

# Myanmar

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

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## Strategic goals

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### 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:**

Disaster Risk Reduction frameworks for Action is being developed to assist in the development and inclusion of DRR across all sectors and at all levels such as national, state and local levels. The Framework would help in the formulation of various policies, programmes and plan that would increase the resilience of the country to hazard events.

Myanmar Plan of Action on Disaster Risk Reduction is the country's main road map for DRR in the country. Developed through a multi-stakeholder representation, it has highlighted 61 "projects" for implementation. These "projects" are Act, policies, programmes and capacity building.

### 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:**

Institutions and capacities are being built at the community level to ensure that their issues in the context of disaster risk reduction are being incorporated into plans and programmes which focus on preparedness, response and recovery. Community based DRR initiatives are an important focus for DRR in the country.

Sub-national (Township) levels capacities are being enhanced for making it effective to monitor and respond to hazards and disasters. Township levels plans are being developed in a participative manner to ensure location specific vulnerabilities, risks and hazards are being addressed.

At the National level, capacities are being improved as well as roles and responsibilities are being allocated to the specific government department to over DRR in the country.

### 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:**

Strengthened framework and implementation capacity of large-scale State and national programmes to reduce physical and socioeconomic vulnerabilities through the development of Standing Orders for National Disaster Management.

Lessons are being learnt from the Cyclone Nargis response programme for the inclusion of DRR in to response, recovery and reconstruction programmes. This learning is hoped to be the Framework for inclusion of DRR at the national level recovery policies and programmes.

## Priority for action 1

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

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### 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

#### Is DRR included in development plans and strategies?

-- not complete --

#### Means of verification:

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

#### Description:

Government of Myanmar has constituted National Disaster Preparedness Central Committee (NDPCC), under the chair of Prime Minister, which is the apex body for Disaster Management. NDPCC prepared the Standing Order on Natural Disaster Management. It set the roles and responsibilities of each ministry, department and Disaster Preparedness Committees under Normal Times, Warning stage, Disaster stage and Rehabilitation stage.

Relief and Resettlement Department, supported by ADPC published 'Institutional Arrangements for Disaster Management in Myanmar'. Myanmar has Disaster Management set-up from ministerial to local administration level. Also, Disaster Preparedness Committee has been set-up at Division/State, District, Township and Village Tract levels under the chairman of respective Peace and Development Council.

Relief and Resettlement Department (RRD) is conducting Disaster Management Courses for government staffs. These trainings are being conducted since 1977. RRD is planning to establish Disaster Management Centre which is one of the priority projects listed under MAPDRR. MAPDRR identifies 61 priority programmes, under the HFA and AADMER Framework, for implementation over 6 years period from 2009 to 2015.

Ministry of Health prepared National Strategic Plan for Prevention and Control of Avian Influenza and Human Influenza Pandemic Preparedness and Response document in consultation with Ministry of Livestock and Fisheries to prevent and control Avian Influenza and Human Influenza Pandemic.

Being signatory to the HFA, Myanmar applies the Framework for disaster management in the country. Myanmar is also a signatory to ASEAN Agreement on Disaster Management and Emergency Response

AADMER, which mentions identification of National Focal Point [NFP] and Competent Authorities [CAs] to ensure smooth response.

Ministry of Social Welfare, Relief and Resettlement 30 years long-term Plan of MSWRR (2001-2030) in which DRR is mentioned as priority.

References: National Disaster Preparedness Central Committee, Relief and Resettlement Department, Ministry of Health, General Administration Department

### **Context & Constraints:**

There are two key challenges faced by the Government of Myanmar. The first is a lack of an overarching disaster management law and secondly, there is a lack of clarity on how to integrate DRR into each ministry as well as the focal ministry to support other ministries.

The consolidation into a country Disaster Management Law / Policy (who will mainstream DRR in ministries) is recommended and other ministries are needed to incorporate DRR components into their national plans.

### **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

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

-- not complete --

### **Means of verification:**

\* 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:**

The Ministry of Finance has a SPECIAL FUND which can be established for rehabilitation work. State budget is allocated to different Ministries, of which MSWRR budget covers disaster risk reduction. This focused more for relief, but capacity building on DRR, is also included.

The "Institutional arrangement for DRR in Myanmar" is undertaken by Ministry of Agriculture and Irrigation, Ministry of Forestry, Ministry for Progress of Border Areas and National Races and Development Affairs, Ministry of Transport, and some other ministries, but they do not specifically highlighted as DRR component but rather as a cross-cutting issue. Therefore, the total amount of budget used for DRR in each Ministry is difficult to calculate/mention.

UN Agencies and other humanitarian organizations (international and national) have mobilized resources for DRR, initially for Nargis recovery and later expanded to other hazard prone areas of the country.

Reference: Ministry of Finance, Budget Department (standing order section 113.B3), Duties and responsibilities of relevant ministries (websites and “Institutional arrangement for DRR in Myanmar” at [www.adpc.net](http://www.adpc.net)), Project Report, Brochures, websites of agencies concerned.

**Context & Constraints:**

In Myanmar, there is an absence of a policy directive for allocation of funds for specifically for DRR. Financial resources are not adequate and not available yet. Plans have been drafted at all administrative levels, but need for more detailed activities and implementation.

To ensure the DRR budget allocation, State budget should have separately allocate/mention DRR component) and the consolidation efforts among ministries and capacity development / institutional strengthening should be reinforced. The same needs to be ensured at the ministerial levels.

**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

**Do local governments have legal responsibility and budget allocations for DRR?**

-- not complete --

**Means of verification:**

\* No: Legislation

\* No: Budget allocations for DRR to local government

**Description:**

Disaster Preparedness Committees have been formed from national to village tract level under the Standing Orders on Natural Disaster Management. The chair of the Peace and Development Committee is also the chair of the Disaster Management Committee. The legal Framework on Disaster Management in District to Village Level exists. Each level of local government authority has clear defined roles and responsibilities for disaster management.

UN agencies, MRCS, INGOs, and local NGOs have been implementing community level disaster risk management.

The administrative function is relatively decentralized but financial arrangements are not adequately decentralized.

Reference: GAD, Peace & Development Council at district to village level, Peace & Development Council at township level, Standing Orders on Natural Disaster Management

**Context & Constraints:**

As an initial stage, there is administrative decentralization but financial resources are not decentralised. Currently, the coverage is mostly in the delta.

To encourage greater participation and involvement of local authorities in DRR, there is a need to define ward/village and grassroots level organizations as mentioned in the Standing Order (section 20) / DRR structure and functions (VDMCs are voluntary organizations).

#### **Core indicator 4**

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

#### **Level of Progress achieved:**

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

#### **Are civil society organisations , national planning institutions, key economic and development sector organisations represented in the national platform?**

-- not complete --

#### **Means of verification:**

\* 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:**

An Advisory Committee for Natural Disaster Management, is chaired by a specialist designated by the Prime Minister with representatives from States/Divisions and NGOs, DMH, Universities, Red Cross, Chamber of Commerce, Industries, bankers, insurance and disaster specialists.

