

Maldives

National progress report on the implementation of the Hyogo Framework for Action (2009-2011)

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Outcomes for 2007-2009

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.

Outcomes:

With the democratic reform taking in the country numerous changes has taken place. A new approach to disaster management has been adopted and special emphasis has been given to the changes brought about by climate change. The Disaster Management Bill has been drafted and sent to the cabinet for discussion. This Bill with integrated decentralization measures allow for the provision of fast relief measures and provide with the necessary legal power for risk management activities. The Strategic National Action Plan (SNAP) on Disaster Risk Reduction and Climate Change Adaptation, derived from the NAPA is designed to promote collaboration among policy makers, experts, and practitioners of disaster risk reduction 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. Harmonized with the policies, plans, and sustainable development strategy, it will identify a consolidated set of programs and projects that can be undertaken with the Government budget and those that may be considered for donor assistance. As part of the Safe Island programme, 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. School level SOPs are being drafted, with staff being trained on emergency preparedness and decentralized management, regular mock drills are also being conducted within the school and activities are being carried out for community awareness with the involvement of parents in DRR.

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.

Outcomes:

The ratification of the Disaster Management Bill will provide with the necessary legal backing for the institutionalization of National Disaster Management Center, which currently functions under the Ministry of Housing and Environment. The center conducts training programs on disaster management, enhancement of infrastructure for disaster management and emergency operations in collaboration with consultants and international agencies. Staff from different stakeholder Ministries and institutions has been trained at the national and the international level in disaster management, Risk Reduction and other related fields.

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.

Outcomes:

Development of Community-based Disaster Preparedness Plans has been supported to provide affected communities with guidance for preparedness, response and recovery based on Vulnerability and Capacity Assessment (VCA). During the development process, trainings for response including trainings

for 1st aid, search and rescue, psycho-social support and early warning were provided. Simulation exercises were conducted in some islands.

Two Safe Islands "Villfushi" and "Dhuvafaru" were constructed and opened in 2008 and 2009 respectively. They created new homes for those who were displaced from their original island after the Indian ocean tsunami struck in 2004, providing a safer environment for people to live in where they will be better protected from any future natural disaster. As well as managing the physical construction of the settlement, the IFRC has also been closely involved in training-up community members to run and maintain the island's infrastructure. Volunteers now look after the island's state-of-the-art powerhouse and water and sanitation systems. Due to water scarcity, each home has been equipped with a 2,500-litre rainwater harvesting tank and roof guttering to capture every precious drop of rainfall.

Strategic goals

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.

Strategic Goal Statement 2011-2013:

Many initiatives have been taken up by the Government to change its focus from the traditional approach to Disaster Management. The Disaster Management Bill have been made and passed on to the legal department for changes and finalization. This Bill seeks to provide a platform at all levels to address disaster risk reduction. The government has developed conceptual designs for enhanced mitigation features on the proposed 'Safe Island'. Population consolidation and the creation of safer islands are part of the solution to climate change, as discussed in the 7th National Development Plan. The second National Environmental Action Plan (NEAP) was formulated, which identified issues that have to be addressed for proper environmental management. The National Adaptation Programme of Action (NAPA) under the integrated Climate Change Strategy (ICCS) is an attempt by the government to develop a countrywide programme that encompasses immediate and urgent adaption activities that address current and anticipated adverse effects of climate change. The Health Master Plan 2006-2015 identifies policy direction and goals for national disaster preparedness at all levels of the health sector. The education sector has included the focus on Disaster Management under the policy guidelines of providing safety to the children. The Telecom Policy of the Government emphasizes on an Emergency Communication Plan and the department is workin in this direction.

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.

Strategic Goal Statement 2011-2013:

Following the tsunami a National Disaster Management Centre was established to facilitate the response and coordination. The Ministry of Defense and National Security, Ministry of Finance and Ministry of Planning and National Development lead the emergency response and relief effort in collaboration with other departments, UN agencies and other development partners. This centre was the focal point for response, relief and recovery activities. Currently NDMC is carrying out a more holistic model, wherein the processes of hazard identification and mitigation, community preparedness, integrated response efforts, and recovery are planned for and undertaken contiguously within a risk management context to address issues of vulnerability. More than 200 staff representing ministries in the government has been trained in basic concepts of disaster management and other subjects related to disaster management carried out both at national and international levels. Community preparedness plans have been developed in 30 islands and disaster management tasks forces instituted with training on basic emergency response as part of the Community Based Disaster Programme.

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.

Strategic Goal Statement 2011-2013:

The ambitious concept of 'Building Back Better' - a phrase coined by former US president Bill Clinton in his role as the UN Secretary-General's Special Envoy for Tsunami Recovery - has been the guiding

principle of the recovery and reconstruction programme. Building Back Better envisions the kind of society that the people of the Maldives will enjoy in five, ten, even fifteen years from now. Some of the features for building back better include utilization of precast concrete elements for the quay walls that would replace the original structure made out of 'gunny sacks'. The National Recovery and Reconstruction Plan (NRRP) was an important tool for guiding the government's efforts in responding to the tsunami. The NRRP was also the de facto bridge between the 6th National Development Plan (2000-2005) with the 7th National Development Plan (2006-2010).

Priority for action 1

Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.

Priority for action 1: Core indicator 1

National policy and legal framework for disaster risk reduction exists with decentralised responsibilities and capacities at all levels.

