism

Develop Emergency Operations Set-up/internal Operational area design/layouts and communication set-ups

RESORT PROGRAM

- Public-Private Partnership model
- NDMC gives technical support to resorts to develop DM Plans and build capacity
- Resort makes in-kind contribution to NDMC and at risk communities to strengthen DRR and Response capacities
- NDMC gives official Disaster Resilient Resort badge to resorts who take part in the programme

The program is conducted by trained and experienced facilitators from the Maldives National Defense Force and the National Disaster Management Centre of the Maldives. The program is designed to include both technical training and hands on exercises to ensure that resort management and staff would develop an understanding and knowledge of coordinating and controlling chaotic emergency situations due to natural and manmade hazards.

The objectives of the program are as follows:

- Understand disaster risk management concepts
- Undertake vulnerability capacity assessments for effective disaster preparedness and disaster risk reduction
- Establishment of an Incident Command System
- Develop basic understanding of fire awareness
- Development of a fire fighting squad
- Build awareness on maritime safety
- Understand and develop maritime safety skills such as search and rescue, swimming rescue, seamanship, etc
- Support develop multi-hazard Emergency operations Plan

ADRC COUNTERPART IN THE MALDIVES

Name of Focal Point: Ms. Fathimath Thasneem

Position: Deputy Minister of Defence and National Security

National Disaster Management Centre

H. Rihijehi Koshi, Ameenee Magu, Male' / Republic of Maldives

Website: www.ndmc.gov.mv

Email: info@ndmc.gov.mv

Telephone: (+960) 3333437, (+960) 3333470

Fax: (+960) 3333443