Led by the Meteorology and Hydrology (DMH) Department, the Monsoon Forum is formed and intended as a mechanism for fostering a closer dialogue between forecast producers and users to enhance the uptake of weather and climate forecasts for disaster mitigation. This Forum broader goal is building the capacity of countries to mitigate disaster risks by linking national hydro-meteorological agencies to sectors that are vulnerable to climate risks, notably agriculture, water resources, health, and disaster management.

Civil Society Forum on DRR has been initially formed by six agencies from the UN and I/NGO community in order to contribute to the MAPDRR process components. Members involved national representatives from all sectors (similar to DRR WG).

The Recovery Forum was the Tripartite Core Group's (TCG) strategic arm to discuss policy and strategic issues related to the Nargis recovery process. With members from both bilateral and multilateral donors, humanitarian agencies, government ministries and private sectors, the forum aimed to review coordination policies that encourage resource mobilisation strategies, aid effectiveness, identify gaps and avoid overlaps.

DRR Working Group formed through the PONREPP under the TCG mechanism for Nargis Recovery Programme. Memberships cover all stakeholders including governments, donors, I/NGOs and professional bodies. DRR WG organize once a month and serves as a platform for facilitating of policy work and sharing experiences.

Reference documents: Standing Order on Natural Disaster Management (National Disaster Preparedness Central Committee, Government of the Union of Myanmar), Department of Meteorology

and Hydrology (DMH), CSF Working Group Minutes, ASEAN website, ToR of the DRR WG

### **Context & Constraints:**

The presence of multiple multi-stakeholder platforms lessens the collaborative advantage of different stakeholders.

To overcome this constraint, there is a need to activate the Advisory Committee for NDM (under standing order) and the establishment of national platform on DRR which brings together all stakeholders currently present inhibiting meeting the target.

## **Priority for action 2**

*Identify, assess and monitor disaster risks and enhance early warning*

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### **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

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

-- not complete --

### **Means of verification:**

- \* No: Multi-hazard risk assessment
- \* 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:**

“Hazard profile of Myanmar” has been developed by the government departments in cooperation with ADPC and, professional agencies such as MGS, MES. It is the compilation of available secondary data on nine types of hazards; namely cyclone, storm surge, drought, flood, earthquake, tsunami, landslide, fire and forest fire. Moreover, Myanmar Engineering Society (MES) has prepared the seismic zone map of Myanmar (2005). The preliminary seismic micro zoning maps for four seismically hazardous cities are being prepared by the Myanmar Geosciences Society (MGS), in collaboration with the Myanmar Earthquake Committee. UNDP is also preparing multi hazard risk assessment in Ayeyarwady, Bago and Yangon divisions, and later in Rakhine state. The studies identify prevalent natural hazards and map/assess multi hazard risk that can inform design of the development plans and programme as well as adapt to ongoing DRR activities.

Myanmar Action Plan on Disaster Risk Reduction (MAPDRR) for 2009-2015 also identifies to develop vulnerability and risk assessment for low-land plain, hilly and mountainous regions, ultimately to produce

hazard and vulnerability atlas of Myanmar, landslide hazard map, flood risk map, drought prone map and cyclone and storm maps to provide decision making tool for planning and development activities, and to identify disaster prone areas.

At the local level, community risk assessments and resource mapping have been conducted mostly by humanitarian organizations in the delta region during the Nargis Recovery period. These are part of Community-based Disaster Risk Management programmes implemented by UN agencies, international and local NGOs. However, these initiatives represents only very little percentage of the local risk assessments at the various level in the country.

Integrated Household Living Conditions in Myanmar (MDG survey and Poverty survey) developed by MNPED & UNDP, UNOPS are the existing sources for vulnerable information, but these are MDG relevant information. Vulnerability data with focus to disasters is needed to develop.

In 2000, school risk assessments have been done for basic education schools in townships of the Ayeyarwaddy Division.

Reference documents: Hazard Profile of Myanmar, MAPDRR, documents on CBDRM programmes of agencies (MIMU website), IHLCA (MDG survey and Poverty survey)

### **Context & Constraints:**

A systematic, standardized and comprehensive risk assessment based on hazard and vulnerability information is lacking as there is inadequate resources to undertake these.

Hazard assessment has already been initiated by several institutions/agencies and needs to be expanded and replicated in the other hazard prone areas. These assessments at the community level should be systematically fed into the township and other sub-national level assessments.

Given the limited data availability/quality for hazard risk catalogues (esp. storm surge, tsunami, flood and climate change); vulnerability and loss functions (for earthquake and tsunami, cyclone and storm surge, flood, fires) a large number of working assumptions will be made to estimate both hazard risk and specific vulnerability.

The results of the assessments will be useful as the basis in developing hazard mitigation and preparedness measures, such as developing building codes. The on-going work and effort of professional organizations for national level multi-hazard risk assessments should be encouraged and supported with technical and financial assistance.

## **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

### **Are disaster losses systematically reported, monitored and analysed?**

-- not complete --

### **Means of verification:**

\* No: Disaster loss database

\* No: Reports generated and used in planning

**Description:**

Department of Meteorology and Hydrology (DMH) is the focal department for monitoring, archiving, disseminating data on some key hazards: cyclone, flood and storm surge. Through their 102 sub-stations they are able to monitor; record and disseminate information to higher levels. Irrigation Department is also monitoring river water level of major rivers. The national seismological data has been recorded and compiled by DMH and Myanmar Earthquake Committee to a certain extent and the information is available for the concerned departments, agencies and research purposes. Fire and forest fire data are systematically compiled and recorded at Fire Services Department (FSD) for several years. Dry Zone (covers Central Myanmar) Greening Department is the agency responsible for data on drought. However, the system to monitor, archive and disseminate data on landslide is needed to improve.

The system for vulnerability data is lacking. Only vulnerability data of very few communities are compiled in some CBDRM programmes of humanitarian agencies in delta during the Nargis recovery period. PONJA, PONREPP, SIM and PR I to IV provide data of vulnerability on Nargis affected area. However, the system for the country as a whole for vulnerability is lacking. Data dissemination to public and stakeholders is present but weak for all the hazards.

Reference Documents: Standing Order (SO) on disaster management, Institutional Arrangement for DRR in Myanmar, PONJA, PONREPP, SIM and PR I to IV, websites of Ministries and departments concerned, MIMU website.

**Context & Constraints:**

There is an absence of a centralized system for consolidating data for all types of disasters. According to the SO (2009), MSWRR is identified to serve as a source of required information and data on disasters. This initiative would be supporting to have a one-stop agency for disaster related data collecting from different departments.

