United Nations Development Programme

Myanmar

**Project Document**

|  |  |
| --- | --- |
| **Project Title** | Building disaster resilient communities through strengthening disaster risk management institutions, systems, networks and mainstreaming DRR into development planning |
| **UN Strategic Framework Outcomes:**  | Reduce vulnerability to natural disasters and climate change |
| **Expected CP Outcomes:**  | Reduce vulnerability to natural disasters. |
| **Expected Outputs:**  | 1. Enhanced national institutional capacity for DRR intervention and mainstreaming DRR into development planning2. Enhanced resilience of vulnerable communities to natural hazards  |
| **Implementing Partners:** | Ministry of Social Welfare, Relief and Resettlement – Relief and Resettlement Department  |
| **Responsible Parties:** | Ministry of Social Welfare, Relief and Resettlement, Ministry of National Planning and Economic Development, Ministry of Home Affairs (General Administration Department), Ministry of Transportation (Department of Meteorology and Hydrology), Members of Parliament, Disaster Management Committees at national and sub-national levels, State/Region Governments, District and Township Administration Bodies. |

**Brief Description**

The overall aim of the project is to build disaster resilient communities by enhancing the country’s disaster risk management institutions, systems and networks. The Disaster Risk Reduction program will build preparedness, mitigation and recovery capacities of communities, the civil society and local and national institutions to manage the impact of disasters, as well as the capacity to mainstream DRR into development planning. The indicative budget of this programme is US$ 8,500,000.

Programme Period: 2013 – 2015

Start date: January 2013

End Date December 2015

PAC Meeting Date November 2012

Management Arrangements National

Implementation

Total resources required US$ 8,500,000

Total allocated resources:

* Regular US$ 800.000
* Other: None yet

Unfunded budget: US$ 7,300,000

In-kind Contributions:

Agreed by Implementing Partner:

Agreed by UNDP:

Table of Contents

I. SITUATIONAL ANALYSIS 3

Hazard and Vulnerability Profile 3

Impact of disasters in Myanmar 5

Institutional Arrangements for Disaster Risk Reduction 6

Disaster Risk Reduction in Myanmar and the need for improvement 7

Complimentary efforts for DRR 11

II. PROGRAMME STRATEGY 15

Outcome and Outputs 15

Geographical Coverage 16

Project Results and Activities 16

Output 1: Enhanced national institutional capacity for DRR intervention and mainstreaming DRR into development planning 18

Result 1 18

Result 2 28

Result 3: 34

Output 2: Resilience of vulnerable communities to natural hazards is enhanced 40

Result 4 42

Partnership Strategy 50

Strategic Partnership with Government 50

Resource Mobilization Strategy 50

Gender Strategy 51

Communications Strategy 52

Underlying Principles and Focus 53

UNDP Comparative advantage 54

III. RESULTS AND RESOURCES FRAMEWORK 55

IV. ANNUAL WORK PLAN 62

V. MANAGEMENT ARRANGEMENTS 80

VI. MONITORING AND EVALUATION FRAMEWORK 82

VII. LEGAL CONTEXT 85

VIII. Annexes 86

Annex 1: Risk Log 86

Annex 2: Terms of Reference for Project Staff 89

Annex 3 : Key Responsibilities of Units 92

Annex 4: Myanmar DRR Capacity Assessment (Preliminary Report) 93

Annex 5: Project Workplan 94

# SITUATIONAL ANALYSIS

Situated in the south-east corner of the Asian continent, Myanmar is defined by its extensive 2,400 km coastline in the west and south, skirted by Bay of Bengal and Andaman Sea, and its border with Lao PDR, Thailand, China, Bangladesh and India respectively along the east, north and north-west boundaries. The mountain ranges fringe the country’s border in north and east while the western coastline is divided from the central low land by the Rakhine Mountain Range. The distinct geographical features can also be seen in each of the seven (7) states and seven (7) regions that mark the administrative boundaries. Numerous river systems crisscross the country and the southern Ayeyarwady delta where Ayeyarwady River flows into the Andaman Sea in particular is known for its rich soil deposits from plentiful tributaries and waterways.

These varying geographical characteristics also define the natural hazards the country is exposed to. The areas along the western coastline is frequently devastated by tropical cyclones and accompanying storm surges and riverine floods are part of the seasonal attributes experienced by the communities living along the existing river systems. Landslides and rock slides are often experienced in mountainous region while earthquake, on the other hand, is another hazard that the country faces with occasional damaging impacts. Following discussions summarize the different hazards the country is exposed to.

## Hazard and Vulnerability Profile

* **Cyclone and storm surge**

The observed climate variability and change in Myanmar over the last six decades includes the following[[1]](#footnote-1):

* A general increase in temperatures across the whole country (~0.08°C per decade), most notably in the northern and central regions;
* A general increase in total rainfall over most regions, however, with notable decreases occurring in certain areas (e.g. Bago Region);
* A decrease in the duration of the south-west monsoon season as a result of a late onset and early departure times; and
* Increases in the occurrence and severity of extreme weather events, including; cyclones/strong winds, flood/storm surges, intense rains, extreme high temperatures, drought and sea-level rise.

From the recent studies and observations, an alarming trend has emerged with regards to the frequency of cyclones in Myanmar: Storm regularity has been shortened to every year since 2000 compared to just one storm every three years previously. In the last decade, three major cyclones have caused major damage to the country and caught the attention of the country and the world at large as well, 2006 Cyclone Mala, 2008 Cyclone Nargis and 2010 Cyclone Giri.

* **Drought**

The Dry Zone, situated in the central basin of the country, is surrounded on three sides by mountain ranges and opens toward the south. It is made up of 54 townships in 13 districts spread across 3 Divisions namely Sagaing (Lower), Mandalay and Magway (information based on the categorization of Dry zone Greening Department under the Ministry of Agriculture). Occasional droughts/ low rainfall occurrences are one of the key hazards in the region, especially in the arid and semi-arid areas. In these areas, the impact of the overly dry weather is felt mainly in the agricultural sector, it being the main source of income for many communities inhabiting the region.

* **Earthquake**

The level of earthquake risk in Myanmar is believed to be high as the country lies along one of the two main earthquake belts of the world. Major faults in Myanmar are in the Northwestern Myanmar, Kabaw Fault along the Kabaw Valley (Sagaing Division) in western Myanmar, and the very active Sagaing Fault and the Kyaukkyan Fault situated west of Naungcho (Shan State). According to the seismic records, there have been at least 16 major earthquakes in the past 170 years with magnitude greater or equal to 7.0 (Richter Scale). The most recent ones are the 2003 September Taungdwingyi earthquake that caused severe damage to rural houses and religious buildings and killed seven (7) people, and the 2011 March earthquake in the northeast Shan State that left more than 3,000 people homeless, 74 dead, 125 injured and affected 18,000 people from 90 villages.

* **Fire**

Accounting for 71% of disasters in Myanmar, urban and rural fires cause average annual losses of approximately 1 billion kyats. The most high-risk zones with more than 100 cases per year are Ayeyarwady, Bago, Mandalay, Sagaing and Yangon. Every year between the months of January and May see the highest fire incidents. The main causes listed by the Fire Service Department are from kitchen related fire, faulty electrical wirings and negligence. Another type of fire, that Myanmar experiences, is forest or wild fire. They are usually surface fires that occur chiefly in the dry season starting from December until May. Though infrequent, wild fire cases can be found all throughout the country because of the country’s extensive forest coverage. Nevertheless, the most high-risk regions are Bago, Chin, Kayah, Kachin, Mandalay, Rakhine and Shan. The main impact of wild fires is damage to the natural environment.

* **Flood**

Flooding is one of the major causes of economic loss in Myanmar, accounting for 11% of all disasters. It is estimated that over 2 million people in the country are exposed to flood risks every year. Monsoon months of June, August, September and October are when the threat of flood reaches its peak. Different types of flood affect different regions of the country. Riverine floods mostly occur in the four major rivers namely: Ayeyarwady, Chindwin, Sittaung and Thanlwin. Flash floods mostly happen in upper reaches of river systems and in the mountainous areas. Urban areas are exposed to localized floods caused by sudden and heavy downpours. In the coastal areas, flooding can be worsened during high tides and a consequence of storm surges triggered by cyclones.

* **Landslide**

Landslides of differing intensity occur regularly in mountainous regions of Myanmar especially along the Western Ranges, Eastern Highlands and the western flank of the Kachin, Shan and Tanintharyi Ranges. In Shan State, most of the landslides take place along the hilly terrain between the Yinmabin Plain and the Kywedatson Plain. Many landslide cases are connected to both pluvial and fluvial floods[[2]](#footnote-2).

* **Tsunami**

Tsunamis are rare occurrences in Myanmar but the 2004 Indian Ocean Tsunami created high waves that reached all the way to Tanintharyi Division and took 61 lives. However, taking into consideration the 2,400 km coastline that span across four states and divisions of Mon, Rakhine, Ayeyarwady and Taninthayi, Tsunami risk could not be completely ignored.

## Impact of disasters in Myanmar

As in many other countries, the most obvious impacts of disasters in Myanmar are loss of lives, disruption of livelihoods and destruction of public and private infrastructure. However, the effects are beyond the obvious. Death of citizens means loss of human resources for the national economic machine and loss of family members for the affected households. The socio-economic impacts of disasters can be further compounded by disruption of production activities (opportunity costs) and loss of productive assets. The 2008 Nargis Cyclone for instance incurred losses of approximately 11.7 trillion kyats or 30% of GDP (approximately USD 4 billion), with main impact falling on the agriculture and fishery sectors.

A number of key factors could be listed for such unprecedented loss – lack of preparedness that includes underdeveloped early warning systems, high population density, high poverty levels and environmental factors such as destruction of natural buffer zones like mangrove forests, etc.