Level of Progress achieved:

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

Means of verification:

- * Is DRR included in development plans and strategies? Yes
- * Yes: National development plan
- * No: Sector strategies and plans
- * Yes: Climate change policy and strategy
- * No: Poverty reduction strategy papers
- * Yes: Common Country Assessments (CCA)/ UN Development Assistance Framework (UNDAF)

Description:

A National Disaster Management Center (NDMC) has been established as per the Government's Strategic Action plan. A Disaster Management Bill has been drafted with the help of a law firm. During the drafting stage, special consideration has been given for the decentralization of Disaster Management and DRR (Disaster Risk Reduction) activities. This bill has been sent to the Attorney General's Office for further comments. Strategic National Action Plan (SNAP) for DRR and Climate Change Adaptation (CCA) has been formulated. Additionally, several training programs have been carried out within and outside the country regarding the DRR sector.

Context & Constraints:

Community acceptance for the implementation of SNAP is vital as this will give a better understanding to the institutionalization of DRR in the country.

Priority for action 1: Core indicator 2

Dedicated and adequate resources are available to implement disaster risk reduction plans and activities at all administrative levels

Level of Progress achieved:

2: Some progress, but without systematic policy and/ or institutional commitment

Means of verification:

- * Is there a specific allocation of budget for DRR in the national budget?

- * 0 % allocated from national budget
- * 0 USD allocated from overseas development assistance fund
- * 0 USD allocated to hazard proofing sectoral development investments (e.g transport, agriculture, infrastructure)
- * 0 USD allocated to stand alone DRR investments (e.g. DRR institutions, risk assessments, early warning systems)
- * 0 USD allocated to disaster proofing post disaster reconstruction

Description:

Safe Shelters are being established throughout the country, such as in the island of M. Muli and though not fully functional certain government buildings in the islands are being reinforced and retrofitted to act as safe shelters in case of disaster. It is also believed that MNDF, MPS, Ministry of Education and other stakeholder institutions have allocated dedicated or semi dedicated resources into different regions. Consecutively for capacity building, human resource is being developed with funds being allocated for various technical training. In the year 2009 three students were given training in the area of disaster, while six students studied in the same field in 2010.

Context & Constraints:

Maldives Police Service has no capacity of employees and equipments to be involved in disaster risk reduction and they do not have a direct mandate on disaster risk reductions. However, Maldives Police Service's aim is to always assist the stakeholders in such situations. The funds and resources available for training and for other DRR activities are inadequate for carrying out the projects.

Priority for action 1: Core indicator 3

Community Participation and decentralisation is ensured through the delegation of authority and resources to local levels

Level of Progress achieved:

2: Some progress, but without systematic policy and/ or institutional commitment

Means of verification:

- * Do local governments have legal responsibility and budget allocations for DRR? No
- * No: Legislation
- * No: Budget allocations for DRR to local government

Description:

The Decentralisation Act has been passed and respective Atoll and island councils have been formed. The councils are mandated to conduct DRR activities within the atoll and islands. The Ministry of Education at regional level has mandated all educational institutions to produce plans to operate at community level during the initial phase of emergencies. Ministry of Health and Family too under its act provides provisions for its regional institutions to operate independently. Trainings for focal points in the Standard Operational Procedure during School Emergencies have been

carried out in K, AA and ADH Atolls. Moreover specific focal points for the Atolls have been decided during the trainings. During September 2010, training sessions will take place in the following atolls; V, Gn, S, N, R, B and Lh. Establishment of Child friendly schools are in progress. The guidelines with which to abide by in the case of a Natural Hazards and Man made disasters, have been sent to all atolls. The guideline is also available in the Ministry of Education's website.

The new administrative structure includes a separate unit for DRR, and has been discussed with Civil Service Commission. Focal points have been administered in the atolls. Hence there is no need for a central team to remain in the islands.

Context & Constraints:

Decentralization has taken place at government level, high bureaucracy and issues of resource allocation has limited the conduction of DRR activities.

Although, it has been noted that the decentralization act has no section on DRR, the mandate of the councils has provisions to carry out DRR related activities as deemed necessary.

DRR activities are being carried out in association with the Ministry of Education by Care Society. Under this teachers have been given first aid training in eight schools, while many student level trainings have also been carried out.

Five Branches of the Maldivian Red Crescent (MRC) have been established in Male', Hdh, Thaa, Seenu, Noonu, Gnaviyani Atoll. Moreover 12 units of the organization have been established in the following areas : Henveiru unit, Villingili unit, Hdh Kulhudhufushi unit, Hdh Nolvivaramu unit, Th. Buruni unit, Th. Veymandoo unit, Seenu Hithadhoo unit, Seenu Hulhumeedhoo unit, Noonu Holhudhoo unit, Noonu Manadhoo unit, Gnaviyani South unit, Gnaviyani North unit, Vaavu Fulidhoo. Under the training program more than 150 First Aiders, 2 Regional Disaster Response Team (Red Cross and Red Crescent Movement) members, 2 Search and Rescue trainers, 3 Community Based Disaster Risk Reduction trainers, more than 30 Vulnerability and Capacity Assessment (VCA) volunteers and staff were trained. Furthermore VCA trainings were conducted in all units of MRC with community action plans by MRC

Priority for action 1: Core indicator 4

A national multi sectoral platform for disaster risk reduction is functioning.