Due to lack of internet access throughout country, web-based information system is not effective. The system for monitoring, maintaining the data of departments concerned is equipped with aging and obsolete equipment. Financial and technical support as well as coordination among different stakeholders is lacking which impedes in improving the existing system.

**Core indicator 3**

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

**Level of Progress achieved:**

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

**Do risk prone communities receive timely and understandable warnings of impending hazard events?**

-- not complete --

**Means of verification:**

\* No: Early warnings acted on effectively

\* No: Local level preparedness

\* No: Communication systems and protocols

\* No: Active involvement of media in early warning dissemination

**Description:**

Department of Meteorology and Hydrology (DMH) is the focal agency for generating and issuing early warning to the administration and relevant government departments. Two early warning centers are set up. The Early Warning System is already in place for cyclone, storm surge and floods, but for landslide is not developed yet. DMH also linked with Japan Meteorological Agency (JMA), Pacific Tsunami Warning System and ADPC's Indian Ocean End-to-end Multi-hazard Early Warning System to receive and issue Tsunami early warning for coastal area. The effectiveness of early warning has been tested in some pilot coastal villages in September 2009 as part of the Regional Drill conducted in 18 countries.

DMH collects weather information from various sources: internally from its 102 weather stations throughout the country and externally from neighboring countries and regional weather portals. Then it generates weather forecast and early warnings for cyclone, storm surge and flood. The early warning is sent to national administrative authority, local authorities, Ministry of Information to disseminate it through public media, such as radio, television, newspapers, etc.). The (102) weather stations which send it to local authorities to disseminate it to the communities). The local authority plays an important role to disseminate the early warning to reach the communities.

DMH also provides automatic answering service for daily 24 hour weather forecast service. Ministry of Information also expanded FM radio broadcasting stations to reach the early warning to the hazard prone areas. The communication facilities such as CDMA telephones have been provided to villages in hazard prone areas to receive early warning at the earliest. The Disaster Management Plans have been prepared at all levels to take necessary response action as soon as early warning is received. UN agencies and NGOs are supporting local authorities to ensure that risk prone communities receive timely and understandable warnings of impending hazard events.

The Standing Order also specifies the different color codes for EW dissemination to the community level. This is being applied at various townships and supported by I/NGOs.

Reference Documents: Institutional Arrangement for DRR in Myanmar, Website for DMH, Standing Orders on Natural Disaster Management.

**Context & Constraints:**

The dissemination of early warning is unable to reach remotest sections of community. This is also due to the difficult geographical terrain of the country. Particularly, the linkages and communication system between township level to village and community levels is still weak and needs to be strengthened by providing communication facilities as well as capacity building for the stakeholders at community level. The telephonic hotline for hazard and early warning information is needed for the public.

In addition, dissemination framework for early warning should be restructured or redefined by bringing in wider participation of stakeholders, horizontally and vertically. The message of early warning needs to be understandable and simplified for community. Warning signals is also not standardized. Local level preparedness plans is yet to integrate early warning along with necessary response measures.

**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:**

1: Minor progress with few signs of forward action in plans or policy

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

-- not complete --

#### **Means of verification:**

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

#### **Description:**

Since National risk assessment and local risk assessments are at the initial stage, it needs to take account of regional/trans-boundary risks into them. There are initiatives for regional cooperation on risk reduction. Myanmar is a member of the ASEAN Committee for Disaster Management (ACDM). It is also a signatory to the ASEAN Agreement on Disaster Management and Emergency Response (AADMER) and Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations (SASOP).

The Department of Meteorology and Hydrology (DMH) is linked with the ADPC's Indian Ocean End-to-end Multi-hazard Early Warning System and activities are under process for installing buoys with data transmitter to detect any anomaly of the ocean wave along the coastlines of the Indian Ocean countries. DMH is also a member of "Panel on tropical storms in Bay of Bengal and Adaman Sea". Bi-annual Monsoon Forum has been organized since 2008. The DRR professionals from the regional agencies, departments/line ministries, UN agencies and NGOs in the country participate in the Forum and exchange information. These regional cooperation activities will contribute into the National and local risk assessments, when they are implemented.

Reference Document: MAPDRR, websites.

#### **Context & Constraints:**

There is limited technical and financial support to undertake National and local risk assessments taking account of regional/trans-boundary risks, with a view to regional cooperation on risk reduction. To meet the challenges, more coordination and cooperation in the regional DRR forum and activities needs to be encouraged.

## **Priority for action 3**

*Use knowledge, innovation and education to build a culture of safety and resilience at all levels*

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### **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:**

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

## Is there a national disaster information system publicly available?

-- not complete --

### Means of verification:

\* No: Web page of national disaster information system

\* No: Established mechanisms for accessing DRR information

### Description:

Efforts have been made to inform public about daily weather condition regularly and early warnings for emergency through various channels of radio, cable television and newspaper. Ministry of Social Welfare, Resettlement and Relief has developed a book on hazard profiles and hazard maps of the country in English.

Moreover, there is Standing Order for Administrative levels for all Ministries on disaster preparedness and response. Regarding DRR information web pages, the Department of Meteorological Department and Hydrology (DMH) Website, the Myanmar Management Information Unit (MIMU) Website and the Myanmar Engineering Society Website have been created.

However, the access is limited to UN agencies, Ministries, INGOs, NGOs, and the public who have internet access and can read English. Many private news journals with small circulation provides in Myanmar language information about DRR for public on a weekly or monthly basis to increase awareness on safety and preparedness.

Supporting documents/source of information:: DMH: <http://www.dmh.gov.mm/>; MIMU: <http://www.themimu.info/>; MES: <http://www.mes.org.mm/>; MRTV; MWD; VOM; FM radios; Ministries concerned, UN agencies, INGOs, LNGOs.

### Context & Constraints:

Different ministries, organizations and stakeholders are providing DRR information and building capacity at different levels but more co-ordination is needed to reach public in a regular and sustainable way. Many printed reports are too technical for public to understand and difficult to apply in life for building a culture of safety and resilience. Weather news is not able to reach remote areas in time due to limited communication and information systems as well as geographical terrain.

To overcome the above challenges, the followings are recommended: Myanmar version websites for information on disasters needs to be created on the Internet; Documents and reports needs to be made user friendly for general public and easily available; More TV and radio programmes on weather news and DRR needs to be created, for example, use of prime time on different TV channels by interviewing different ministries' experienced personnel, information sharing or airing TV spots that focus on safety during emergencies; Good articles on DRR needs to be collected from newspapers and journals and put in a monthly Village Library Magazine which can reach the remote village libraries and the community. In addition, other magazines that are read by different age groups at village level are to identified.

A specific institution or department needs to be established for better coordination and standardization.

