

**GLOBAL PLATFORM FOR  
DISASTER RISK REDUCTION**

**FIRST SESSION – 5-7 JUNE 2007**

**THE REPUBLIC OF MALDIVES**

**PART - A COVER NOTE**

**Report on Progress towards meeting the Goals of the Hyogo Framework for Action -2005-2015  
May 2007**

Reporting Organization	National Disaster Management Centre
Scope of the organization's mandate	National agency responsible for Disaster Risk Management established by a Presidential Decree
Country , region, or other area being reported on	Republic of Maldives
Reporting on own organization or on behalf of others -please state	On behalf of NDMC organization and other agencies the NDMC partners within Disaster Risk Management programmes
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## PART –B Summary analysis:

The Government of Maldives has taken the following steps to ensure disaster risk reduction and build community resilience.

- **Inclusion in the 7<sup>th</sup> National Development plan of goals and outcomes to ensure the safety and security of the population.** A chapter within the National Development plan entitled “Natural Disaster Preparedness and Mitigation” clearly spells out policies and strategies for Disaster Preparedness and Mitigation. It aims at enhancing the safety and security of the population from natural disasters, eliminating risks to life & property, delivering efficient and prompt relief support and educating the public on hazards and risks.
- **Establishment of the National Disaster Management Centre (NDMC)** with three units to manage all aspects of preparedness, response and reconstruction, with a special unit for management of internally displaced persons. The Government of Maldives has made budgetary allocations for full time staff positions in the NDMC in order to set it up and fund its activities.
- **Development of a Disaster Management Act (draft)** recognizing that “disasters and emergency events have become more complex and lethal, as to require the entire government to act with dispatch, not only in disaster response, but in risk management, risk mitigation, preparedness, relief and recovery through capacity building at all levels, and establishing partnerships with organized communities and the private sector”. The Draft Act has a multi-hazard and all agencies approach. It directs the setting up of institutions to implement goals enshrined in the policy and delegates roles and responsibilities to various ministries for preparedness, mitigation, response and recovery. The Draft Act also elaborates on the various structures at the National Atoll and island level and provides guidelines for use of resources for disaster preparedness and relief. The Draft Act will be tabled at the Parliament this year pending approval from the Attorney General’s office/ Law Commission.
- The NDMC has prepared a draft **National Disaster Management Plan** for the country and will shortly be going through the process of inviting inputs from other Government ministries to finalize the plan. Other Ministries within the Government have also developed disaster management plans. Among the two completed plans are the Ministry of Health and Ministry of Tourism and Civil Aviation. Multi-Hazard Community preparedness plans are being developed in the islands and Atolls and simulation exercises are held in selected islands to test the efficacy of the plans. The Government has established five regional Emergency Operations Centres in strategic locations across the country to provide rapid response to disaster-affected islands. The National Emergency Operations Centre within the National Disaster Management Centre coordinates the work of the regional centres.
- With regard to **Early warning systems**, the Government has developed a **National Early Warning Plan** with protocol and responsibilities for weather forecasting, prediction and dissemination among key agencies, such as the Department of Meteorology, the National Disaster Management Centre under

the Ministry of Defense, Ministry of Information and Arts (TV and radio) Ministry of Telecommunications and Ministry of Home Affairs (Police). The Government has installed equipment for weather monitoring i.e., a Doppler radar, two Automatic Weather Stations one High Rate Information Transmission receiving systems and a short period seismometer. A Global telecommunication system has also been acquired through WMO. National resources have been set aside for procurement of one Broad Band Seismometer and three short period seismometers, one oceanographic data buoy and two weather observation systems. The Department of Meteorology is in the process of upgrading the sea level monitoring capability with assistance from IOC and University of Hawaii. The Met department has also developed software entitled *Real-time Earthquake Display System* (REDS) to receive real time data of earthquakes and tides for providing timely warnings. A national coordination group on warning communications has been formed, led by the Ministry of Telecommunications, to engage all stakeholders to deploy and use systems for quick dissemination of warnings to all islands. While there is significant work required in implementation of early warning dissemination protocols, a start has been made with public awareness of the various stages of warning, formation of community early warning groups and news alerts on weather situations.