Level of Progress achieved:

2: Some progress, but without systematic policy and/ or institutional commitment

Means of verification:

* Are civil society organisations , national planning institutions, key economic and development sector organisations represented in the national platform? No

* 0 civil society members (specify absolute number)

* 0 sectoral organisations (specify absolute number)

* 0 women's organisations participating in national platform (specify absolute number)

Description:

The national platform for DRR would ensure that all stakeholders are represented in the discussions in the process to institutionalize DRR in the country. the platform would provide the avenue to discuss

future direction of DRR initiatives of the country, which is based on climate risk assessments and as a networking platform to disseminate DRR related work being carried out by the stakeholders. NDMC would chair the platform.

Context & Constraints:

NDMC together with key stakeholders meet regularly to discuss DRR related issues of the country through an ad-hoc mechanism.

The DM Bill does not indicate that a national platform for DRR would be formed.

Priority for action 2

Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.

Priority for action 2: Core indicator 1

National and local risk assessments based on hazard data and vulnerability information are available and include risk assessments for key sectors.

Level of Progress achieved:

2: Some progress, but without systematic policy and/ or institutional commitment

Means of verification:

* Is there a national multi-hazard risk assessment available to inform planning and development decisions? Yes

* Yes: Multi-hazard risk assessment > Cost-Benefit Study of Risk Mitigation Measures in 3 Islands in the Maldives (2009) http://preventionweb.net/files/15495_cbalayoutweb.pdf [PDF] > Developing a Disaster Risk Profile for Maldives (2006) http://preventionweb.net/files/15495_developingadisasterriskprofileforma.pdf [PDF]

* 0 % of schools and hospitals assessed

* 0 schools not safe from disasters (specify absolute number)

* No: Gender disaggregated vulnerability and capacity assessments

* No: Agreed national standards for multi hazard risk assessments

Description:

Disaster Risk Profile of Maldives has been published in 2006 which includes a detailed study and hazard mapping. Detailed Island Risk Assessment of ten islands and Cost Benefit Analysis of three islands have been completed with their respective reports published. CBDM plans have been prepared for thirty seven islands which involved preparation of hazard maps and risk analysis. Among the 37 islands, the required Simulation exercises based on the CBDM plan was conducted in only Vaavu Felidhu and Meemu Muli.

Context & Constraints:

1st Nationwide Disaster Risk Assessment was presented by "Developing a Disaster Risk Profile for the Maldives" in 2006. "Detailed Island Risk Assessment of the Maldives (DIRAM)" is being finalised to provide detailed disaster risk analysis (physical and socio-economic) of the most vulnerable 10 islands identified in "Developing a Disaster Risk Profile for the Maldives". Furthermore, "Cost Benefit Study of Disaster Risk Mitigation Measures in Three Islands in the Maldives" was prepared in 2009 to provide policy makers with cost-effectiveness of 3 mitigation measures (Safe Island Protection, Selected Safe Island Protection, Limited Protection).

From the viewpoint of climate change adaptation, National Adaptation Plan of Action was developed in 2006 based on 1st national communication to UNFCCC, describing impacts of climate change including extreme events on key economic sectors including fishery, tourism and agriculture.

Challenges lie on institutionalizing risk information into planning and decision-making processes of the ministries. "Project on Integration of Climate Change Risks into Resilient Island Planning in Maldives" and "Climate Risk Management Technical Assistance Support Project" initiated in 2009 and 2010 respectively to address this point. The key outputs of these project will be development of land-use planning guideline to incorporate climate risk and provision of updated risk information for the next Tourism Master Plan and Agriculture and Fishery Master Plan.

Related links:

> UNDP Maldives E-Library <http://www.undp.org.mv/v2/?lid=100>

Priority for action 2: Core indicator 2

Systems are in place to monitor, archive and disseminate data on key hazards and vulnerabilities

Level of Progress achieved:

2: Some progress, but without systematic policy and/ or institutional commitment

Means of verification:

- * Are disaster losses systematically reported, monitored and analysed? Yes
- * Yes: Disaster loss database
- * Yes: Reports generated and used in planning

Description:

MMS monitors the weather patterns of Maldives and an SOP has been formulated, which specifies the procedures to follow and how to disseminate early warning during hazards and disaster events. DNP is working on the establishment of a GIS system in Maldives, and the progress has to be found out. MMS has two main networks to monitor Meteorological and Seismic hazards. Meteorological network is equipped with 5 synoptic stations, 3 tide gauge stations and 20 automatic weather stations. Seismic network is linked with global seismic network to monitor earthquakes across the region. It has two broadband seismometers, one in the north and one in the south. One short period seismometer is installed in the central. MMS continuously monitors sea level data from local and regional tide gauges as well as DART buoys deployed in the region.

Context & Constraints:

Two employees from MMS gained some training about GIS with a trail period working system. The system needs to be upgraded with adequate training.

Statistical downscaling of Climate Modeling is to be carried out my MHE with support from RIMES.

Priority for action 2: Core indicator 3

Early warning systems are in place for all major hazards, with outreach to communities.

Level of Progress achieved:

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

Means of verification:

- * Do risk prone communities receive timely and understandable warnings of impending hazard events?
Yes
- * No: Early warnings acted on effectively
- * Yes: Local level preparedness
- * No: Communication systems and protocols
- * Yes: Active involvement of media in early warning dissemination

Description:

An Early Warning System has been established in MMS and the National Early Warning System Code is also developed. In addition to the airports nine automatic weather stations has been installed by MMS along with a Doppler Weather Radar. MMS early warning system has been strengthened with sophisticated equipments such as high resolution satellite image receiving station, Doppler weather radar. MMS use software called Seiscomp3 which has the capacity to locate and calculate the epicenter, magnitude and other parameters automatically. It has many advanced options to analyze the waves locally and calculate the accurate magnitude. Based on collected seismic information, MMS can calculate the distance and expected tsunami arrival time to Maldives. MMS has established redundant links for communicating with local, regional and international centers by using 256 kbps VSAT, 10 mbps internet connection and satellite phone.