Poverty is one of the underlying causes of vulnerability and the examination of different poverty levels throughout the country can help in identifying areas that are likely to be affected most by disasters. Under the IHLCA, 32 % of the population live in poverty and 10 % live in extreme poverty (i.e. without resources to cover their basic food needs). Poverty incidence is around twice as high in rural than urban areas at 29% and 15% respectively. As the majority of women in Myanmar are in rural and remote areas, this particularly impacts women. They face poverty, illiteracy, difficulties in access to health care, education and social services and a lack of participation in decision-making processes at the community level.[[3]](#footnote-3)

The highest value of food poverty incidence are seen in Chin (25%), followed by Rakhine (10%), Tanintharyi (9.6%) and Shan (9%) while the highest value of poverty incidence are found in Chin at 73%, Rakhine (44%), Tanintharyi (33%), Shan (33%) and Ayeyarwady (32%). Within the largest economic center of Yangon Division, pockets of poverty are still prevalent.

As Nargis, Giri and other disasters have clearly exposed, shocks and stresses like natural hazard events pull communities already living in dire situations to more impoverished condition as their livelihoods and assets get destroyed.

Just as disasters affect regions differently, they affect men and women differently due to their roles and responsibilities in the household and community. Women are affected more severely and are more at risk from natural disasters and extreme weather events, including during post-disaster response efforts. Cyclone Nargis, for example, resulted in twice as many deaths among women as men. [[4]](#footnote-4) Women and girls can be particularly vulnerable to sexual harassment, unwanted pregnancies, trafficking and school drop out because they may not have land and other assets to help them cope in a disaster.

Conversely women are well placed to lead as agents of adaptation and disaster risk response and reduction plans. For example, women often have strong social networks within their communities and engage as active participants in community affairs which can be tapped for disaster risk reduction and disaster response.

## Institutional Arrangements for Disaster Risk Reduction

Cyclone Nargis brought into the national consciousness the need for improved disaster risk management in the country. Nargis changed the perception of government and citizens alike on the need for long-term and systematic risk reduction in the country.

On April 20, 2011, a new set of institutional arrangements for DRR was established; the Myanmar Disaster Preparedness Agency (MDPA) and Myanmar National Search and Rescue Committee (MNSRC), replacing the National Disaster Preparedness Central Committee (NDPCC) that had been in existence since 2005.

The newly formed Myanmar Disaster Preparedness Agency (MDPA) is chaired by the Minister for Social Welfare, Relief and Resettlement while the Minister of Defence and the Minister for Home Affairs serve as the Vice-Chairmen. Deputy Minister for Social Welfare, Relief and Resettlement takes on the role of the Secretary and the Director General of Relief and Resettlement Department is the Joint-secretary. The membership includes eight Deputy Ministers from other relevant line Ministries. Under the leadership of the MDPA, a Myanmar Disaster Preparedness Management Working Committee and (13) sub-Committees are organized as shown in the Figure 1 below. A Disaster Preparedness Advisory Group was also constituted with members from academia, various institutions and agencies to support MDPA.

At the sub-national levels, state/region, district and township disaster management committees were organized, as per Standing Order of NDPCC in 2009. These committees, headed by the General Administrative Department, are the main responsible agencies for DRR at sub-national level. At the village and village tract levels, the Standing Order mandated formation of village tract disaster management committees.

Myanmar Disaster Preparedness Management Working Committee

Information Sub-committee

Emergency Communication Sub-committee

Search and Rescue Sub-committee

Emergency Supply and Shelter Rehabilitation Sub-committee

International Relation Sub-committee

Psychological Support in the Rehabilitation Period Sub-committee

Rehabilitation and Reconstruction Sub-committee

Security Sub-committee

Health Care Sub-committee

Confirmation of Damages and Losses Sub-committee

Transportation and Route Clearance Sub-committee

Emergency Supervising Sub-committee

Finance Sub-committee

Figure 1: Myanmar Disaster Preparedness Working Committee and its 13 sub-committees

The ***Myanmar Action Plan on Disaster Risk Reduction*** (MAPDRR) has been prepared and updated which provides a framework for broader engagement on DRR in the country and the government. MAPDRR has seven main components focusing on 1)policy and institutional arrangements, 2) hazard, vulnerability and risk assessment, 3) multi-hazard early warning systems, 4) preparedness and response program at National, State/Region, District & Township level, 5) mainstreaming DRR into development and mitigation, 6) community based disaster preparedness and risk reduction, and 7) public awareness, education and training. The plan identifies (65) projects to be implemented in Myanmar.

## Disaster Risk Reduction in Myanmar and the need for improvement

Countries that develop policy, legislative and institutional frameworks for disaster risk reduction and that are able to develop and track progress through specific and measurable indicators have greater capacity to manage risks and to achieve widespread consensus for, engagement in and compliance with disaster risk reduction measures across all sectors of society[[5]](#footnote-5).

The Government of Myanmar faces three challenges on ensuring a comprehensive and effective DRR in the country. **First** is a ***lack of an overarching disaster management law and policy***, **second** is the need to ***increase staff and organizational capacity*** to carry out responsibilities associated with appropriate policies, including planning skills which allow awareness to be translated into concrete practice, and **third** is ***institutional weakness and clarity on how to mainstream DRR into other sectors***.[[6]](#footnote-6) Gender dimensions need to be taken into account and respond accordingly to efficiently utilize women’s and men’s different capabilities, in turn, benefit from those challenges.

In Myanmar, the government has not fully developed a coordinated and coherent action on disaster risk reduction across different sectors and between central and local governments. Institutional arrangements and policy for disaster risk reduction, as reviewed in the Standing Order, tend to be anchored in disaster response.

At village and village track level, Standing Order (section 20) explicitly mentions that the organization for DRR should be actively functioning, and should ensure community participation. And immediately after cyclone Nargis hit in 2008, UN and various I/LNGOs started implementing community-level disaster risk management, however utilizing various approaches (e.g. some organized Village Disaster Management Committees, some volunteer groups, while others built a DRR unit within existing CBO).

The institutional framework for DRR is weak and lacks clarity at the community (village) level. The current framework does not provide the form and composition of a DRR organization at village level. Moreover, the link between community based DRR organizations and higher levels of government is very weak if not non-existent. There is a need for policy guidance on CBDRM that should also ensure link between CBDRM initiatives with the mandated ward/village tract level DMCs, so that DRR organizations at grassroots levels are looped into the national and sub-national level DRR institutional framework and plans.

Meantime, guidelines on mainstreaming DRR into Education sector, Health Sector, Rural Housing Sector as well as on Township Disaster Management Planning have been developed in consultation with the departments concerned and relevant UN and NGOs. The shortcoming of the guides however is that they do not prescribe enough detailed methodology on how to accomplish the sections of the plan/guide (i.e. how to conduct risk assessment and what parameters to use for calculating vulnerability, expected losses, among others).

MAPDRR identified developing vulnerability and risk assessment of different locations in the country to provide decision-making tools for planning and development activities. Several studies have been conducted[[7]](#footnote-7) by various agencies at various levels, themes and locations in Myanmar. While the above studies will prove useful for programming of various development and DRR initiatives, most however are still limited in scope and have not covered many of the other regions and townships in the country. At the local level, some townships have some hazard maps but no real risk profiles. An important factor is that officials and their technical staff at local government level do not have adequate understanding of disaster risk in general. Recognizing this gap is important especially if proper risk assessment for mainstreaming DRR into local development planning is desired. Technical cooperation is needed to assist Government in developing guidelines that includes methodology for risk assessment.

According to the Standing Order (2009), the MSWRR is identified to serve as the source of required information and data on disasters. However, MSWRR capacity is currently limited to fulfill this role. Disaster loss databases exist in various agencies such as DMH, Department of Irrigation, and are regularly updated. In March 2011, the Department of Meteorology and Hydrology’s website ([www.moezala.gov.mm](http://www.moezala.gov.mm)) on hazard-related information and early warning was launched. There is no central disaster database where various data can be stored and aggregated so as to provide planners and service institutions with broader information from which to enact policy and direct their support. On the other hand, data and information products produced by early warning agencies are reportedly not user-friendly and target specific, as they often do not provide the type of information needed by users for making decisions (users need to understand the data they are presented with)[[8]](#footnote-8) and do not provide gender statistics and sex disaggregated data. Users are also seldom trained on how to apply this information in the decision-making process in order to influence the integration of DRR measures into development planning. The MSWRR, including other agency users of data, such as the Ministry of Home Affairs (MoHA), Ministry of Agriculture (Department of Irrigation), Water Resources Utilization Department (WRUD), Ministry of Planning and the Department of Agriculture (DoA) should be able to translate warning information into impact outlooks and response options in order to apply flood, storm and other hazard risk information in decision-making.

Integrating disaster risk reduction, climate change and environment as a crosscutting issue requires further research on the impact of a combination of social, political and economic conditions, including gender inequality, that make people and communities vulnerable to natural hazards. This research will improve awareness about these issues, and will help actors working at the national level to implement effective policies and planning to address these vulnerabilities. At the national level, raising awareness on natural hazards, climate change, natural environments and related risks and possible responses is needed in order to help ensure that building codes and regulations to be developed and enforced, utilize local knowledge and that community-based disaster risk management initiatives are prioritized.

Myanmar has developed several regulatory instruments that provide safeguards against degradation of the environment, which to some extent, include disaster risk reduction. However, issues relating to disaster risk reduction, climate change and the environment tend to be addressed separately, and are often treated as isolated issues at most levels of governance. Although there is an understanding of the risks involved, it is often not reflected in the design and management of policies at the national level. Specifically, in the design and implementation of major development projects, risk assessment and reduction should be one of the criteria in regulatory frameworks and assessment tools such as Environmental Impact Assessments (EIA) and Social Impact Assessments (SIA) as should gender analysis.

Public awareness about hazards is a vital element of any comprehensive strategy for disaster risk reduction. Government has primary responsibility to inform the public about hazards and the associated risks. However, in order to ensure widespread reach and to sustain public awareness efforts, other sectors of society must be involved in information dissemination.