## Core indicator 2

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

**Level of Progress achieved:**

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

**Is DRR included in the national educational curriculum?**

-- not complete --

**Means of verification:**

\* No: Primary school curriculum

\* No: Secondary school curriculum

\* No: University curriculum

\* No: Professional DRR education programmes

**Description:**

At the primary level, one of the five main areas of Life Skills Subject is 'Environmental Education' and there is a chapter on DRR called 'Caution in Emergencies' that explains human-made and natural disasters. The Ministry of Education (MoE) has revised General Science Subject of the lower secondary school curriculum (Grade 6 to 9) and included the main area of study 'Earth and Space' with lessons on storms. The lower secondary Life Skills includes Flood, Emergencies, Earthquake, Tsunami, Landslides and Fire. The revised upper secondary school subjects include a lesson titled 'Earthquake' in Grade 10 English and 'Earth Surface Process' in Grade 11 Geography.

A complementary reading material that contains information on 8 disasters is available as a self-study booklet for Grade 5, 6 and 7 students. Reading cards, namely, 'Earthquake', 'Storms' and 'Tsunami' and a story book on 'Be prepared' are available for Non-Formal Education. These materials cover what to do before, during and after disaster. Department of Educational Planning and Training (DEPT) with the support of the Disaster Preparedness and Response Education (DPRE) Working Group has developed DRR in education training modules in accordance with the 5 priority areas of HFA and trained township education officers, principals, teachers of cyclone-affected areas and teacher educators of education colleges.

The Disaster Preparedness and Response Education (DPRE) Working Group comprising representatives from Department of Educational Planning and Training (DEPT), MoE, UN Agencies, INGOs and NGOs, formed in August 2008, collects relevant DRR education materials from various agencies and distributes them as resource packs to schools and trains teachers use them. DRR trainings are provided to teachers and principals of schools in hazard-prone townships, which cover risk assessment, formation of School Disaster Management Committee and school disaster preparedness plan, mock drills and psycho-social support. In higher education, the Ministry of Science and Technology has initiated seminars and technical training on the topics of 'Utilization of Space based Technologies for Disaster Risk Management' and 'Quality Control Assessment for Cyclone Shelter Construction'. Supporting documents/source of information: Department of Educational Planning and Training (DEPT) and Department of Basic Education (DBE) No.1, Ministry of Education; UNESCO; UNICEF; DPRE WG; Ministry of Science and Technology (MoST), AIT, ADRC; INGOs; LNGOs

**Context & Constraints:**

Due to the tight school routine, there is a little time to practice DRR in schools. Insufficient DRR related teaching aids to stimulate students' interest and participation is also a challenge. The three-month summer holiday limits DRR programme implementation. Regarding DRR in higher education, there are limitations in human resources and facilities to offer courses, carry out research studies and apply

findings in DRR activities.

Based on the challenges, the followings should be carried out:

- More effective coordination among associated organizations
- Use pay days as an opportunity to put DRR on the meeting agenda (Note: Township Education Officers and school principals usually have a meeting at the township education offices on pay days.)
- Conduct monitoring visits to foster the use of tools and mechanisms
- Provide supervision and necessary support to schools.
- Incorporate DRR and recovery concepts and practices in the higher education curriculum and provides professional DRR education programmes.
- Develop degree, diploma and certificate courses on DRR

### **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

#### **Is DRR included in the national scientific applied-research agenda/budget?**

-- not complete --

\* No: Research outputs, products or studies

\* No: Research programmes and projects

\* No: Studies on the economic costs and benefits of DRR

#### **Description:**

Expecting lesser impacts and losses in case of a disaster, the Ministry of Science and Technology (MoST) is undertaking necessary preparations in the field of science and engineering. Disaster risk reduction (DRR) related research works are being carried out as departmental projects, post graduate studies, and international publications at relevant Research Centres, Universities and Colleges under MoST.

Accomplished and ongoing research works in the areas of DRR are: Cyclone Hazard and Vulnerability Analysis, Analysis on Urban Warming Temperature, Watershed Conservation Planning and Management, River Bank Protection, Flood Risk Mapping, Prediction on Seismic Performance of Earth Fill Dam, Architectural Guidelines for Climate Responsive Building Design (cyclone shelter, housing, .... etc.), Green and Open Space Area Development, Structural Risk Mitigation, Land Use and Human Settlement Planning, Weather Forecasting using computer modelling and Geomorphologic Information Assessments, to name a few.

As part of the technical assistance action, some of the methodology and tools applied in the above-mentioned research works are provided for practical applications as and when necessary. In addition to this, a team composing of experts in the relevant fields is initiating devoted efforts to carry out technical research works systematically as well as capacity building activities in DRR. Ministry of Science and Technology is also undertaking translation work on developing educational materials into local language to increase the awareness about Geographic Information System (GIS), Satellite Remote Sensing and Global Positioning System (GPS) with simple explanations and their usages in disaster

management area. Myanmar Earthquake Committee (MEC), which was formed in 1999 under the Myanmar Engineering Society (MES), has developed an earthquake zoning map in collaboration with geologists in Myanmar, and research works on earthquake hazards are carried out with a focus on active faults of Myanmar. Resources and references on earthquake studies are also available at MES.

Supporting documents/source of information: Project reports, dissertations, international conference proceedings by MoST;; Myanmar Earthquake Committee (MEC) formed in 1999 under MES

### **Context & Constraints:**

The integration of technical research works into policy making and implementation in practical problem solving. Data providing and information sharing from respective organizations are necessary. More coordination and cooperation among relevant ministries and academia is needed. Cost benefit analysis for disaster risk reduction has not been conducted yet.

Therefore, coordination and cooperation with other relevant ministries and academia needs to be strengthened. In addition, the integration of technical research works into policy making and implementation in practical problem solving should be made. Establishment of a Disaster Management Institute is also needed.

### **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:**

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

### **Do public education campaigns on DRR reach risk-prone communities?**

-- not complete --

### **Means of verification:**

\* No: Public education campaigns.

\* No: Training of local government

\* No: Availability of information on DRR practices at the community level

### **Description:**

There is no formal country-wide public awareness strategy but there are numerous initiatives done at the ministerial and humanitarian agency level which contributes to public awareness. The Ministry of Social Welfare, Relief and Resettlement, in cooperation with departments concerned, conducts management course on prevention of disasters in states and divisions. Likewise, to promote technical know-how, experts from Civil Engineering department and Architects gives lectures at the special training program on the topic of 'Quality Control Assessment for Cyclone Shelter Construction' organised by Rehabilitation and Reconstruction Sub-Committee of the National Disaster Preparedness Central Committee (NDPCC) and the Ministry of Construction. The International Disaster Risk Reduction Day is observed government and humanitarian agencies in Myanmar.

Many agencies and organisations have developed DRR IEC materials (calendars, flip books on DRR, poem books for children, posters, pamphlets, games, training materials, etc.) and distributed them to the communities especially in disaster prone areas. Community based DRR programmes are being implemented by various agencies and organisations. For instance, humanitarian agencies are

implementing community based DRR programmes which include

- Selection and conducting training of village volunteers from targeted communities
- Facilitate Vulnerability and Capacity Assessment implementation, community DRR action plans and village disaster management committees
- Carry out the Community/household preparedness level assessments conducted, village disaster plan development, community disaster preparedness sessions and table top simulation activities
- Implement mitigation activities and provided of carpentry/masonry tools

Carpenters and masons are also trained at the community level. Moreover, mobile DRR resource centres using a truck and a ship have been innovated to reach the outreach in some part of the country.