A procedural guidance and action steps are developed. It is incorporated with the National Disaster Management Plan in accordance with the policies of the government. Hotlines are being established with main stakeholders. Through local radio and TV stations, warning messages can be reached to island communities. An LCD display wall of 12x7 feet has been set and made fully function at the Early Warning Center to give live briefings and warnings to public through radio / TV stations on events of natural disasters.

Context & Constraints:

However communication and message dissemination is ineffective and outreach to wider communities has not been established, as there is no localized early warning system in the communities.

Prioritization of Disaster Preparedness in the communities is found to be very low (while local level preparedness activities are being carried out), as communities do not actively prepare themselves for hazard warnings and recurrent natural hazards.

Priority for action 2: Core indicator 4

National and local risk assessments take account of regional / trans boundary risks, with a view to regional cooperation on risk reduction.

Level of Progress achieved:

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

Means of verification:

- * Does your country participate in regional or sub-regional DRR programmes or projects? Yes

- * No: Programmes and projects addressing trans-boundary issues
- * Yes: Regional and sub-regional strategies and frameworks
- * Yes: Regional or sub-regional monitoring and reporting mechanisms
- * No: Action plans addressing trans-boundary issues

Description:

National Tsunami Warning System takes into account trans-boundary hazards such as communicable diseases from other countries and ships that travel with hazardous materials. MMS has a capacity of High resolution satellite image receiving system, 20 automatic weather stations, 5 synoptic stations, Doppler Weather Radar, Marine Weather Radar, Global telecommunication System, Seismic Networking and 3 Tide Gauge System . In addition to this MMS also has close contact with international and regional disaster warning centers and systems. In events of earthquake and tsunami, MMS receives real-time bulletin from Pacific Tsunami Warning Center (PTWC), Japan Meteorological Agency (JMA) and INCOISE. During weather hazards, regional Tropical Cyclone Warning Centers (New Delhi and La Reunion) issue advisories and warnings. MMS receive all these messages through Global Telecommunication System (a modern message switching system). MMS is a member of SAARC Meteorological Research Center (SMRC) and Regional Integrated Multi-hazard Early Warning System.

Context & Constraints:

Lack of trained personnel in the area.

Priority for action 3

Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.

Priority for action 3: Core indicator 1

Relevant information on disasters is available and accessible at all levels, to all stakeholders (through networks, development of information sharing systems etc)

Level of Progress achieved:

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

Means of verification:

* Is there a national disaster information system publicly available? Yes

* Yes: Web page of national disaster information system > Guidelines and Lessons Learnt for Establishing and Institutionalizing Disaster Loss Database (2009)

http://preventionweb.net/files/15495_guidelinesandlessonsforestablishing.docx [DOCX]

* No: Established mechanisms for accessing DRR information

Description:

"Developing a Disaster Risk Profile for the Maldives" and the Cost Benefit Analysis of Risk Mitigation measures in 3 islands in the Maldives has been published which provides information on Disaster Risks in the country.

An information hub (ISLES) on Maldivian communities and community developmental projects has been developed.

A national campaign on DRR, early warning and response actions in the Maldives named 'Rakkaavethibiyya Dhivehiraajje (be aware | be prepared)' has been started. Three books on disaster preparedness aimed at children have been published by Care Society.

Context & Constraints:

1st Nationwide Disaster Risk Assessment "Developing a Disaster Risk Profile for the Maldives" is available on the website while the hard copies were distributed to relevant stakeholders. "DesInventor", a disaster loss database, was also established in 2006. Staffing to support implementation of the database has been a challenge. "Detailed Island Risk Assessment of the Maldives (DIRAM)" is being finalised to provide detailed disaster risk analysis (physical and socio-economic) of the most vulnerable 10 islands identified in "Developing a Disaster Risk Profile for the Maldives". The draft version is available in Department of National Planning Website. Furthermore, "Cost Benefit Study of Disaster Risk Mitigation Measures in Three Islands in the Maldives" was prepared in 2009 to provide policy makers with cost-effectiveness of 3 mitigation measures (Safe Island Protection, Selected Safe Island Protection, Limited Protection). The report is available in the website. With a view to change the behavior of the public with more digested information on disaster risk, early warning and response actions, a number of awareness materials have been developed and utilized under the public awareness campaign 'Rakkaavethibiyya Dhivehiraajje (be aware | be prepared)' including campaign website, poster, desktop calender, ical feed, song, newspaper and website advertisement, TV and radio programme featuring DRR etc.

Related links:

- > National Public Awareness Campaigning Website <http://rakkaa.mv/>
- > Department of National Planning Website <http://www.planning.gov.mv/en/>
- > UNDP Maldives E-Library <http://www.undp.org.mv/v2/?lid=100>

Priority for action 3: Core indicator 2

School curricula , education material and relevant trainings include disaster risk reduction and recovery concepts and practices.

Level of Progress achieved:

4: Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Means of verification:

* Is DRR included in the national educational curriculum? Yes

* Yes: Primary school curriculum

* Yes: Secondary school curriculum

* No: University curriculum

* No: Professional DRR education programmes

Description:

In a project to incorporate DRR into school curricula DRR, as part of curriculum revision process, DRR textbooks have also been developed, but is yet to be published. Guide for ' School Emergency Operation Plan (SEOP)' has been published and schools are implementing the plans. School level SOPs are being drafted, with staff being trained on emergency preparedness and decentralized management, regular mock drills are also being conducted within the school and activities are being carried out for community awareness with the involvement of parents in DRR. Care Society in its DRR project carried out first aid and emergency preparedness in schools and has developed three books aimed at creating DRR awareness among young children. SOPs for H1N1 has been developed by MoE and implemented.