Education of the public in disaster risk reduction in general has been the responsibility of the central government (DMH, RRD, MoI, and MoE). Different ministries, organizations and stakeholders are providing DRR information and building capacity at different levels, but more co-ordination is needed to ensure consistent messaging and broader reach to the public with particular attention on reaching women. Disaster prevention and risk management are not generally perceived as part of public daily life as they are seen as the responsibility of the government and a few organizations. Therefore, most of the population and communities believe it doesn’t have much to do with them.

The Media (television, radio and print) play an important role in disseminating public information and educational programs that help to improve the public’s knowledge and behavior to hazards and risks. Specifically, radio is underutilized as an important medium for public awareness and response. The Post-Nargis Periodic Reviews 3 and 4, under the TCG, highlighted this fact when more than 74% of survey respondents identified radio as their dominant source of information. The lack of knowledge and low capacity among media to make DRR related programs reduces the extent to which national and local media and broadcast services can fulfill a more important role in risk reduction and warning. An additional shortcoming is the lack of venue for interaction between DRR professionals, especially those involved in early warning and professional media presenters and programmers.

The Standing Order serves as the governments’ disaster contingency plan. It outlines the function, roles and responsibilities of the different Ministries and agencies from national, state/division, district, township and village tract levels. It outlines the function and activities to be undertaken by various agencies before, during and after a disaster. Several capacity building programs are ongoing, including disaster management courses offered on a quarterly basis by RRD that targets officials of RRD and other government departments involved in disaster risk management. Government, UN and NGOs also conducted trainings, mock drills, public awareness including development of manuals and guidelines for village preparedness and school safety in disaster prone states and regions mostly in the Ayeyarwady and Yangon Regions and Rakhine State.

Inter-agency contingency planning has also been started after Nargis but mainly at national level. The quality of contingency planning however especially at township level depends on building the capacity of RRD and GAD at national and sub-national levels as well as on allocating funding and adequate resources for the implementers of disaster preparedness and contingency planning.

Disaster preparedness plays a critical role in saving lives and livelihoods particularly when it is integrated into an overall disaster risk reduction approach. Strengthening preparedness for hazard events is mainly concerned with two objectives: increasing capacity to predict, monitor and be prepared to reduce damage or address potential threats and strengthening preparedness to respond in an emergency and assist those who have been adversely affected. Overall, the key recommendations to strengthen disaster preparedness for effective emergency management at all levels are:

1. Provide framework and guidance for disaster preparedness and emergency management that will guide authorities on detailed preparedness planning measures that need to be in a place;
2. Establish and increase technical capacity of RRD and GAD offices at state/division, district and township levels;
3. Ensure that technical persons, units such as rescue and assessment teams get regular training and access to adequate response equipment and procedures;
4. Put in-place adequate contingency and DRR funds at national and state/division levels for emergency response and risk reduction. A mechanism should also be put in place to monitor the proper use of this budget.

Lastly, adequate mechanisms and resources should also be put in place to ensure that the interest and needs of the most vulnerable is taken into account in Disaster Risk Reduction planning. The most vulnerable group of people such as poor women headed-households, orphaned children, persons with disability, old people and ethnic minorities, are often overlooked in community and development planning processes. In addition, the gender inequality that cuts across these groups should be addressed with adequate mechanisms and resources.

Especially when catastrophic events such as Cyclone Nargis *“can intensify the vulnerability of already marginalized members of the community, who are in normal times less likely to have access to services or control resources. These vulnerable groups are least likely to have the physical capabilities, social power or economic resources to anticipate, survive and recover from the effects of the disaster, or access services for recovery”*[[9]](#footnote-9).

## Complimentary efforts for DRR

Disaster Risk Reduction encompasses several strategies and a broad range of interventions that requires multi-agency collaboration. Several agencies are implementing DRR programs in the country, these include:

* **UN Agencies**

The UN system in Myanmar developed its *Strategic Framework for the United Nations in Myanmar – UNSF (2012-2015)* in March 2011 that identifies four Strategic Priorities. These are:

1. Encourage inclusive growth (both rural and urban), including agricultural development and enhancement of employment opportunities;
2. Increase equitable access to quality social services;
3. **Reduce vulnerability to natural disasters and climate change;**
4. Promote good governance and strengthen democratic institutions and rights.

Disaster risk reduction and climate change is recognized as one of the priority areas that need to be advanced in partnership with other non-UN institutions. UN agencies active in the DRR sector include:

* UNDP - interventions currently focused on coordination, recovery, CBDRM and institutional capacity development of Government;
* UNESCO - works closely with the Ministry of Education (MoE) on mainstreaming of disaster risk reduction into education sector;
* UN-HABITAT Myanmar - supports urban disaster risk mitigation that includes public education and awareness; capacity building; mainstreaming disaster risk reduction into sectoral development; and hazard and risk assessment
* UNICEF - supporting safer and child friendly school construction and raising the awareness of children on DRR through curriculum, design and production of learning support materials;
* UNOCHA - under the leadership of the UN Resident/ Humanitarian Coordinator, is the lead agency in disaster monitoring and coordination.
* **Disaster Risk Reduction Working Group (DRRWG)**

The Disaster Risk Reduction Working Group (DRRWG) is a platform for information sharing and coordination among various DRR organizations in Myanmar. UNDP is chair of the DRRWG and its thematic areas of work are:

* Support policy dialogue and strengthening institutions for DRR;
* Community-based disaster preparedness and mitigation;
* Building DRR knowledge and awareness (disaster research and assessments to inform programme development);
* Mainstreaming DRR into other sectors.

The membership of DRRWG is open to government departments/ ministries, UN agencies, international and local NGOs, professional bodies, academic and research institutions and any other organizations with DRR related programmes or mandates. Currently it has around (45) member agencies. Monthly coordination meetings are convened to discuss and collaborate on various issues and activities related to DRR.

* **Myanmar National Red Cross Society**

With over 1,000 red cross volunteers trained in community mobilization, Myanmar Red Cross Society occupies a unique position to provide DRR related support to area-based organizations on hazard mapping, vulnerability and capacity assessment (VCA), early warning system, small scale mitigation, preparedness, livelihood supports and public awareness.

The International Federation of Red Cross and Red Crescent Societies (IFRC), French Red Cross and the Danish Red Cross support the Myanmar Red Cross Society (MRCS). MRCS has been tapped previously by UNDP as well as other NGOs as resource persons for first aid training for community volunteers and VDMC members. UNDP can work with the MRCS CBDRM program to provide additional synergies and support to village disaster management planning.

* **NAPA**

National Adaptation Programs of Action (NAPAs) serves as a simplified, rapid and direct channel for Least Developed Countries to communicate their urgent and immediate adaptation needs. NAPAs emerged from the multilateral discussions on adaptation measures within the UN Framework Convention on Climate Change (UNFCCC)[[10]](#footnote-10),[[11]](#footnote-11). Myanmar’s NAPA specifies **32 urgent and immediate Priority Adaptation Projects** for effective climate change adaptation for eight main sectors/themes (i.e. four Project Options per sector/theme), namely: i) Agriculture; ii) **Early Warning Systems**; iii) Forest; iv) Public Health; v) Water Resources; vi) Coastal Zone; vii) Energy, and Industry; and viii) Biodiversity.

Sectors in which Priority Adaptation Projects should be implemented first include: 1) **Agriculture, Early Warning Systems and Forest** (First Priority Level Sectors). This is followed by: 2): Public Health and Water Resources (Second Priority Level Sectors); 3) Coastal Zone (Third Priority Level Sector); and 4): Energy and Industry, and Biodiversity (Fourth Priority Level Sectors).

* **National Strategic Plan for Advancement of Women (NSPAW) 2012-2021**

The Department of Social Welfare, the Ministry of Social Welfare, Relief and Resettlement of the Government of the Republic of the Union of Myanmar, in close collaboration with Gender Equality Network, developed the National Strategic Plan for the Advancement of Women (NSPAW) 2012-2021.

The Plan encompasses the principles of: Convention on the Elimination of All Forms of Discrimination against Women (CEDAW); the Beijing Declaration and the Beijing Platform for Action. The Plan focuses on 12 Priority Areas where ‘women and emergencies’ is one of the priority areas to create enabling conditions for the advancement of women and gender equality.

The Plan aims for empowering women in Myanmar to fully enjoy their rights with the support of the Government of the Republic of the Union of Myanmar and creating enabling systems, structures and practices for the advancement of women, gender equality, and the realization of women's rights.

* **Gender Equality Network (GEN)**

GEN is aimed to facilitate the development and implementation of enabling systems, structures and practices for the advancement of women, gender equality, and the realisation of women's rights in Myanmar. The network has a broader mandate - both geographically and by taking a more comprehensive approach to gender equality and women’s empowerment throughout Myanmar. The Gender Equality Network currently comprises approximately 70 national Non-Government Organizations (NGOs), Civil Society Organizations (CSOs), International Non-Government Organizations (INGOs), United Nations (UN) agencies, networks and Technical Resource Persons (TRPs), as approved by the GEN membership. Through its member organisations, GEN has a wide geographical coverage, through both the operations and networks of its member organisations.

UNDP is actively involved in the network as Steering Committee member and provided technical assistance to the government in developing the National Strategic Plan for the Advancement of Women (NSPAW) 2012-2021. UNDP can expand its DRR interventions by linking with GEN in support the implementation of NSPAW to ensure participation of women and men in disaster risk reduction and response.

# PROGRAMME STRATEGY

## Outcome and Outputs

The overall aim of the project is to build disaster resilient communities by enhancing the country’s disaster risk management institutions, systems and networks.

The Disaster Risk Reduction program will build preparedness, mitigation, recovery capacities of communities, the civil society and local and national institutions to manage the impact of disasters, as well as the capacity to incorporate DRR into development planning.

