CLIMATE CHANGE EFFECTS ON MALDIVES

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OUTLINE

- Introduction
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- Tsunami 2004
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THE NATION OF ISLANDS

Maldives

Male

Laamu atoll

Huvadhu atoll

Fua Mulaku atoll

Addu atoll
Maldives – a small island nation in the middle of Indian Ocean

- Maldives is a 1192 island nation, with roughly 320,000 people.
- The population is thinly dispersed for over 200 inhabited islands.
- Maldives is a very low lying nation which makes it very vulnerable to the effects of climate change from global warming.
- The Maldives is dependent on Tourism and Fisheries for economic livelihood.
EEZ: 974,000Sqkm

CONTINENTAL SHELF:
165,966Sqkm

SRR: 873,000SqKm

COASTLINE: 955.2Km

AREA WITHIN ATOLLS
(incl. land, reefs & water)
21,318 SqKm

ISLANDS: 1192

89 RESORTS (~30 on the way)

658 UNINHABITED ISLANDS

% of Sea Area : 97.7%

% of Land Area: 2.3%
GEOGRAPHIC IMPACT

• The frequency of occurrence of natural disasters in the Maldives is low.
• The fact that disaster preparedness became a priority of the Maldivian government only after the tsunami of 2004.
• However, the vulnerability of the Maldives lies because of the low elevation (80% below 1 meter above sea level) and flat topography of the small islands and wide dispersion of its population in the atolls.
Climate change is expected to have severe impacts on the small, low-lying coral islands of the Maldives.

The maximum sea level rise of 59cm by 2100 which is predicted by the UN due to global warming is expected to make flooding incidents more frequent and coastal erosion more prevalent.
NATURE OF THE ISLANDS

ATOLL FORMATION
NATURE OF THE ISLANDS
NATURE OF THE ISLANDS
TSUNAMI 2004

➢ Tsunami hit the Maldives in the early hours of 26th December 2004

➢ 88 lost their lives where 24 went missing
TSUNAMI 2004

- Coast Guard vessels were scrambled throughout the country
- Warships from France, Pakistan, India and Bangladesh were used in the relief operation
- Foreign supply aircrafts were also utilised for the operation
RELIEF OPERATION

- The Government established a National Disaster Management Center, to coordinate and address immediate disaster response operations.
- The established NDMC facilitated transport of food, water, medical supplies and both MEDEVAC and CASEVAC.
- Military vessels were supplemented with acquired local vessels.
- Disaster relief is still under-going with some remote populations living in temporary shelters.
RELIEF OPERATION cont…

- Two Pakistani War Ships on a good-will visit at the time was initially used to assess the impact.
- They were supplemented by War-ships from other nations on relief and rescue operations.
- Six Coast Guard vessels and a Landing Craft was the only operationally active vessels dispatched - all of them less than 24m in length.
- A Maritime Operation Centre was established in CGHQ to coordinate relief operation on December 28th.
RELIEF LIMITATIONS

- The islands’ communication were cut-off as the communication establishments were destroyed.
- Limited capability of CG Vessels hindered the relief operation due to decreased endurance and reachability.
- Lack of a Disaster Management body with trained staff.
- Lack of a practicable National level Disaster Management Plan.
- Absence of an early warning mechanism.
- Nature of the low-lying islands.
ACTIONS TAKEN

- Legal framework for Disaster Management
- Acquired larger military vessels to enhance reachability
- Affiliate with an established Indian Ocean Early warning system
- Establishment of National Disaster Management Center
- Conduct drills and aware local citizens
Inter-Agency Cooperation

➤ NDMC has established and planned mechanisms to incorporate NGOs and potential government agencies during disaster response, management and relief

➤ Table-top exercises are frequently conducted by the NDMC to enhance inter-agency operability
RELIEF OPERATION

CG vessels were used for CASEVAC and MEDEVAC

Military personnel worked relentlessly to provide relief to affected islands
RELIEF OPERATION

Foreign Military Personnel Worked alongside MNDF personnel

The locals supported its military through moral and active assistance
Affected islanders were evacuated by the military to temporary shelters in capital Male’.

The Tsunami Relief Operation was the largest disaster operation in the history of Maldives.
PROTECTING THE ENVIRONMENT

➢ To make Maldives a Carbon neutral nation in 2020

➢ Establishment of UNESCO BIOSPHERE in B.Atoll

➢ ECO Tourism.

➢ Continuation of Pole and line fishing
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ARE WE DOING ENOUGH?

➢ National?
➢ Regional?
➢ International?
THANK YOU!
Welcome to Maldives for the PESF 2014