Context & Constraints:

Student book and teachers guide for grade 1-9 were drafted in 2009. Financial resources will be required to publish the book and guide for all schools in order to fully launch and incorporate DRR to school curriculum. Trainings of trainers for SEOP is successfully on-going to roll out regular mock drills in all the primary and secondary schools in the Maldives.

MoHF in collaboration with WHO has developed a diploma level course on DRR for teachers aimed at school health issues.

Related links:

- > UNDP Maldives E-Library <http://www.undp.org.mv/v2/?lid=100>

Priority for action 3: Core indicator 3

Research methods and tools for multi-risk assessments and cost benefit analysis are developed and

strengthened.

Level of Progress achieved:

2: Some progress, but without systematic policy and/ or institutional commitment

Means of verification:

- * Is DRR included in the national scientific applied-research agenda/budget? Yes
- * Yes: Research outputs, products or studies
- * Yes: Research programmes and projects
- * Yes: Studies on the economic costs and benefits of DRR

Description:

UNDP Maldives has conducted a cost benefit analysis on sea walls with the report being published. With the utilization of methodology and tools a disaster risk profile of Maldives and a disaster risk assessment has been published.

In addition to this MRC and Care Society have developed multi risk assessment tools that can be used in VCA.

Context & Constraints:

1st Nationwide Disaster Risk Assessment was presented by "Developing a Disaster Risk Profile for the Maldives" in 2006. "Detailed Island Risk Assessment of the Maldives (DIRAM)" is being drafted to provide detailed disaster risk analysis (physical and socio-economic) of the most vulnerable 10 islands identified in "Developing a Disaster Risk Profile for the Maldives". Furthermore, "Cost Benefit Study of Disaster Risk Mitigation Measures in Three Islands in the Maldives" was prepared in 2009 to provide policy makers with cost-effectiveness of 3 mitigation measures (Safe Island Protection, Selected Safe Island Protection, Limited Protection).

A National Climate Change Research Strategy has been formulated by MHE.

Priority for action 3: Core indicator 4

Countrywide public awareness strategy exists to stimulate a culture of disaster resilience, with outreach to urban and rural communities.

Level of Progress achieved:

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

Means of verification:

- * Do public education campaigns on DRR reach risk-prone communities? Yes
- * Yes: Public education campaigns.
- * Yes: Training of local government
- * Yes: Availability of information on DRR practices at the community level

Description:

Community based disaster preparedness plans have been developed in 37 islands , CBDRR plans have been developed by Care Society 4 islands , and MRC has conducted CBDM plans in 25 islands. Under these programs emergency drills have been carried out in the island communities and Schools. Public awareness messages by Ministry of Health and Family on communicable diseases and possible risks such as during H1N1 pandemic has been given out. Maldives Meteorological Services (MMS) conducted weather, earthquake and tsunami awareness in Laamu, Seenu, Foahmulah, Haa Dhaalu, Haa Alifu and Male'. Outreach activities have also improved due to a set up of a better transport system between provinces, atolls and islands.

Context & Constraints:

Ad-hoc awareness exists, however there is no country wide strategy for developing awareness, although recently an awareness campaign on DRR named Rakkaave thibiyya dhivehiraajje has been launched.

Under the nation-wide public awareness campaign on DRR, early warning and response actions "be aware | be prepared", long-term social marketing plan for people's behaviour change on DRR, early warning and response action has been developed.

Related links:

> National Public Awareness Campaign Website <http://rakkaa.mv/>

Priority for action 4

Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.

Priority for action 4: Core indicator 1

Disaster risk reduction is an integral objective of environment related policies and plans, including for land use natural resource management and adaptation to climate change.

Level of Progress achieved:

4: Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Means of verification:

* Is there a mechanism in place to protect and restore regulatory ecosystem services? (associated with wet lands, mangroves, forests etc) Yes

* Yes: Protected areas legislation

* No: Payment for ecosystem services (PES)

* Yes: Integrated planning (for example coastal zone management)

* Yes: Environmental impacts assessments (EIAs)

* Yes: Climate change adaptation projects and programmes

Description:

Land use plans are being developed for islands and an EIA has to be conducted for developmental infrastructural work before the starting of the project. Ministry of Fisheries and Agriculture is developing an Agricultural Land Legislation for both inhabited and uninhabited islands. The legislation has a focus on sustainable agricultural practices on resources management for agriculture. Maldives is a party to Kyoto Protocol and has developed a National Adaptation of Action (NAPA) under the ICCS, from this plan a more refined and adapted plan named SNAP has been developed including DRR and CCA components with institutional capacity building. Furthermore, there have been negotiations with the concerned ministries for instance the Ministry of Housing and Environment, Environmental Protection Agency (EPA), Ministry of Home Affairs and Ministry of Fisheries and Agriculture, on assigning certain islands for each atoll for sand mining. It is assumed that from this action, there would be a decrease in soil erosion and land degradation.

According to Section 50 of the Environmental Act gives the (Guidelines for Environmental Disasters) the Environment Section shall in consultation with the relevant Line Ministries, Police Force, the health care authorities, the Atoll Environmental Committees and other organizations which the Agency considers necessary, develop and implement contingency plans for the management of environmental disasters.