The project is in line with the Government’s priorities as stipulated in the Myanmar Action Plan for Disaster Risk Reduction (MAPDRR) and the UN Strategic Framework for Myanmar, which includes disaster risk reduction and climate change as one of the priorities. This project aims to enhance DRR capacity by delivering two complementary outputs:

**Output 1:** Enhanced national institutional capacity for DRR intervention and mainstreaming DRR into development planning

**Result 1:**

*Enhanced capacity of DM institutions and key stakeholders to strengthen disaster risk reduction related policies, strategies, systems and networks*

**Result 2:**

*Enhanced capacity of sector departments and development partners for mainstreaming DRR into development planning*

**Result 3:** *Capacity enhanced for generation of user-relevant end-to-end early warning and effective early warning dissemination*

**Output 2:** Enhanced resilience of vulnerable communities to natural hazards

**Result 4:** *Disaster Management Committees at township, village tract and village levels able to develop, implement, mainstream, monitor and evaluate their Disaster Management Plans*

Taken together, the contribution of these four results will be measured through four outcome level indicators:

**Indicator 1:** Number of national and regional development plans that incorporate gender responsive DRR and CCA;

**Indicator 2**: Number of townships having completed Multi-hazard Risk Assessments;

**Indicator 3**: Increase in number of days for lead-time of location-specific flood forecasts;

**Indicator 4:** number of villages having gender responsive Community Based Disaster Risk Management (CBDRM) plans and connecting into the end-to-end early warning system.

## Geographical Coverage

The project will work at the national level to support the disaster management institutions and mechanism at national level. In order to effectively demonstrate integrated solutions to disaster risk reduction, the project will undertake on-the-ground demonstration activities in selected sites within two eco-agricultural regions; the Delta and Coastal region, and the Central Dry Zone.

In the **Delta and Coastal Region**, the main issues to be addressed are extreme weather events (storm surges, floods, cyclones), coastal inundation and sea-level rise. In this area the programme will demonstrate integrated approaches that combine disaster risk reduction/ disaster preparedness and climate change adaptation.

In the **Central Dry Zone**, the project will focus on the impacts of climate change and climate variability on agriculture, particularly through water availability and soil management. In this area the programme will work closely with the environment sector to demonstrate sustainable agriculture and water management approaches that include the climate-proofing of development activities.

The project will cover high-risk villages and townships from the two eco-agricultural areas. The approaches to be piloted in these areas will demonstrate how disaster risk reduction initiatives can have immediate disaster mitigation, developmental and livelihood benefits for the local communities involved. Moreover, the pilot projects will demonstrate how ***local disaster management planning can be linked to national disaster management planning*** as well as inform policy formulation especially ***on mainstreaming DRR into development planning***.

The target areas to be covered under the project will be determined during inception. Criteria for the selection of the townships, village tracts and villages will be finalized during project inception phase and will be subject to a preliminary pre-project consultation process with Union, State/Region and Township authorities and other stakeholders. Gender analysis which is conducted by UN Gender Theme Group in 2012 will also inform the selection.

## Project Results and Activities

The Myanmar Government has recognized the importance of disaster risk reduction and has incrementally taken actions to fulfill its mandate. It has taken steps to boost the system through the revision of the current regulatory framework and by gradually enhancing the capacities of various Government Ministries to fulfill their DRR function. The Government has likewise developed the Myanmar Action Plan on Disaster Risk Reduction (MAPDRR) that provides a unique opportunity for multi-stakeholders to engage in DRR intervention in the country. MAPDRR’s goal is “*to make Myanmar Safer and more Resilient against Natural Hazards, thus Protecting Lives, Livelihood and Development Gains”*[[12]](#footnote-12). MAPDRR identifies (65) projects that need to be implemented to meet the Government’s commitments to HFA and AADMER. Aiming to achieve the goals of MAPDRR, the existing disaster risk management system needs to be reinforced with necessary capacity to deliver DRR services at-risk communities.

In addition, the NSPAW includes a specific section on emergencies focused on strengthening systems, structures and practices to ensure women's and girls’ rights to protection in emergencies and to ensure their participation in emergency preparedness, response and disaster and conflict risk reduction.

The overall aim of the project is to build disaster resilient communities by enhancing the country’s disaster risk management institutions, systems and networks. The Disaster Risk Reduction program will build preparedness, mitigation and recovery capacities of communities, the civil society, local and national institutions to manage the impact of disasters, as well as the capacity to mainstream DRR in development planning.

**Initial priority** will be supporting the establishment of institutional arrangements at national and sub-national levels in the target areas. ***At national level, this will include working with the MDPA to provide a mechanism for disaster preparedness and DRR mainstreaming.*** At sub-national level, this will include support for constituting of state/region, township and local level disaster management committees. Equal participation of women in decision making at these different levels will be a key objective of the project.

**Second** will be capacity development of staff and technical persons on disaster risk management and planning, risk assessment, weather forecast and early warning generation and dissemination, etc. Likewise, support will be provided on developing National DRR Policy, rules and regulations related to the Disaster Management Law (DM Law). Capacity development activities will be targeted at government institutions, particularly the MDPA, local DMCs and the MSWRR as the focal Ministry tasks with DRR in the country, and will start from detailed capacity needs assessments and the participatory development of capacity development strategies.

**Third** will be on implementing specific DRR activities which aim at demonstrating participatory gender responsive disaster management planning at sub-national level, disaster preparedness and end-to-end early warning, CBDRM and DRR mainstreaming in development planning.

The project will be implemented taking into consideration the ***gradual build-up of capacity and structures of the MDPA, Disaster Management Committees and the MSWRR at national and sub-national levels***. The project will ensure gender equality is considered in all activities both as a normative principle (using programme activities to demonstrate and advocate for gender equality and empowerment) as well as programme effectiveness principle (developing differentiated approaches and targeting women and girls as a specific stakeholder group, in order to improve the effectiveness of the programme activity).

**The project will work and collaborate closely with other program pillars of the UNDP country program to ensure synergies and optimum use of resources.** (E.g. governance in Pillar 3 for DRR policy formulation and mainstreaming and women’s participation in decision making; livelihoods and local development planning in Pillar 1 for local disaster management planning; media and awareness across all program pillars.). The project will likewise work with other organizations that have a stake on enhancing DRR programming in the country (i.e. DRRWG, donors, other thematic working groups, media, LNGOs, universities and business).

The project on DRR will employ several strategies in order to meet stated outcome and promote synergies among the various stakeholders. To address the identified problems and achieve the outcome of the project, the following outputs, results and activities will be implemented in three years (2013-2015).

### Output 1: Enhanced national institutional capacity for DRR intervention and mainstreaming DRR into development planning

DRR is still at nascent stage in Myanmar and there is limited knowledge, experience and capacity at various levels within the national and sub-national Government, including civil society organizations for comprehensive disaster risk reduction.

*“****Capacity development*** *refers to the process of creating and* ***building capacities*** *and their subsequent use, management and retention. Both policy and internal procedures will be limited without the appropriate capacity development. Staff should be aware of the importance of DRR and have the capacity to* ***carry out responsibilities*** *associated with appropriate policies. This means giving them the* ***planning skills*** *that allow awareness to be translated into concrete practice.”*[[13]](#footnote-13)

*“****Mainstreaming*** *meantime reflects* ***a process of institutionalizing or sustaining change****. Mainstreaming of a particular social issue implies that it is brought into the “mainstream” of activities rather than being dealt with as an add-on. In the area of disaster risk reduction, the term mainstreaming has been used by development agencies to describe* ***a ‘process’*** *aimed at ensuring that all key development interventions in risk prone countries effectively address disaster reduction concerns. It also refers to the* ***‘end result’*** *where the fundamental elements of risk reduction are embedded into development practice and fully institutionalized within development agendas. The ultimate* ***goal of DRR mainstreaming*** *is to contribute to the overall objective of DRR, namely to meaningfully reduce losses caused by disasters”*[[14]](#footnote-14).

Mainstreaming of DRR is a new approach in disaster risk management as well as in the wider development community in Myanmar. Within UNDP, mainstreaming risk reduction is already an underlying principle for all activities associated with disaster response, recovery, preparedness and mitigation.UNDP believes it is important to consider the underlying risk factors and integrate risk reduction standards and measures into the planning and delivery of core development services and processes, including education, environment, health, poverty reduction, livelihoods and governance. In other words, disaster risk reduction should be an underlying principle and outcome of all development activities in hazard-prone areas. Disaster risk reduction (DRR) is not a separate discipline, but a crosscutting issue that needs to be considered in many areas and sectors of development.

In this planned output, the project will provide ***technical advice and support in******strengthening capacity of Government DRR institutions and enhancing capacity to mainstream DRR in development planning.***

#### Result 1

***Enhanced capacity of DM institutions and key stakeholders to strengthen disaster risk reduction related policies, strategies, systems and networks***

**The project context**

* Government is committed on DRR (MAPDRR 2012);
* Current disaster management framework and policy is limited and there is lack of an overarching disaster management law and policy;
* A Disaster Management Bill however is being deliberated at Parliament;
* National and sub-national capacity for DRR needs improvement;
* Disaster Risk Management Planning is ad hoc;
* There is lack of policy directive on Disaster Risk Management Planning.
* A Guideline on Township Disaster Management Planning was developed and pilots are being undertaken in several townships. Guideline however is limited and does not prescribe a detailed process;
* There is no countrywide DRR communications strategy but there are numerous initiatives done by various Ministries and humanitarian agencies that contribute to public awareness.
* Many agencies and organizations have developed DRR IEC materials and distributed them to communities. Better co-ordination is needed to ensure consistent messaging and broader reach to public.
* Media (television, radio and print) is not fully maximized to play an important role in disseminating public information and educational programs that help to improve the public’s knowledge and behavior to hazards and risks.
* Government is committed to fulfilling its international commitments
* National Platform on DRR does not exist yet, but some DRR coordination arrangements are functioning.
* NSPAW contains specific recommendations for gender responsive DRR

***(See Annex 4: Preliminary Myanmar DRR Capacity Assessment for details)***

**The project activities**

**Activity 1.1 Support Myanmar Disaster Preparedness Agency to promulgate DRR related policies, legal framework and strategy**

Countries that develop policy, legislative and institutional frameworks for disaster risk reduction and that are able to develop and track progress through specific and measurable indicators have greater capacity to manage risks and to achieve widespread consensus for, engagement in and compliance with disaster risk reduction measures across all sectors of society[[15]](#footnote-15). However, some DRR tasks are best centralized, and others can be devolved to the local level. Participation, monitoring and mediation are best undertaken at the local level and in this way decentralization can – depending on the context – effectively support DRR objectives.