Supporting documents/source of information: MSWRR; MoST: DRR IEC inventory list (as of 26 Feb 2010) compiled by DRR WG; UN agencies; INGOs and LNGOs; MES; MRCS/FRC; MIMU's 3Ws: <http://www.themimu.info/3W/Maps/3W.html>

### **Context & Constraints:**

There is an absence of a National countrywide strategy to raise awareness and preparedness that could build a culture of safety and resilience at all levels as well as a coordinate strategy among various actors. It is difficult to access some targeted areas to conduct risk assessments, which limits available data and programme reach, greater access to vulnerable communities. Various techniques and methods should be developed to deliver messages to different target groups or communities (such as for ethnic groups).

## **Priority for action 4**

*Reduce the underlying risk factors*

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### **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:**

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

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

-- not complete --

### **Means of verification:**

- \* No: Protected areas legislation
- \* No: Payment for ecosystem services (PES)
- \* No: Integrated planning (for example coastal zone management)
- \* No: Environmental impacts assessments (EIAs)
- \* No: Climate change adaptation projects and programmes

### **Description:**

Myanmar Government has set up the National Commission for Environmental Affairs (NCEA) which

aims is to ensure sustainable use of environmental resources and to promote environmentally sound practices in industry and in other economic activities. National Environment Policy was adopted in 1994. It aims to establish sound environment polices in order to conserve the environment and to prevent degradation. "Myanmar Agenda 21" which was drafted by NCEA and approved in 1997, serves as a blue-print for sustainable development. Based on it, NCEA is in the process to implement integrated approach for sustainable development in specific areas, such as dry zone areas.

Ministry of Forestry leads the promotion of sound environmental practices in rural areas, such as orienting local communities on the connection between sound environment and DRR. National Forestry Action Plan (1995) and Dry Zone Greening Action Plan (1997) have been developed which incorporates DRR in the forestry sector. Moreover, legislations of protected areas and forests have initiated by issuing executive orders.

Ministry of Agriculture and Irrigation has implemented initiatives on introduction of watershed management concept in projects like Kinda Dam project. Ministry of Forestry, local authorities and NGOs have initiated mangrove plantation for environment protection which also contribute in reducing disaster risks.

National Action Programme of Myanmar to combat desertification in the context of United Nations Convention to Combat Desertification (UNCCD) has been prepared in August 2005. One of the objectives of the Action Programme is to create awareness among stakeholders and the public of the contribution of forestry to sustained use of the resource base; to minimize damage and degradation. Under MAPDRR, land use planning policy and formation of a committee to oversee the policy formalization process has been proposed. The MAPDRR also includes activities to assist sustainable development especially in coastal areas.

Reference documents: National Commission for Environmental Affairs (NCEA), "Myanmar Agenda 21", Environment Performance Assessment (EPA) Report, 2009, National Action Programme of Myanmar to combat desertification in the context of United Nations Convention to Combat Desertification (UNCCD), 2005.

### **Context & Constraints:**

Although National Environmental Policy and Myanmar Agenda 21 have been developed, they are not widely adopted in various sectors. "Myanmar Agenda 21" has recommended establishing a national framework for Environmental Impact Assessment (EIA) however; it is not established yet. Payment of ecosystem services (PES) does not exist either.

Also, initiatives of DRR have taken place after Cylone Nargis, therefore, there is still limited awareness of integrating DRR into environment related issues. As recommended in MAPDRR, comprehensive policy is needed, especially in land use planning. However, this could take time to establish. In order to implement these policies, including implementation of EIA, establishment of laws and rules, as well as ensuring enforcement in local communities are important.

### **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

### **Do social safety nets exist to increase the resilience of risk prone households and communities?**

-- not complete --

### **Means of verification:**

- \* No: Crop and property insurance
- \* No: Employment guarantee schemes
- \* No: Conditional cash transfers
- \* No: DRR aligned poverty reduction, welfare policy and programmes
- \* No: Microfinance
- \* No: Micro insurance

**Description:**

Ministry of Social Welfare, Relief and Resettlement issued a "Plan of Action for Child Protection in Emergencies: Response to Cyclone Nargis" in order to provide protection for children, including those separated from their families, unaccompanied and orphaned by Nargis. The Ministry also developed a "Myanmar National Plan of Action for Person with Disabilities 2010-2012" with the objective to mainstream disability into all areas and to support specific initiatives for people with disability. The Ministry is considering a draft of "Myanmar National Plan of Action for Women and Emergencies 2010-2013" with technical assistance from Women's Protection Technical Working Group during Nargis Recovery.

After Cyclone Nargis, Ministry of Education and Ministry of Health are in the process of integrating disaster risk reduction in school and health sectors with the support from UN agencies and I/NGOs. This includes hazard analysis in selecting school and health facility sites.

According to MAPDRR, there are plans to develop micro-finance schemes in order to create alternative livelihood opportunities for communities living in risk prone locations. Activities such as assisting the villagers in establishing market for their products through the involvement of private firms are included. Supporting government initiatives, UN agencies and NGOs are also working on programs on livelihood, micro-finance, women/child, psychosocial care, immunization, Early Childhood Care Development (ECCD) etc.

Ministry of Social Welfare, Relief and Resettlement with the support of HelpAge International has prepared the draft Action Plan for Older People which takes into account of DRR aspects.

Reference documents: Ministry of Social Welfare, Relief and Resettlement, Relief and Resettlement Department "Myanmar Action Plan on Disaster Risk Reduction (MAPDRR) 2009-2015", National Disaster Preparedness Central Committee, "Standing Order on Natural Disaster Management" (Jan., 2009), "Plan of Action for Child Protection in Emergencies: Response to Cyclone Nargis", Myanmar National Plan of Action for Women and Emergencies 2010-2013".

**Context & Constraints:**

There is a limited geographical covered on social development programs to reduce the risk as these mainly focus on the Nargis affected areas. Therefore, a nation-wide programmes and activities need to be established. In addition, insurance system that covers those that are most at risk needs to be established.

**Core indicator 3**

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

**Level of Progress achieved:**

1: Minor progress with few signs of forward action in plans or policy

## **Are the costs and benefits of DRR incorporated into the planning of public investment?**

-- not complete --

### **Means of verification:**

\* No: National and sectoral public investment systems incorporating DRR.