It also states that the Atoll Environment Committees in collaboration with the Agency, shall prepare plans for responses to environmental disasters, with specific reference to known, possible disasters within their area of jurisdiction. Environmental disaster plans shall be distributed to all sectors and institutions and the Environmental Committees so established under this Law to disseminate information, and carry out awareness programmes.

Context & Constraints:

The Ministry of Housing and Environment is in the process of finalizing a Planning Act, which would enable sustainable planning, development and use of land in the country, as well as to enable local authorities to carry out their land use planning and building control functions more effectively.

Under the UNDP/MHE project: "Integration of Climate Change Risks into Resilient Island Planning the Maldives", it has been proposed to prepare Land use plans of 4 islands that would in turn cater for an adaptation or mitigation for the Climate change Risks.

Lack a proper framework of how to mainstream climate change and disaster risks in areas of land use planning, coastal development and coastal protection as these areas are identified in the NAPA as key priority areas.

Priority for action 4: Core indicator 2

Social development policies and plans are being implemented to reduce the vulnerability of populations most at risk.

Level of Progress achieved:

2: Some progress, but without systematic policy and/ or institutional commitment

Means of verification:

- * Do social safety nets exist to increase the resilience of risk prone households and communities? Yes
- * No: Crop and property insurance
- * No: Employment guarantee schemes
- * No: Conditional cash transfers
- * Yes: DRR aligned poverty reduction, welfare policy and programmes
- * No: Microfinance
- * No: Micro insurance

Description:

Social development policies and plans are being implemented to reduce the vulnerability of populations most at risk. The Disability Bill for instance, has been passed by the parliament and endorsed by the government. Population relocation in some communities is ongoing while safe islands have been constructed after the 2004 Tsunami . Additional Information is required on whether the Disability Bill includes their role in case of a disaster and gives them priority during such a situation. Data is also required on the islands that have been relocated and the vulnerability of these islands needs to be taken into account in addition to the number of safe islands being constructed and their details. Social development plans and policies that focus on populations at risk has to be verified along with the resilient island plans.

Context & Constraints:

Even though it is mentioned in the Bill that PWD's should be taken into consideration when doing

Community Plans, lack of trained personnel in the area of disability and disaster management need to be taken into consideration.

Article's 28 and 29 in the Disability Bill makes references to DRR

Priority for action 4: Core indicator 3

Economic and productive sectorial policies and plans have been implemented to reduce the vulnerability of economic activities

Level of Progress achieved:

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

Means of verification:

- * Are the costs and benefits of DRR incorporated into the planning of public investment? No
- * No: National and sectoral public investment systems incorporating DRR.
- * No: Investments in retrofitting infrastructures including schools and hospitals

Description:

Agriculture projects by Ministry of Fisheries and Agriculture are targeted and prioritized to farmers in vulnerable communities per se communities prone to natural disasters such as flooding or tsunami. MoFA also has a loan scheme in association with the BML to give loans to rural farmers with a main aim to make them more resilient to natural hazards and to increase recovery from calamities. Subsidies are given to electricity and fishing business, while a 30% duty is taken if cargo is unloaded at regional ports.

Following the recent economic downturn emanating from the global recession, the government has provided the following support to the key industries identified as most vulnerable and directly related to the overall poverty dynamics within the country.

- o Fuel subsidy provided to fisheries sector to revive fish catch and to incentivize local fisherman to commence fisheries activities which remained largely inactive due to the low fish catch and high operational cost of the fishing fleet

- o Subsidy provided to the agricultural sector to revive and boost agricultural productivity

- o Soft loan schemes introduced especially aimed towards fisheries and agriculture sector

Soft loan scheme has also been introduced targeted towards micro, small and medium enterprises to provide working capital injection and the assist in the start of business

Electricity subsidy introduced at the household level to cushion shocks to household disposable income emanating from major oil price fluctuations in the international market

Policy introduced to revive regional economies by waiving 30% of the dutiable amount for cargo unloaded at regional ports.

Support measures instituted at the regional level to provide business support services to micro-small and medium enterprise. In this regard, a business development service centre have been instituted both in North and South of the country to provide business advisory and counselling services

Credit facility established through State Bank of India to address foreign exchange shortages in the domestic market which enable easy import of essential commodities from India and stabilization of market prices and availability of essential commodities in the domestic market. This essentially provided

a relief to the trading community importing key items crucial for consumption and availability of items such as aggregate and gravel which are essential for construction industry.

Context & Constraints:

Factors contributing to a slow down of the industry could be a scale down of public sector investment projects largely related to the budget crisis

The global financial sector meltdown resulted in difficulties to raise finance in the tourism sector to construct the 60 odd resorts leased which in turn reduced the level of work available for local construction firms.

Budgetary constraint is the main factor which impeded completion of settlement of IDPs –not necessarily the slowdown in the construction industry.

Priority for action 4: Core indicator 4

Planning and management of human settlements incorporate disaster risk reduction elements, including enforcement of building codes.

Level of Progress achieved:

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

Means of verification:

- * Is there investment to reduce the risk of vulnerable urban settlements? No
- * No: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

Resilient island planning is being implemented by the government. The recently revised national Building Code is going to be used as a good practice guideline until Building Act is implemented in 2011. The national building code has been revised with a special focus on DRR. The development of the building act is underway. Population relocation of some communities is taking place and land use plans are being developed for inhabited islands.