In Myanmar, a coordinated and coherent system on disaster risk reduction across different sectors and between central and local governments is not fully developed yet. Institutional arrangements and policy for disaster risk reduction tend to be anchored on disaster response.

The project will support the government in developing subsequent rules and regulations, policy, guidelines and tools in promulgating DRR in the country. The project will utilize various avenues in sensitizing and imparting knowledge and skills to key decision-makers and persons on DRR, to help them appreciate the importance of disaster risk reduction and their key facilitating role in creating the necessary governance and policy environment.

**Sub-activities:**

1. **Support formulation of National DRR policy and other subsequent policies and guidelines**

Sound knowledge of policy and governance ensures clear direction of disaster risk reduction priorities, resource allocation and accountability. Through sensitization, policy advocacy, capacity building and close coordination with MDPA and key stakeholders, including the Parliament and the MDPA, the project will support government in formulating the following policy guidelines on DRR:

***National DRR Policy*** – The country needs a comprehensive DRR policy to guide the DRR intervention and mainstreaming at all levels while linking to the national priorities for sustainable development. The DRR policy should be the guiding principles in building the disaster resilient communities in the country, and should well articulate the objectives, priorities of actions and target groups.

***CBDRM Policy*** – there are several on-going efforts on CBDRM programming in the country being undertaken by UN and CSOs. However, these organizations utilize various approaches and methodologies. While the Standing Order on Natural Disaster Management mandates the creation of disaster management committees at various levels of Government, there is no clarity however on the form and structure of the DMC at village tract and village levels. The project will support formulation of a CBDRM policy for the country in consultation with various organizations. This will include provisions for equal representation, participation and leadership for women.

***Disaster Recovery*** ***Toolkit***- specific output under this activity is the development of an early recovery policy and guideline (toolbox) that will include needs assessment and recovery program design and management for priority sectors (such as: shelter, education and health, infrastructure, environment, agriculture and livelihoods). The project will particularly look into the Post Nargis Recovery and Preparedness Plan. Lessons learned exercises would help identify the gaps regarding effective recovery programming and will identify areas for capacity building. Various workshops will be conducted in the development process to inform line ministries and technical staff regarding recovery programming and implementation. The above output also complements Governments’ commitment as “lead shepherd” within AADMER, for developing a disaster recovery toolkit[[16]](#footnote-16).

***Other guidelines*** – where needed during project implementation, the project will support the government in formulating other guidelines and tools.

1. **Support for development and dissemination of Disaster Management Law, Rules and Regulations**

The Disaster Management Law (DM Law) is being discussed in the Myanmar Parliament. The Ministry of Social Welfare, Relief and Resettlement is the key technical agency in drafting the law. Meanwhile, implementing rules and regulations under DM Law will have to be developed. The project will provide the support to the government in developing DM regulations in consultation with different professionals and DRR stakeholders, ensuring that the rules and regulations reflect gender perspectives that respond to the needs of women, and that ensure their equal rights.

The project will also support to foster understanding of DM Law and Regulations by the public and communities, once they are enacted. Dissemination will cover various topics, audiences and areas at different levels. Dissemination will be conducted at national, region/state and at local government levels. Information will likewise be conducted in schools and universities, government offices, with CSOs and business leaders. Dissemination will consist of:

* Organizing meetings and forums;
* Distribution of IEC materials such as posters, booklets etc.
* Use of other media such as radio and TV.

A dissemination plan[[17]](#footnote-17) will be developed by the project in coordination with the MDPA and MSWRR. The dissemination campaigns will be done in partnership with various organizations. Care will be taken to ensure consultations and dissemination strategies are gender sensitive taking into account the different times and ways in which men and women access information and best respond to consultations.

**Activity 1.2 Support strengthening technical and operational systems and strategies for Disaster Risk Management**

When the key stakeholders and institutions responsible for disasters have the basic understanding and capacity to undertake core disaster risk reduction functions, they will be in a strong position to advocate for risk reduction with other parts of national government. Thus, capacity enhancement is imperative in order to establish the foundation for sustainable risk reduction and successful DRR mainstreaming.

The project will support to strengthen Disaster Preparedness Mechanism (i.e. Disaster Management Committees at national and sub-national level) through provision of capacity building programmes, including seminars, workshops, and trainings, with specific focus on Disaster Management Planning. The activity is targeted the DMCs at sub-national levels to be able to develop their Disaster Management Plan.

**Sub-activities:**

1. **Undertake capacity assessment of Disaster Management institutions at national and target states/regions**

An ***institutional review[[18]](#footnote-18)*** will be conducted during project inception to determine the existing capacity of DM institutions and human resources, including in the area of gender analysis and mainstreaming, so that the project can be adjusted accordingly to support capacity development. The review will identify institutional and organizational needs and determine appropriate support mechanisms through the identification of key organizational and human resources strengthening requirements. The assessment will deliver a comprehensive report on the status of DRR capacity[[19]](#footnote-19) in the country together with a detailed road map for project institutional capacity development.

***Relief and Resettlement Department will be the main facilitator in the conduct of the review.*** Where appropriate, an external entity[[20]](#footnote-20) will be contracted to provide technical support in the development of the assessment methodology and tool, and train the RRD and the project team on how to facilitate the review for the project.

The following indicative steps are proposed for the review:

**Step 1**: Development of an assessment framework

**Step 2**: Defining the scope of the review

**Step 3**: Stakeholder engagement and analysis:

* + Mapping capacities of key actors; the incentives and the issues that constrain them, including gender relations.
	+ Identifying how to engage with different sets of stakeholders.

**Step 4**: Identifying entry points and risks:

* + Given the findings from Step 3, what are the most promising entry points?
	+ What are the risks, and how can they be mitigated?

**Step 5**: Potential for change and areas to be prioritized including development of a comprehensive training program

Results of the study will be disseminated to provide opportunities for multi-stakeholder participation and support for capacity development.

1. **support development of DRR planning guidelines**

Under this activity, the project will support development of Guidelines for disaster management planning at sub-national levels.

The DM plan will ensure that components of DRM are addressed to facilitate planning, preparedness, operational, coordination, community participation and gender equality. Thus, the following will be the broader objectives of the DM plan;

* Promote a culture of prevention and preparedness by ensuring that DRM receives the highest priority at all levels;
* Ensure that community is the most important stakeholder in the DRM process;
* Ensure the participation of women in the development of policies, procedures and action plans;
* Encourage mitigation measures based on state-of-the-art technology and environmental sustainability;
* Mainstream DRM concerns into the developmental planning process;
* Put in place a streamlined and institutional techno-legal framework for the creation of an enabling regulatory environment and a compliance regime;
* Develop contemporary forecasting and early warning systems backed by responsive and fail-safe communications and Information Technology (IT) support;
* Promote a productive partnership with the media to create awareness and contribute towards capacity development;
* Ensure efficient response and relief with a caring approach towards the needs of the vulnerable sections of the society;
* Ensure women are protected and their equal access to resources, benefits and services in natural disasters is increased,
* Ensure women's rights to protection in emergencies are promoted and fulfilled by designated focal ministries, duty bearers and stakeholders, and women's participation in emergency preparedness and response and disaster risk reduction
* Undertake reconstruction as an opportunity to build disaster resilient structures and habitat;
* Undertake recovery to bring back the community to a better, safer and more equitable level than the pre-disaster stage.

Development of the DM plan will be informed by vulnerability assessment, risk analysis and studies to be undertaken in Activity 2.2. and gender analysis which is being conducted by UN Gender Theme Group in 2012. Development of gender responsive operational guidelines for DRR institutions and to guide implementation of the plan will also be developed and internalized by implementing units and staff. The project will support the MDPA, particularly the MSWRR in the development of the guidelines based on the requirements and suggestions of the institutional review to be conducted.

For sub-national level DM planning, a *“Guidelines on developing Township Disaster Management Plan*” was developed jointly by the RRD and the GAD in October 2010. Some townships are now piloting development of their Township Plans with support from various organizations. The guide basically presents an outline of the contents of a Township Disaster Management Plan but falls short of prescribing a detailed methodology on how to accomplish the sections of the plan (i.e. how to conduct risk assessment and what parameters to use for calculating vulnerability, expected losses, among others). This is critical if the TDMP is to be replicated as the guide for disaster management planning at township level in the country.

The learning from the pilot initiatives at Township level will be consolidated to inform development of a disaster management planning guide and process that will be used at national and sub-national levels. Specifically, the project will support RRD and GAD in facilitating development of Disaster Management Plans at state/region and sub-national levels.

1. **Support the development of Disaster Risk Management human resources capacities through development of a comprehensive training program to enhance technical and operational capacities of MDPA and DMCs**

On account of the institutional review, a ***training program*** will be developed ***for national (MDPA), state/region DRR institutions and staff of the RRD, MSWRR***. DRM capacity development will be supported by formal and informal training activities. This would include development of targeted curriculum and training specific to the technical area and function of authorities and personnel in the target areas as well as gender equality training for all

The training program may include several topics and modules such as planning, basic DRR awareness, gender responsive emergency management, disaster management planning, DRR mainstreaming as well as training on technical areas such as risk assessment, search and rescue, GIS, M&E, gender mainstreaming, etc.