- In an effort to build a culture of safety and resilience at all levels, the NDMC, with the assistance of UNDP, has been developing guides and manuals for use of the correct terminology for disaster risk reduction. A handbook/guide to facilitate community preparedness plans has been developed in the local language to ensure a common understanding of community preparedness. It includes terminologies developed by the international agencies. A small beginning has been made to include DRM into school curricula through discussions with the Ministry of Education. The school health programme will include activities for creating awareness on disaster management. Following training for teachers, school disaster preparedness plans will be drawn up. Since the declaration of December 26<sup>th</sup> as the national day of unity, the Government has commemorated this day through public awareness programmes. Various programmes using public media such as the TV and radio have been aired to create awareness on the do's and don'ts in a natural disaster.
- A key initiative of the Government to reduce vulnerabilities of the islands has been inclusion of the "safety measures" in the population consolidation policy. The safety measures may include providing ecologically safe zones, principally to mitigate tsunami hazards and other disasters, establishing building and construction codes that would enable vertical evacuation if and when necessary, etc. By developing such measures, communities are enabled to sustain social and economic development in times of emergencies and disasters. However it was necessary prior to any infrastructure investment to undertake a study to understand the extent of vulnerability in the islands. The current risk assessment undertaken in nine islands develops a detailed hazard risks analysis and vulnerability assessment of the islands in a changing environment, present a list of disaster risks, identify changing patterns of risk and vulnerability associated with coastal erosion trends and recommend specific mitigation measures to make the islands safer, including limits/regulations to expansion in the islands taking into account vulnerabilities of the natural and built environment. This study was preceded by a national study to develop the risk profile of the country

which has provided as its output a physical risk index, social risk index and a multi-hazard risk index to each island in the country.

- A Disaster Information system that will allow for the development of a historical data base on impacts and losses was set up in NDMC after the tsunami. Work on another critical database to inventorize equipment and skilled personnel available for emergency response has also been initiated.
- The most important issue of sustainable environment and ecosystems is being addressed through development of a framework for adaptation to climate change. In a document referred to as the National Adaptation Plan of Action (NAPA), adaptation needs and options were identified for key economic sectors (particularly fisheries, tourism & agriculture) protection of natural ecosystems, beaches, human settlements and water resources. The legislation for the implementation of such a framework is already provided for by the Environment Protection and Preservation Act (1994).

Some **key challenges** in the implementation of the DRR initiatives are:

- Disaster management is a multi-sectoral activity; it requires a coordinated approach by all stakeholders. Many ministries within the Government have not been able to accord priority to disaster risk management.
- The NDMC has yet to start functioning with its full mandate. The challenge is to find dedicated and committed staff to join the centre on a full time basis.
- Lack of legislation does not obligate any ministry to evaluate their plans and programmes with a disaster risk focus or to integrate risk reduction into their regular development programmes.

**Recommendations:**

- Approval of the Disaster Management Act by the Parliament and enforcement of the directions and actions within the Act;
- Adequate budgetary allocation and funding for implementation of DRR programmes;
- Strengthen the National Disaster Management Centre with technically qualified full time staff and develop a road map/plan for implementation of its mandate.

## PART –C Compilation of Information

### Progress towards achieving the Hyogo Framework strategic goals and priority areas:

#### Strategic Goals:

- The Integration of Disaster Risk Reduction into sustainable development policies and planning
- Development and strengthening of institutions, mechanisms and capacities to build resilience to hazards
- The systematic incorporation of risk reduction approaches into the implementation of emergency preparedness, response and recovery programmes.

#### Priorities for Action 1: Ensure that Disaster Risk Reduction is a national and local priority with a strong institutional basis for implementation

Objective & Initiative	Activities	Results & achievements made	Major Challenges & lessons learnt
Developing a legal and institutional framework for Disaster Management.	Setting up a national institution for disaster management.  Development a disaster management policy.	The National Disaster Management Centre has been instituted as a permanent body mandated to address issues related to disaster preparedness, response and mitigation.  A Disaster Management policy has been drafted with multi stakeholder input.	Parliamentary approval for the draft Disaster Management Act.

#### Priorities for Action 2: Identify, assess and monitor disaster risks and enhance early warning

Objective & Initiative	Activities	Results & achievements made	Major Challenges & lessons learnt
Enhance Early Warning systems.	Procurement of EWS systems and enhanced capacities for forecasting and prediction. Develop National EWS plan and protocols	Equipment for EWS procured and installed and Department of Meteorology trained in use of the new equipments. A national EWS plan developed and color codes for various for stages of alert and warning dissemination protocol developed.	Human Resources at the Met department need to be strengthened in the fields of seismology and oceanography in addition to meteorology. Current staff is exposed to short term trainings for use of the equipment. The national EWS plan has to be implemented through partnerships with all line ministries; information dissemination to the islands is a critical gap that has to be addressed. Significant participation of all ministries