Context & Constraints:

A draft of Building Act being translated to Dhivehi to be sent to the Attorney General's Office prior to the submission to the Parliament for its endorsement. The translation process is expected to be done by early 2011 and it is scheduled to be sent to the Attorney General's Office before the 2nd Quarter of 2011. The Building Code and Compliance Documents are expected to be implemented in 2011 subsequent to the implementation of the Building Act.

Priority for action 4: Core indicator 5

Disaster risk reduction measures are integrated into post disaster recovery and rehabilitation processes

Level of Progress achieved:

4: Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Means of verification:

- * Do post-disaster recovery programmes explicitly incorporate and budget for DRR? No
- * 0 % of recovery and reconstruction funds assigned to DRR
- * No: Measures taken to address gender based issues in recovery

Description:

During the 2004 Tsunami Recovery British Red Cross, IFRC, UNDP, and Care Society conducted DRR activities. Additionally, NDMC which is mandated to organise the lead all DRR/DRM related activities in the country, takes DRR measures into consideration into their post-tsunami rehabilitation initiatives. Some of these initiatives include the development of Raa Dhuvaafaru and Thaa Vilufushi as safe islands for the populations of the islands which were damaged beyond rehabilitation during the 2004 tsunami.

Construction of housing units built after the Tsunami takes the national building codes into consideration, as it has references to DRR.

Context & Constraints:

While ad-hoc measures to integrate DRR into national level policies on disaster rehabilitation takes place, it is necessary to institutionalise this process through the provisions of the DM bill and SNAP. As the national strategic action plan pays importance to DRR and building a resilient population to natural hazards, it is important to understand that the legal frameworks which the SAP document relies on are tied to the DM Bill and SNAP, which are yet to be endorsed by the parliament and finalised by the government, respectively.

Priority for action 4: Core indicator 6

Procedures are in place to assess the disaster risk impacts of major development projects, especially infrastructure.

Level of Progress achieved:

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

Means of verification:

- * Are the impacts of major development projects on disaster risk assessed? Yes
- * No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk
- * Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

Description:

Environmental impact studies are conducted in every infrastructure project. EIA's are conducted for

every project before construction. However, no studies are conducted while the project is being implemented and after the project has concluded.

Context & Constraints:

The existing procedures to assess the disaster risk impacts of major development projects and the studies being conducted while the project is being implemented needs to be monitored. The new Environmental Act does address environmental disasters and has a separate section for it.

Priority for action 5

Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.

Priority for action 5: Core indicator 1

Strong policy, technical and institutional capacities and mechanisms for disaster risk management, with a disaster risk reduction perspective are in place.

Level of Progress achieved:

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

Means of verification:

* Are there national programmes or policies to make schools and health facilities safe in emergencies?

Yes

* Yes: Policies and programmes for school and hospital safety

* Yes: Training and mock drills in school and hospitals for emergency preparedness

Description:

Ministry of Tourism Arts and Culture developed detailed SOP's on Hotel operator authorization on Disaster Management. Operational SOP's for Government Agencies have been developed for when a large percentage of employees fall victim to an epidemic and private sector. The Public Health Bill has been developed and it outlines the actions that can be taken during epidemics. HIN1 SOPs has been developed for schools and health facilities. A national pandemic influenza preparedness plan has been developed by MoHF. A tsunami SOP was developed as well.

The Public Health Bill has provided the legal power to the Ministry of Health to enforce health protection measure in emergency and non emergency situations. The newly developed SNAP includes a chapter on DRM with 6 identified policies. Ministry of education has also developed SOPs for response.

Emergency management workshops for MNDF officials as well as first responders in communities have been regularly conducted. these workshops give a special focus to DRR and DRM, including how Community based disaster preparedness planning is conducted.

Context & Constraints:

The DM Bill and SNAP has been referred to in the National Strategic Action Plan of the government, as the key legal frameworks on which DRR mainstreaming in the country would be based upon. However, the DM Bill is yet to be finalised with the new integration of the Civil Defence Act (which focuses on fire and rescue services) and SNAP while developed through national consultations, awaits endorsement by the government.

mock drills need to be done in hospitals.

Priority for action 5: Core indicator 2

Disaster preparedness plans and contingency plans are in place at all administrative levels, and regular training drills and rehearsals are held to test and develop disaster response programmes.

Level of Progress achieved:

2: Some progress, but without systematic policy and/ or institutional commitment

Means of verification:

- * Are the contingency plans, procedures and resources in place to deal with a major disaster? No
- * No: Contingency plans with gender sensitivities
- * No: Operations and communications centre
- * No: Search and rescue teams
- * No: Stockpiles of relief supplies
- * No: Shelters
- * No: Secure medical facilities
- * No: Dedicated provision for women in relief, shelter and emergency medical facilities

Description:

Airport Emergency drills and evacuation drills in schools have been conducted. Some Government hospitals such as IGMH have done evacuation drills. Also contingency plans are in places for hospitals which are closest to international airports and drills conducted accordingly (part of Airport Emergency Plan).

Context & Constraints:

As the DM Bill has not been endorsed by the Parliament, the institutionalizing of regular evacuation drills in schools, hospitals and so forth have not taken place. Hence, trainings conducted on DRR and resultant drills take place on a very ad-hoc basis.

Priority for action 5: Core indicator 3

Financial reserves and contingency mechanisms are in place to support effective response and recovery when required.