Participants of the trainings will include technical staff of line agencies, and other staff with DRR functions. Specific focus will be on enhancing capacity for disaster management planning and implementation and emergency response. The project will explore possibility of establishing mechanisms where training on gender responsive DRR are integrated as part of official training programs for senior and middle-level officials of national and sub-national governments and agencies. The project will support to design specific packages targeting specific government ministries, decision-makers, technical units and DRR focal persons.

Training packages will either be in-house and in-country (e.g. RRD through its DRR curriculum, DHM on early warning) or as required, sourced out to service providers depending on the need and availability of technical expertise (e.g. expertise from DRRWG members, technical institutions for risk assessment, GIS, etc.).

Other than formal training programs and distribution of IEC materials, knowledge and support for disaster risk reduction can likewise be fostered through other structured programs such as fora and exchange visits within and outside the country.

1. **Establishment of Disaster Management Training Centre**

The project will support establishment of Disaster Management Training Centre (DMTC) which is one of the projects identified in MAPDRR. The Training Centre is intended not only to build capacity of different stakeholders on Disaster Management and undertake research on different themes of Disaster Management but also to provide technical support on policy, planning and programming issues to Ministries, Departments, Disaster Prepared Committees and other organizations.

RRD plans to establish DMTC in 2013-2015 and the building of DMTC will be constructed by the government (RRD). The support from the project will include technical assistance in developing the scope of Disaster Management Training Centre, developing the curriculum, methodology and training aids, capacity building of the faculty team, setting up systems and procedures in DMTC, logistical and facilities support (e.g. computers, furniture, teaching aids and facilities, etc.).

**Activity 1.3 Support national DRR awareness programme**

The project will work with MSWRR and the Information Sub-committee of MDPA to develop and implement Nation Public Awareness Plan on DRR.

**Sub-activities:**

1. **Support national and sub-national awareness campaigns sensitizing the population and local communities on DRR**

The project will review the public awareness programme and IEC materials of various agencies, and identify the gaps and needs of the public awareness on DRR. The project will work closely with the Relief and Resettlement Department, Department of Hydrology and Meteorology, Information and Public Relations Department and other stakeholders in the review. Then the National Public Awareness Plan will be developed. The project will ensure appropriate and standard messages and instructions are given and communicated to the target population.

The target audience would be mainly three types: a) the general public (national audience), b) communities in specific disaster prone areas, and c) development agencies and partners, including private sector. The project will collaborate with the media, DRR Working Group and Civil Society Organizations (CSO) in the development of IEC materials.

Media will be utilized in public awareness and education on DRR. Media staffs and radio personnel will be engaged and assisted in developing these various campaigns. The following public awareness activities will include but not limited to:

* ***Awareness raising through televised programs***. In coordination with Relief and Resettlement Department, Myanmar Radio and Television (MRTV) and other broadcasting stations, suitable edutainment programs will be designed and broadcasted. For instance; UNDP has developed a Community Cyclone Preparedness Video in 2011, is aired via national TV programme especially during the cyclone season as an educational segment for the coastal communities and the general public. Other and appropriate edutainment programs on different thematic focus from the Cyclone Preparedness Video will also be designed and developed in consultation with RRD and MRTV.
* ***Awareness raising through radio programme and media.*** Similar programs will be developed for broadcasting through Myanmar Radio (National Radio Programme) and the FM radio stations at different States and Regions. Since radios are a popular source of information in rural areas, Public Short Messages (PSMs) will be developed on specific topics with key DRR and preparedness messages.

Cultural appropriateness and inclusiveness will be guaranteed through review of programme outlines and scripts by relevant government departments, NGOs and concerned UN agencies. Gender analysis will be undertaken to ensure the accessibility and appropriateness of materials for both men and women equally.

The project will likewise collaborate with other UNDP program pillars that will engage media on various activities.

**Activity 1.4 Support for National DRR Platform on DRR**

**Sub-activities:**

**a. Support to MDPA and DRR WG for strengthening DRR Coordination and multi-stakeholder engagement**

The overarching goal of a national platform is to help build a country's resilience against disasters, so as to safeguard the country's assets and ensure its citizens' well-being. National platform for disaster risk reduction is a nationally owned and led forum or committee of multiple stakeholders. It serves as an advocate of disaster risk reduction at different levels and provides coordination, analysis and advice on areas of priority requiring concerted action through a coordinated and participatory process. A National Platform for disaster risk reduction should be the coordination mechanism for mainstreaming disaster risk reduction into development policies, planning and programmes in line with the implementation of the HFA. It should aim to contribute to the establishment and the development of a comprehensive national disaster risk reduction system, as appropriate to each country.[[21]](#footnote-21)

In Myanmar, some key initiatives on DRR platform have been taken place. At national level, Myanmar Disaster Preparedness Agency (MDPA) is constituted with dedicated responsibilities for disaster risk management. It involves in coordination among the different key development players. However, it could not be regarded as Nation Platform due to limited participation of multi-stakeholders.

There are other active forums on disaster risk reduction, but they could not be regarded as multi-sectoral platform, due to some limitations, such as not led by national mechanism/ nationally owned or not have enough interaction of multi-sectoral key development partners. DRR Working Group, formed through the PONREPP under the TCG mechanism for Nargis Recovery Programme, serves as a mechanism for information sharing, advocacy, coordinating and facilitating DRR activities among the different stakeholders including government agencies, UN agencies, international and local NGOs.

Building on these existing foundations, a national multi-sectoral platform could be evolved and led by the government. The project will support to develop or strengthen the existing DRR coordination mechanisms to evolve/establish as a "national platform", to provide coordinated, effective disaster risk reduction intervention.

The project will also support the DRR WG to strengthen its efforts in coordination, information sharing, capacity building and engagement with the civil society and different stakeholders.

**Activity 1.5 Support Government in meeting its international commitments**

**Sub-activities:**

1. **Support RRD in its role as national focal point for HFA, AADMER/AHA center/SASOP**

Myanmar, along with 167 other countries endorsed the Hyogo Framework for Action (HFA) that was signed during the World Conference on Disaster Reduction (WCDR) held in Kobe, Japan in 2005. In accordance with the recommendations of the HFA, signatory countries have the primary responsibility for taking measures to reduce disaster risks, and by implication, for monitoring and reviewing their progress towards achieving the goals of the HFA.

The Government is committed to implement the five Priorities for Action under the HFA to achieve substantial reduction in disaster losses in terms of lives, social, economic and environmental assets of communities and countries. The Government has actively completed two cycles of the review process and has submitted its Country HFA review reports to the ISDR system.

Myanmar is also an active participant in regional initiatives on risk reduction. Myanmar is a member of the ASEAN Committee for Disaster Management (ACDM) and also a signatory to the ASEAN Agreement on Disaster Management and Emergency Response (AADMER) and the Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations (SASOP).

Under the AADMER Work Programme (2010-2015), the ACDM identified 14 flagship programs to be implemented as priority activities. Myanmar together with Indonesia is tasked as “the Lead Shepherd” for the strategic priority four: Recovery.

The project will support the Government in facilitating the country review process and reporting HFA progress to the ISDR system as well as in fulfilling its commitments under HFA and ASEAN (14 Flagship projects under AADMER), and other DRR related international commitments.

1. **Provide support for the engagement of GoM staff to ensure full and active participation in international, regional and national meetings, workshops, seminars, training events, etc.**

With recent positive changes in the development context of Myanmar, the country is more engaged with the international community. As relationships with other countries “normalizes”, the country will have to participate and engage in international fora including developing partnerships on DRR, climate change and development.

The Government, especially the MSWRR and RRD should be able to articulate the interest of the country and seek ways bringing in support for its programs on risk reduction and development.

The project will support the Government in its engagement with the international community. Support may be in the form of logistical support, technical assistance (e.g. background papers, technical reports, etc.) and support in the preparations when events are held in the country.

The Government of Myanmar is scheduled to take the Chair of ASEAN in 2014. The project will support MSWRR in promoting regional cooperation on DRR as well as DRR as part of sustainable development agenda in ASEAN.

Myanmar is committed to international policy initiatives to improve the situation of women, including the Millennium Declaration, the Beijing Declaration and Platform for Action (BPfA). The NSPAW targets the key dimensions of women's lives and outlines approaches to create enabling conditions for the advancement of women and gender equality focusing on the twelve priority areas of BPfA. The project will support implementation of NSPAW in particularly emphasize on ‘women and emergencies’ of BPfA. This will ensure women’s and girls’ rights to protection in emergencies and to ensure their participation in emergency preparedness, response and disaster risk reduction.

 **Target Stakeholders**

*Various line ministries*: - Myanmar Disaster Preparedness Agency, Attorney General Office, Members of Parliament, Ministry of Social Welfare, Relief and Resettlement, Ministry of Planning, Ministry of Finance, General Administration Department – Ministry of Home Affairs, Department of Meteorology and Hydrology under the Ministry of Transport, Ministry of Information.

*Local Government* – State/Region and Township Administration

*UN agencies, NGOs,*  DRR Working Group members, Red Cross, local/field based NGOs

*Academic, professional and private groups* – professional bodies, selected technical institutions (TBD), private groups (TBD), and media groups

International and regional organizations:APRC/BCPR-UNDP, ASEAN, UNISDR, UNESCAP

**Expected Results**

At the end of the project (2013-2015), the following are targeted to achieve by the project:

* An institutional capacity assessment would have been conducted leading to development of a comprehensive national training program;
* Comprehensive capacity building plan developed. I.e. training program, exchange programs, visits, etc.; MDPA members, focal departments and technical units, selected parliamentarians and local government authorities have greater understanding of disaster risk reduction;
* Specific DRM related policies and guidelines developed. i.e. DRR policy, CBDRM policy and guidelines, early recovery policy and tool/guide (as committed by the country in the AADMER workplan);
* disaster management planning models/guidelines undertaken;
* National DRR Public Awareness Plan developed and implemented; including development of IEC materials and implementation of public awareness in various media;
* MSWRR technical capacity enhanced for contingency planning, inter-agency coordination and emergency response; and
* Government fully engaged and meetings its international commitments. i.e. HFA review process, commitments under AADMER, ACDM, SASOP, etc.