<p>Develop disaster risk profile and understand risks.</p> <p>Assist policy makers in access to resources &amp; inform policy makers on patterns of disaster risks through established disaster information systems</p>	<p>Conduct assessments on disaster risks and use for development planning.</p> <p>Introduce contextualized software for use of Disaster Managers and policy makers</p>	<p>National risk profile with a multi hazard risk index for each island in the country created. A detailed risk assessment of nine islands selected for population consolidation completed.</p> <p>Software entitled "Maldives Disaster Resource Network" developed and staff of NDMC trained in the use of the software.</p> <p>Database for developing knowledge on past disaster events and impacts introduced and some progress made in information collection.</p>	<p>required to make this work.</p> <p>Integrating risk concerns into development plans of the islands and finding cost effective solutions for improving safety. Securing funds for mitigation measures in the islands. Some of the recommendations of the study which are consistent with the fragile environment go against the land use plans developed –appropriate changes have to be made in the development plans.</p> <p>Establishing partnerships with the private sector where maximum resources are available for emergency use. Training of island and atoll officials in collecting and uploading data in the software</p> <p>Access to past information on disaster events which is currently not available with a single source /ministry. Records do not match the information required; need to analyze available information to upload data. Both Information systems are still at very early stage.</p>
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**Priorities for Action 3: Use knowledge, innovation and education to build a culture of safety and resilience at all levels.**

Objective & Initiative	Activities	Results & achievements made	Major Challenges
<p>Greater public awareness on disaster risks.</p>	<p>Use of a common approach to disaster risk reduction and community preparedness.</p> <p>Public awareness programmes and inclusion of DM in school curriculum</p>	<p>A guide to community preparedness plans developed which shares ways to enhance community response and has standard DRR terminology as a reference.</p> <p>26<sup>th</sup> December (tsunami day) commemorated as the Day of Unity and special awareness programmes undertaken to build public awareness, including mock drills, use of pamphlets and handbills, books for the National Library and discussion</p>	<p>Training of all volunteers in use of the guide and its adaptation by other agencies.</p> <p>A strategy for sustained programmes for public awareness has to be developed. Currently it is very limited.</p>

		<p>panels.</p> <p>The Ministry of Education had initiated a process for inclusion of DM into the school curriculum with the exposure and training of key staff /curriculum developers in DM issues. Current efforts are to begin with integrating some activities in the school health curriculum and develop school preparedness plans.</p>	<p>The process is still at a nascent stage and requires technical and financial support to take it further.</p>
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**Priorities for Action 4: Reduce underlying risk factors**

<b>Objective &amp; Initiative</b>	<b>Activities</b>	<b>Results &amp; achievements made</b>	<b>Major Challenges</b>
<p>Integrating Disaster Risk Reduction Strategies with Climate Change and developing a framework for sustaining ecosystems.</p>	<p>Undertake composite risk assessments that factor in environmental impacts of natural disasters and understand how impacts of climate change trigger high and more extreme disaster events.</p>	<p>The risk assessment study was designed to study the impact of development/land use plans on the environment. The results on the impact have to be presented to policy makers.</p> <p>A National Framework for Adaptation to Climate Change has been developed to provide options for protection of the natural ecosystems, beaches, human settlements and water resources and adaptation needs for key economic sectors (particularly fisheries, tourism &amp; agriculture).</p> <p><i>Ministry of Health and Ministry of Tourism &amp; Civil Aviation have developed their disaster management plans. More than 50% of the tourist resorts have contingency plans</i></p>	<p>Recommendations for ensuring that reduced impact on the natural environment may not match development plans. Practical issues such as high costs of providing basic services and lack of land area may force the Government to take decisions that could prove detrimental to the fragile environment of Maldives.</p> <p>Adaptation measures are expensive and may not get the required budgets for implementation.</p> <p><b>The plan has yet to be implemented at the local levels with hospitals emergency preparedness and</b></p>

			simulation exercise at resorts.
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**Priorities for Action 5: Strengthen disaster preparedness for effective response at all levels**

<b>Objective &amp; Initiative</b>	<b>Activities</b>	<b>Results &amp; achievements made</b>	<b>Major Challenges</b>
Enhanced capacity at the national and local level for disaster management.	<p>Training and capacity building activities of staff across all sectors in the Government.</p> <p>Developing plans for community preparedness</p>	<p>More than 200 ministry staff has been trained in basic concepts of disaster management and other subjects related to disaster management.</p> <p>Community preparedness plans developed in 13 islands and disaster management tasks forces instituted with training on basic emergency response.</p> <p>Scouts and Guide Volunteers trained in First Aid and transferred their skills to other scouts.</p>	<p>Availability of skilled trainers to assist in local trainings and integration of learning into their regular job profiles. Lack of a policy to provide a scope for trained personnel to practise skills.</p> <p>The process in which community preparedness plans are developed is time consuming; a much larger force has to be employed to cover the population of all islands.</p>