Level of Progress achieved:

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

Means of verification:

- * Are financial arrangements in place to deal with major disaster? Yes
- * Yes: National contingency funds
- * No: Catastrophe insurance facilities
- * No: Catastrophe bonds

Description:

The national contingency fund managed by the Ministry of Finance and Treasury is aimed at responding to any national level emergencies, including response to pandemics, natural hazards and so forth. dependent on the emergency, MoFT will release the funds (with the directive from the President's Office) as requested by the respective government agency.

Context & Constraints:

While a central financial reserve is maintained by the Ministry of Finance, it has been a concern of the Ministries that budget allocations for DRR activities need to be made at their levels as well.

Ministry of Foreign Affairs has protocols and agreements to request for funds from other international agencies and friendly nations.

Priority for action 5: Core indicator 4

Procedures are in place to exchange relevant information during hazard events and disasters, and to undertake post-event reviews

Level of Progress achieved:

3: Institutional commitment attained, but achievements are neither comprehensive nor substantial

Means of verification:

- * Has an agreed method and procedure been adopted to assess damage, loss and needs when disasters occur? No
- * No: Damage and loss assessment methodologies and capacities available
- * No: Post disaster need assessment methodologies
- * No: Post disaster needs assessment methodologies include guidance on gender aspects
- * No: Identified and trained human resources

Description:

NDMC coordinates the process of collecting and reviewing information before, during and after a natural hazard with the assistance from key stakeholders such as MMS.

Context & Constraints:

a comprehensive system to disseminate information after a hazard event need to put in place.

Drivers of Progress

a) Multi-hazard integrated approach to disaster risk reduction and development

Levels of Reliance:

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

Do studies/ reports/ atlases on multi-hazard analyses exist in the country/ for the sub region?:

Yes

If yes, are these being applied to development planning/ informing policy?:

Yes

Description (Please provide evidence of where, how and who):

Quite a few studies/reports/atlas on multi-hazard analyses exist in the country and there seems to be a gap in the integration and application of these to development and information policies. Due to strong advocacy by international partners and priorities by the government there is a positive approach to the whole issue. Multi-hazard analysis is ongoing to develop policies in the near future to enable integration in the development.

b) Gender perspectives on risk reduction and recovery adopted and institutionalized

Levels of Reliance:

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

Description (Please provide evidence of where, how and who):

Gender issues are realized and considered but has never been given any significant priority. integration of DRM activities and awareness raising, particularly the awareness on gender-related issues need to be carefully analyzed and implemented at community levels.

c) Capacities for risk reduction and recovery identified and strengthened

Levels of Reliance:

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

Description (Please provide evidence of where, how and who):

Significant rise in the capacity levels after the Tsunami has taken place. On the other hand enforcement has not been stringent as capacities are not adequate enough for the same.

d) Human security and social equity approaches integrated into disaster risk reduction and recovery activities

Levels of Reliance:

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

Description (Please provide evidence of where, how and who):

Due to the geographical nature of the country including the sparse population human security and social equity approaches were concentrated only at the national level which included the capital and the surrounding regions. The decentralization policy adopted by the present government has enabled these approaches to be implemented towards other parts of the country, which will slowly tend to be incorporated in disaster risk reduction activities. Recovery activities on the contrary have seen noticeable human security and social equity approaches and is often said that the government has been very generous in this regard.

e) Engagement and partnerships with non-governmental actors; civil society, private sector, amongst others, have been fostered at all levels

Levels of Reliance:

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

Description (Please provide evidence of where, how and who):

Significant engagement and partnerships with INGO; and few with private sector have fostered at certain levels due to the recovery activities after the Tsunami but a development of sustaining them has yet to be looked into.

f) Contextual Drivers of Progress

Levels of Reliance:

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

Description (Please provide evidence of where, how and who):

Institutional mechanisms has been given priority by the government and has seen considerable changes. Due to the political changes progress has been slow but steady. Within few years mechanisms will be more elaborate and functioning more significantly.

Future outlook

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.

Overall Challenges:

Lack of policies in place with clear mandates

Finance restrictions and shortfall

Capacity and human resource shortage

Transitional phase of the nation towards a democratic and decentralized government and policies.

Future Outlook Statement:

All the challenges are considered and known to the government authorities; progress in all fronts have been initiated and studies including experiences from other nations are helping them progress ahead

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.

Overall Challenges:

The nation is at the infant stages of systematically contributing to building resilience to hazards due to various factors on of the main being Disaster Management was not a top priority until the Tsunami occurred in the region.

Future Outlook Statement:

With considerable help from nations who have developed their disaster management mechanism and from the past experiences the government is positive to build a resilient community

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.

Overall Challenges:

Emergency preparedness and response programmes in the reconstruction was quite new in the country before the tsunami

Future Outlook Statement:

Incorporation of risk reduction approaches is taking place slowly and with decentralized responsibilities the government hopes to improves upon significantly

Stakeholders

Departments/organizations that have contributed to the report

- * Ministry of Education (Gov)
- * Ministry of Islamic Affairs (Gov)
- * Maldives National Defence Force (Gov)
- * Care Society (NGO)
- * Maldivian Red Crescent (UN & Intl)
- * UNDP Maldives (UN & Intl)
- * The Office of the President, Maldives (Gov)
- * Maldives Meteorological Services (Gov)
- * Upper South Province Office (Gov)
- * National Disaster Management Centre (Gov)
- * Ministry of Tourism, Arts & Culture (Gov)
- * Ministry of Home Affairs (Gov)
- * North Province Office (Gov)
- * Central Province Office (Gov)
- * Ministry of Fisheries & Agriculture (Gov)
- * Ministry of Human Resources, Youth and Sports (Gov)