#### Result 2

***Enhanced capacity of sector departments and development partners for mainstreaming DRR into development planning***

**The project context**

* No policy guidelines available on mainstreaming DRR into development planning.
* Some available guidelines on sector specific mainstreaming (health, education and rural shelter) but are limited in scope;
* Needs sector-specific guidelines on mainstreaming DRR, especially for the key development sectors
* The Myanmar Action Plan on Disaster Risk Reduction (MAPDRR) identifies developing vulnerability and risk assessment for selected hazards and regions in the country that would provide information and decision making tools for planning and development activities;
* Risk and risk assessment considerations in development planning is inadequate;
* Some risk assessment have been conducted (MHRA, etc.), however most are still limited in scope and have not covered many of the other regions and townships in the country;
* Hazard and risk information tend to remain with the technical institutions and there isn’t enough use of the information by national and local authorities in the planning processes;
* Need for research to inform policy formulation and program implementation.
* Damage and Loss Assessment system is weak
* There is no central Disaster Information Management System

***(See Annex 4: Preliminary Myanmar DRR Capacity Assessment for details)***

**The project activities**

**Activity 2.1 Build capacity of national institutions to develop policy and guidelines for mainstreaming DRR**

While efforts on “mainstreaming” DRR in some sectors have been piloted (e.g. rural education, rural shelter, health), DRR integration into various disciplines of broader scope within development sectors is yet to be initiated. The project will work with MSWRR and the Myanmar Disaster Preparedness Management Working Committee to facilitate discussions on DRR mainstreaming. The project will support MDPA to have a national mechanism for DRR mainstreaming.

**Sub-activities:**

1. **Comprehensive review of selected sectors and national policy (ies) and programs in terms of DRR**

In order to effectively start the mainstreaming process, reviews of the target sectors will be conducted. The design of the review will be developed in close coordination with the MDPA, MSWRR and the Ministry of National Planning and Economic Development. Where required, inputs from other Government technical units as well as from UN, CSOs, DRRWG, women’s groups and networks will be sought. Priority sectors will be identified during project inception from which DRR mainstreaming will be focused. The policy guideline for mainstreaming DRR into development planning will be developed (if identified by the review) and will engage with Ministry of national Planning and Economic Development and other ministries for integrating DRR into development planning of different sectors.

1. **Develop selected sector specific DRR mainstreaming guide and plan**

Mainstreaming of DRR is a governance process enabling the systematic integration of DRR concerns into all relevant development spheres. In other words, responsive, accountable, transparent and efficient governance structures guarantee the environment where DRR can be institutionalized as an underlying principle of sustainable development. Therefore, building resilient communities in disaster-prone countries requires that: a) underlying risk factors are continuously considered in all relevant sectors; and b) risk reduction standards and measures are an integral part of the planning and delivery of core development services and processes, including education, environment, and health.

The project will support the Government in developing technical guidelines incorporating risk assessment into sectoral planning. ***The project will aim to produce three mainstreaming guidelines (TBD)*** to be developed in close collaboration with the Ministry of National Planning and Economic Development, MDPA and the relevant Ministry. Available guidelines developed during Nargis for health, rural education and shelter will be reviewed and incorporated in the national guidelines where appropriate.

Upon completion of the guidelines, the project will ***pilot application of the guidelines in DRR mainstreaming*** in selected state/regions and townships *(under Activity 4.3).* Necessary orientation and training of relevant government ministries and staff will be undertaken so that they will be familiar and are able to facilitate the mainstreaming and planning process.

Mainstreaming DRR into development calls for strong linkages with on-going DRR projects in selected pilot areas as well multi-stakeholder participation. As mentioned previously, the project will work with the Myanmar Disaster Preparedness Management Working Committee *(see Figure 1 on page 7)* to secure high-level support for DRR mainstreaming. Working with other UNDP program pillars and other stakeholders is also imperative.

An ***M&E tool*** will be developed particularly to monitor and evaluate the outputs and implementation of DRR mainstreaming, which will include sex disaggregated data.

**Activity 2.2 Promote DRR related research to inform policy formulation, implementation and mainstreaming**

**Sub-activities:**

1. **Conduct Risk Assessment and DRR related research**

Disaster risk assessment is the process used to determine risk management priorities by evaluating and comparing the level of risk against predetermined standards or other criteria. Disaster risk assessments determine community and the country’s vulnerability through the identification of risks, likelihood and consequence of a disaster impacting the community or the country. These assessments allow for an increased focus on anticipation, mitigation, recovery and resilience to achieve safer and more sustainable communities. Risk Assessments also are important in informing programme development and policy dialogue.

The Government, CSOs and academic institutions including UNDP have conducted several studies. (i.e. MHRA in Ayeyawaddy and Bago Regions and Rakhine State). While the above studies are useful for programming of various development and DRR initiatives, most however are still limited in scope and have not covered many of the other state/regions in the country. Besides the Ayeyarwady, Bago and Rakhine, other regions have yet to engaged in proper disaster risk assessments and profiling in order to better understand exposures and vulnerabilities to hazards that regularly affect their area. The information seems to remain with the technical institutions and there isn’t enough use of the information by national and local authorities in the planning processes. At the local level, some townships have some hazard maps but no real risk profiles.

Inadequate understanding on disaster risk of Technical staff at local government level is recognized as an important gap, if proper risk assessment for mainstreaming DRR into local and regional development planning is desired. Technical cooperation is needed to assist Government in developing guidelines that includes methodologies for risk assessment.

The project will initiate ***hazard, risk and capacity assessment at the sub-national level*** to inform project implementation particularly, disaster management planning and DRR mainstreaming.

Where other specific studies are required (e.g. recommendations from institutional review, planning and requirements for DRR mainstreaming in selected sectors), the project will support to conduct research on DRR related issues. Various stakeholders will be consulted in setting the research agenda and for generating support. Other project outputs such as the Desinventar disaster information management system *(under Activity 2.3)* will provide additional resource for policy and guidelines formulation.

1. **Develop Linkages with academic and research institutions to promote DRR research, depository of knowledge products**

Disaster research may be broadly understood as a systematic inquiry, before and after a disaster, into relevant disaster risks issues and problems. Investments in research have significant potential for high ratios of benefit to cost. Disaster research allows for continuous improvement of programmes and provides basis and evidence for policy dialogue and development.

There is currently a shortage of information on the disaster risks at various levels, themes and geographic areas in the country. During times of emergency, lessons learnt from post-disaster assessment and disaster management exercises can also contribute to the identification of best disaster management practices.

The project will use collaborative and best practice research to inform disaster risk reduction and improve the effectiveness of disaster risk management principles, policy development and practices. *(in tandem with Activity 1.1, 2.1.)*

To support research requirements of the project, partnerships with research institutions and universities will be established, such as the Dagon University that has a programme on Disaster Studies. Other institutions including those focused on gender equality, such as professional bodies and private sector and international research groups will likewise be engaged as needed. The aims of establishing partnerships for research are:

* To identify, support and resource research priorities;
* To capture lessons learnt to develop policy, planning and resources;
* To translate knowledge into practice through review of plans and procedural systems and processes;
* To establish formal relationships with researchers to incorporate disaster management knowledge into effective policy and practice;
* To improve the understanding, coordination and resource allocation of disaster risk reduction at all levels through informed research; and
* To assist all communities including Indigenous communities to implement disaster risk management processes.
1. **Dissemination of research findings to support policy formulation and inform DRR discourse**

Research is important in informing programme development and policy dialogue. Several researches are outlined to inform project implementation. Based on the institutional review; and Knowledge, Attitutes and Practices (KAP) Survey and risk assessments to be conducted; further investigation may be needed and subsequent studies will be conducted (e.g. related to Gender and DRR, risk transfer, CBDRM, media and DRR, etc.)

Dissemination of the research and study findings will be part of the project communication strategy. Objectives for disseminating findings may be for; resource generation; to inform policy; improving project implementation and for wider public awareness. *(in tandem with Activity 1.1, 1.2, 2.1, and 2.4).*

Dissemination of research will take the following form:

* distribution of printed reports;
* presentation in workshops,
* press releases and uploading researches in Government, UNDP and various websites.
* Dissemination through community learning centres and women groups.

**Activity 2.3 Support establishment and institutionalization of damage and loss assessment system and disaster data base (Desinventar system)**

Disaster loss databases exist in various agencies such as DMH, Department of Irrigation, and are regularly updated. Hazards are consistently monitored across localities and territorial boundaries. In March 2011, the Department of Metrology and Hydrology updated website ([www.moezala.gov.mm](http://www.moezala.gov.mm)) on hazard-related information and early warning was launched. However, the current Disaster Information Management System needs enhancement. Likewise, there is currently no central database system from where information can be generated to provide overall risk information and disasters that can inform decision-making and planning.

The project will provide support in further systematizing and establishing a central database system including sex disaggregated data and gender statistics. One such intervention is the adoption of the UNDP developed DESINVENTAR methodology and software tools as a means of managing disaster information for planning and response.

The DesInventar methodology will also allow the government to retain historical data about the impact of disasters. This information will be used to support national early warning efforts in the determination of future risks based on past trends and recorded vulnerabilities of specific national development sectors. This tool is particularly relevant for use in Myanmar as it targets small and medium disasters that are more common within the country.