\* No: Investments in retrofitting infrastructures including schools and hospitals

### **Description:**

After Nargis, Humanitarian organisations have introduced programmes to reduce the vulnerability of economic activities at community level, such as seed banks, distribution of salinity resistant crops. Moreover, capacity building and training for livelihood such as carpenter training and encouraging handcrafts have been provided to provide more job opportunities. Some financial tools to transfer and share risks are introduced by Myanmar Insurance under Ministry of Finance however; it does not cover all type of disasters.

Insurance system is in place, taking account of natural disasters such as flood, storm, earthquake, inundation, and landslide. Myanmar Insurance service provides Fire insurance service to any entity. However, it is not suited to the poor and vulnerable population at hazard prone area. Moreover, insurance service on crops, and livestock damaged by disasters does not exist yet.

There are agricultural microfinance programmes however they are not related to DRR.

Reference documents: Ministry of Social Welfare, Relief and Resettlement Relief and Resettlement Department "Myanmar Action Plan on Disaster Risk Reduction (MAPDRR) 2009-2015".

### **Context & Constraints:**

There is no comprehensive policy to reduce the vulnerability of economic activities. Most of the financial tools are only applicable in urban areas and not in rural areas. In particular, existing agricultural microfinance programmes should be integrated DRR aspects in implementation. Insurance covering livelihood equipment (boats, farming equipment) is available but limited.

## **Core indicator 4**

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

### **Level of Progress achieved:**

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

## **Is there investment to reduce the risk of vulnerable urban settlements?**

-- not complete --

### **Means of verification:**

\* 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:**

Coordination among related ministries for urban human settlement has taken place however; human settlement and urban planning policy at national and local level are still in the reviewing stage. Moreover, a comprehensive multi-hazard assessment is needed to incorporate DRR elements in the planning process.

Ministry of Construction along with concerned ministries is planning to improve the building codes to promote safer construction with the technical assistance from UN-HABITAT and NGOs. With the support from UN agencies, training of carpenters and masons on basic hazard resistance construction methods are carried out. Manual/ IEC materials /guidelines on hazard resistant construction practices have been published and distributed to hazard prone areas.

The directives for fire safety of buildings have been promulgated and enforced by Fire Services Department to reduce fire risks of buildings and human settlements.

According to MAPDRR, there are plans to identify causes and effects of hazards by related ministries and some of the assessments have been initiated

Reference documents: Ministry of Social Welfare, Relief and Resettlement Relief and Resettlement Department "Myanmar Action Plan on Disaster Risk Reduction (MAPDRR) 2009-2015".

### **Context & Constraints:**

Planning and management of human settlements must be based on a nation-wide hazard risk assessment. Trainings of carpenters/, masonry need to be expanded to other areas. After new building codes are introduced, it is important to ensure that these codes are enforced through political will and action.

### **Core indicator 5**

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

### **Level of Progress achieved:**

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

### **Do post-disaster recovery programmes explicitly incorporate and budget for DRR?**

-- not complete --

### **Means of verification:**

\* 0 % of recovery and reconstruction funds assigned to DRR

\* No: Measures taken to address gender based issues in recovery

### **Description:**

After Nargis, the Myanmar government, UN agencies, and ASEAN have conducted Post Nargis Joint Assessment (PONJA) and developed Post Nargis Recovery and Preparedness Plan (PONREPP) which became the base of integrating DRR into the recovery and rehabilitation process. Programs such as WASH program, health and education programs have been implemented. Under the Protection section of PONREPP, women's issues have been strongly addressed. Also, the MoSWRR with the support of the Women Technical Protection Working Group has developed there is the 'Myanmar National Plan of Action for Women in Emergencies 2010-2013'

Ministry of Forestry has implemented plantation programs, including mangroves. This also works as a protector when in disaster.

Reference documents: Ministry of Social Welfare, Women's Protection Technical Working Group

"Myanmar Action Plan on Disaster Risk Reduction (MAPDRR) 2009-2015".

**Context & Constraints:**

There is a lack of sustainable and comprehensive recovery and rehabilitation frameworks to ensure systematic incorporation of disaster risk reduction elements into the process.

**Core indicator 6**

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

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

-- not complete --

**Means of verification:**

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

Ministry of Construction has issued a plan to consider disaster preparedness in their activities. The Ministry has initiated the creation on transportation network for Delta (Ayerwaddy Division) area which would help during emergency response.

Under the guidance of NDPCC, the Ministry of Construction chaired the Township Recovery and Rehabilitation Committee coordinated with different ministries, academic bodies and private companies to build the cyclone shelters and hill elevated lands (evacuated place) in the hazard-prone areas. According to MAPDRR, initiative to implement Disaster Impact Assessment (DIA) as part of the planning and approval process of development programs needs to be taken place by the Myanmar government. (from 2011)

REFERENCE documents: Ministry of Social Welfare, Relief and Resettlement Relief and Resettlement Department "Myanmar Action Plan on Disaster Risk Reduction (MAPDRR) 2009-2015", Ministry of Construction, Public Works "Disaster Risk Reduction" (2005)

**Context & Constraints:**

A Framework for assessing disaster impact, especially for community level is lacking. There is a need establish a national framework for assessing disaster impact and educate stakeholders on its application.

**Priority for action 5**

*Strengthen disaster preparedness for effective response at all levels*

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**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:**

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

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

-- not complete --

**Means of verification:**

\* No: Policies and programmes for school and hospital safety

\* No: Training and mock drills in school and hospitals for emergency preparedness

**Description:**

A comprehensive National Standing Order (SO) for all government ministries serves as a preparedness plan and a contingency plan. This document is available with Government Ministries. At the national level, the structure of disaster management is developed: National Disaster Preparedness Central Committee, and decentralized to village level (Village Disaster Management Committee, Village Tract Disaster Management Committee and Township Disaster Management Committee).

A focal Ministry is in place for disaster management (DM): Ministry of Social Welfare, Relief and Resettlement and all Disaster Management issues is tasked under the Relief and Resettlement Department.

Myanmar Government has also developed important documents such as Hazard Profile of Myanmar; Institutional Arrangement in Myanmar; Standing Orders; Inter- agency Contingency Plan; Local NGO Contingency Plan; PONREPP; PONJA, (Documents available with RRD, ADPC, MIMU, OCHA, ASEAN) in order to guide Disaster Management.

Moreover, the institutional capacities built through the overall experience in the Delta including Hospital Emergency Plan, Information, Education and Communication Materials (IEC) and assessment manuals etc. The Mass Casualty Plan is available in all hospitals and Hospital emergency plan but this is yet to be shared to other stakeholders. Ministry of Education (DEPT) has formed a DPRE Working Group to focus on safer school programme technically supported by UNESCO and other members; initially, 200 teachers have been trained so far.

The Disaster Management trainings organized by various stakeholders were done in 36 townships of the country. However, Post Nargis Technical capacity is improved but still needed to be enhanced both physical and human resource.

The Dry Zone greening project is underway in implementation of planting trees and building of dams in 13 Districts.

**Context & Constraints:**

Since, the DM is a new subject to Myanmar therefore there are still limited capacities in-country. There is limited human resources within RRD to cover all DM issues. DRR policies not yet in place in many sectors.

Other constraints are identified as follows;

- Absence of a legally binding document on DM (DM law)
- Relief and Resettlement Department structures for disaster management are currently at the national

level only. Effort is underway to decentralize

- Only capacity building is through Nargis response – no strategy in place for continued institutionalized DM trainings.
- Need for decentralization of decision making in disaster situations is currently slow.
- Need for effective linkage between Village Disaster Management Committee and higher levels such as tract and township levels.
- Limited public access to Disaster Management information
- Presence of several DRR platforms but no single National platform
- No binding policies for DRR in critical high risk areas (eg, building codes and their enforcement in earthquake zones)

There is also a need to develop and enact DRR laws/policies and advocate for strict implementation. To build capacity on Disaster Management, there would be needed to invite external experts and professionals.

Therefore, there is a need to introduce DM in schools, colleges / universities curriculum and / or set up a DM training school. The Relief and Resettlement Department should make a strong argument to Government for a large budget allocation for human resources using the Nargis experience as a reference point for the need of DM.

In addition, the area of cooperation and collaboration between concern government departments and UN agencies, INGOs and LNGOs for formulation of DM policies on disaster risk management is needed to be strengthened.

## **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

### **Are the contingency plans, procedures and resources in place to deal with a major disaster?**

-- not complete --

### **Means of verification:**

- \* 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:**

At all administrative levels, the followings are in place:

Standing Order considered as both a contingency plan and a preparedness plan. The Inter-agency contingency plan, Local NGO contingency and Individual agency contingency plan are in place and updated periodically.

Myanmar Government carried out the tsunami simulation exercises and drills, Inter-Agency and LINGO Contingency Plan Simulation Exercise in April and June 2010. Individually, a few drills held at township level within organizations are organized. Training of Trainer in Mock Drill in Yangon and Pyin Oo Lwin is organized by concerned ministries (RRD).

Various agencies such as UN, INGOs, LINGOs are undertaking training, awareness generation and mock drills along with development of manuals and guidelines for school safety.

Meanwhile, the Fire brigade department and various other I/NGOs have established the dedicated Search & Rescue teams at Township and village level. In addition, Village Disaster Management Committees have been formed in Nargis affected areas. It is hoped that this village body will be integrated into the overall national disaster management system.

There are Township Disaster Management Plans developed after the Indian Ocean Tsunami, but these plans are rudimentary in nature. Under supervision of Relief and Resettlement Department and Asia Disaster Preparedness Center, the State / Division / Township Disaster Management/preparedness plan outlines are under process.

#### **Context & Constraints:**

It is noted that the head of Township Peace and Development Committee is also the head of the Township Disaster Management Committee. Handling both portfolios is a challenging task. Due to inadequate resources and policy directive, there is a need to have a dedicated person for disaster management at the township level. However, there is a need to be in place of Emergency Operation Centre, including at the township level.

Drills, simulation exercises have been done in an ad-hoc manner and there are no standardized guidelines for conducting it. This needs to be systematically organized and guidelines developed.

### **Core indicator 3**

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

#### **Level of Progress achieved:**

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

#### **Are financial arrangements in place to deal with major disaster?**

-- not complete --

#### **Means of verification:**

\* No: National contingency funds

\* No: Catastrophe insurance facilities

\* No: Catastrophe bonds

**Description:**

The humanitarian community's Inter-Agency Contingency Plan has budgetary provisions that can be sought for effective response but not for the recovery activities. Similarly, International organizations can access emergency funds from regional offices and their head offices. Emergency stocks, supply and logistics are in place. The financial reserves not yet in place but these can be requested in the event of an emergency.

There is still a need to be in place of a national contingency fund for relief and reconstruction work. Catastrophic insurance facilities are in place but not comprehensive. Moreover, International Financial Support is very limited and the funding for recovery activities is not readily available.

**Context & Constraints:**

To bridge the gaps, a contingency fund needs to be established by Myanmar Government but private sector needs to be encouraged in order to contribute to the contingency fund. Moreover, a system to consolidate information about financial capacity of different humanitarian stakeholders on Disaster Risk Reduction is absent and should be in place.

**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

**Has an agreed method and procedure been adopted to assess damage, loss and needs when disasters occur?**

-- not complete --

**Means of verification:**

\* 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:**

Under the Standing Orders, the damage and loss assessment tool is available. A system is already in place to request ERAT and United Nations Disaster Assessment and Coordination (UNDAC) for post disaster assessment which is identified by TCG and re-train human resources for assessment capacity.

Through ministries, DMH, MPT, MRTV, GAD and RRD, an early warning system especially for the Cyclone and Flood exists. For uploading all relevant disaster information, MIMU has a website which channels for sharing information at all levels, although it is limited in some areas. Disaster information is usually reported late in the government press. Recently, UN-Habitat has developed the Disaster Information and Assimilation Source (DIAS) which is a platform for various stakeholder to share, discuss and debate on DRR issues.

However, there are some gaps have been identified. There is no central resource pool of assessors / trained assessment human resources. Although the systems for Damage and Loss Assessment and Request for support are in place, but there is no agreed/approved system in place for assessment.

**Context & Constraints:**

There is also absence of post disaster review structure, centralized trainings and Common/ Standard Post Disaster Needs Assessment. In addition, identification of trained human resource needs to be done at the national level and early warning system (both structural and non structural) still needs to be improved.

Some challenges have been identified. EWS have limited capacity to be conveyed beyond the Township level due to limited capacities to transmit the information. Similarly, a pool of assessment human resources is not easy to set up due to limited numbers of personnel.

To overcome these challenges, government needs to partners with international community on the assessment tools to be used in an emergency and have them on standby. Government policies need to include issues of EWS and ensure it is decentralized. An early warning system for all natural disasters needs to be in place and effective information sharing should be strengthened.

Learning experience from the Cyclone Nargis Period Review, a Post Disaster review structure is recommended; identifying trained human resources are involved in assessments and disaster management at all levels.

## **Drivers of Progress**

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### **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?:**

No

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

All existing multi-stakeholder platforms address multi-hazard and have been able to bring issues up at most of their meetings/discussions which has led to the inclusion of multi-hazard perspectives to DRR. MAPDRR as an example where DRR is treated as an integrated multi-hazard approach.

Government's initiatives at all levels and Humanitarian organizations' work on DRR are multi-hazard integrated approach.

At household and community level DRR initiatives, it is focused on the frequent disaster of the area which usually more than two hazards.

Information on different disasters such as Hazard Profiles of Myanmar published in 2009 is available and awareness of DRR has been increased. However, mainstreaming of DRR into development planning of

various sectors is needed in many sectors.

Central level government and disaster organizations have a multi hazard approach, focusing on five priority hazards (Fire, flood, cyclone, earthquake and landslides). The impacts of climate change for example drought as a slow onset disaster needs to be considered for integration into existing development programmes. Studies, reports and atlases have a multi hazard focus, unless it is an in-depth study of a single hazard. However, it cannot be confidently mentioned whether local governments the same approach (for example, Delta people are biased towards limiting the impact of another cyclone only).

## **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 has not been treated adequately across all Multi-stakeholder platforms in the country. Strong gender based organizations are not represented at these platforms due to various reasons. Hence, gender perspectives and concerns are addressed inadequately. A gender gap is identified, as well as institutionalization is not adequately focused on gender.

Gender perspectives on risk reduction and recovery are incorporated in all sectors but still need to be highlighted especially in risk reduction effort. Women, for example still need to be encouraged to be involved in leadership roles and in decision making. There needs to be equitable opportunities for women to participate. The needs assessments and response options should be tailored to the needs of women. Such efforts have started emerging in community based initiatives from the Delta.

It is also noted that less participation from women groups in DRR programming (eg. Disaster Management Committees at different level) although UN Agencies, INGOs, NGOs, Myanmar Women's Affairs Federation (MWAF), Women Protection Group, UN Gender Theme Group (GTG), etc. are working in different areas for gender mainstreaming.

## **c) Capacities for risk reduction and recovery identified and strengthened**

### **Levels of Reliance:**

No/ little reliance: no acknowledgement of the issue in policy or practice; or, there is some acknowledgement but nothing/ little done to address it

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

Various national levels platforms contribute to capacity building on risk reduction and recovery through information and experience sharing. Regular meetings facilitate in the exchange of good practices and learning. These are especially related to the DRR WG and Recovery Forum. Capacity building training in DRR is being provided to the organisations, departments, schools and communities in the country but overall it is still weak.

Disaster Awareness programmes are in place (for example distribution of IEC material and manuals on five priorities hazards in areas prone to disaster). CBDRM has recently been introduced and is limited to a limited number of villages. Coverage is mostly with Delta areas. A way to combine local knowledge with International approach of CBDRM needs to be harmonized. Private sector contribution for emergency response needs to be recognized and encouraged for contribution to DRR activities. Formalization linkage between the Private sector cooperation and collaboration with Humanitarian Country Team for Disaster Risk Reduction is needed.

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

### **Levels of Reliance:**

No/ little reliance: no acknowledgement of the issue in policy or practice; or, there is some acknowledgement but nothing/ little done to address it

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

The National Platforms are able to raise the issues of human security and social equity approaches which have led to the inclusion on policy statements and directives to ensure that the needs of most vulnerable groups are address as a priority and programmes are designed accordingly. MAPDRR is one such document which reflects this achievement.

Human security and social equity issues are covered in disaster risk reduction activities carried out by the government and various organizations but more attention needs to be paid on specific vulnerable groups. Micro finance programmes are provided but only a small percentage comparing to the whole vulnerable population.

The socio-economic status of a majority of people in Myanmar limits them to participate in the Disaster Risk Reduction activities, hence compromising the resilience capacities of the general population. Sanctions imposed on the country limit the potential for improving livelihoods of people. Insurance and other social protection measures are not systematic or institutionalized.

## **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):**

The positive progress of HFA Priority #1 is a reflection of the engagement and partnership fostered between government and non-government actors at all levels. The PONREPP mechanism was also able to bring together these actors at the township levels to coordinate and share information but still have some limitations.

In collaboration and partnerships among UN Agencies, INGOs, NGOs, civil societies, individual supporters and the private sector, the Ministries concerned, such as MoSWRR, are significantly improved. More support in introducing DM with communities and other levels has been fostered.

## **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):**

Cyclone Nargis has highlighted the need and provided impetus for comprehensive DRR in the country.

Efforts are being made but there should be a shared vision and clear objectives at different levels, which will lead to the better implementation, coordination and cooperation among various actors and stakeholders.

There is an emphasis on the construction of cyclone shelters in the Delta area which would help in limiting the future impact of cyclones.

## Future outlook

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### 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:**

One of the main challenges is the lack of a comprehensive Disaster Management Law in Myanmar. This would help in putting in place the various mechanisms and related policies. Integration of DRR in development policies, planning and programming including budget allocation has yet to be defined and there is no operational guidelines on how to integrate it.

Commitment to awareness, the awareness campaigns is carried out in specific location across the country as resources both financial and human are inadequate.

Understanding of DRR is not the same across all ministries and government administration as capacity building within the government has been disproportionate.

#### **Future Outlook Statement:**

Under MAPDRR, GoUM has identified enactment of DM law as one of the key activities and will work on developing the law. Ministry of Planning will include DRR in their next 5 year plan (2012-16).

DRR will be integrated into sustainable development policies, planning and programmes at all levels. A focal Ministry/Agency – Relief and Resettlement Department, has been assigned to oversee the formulating, monitoring DRR integrated in policies, planning and programmes of all sectors. DRR policies, planning and programmes of all sectors will be planned in a sound manner since they will be based on systematic risk assessment. Formulation of a shared vision on DRR followed by review and revise exiting policies, planning and programming will be planned.

Finally, catastrophic insurance will made mandatory.

### 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:**

DRR is at nascent phase in the country and capacities at all levels are limited. There is also a challenge of finding a balance between administration and financial decentralization on DRR.

School and community linkage and coordination among organizations are weak and requires more attention. In addition, CBDRM programmes have been only focused in few geographical areas due to limited financial resources. There is no national policy or programme for the institutionalization of community based DRR.

The relief and resettlement department, is only limited to State/Division level of the country and therefore there outreach upto the villages are weak.

**Future Outlook Statement:**

DRR has been recognized as an integral part of development and policy planning. The government will identify the formulation of policy and resource allocation for DRR. Good practices, assessment; data gained by CBDRM programmes will contribute to the formulation.

Introduction of a system that would strengthen school and community linkage for DRR activities and share information more effectively. Moreover, there needs to be commitment to DRR in every institution, government and others private sectors.

**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:**

The lack of a Disaster management law will would define DRR for Disaster preparedness, emergency response and mitigation in the country.

Operational procedures on emergency response are yet to be elaborated. (Standing Order; SASOP adopted in Myanmar) which would foster the inclusion of DRR in emergency preparedness, response and recovery programmes in the reconstruction of affected communities.

Action Plans on emergency preparedness, response and recovery programmes up to village level are yet to be based on formal assessments.

**Future Outlook Statement:**

Standing Order will be fully implemented (updated in lieu of Nargis) to ensure that DRR is integrated into the disaster management cycle.

The coordination and cooperation among the stakeholders, linkages across thematic areas and across sectors, should be encouraged. Supervision and support as well as monitoring and evaluation needs to be strengthened

Effective emergency programmes will be carried out for any kind of disaster strikes. Capacity building in DRR will be followed by supervision and support from authorities, and monitoring and evaluation.