The following are the indicative activities to be implemented:

1. **Set-up and configuration of National Disaster Loss Database:**
2. **National Training Workshop**: Representatives of selected government agencies from national and provincial levels and UN partners will be oriented with the methodology and will be provided hands-on training on the tool to build disaster loss database.
3. **Recruitment of Disaster Inventories Associate:** A full-time dedicated staff will need to be recruited to work at the host institution. The Associate will work under the direct supervision of a senior official of the host institution and will be under technical supervision of UNDP APRC.
4. **Set-up and configuration of National Disaster Loss Database:** Following the recruitment of Disaster Inventories Associate, s/he will work on configuring and setting up National Disaster Loss Database for Myanmar at the host institution. UNDP APRC will provide all necessary technical support in setting up disaster loss database.
5. **Data Collection, validation and cleaning:**
6. **Data collection and entry:** Disaster Inventories Associate will lead Identification and collection of disaster data. Depending on volume of data, temporary support may be provided to collect data from various sources (government, media and other) and enter it in the database.
7. **Data validation and cleaning**: The database will be routinely checked for inconsistencies and errors in order to provide an accurate and reliable source of disaster data.
8. **Analysis of disaster data and sharing the findings:**
9. **Analysis of disaster data**: Once the historical disaster data collection is complete, an analysis of data will be undertaken and a report will be produced which will highlight highlighting key findings from the analysis of disaster data.
10. **National workshop to share analysis**: Upon completion of the database, the key findings will be shared with relevant stakeholders in a meeting.

Necessary hardware (server) will need to be procured for hosting the database. The server will need to be located in an institution with dedicated internet connectivity to ensure 24x7 access to the database. Necessary software for the database will be provided by the project and technical support will be extended in configuring and setting-up database.

In addition, desktop/ laptop computers will be required in selected provinces and districts, depending on the availability of data in different parts of the country. The Crisis Prevention and Recovery (BCPR) team of UNDP APRC in Bangkok will provide full technical support. Technical support through missions and remotely will be provided as and when required at various stages of the implementation. UNDP Myanmar will provide coordination support and technical support (local staff) for the implementation.

Included in the development of the database system is the development of a common methodology and system for post-disaster damage, loss and needs assessment. This will include a common framework for damage and loss assessment, common reporting formats, data collection methodologies and roles and responsibilities of stakeholders. It will also include SOPs about activation, deployment, reporting and de-activation of assessment teams. This system will be developed by multi-stakeholder support and will consider damage and loss assessment frameworks and methodologies already developed by other organizations (e.g. UNOCHA).

**Target Stakeholders**

*Various line ministries*: - Myanmar Disaster Preparedness Agency and members, Ministry of Social Welfare, Relief and Resettlement; General Administration Department under Ministry of Home Affairs; Ministry of National Planning and Economic Development; Ministry of Science and Technology, Ministry of Education, Ministry of Information.

*Local Government* – State/Region and Township Administration;

*UN, NGOs*, DRR Working Group members, Gender Equality Network (GEN)

*Academic, professional and private groups* – Myanmar Engineering Society, Myanmar Geological Society, selected Universities, private sector

*International – regional organizations –* APRC/BCPR-UNDP, ASEAN for technical support

**Expected Results**

Mainstreaming[[22]](#footnote-22) and M&E tools will be developed, allowing for systematic analysis of existing policy instruments, including programs. Gender sensitive planning for DRR will be particularly integrated, and relevant tools will be adapted or developed. The following will be the outputs after three years:

* DRR is integrated in the national development plan/policy
* Sector-specific Guidelines on Mainstreaming DRR available for the key development sector
* Selected research and studies conducted to inform policy formulation, planning, and mainstreaming and project implementation. i.e. institutional review, KAP assessment, multi-hazard risk assessment in selected areas, early warning;
* Disaster loss database system with sex disaggregated data capacity, specifically the Desinventar system established and operating;
* Various research and studies conducted to inform and support project implementation; partnerships forged with academic, research and information service providers;

#### Result 3:

***Capacity enhanced for generation of user-relevant end-to-end early warning and effective early warning dissemination***

**The project context**

* The Early Warning System is already in place for cyclone, storm surge and floods.
* The dissemination of early warning is unable to reach remotest sections of community, mainly due to the difficult geographical terrain, and poor linkages to reach remote communities, gaps in understanding of the early warning messages, and weak in community awareness on disaster information.
* Capacity for generation of early warning needs improvement (logistical, technical and human resources);
* JICA provides hardware equipment, software and capacity building to DMH for Storm Forecasting.
* Tsunami early warning for coastal area is linked and supported by Regional Specialized Organizations.
* The users do not have sufficient capacity to use EW information in the decision-making process.
* Lead time for early warning need to be increase;
* Early warning protocols and messages needs review, to be target specific and user-friendly.

 ***(See Annex 4: Preliminary Myanmar DRR Capacity Assessment for details)***

**The project activities**

Most parts of the country are flooded every year. Recently in August 2012, due to heavy monsoon rains and following floods in different parts of the country, tens of thousands of people were affected by the floods. Communities in the river basin areas are exposed to recurrent floods every year, and need to be prepared for living with floods.

Current flood warning capacity at DMH provides a lead time of only 24-48 hours, which is useful for saving lives, but inadequate for preserving livelihoods, or for taking early decisions for flood preparedness and mitigation[[23]](#footnote-23).

The project will support to improve the capacity of DMH for generation of user-relevant end-to-end flood forecast and early warning. The project will also build the capacity of the users (i.e. departments/agencies and the communities) to understand and effectively apply the early warning information and messages. Demonstration projects in pilot villages will explore and strengthen effective early warning dissemination to reach the target communities. The project will also closely coordinate with other projects on improvement of storm (JICA project) and tsunami early warning (IOC project).

**Activity 3.1 Support improvement of end-to-end flood forecast generation and application System**

**Sub-activities:**

1. **Support to enhance observation and monitoring capacities on flood**

The present status of data receiving, checking and correction on flood are as follows:

* Water level data are observed three times daily at 06:30, 12:30 and 18:30 (hourly water level by starting from 1.0 m below danger level);
* Precipitation data are observed five times daily at 06:30, 09:30, 12:30, 15:30 and 18:30;
* Water level hydrographs are plotted every day for all forecasting stations for checking upstream and downstream stations;
* The observed data are checked by statistical tests as well as comparing upstream and downstream stations; and
* The observed data are corrected whenever unreliable data are found.

Table 8: Distribution of hydrometric stations in Myanmar

(Basin Area, River Length and Hydrological Forecasting Stations)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No. | River | River Length (km) | Basin Area (km2) | Hydrological Forecasting Station |
| 1 | Ayeyarwady | 1789 | 348064 (up to Zalun) | 15 |
| 2 | Chindwin | 901 | 110350 (up to Monywa) | 5 |
| 3 | Sittoung | 407 | 26758 (up to Madauk) | 2 |
| 4 | Bago | 331 | 2580 (up to Bago) | 2 |
| 5 | Dokehtawady | 410 | 45792 (up to Myitnge) | 2 |
| 6 | Thanlwin | 1223 | 295270 (up to Hpaan) | 1 |
| 7 | Shwegyin | 70 | 1747 (up to Shwegyin) | 1 |
| 8 | Ngawun | 339 |  | 2 |

 *Source: DMH*

Flood early warning, to be effective, should provide adequate lead-time for institutions and communities at-risk to undertake preparatory and mitigating actions. Currently, ***flood warning capacity*** at the Department of Meteorology and Hydrology (DMH) is based on meteorological and hydrological observations, providing about one to two days advance for upstream of rivers and small rivers, and about ***three to five days for downstream of rivers***, especially for deltaic area of Ayeyarwady, which is useful for saving lives, but inadequate for preserving livelihoods, or for taking early decisions for flood preparedness and mitigation.

The project will coordinate with Department of Meteorology and Hydrology (DMH) and RIMES[[24]](#footnote-24) in updating information on hydrometric and precipitation station densities, in view of recent and current efforts to improve stream flow and rainfall observation and monitoring; and in identifying priority gap areas, particularly in basins where densities are low (e.g. Ayeyarwady, Chindwin, Sittoung river basins) and ensuring that precipitation stations complement hydrometric stations for flood forecasting.

The proposed project will support acquisition and installation of these priority stations, with real-/ near real-time data communication capabilities. These stations would be critical in validating the high-resolution rainfall forecast outputs generated with assistance from India Meteorological Department (IMD)/ National Center for Medium Range Weather Forecasting (NCMRWF), and utilizing them as inputs for hydrological modeling. On commissioning of the monitoring systems in the above-identified sub-basins, DMH will be sharing the data in real time with the relevant Indian partners – IMD/ NCMRWF for numerical weather prediction model development/ calibration/ validation.

1. **Generation of Long-lead Location-specific Flood Forecast Products (**Flood forecast model development, testing, validation)

Development of flood forecasting model, utilizing long-lead weather forecasts generated with inputs from IMD/ NCMRWF, will focus on the Ayeyarwady, Chindwin, Sittoung basins. The project will replicate the methodology used for Bagmati basin in Nepal, which is based on RIMES experience in Bangladesh (Box 1).

The hydrological model will be an adaptation of the hydrologically-based Variable Infiltration Capacity (VIC) land surface model, coupled with a routing scheme to simulate stream flow from the basin. The multi-layer model will consider soil type and vegetation, elevation, and water storage. Model horizontal resolution would be 0.25ox0.25o, with full elevation and orographic features. India Meteorological

Department (IMD) and National Center for Medium Range Weather Forecasting (NCMRWF) Numerical Weather Prediction (NWP) outputs at 9km/3km/1km resolution will be used as input data.

The model will be forced by ECMWF ensemble prediction system’s (EPS) operational weather forecasts, which extend to 15 days. These forecasts are generated twice a day, consisting of 51 ensemble members, of which 50 are on a 25km grid and 1 on 12.5km grid (deterministic forecast). One set of EPS integrations per day is proposed to be used, with a forecast horizon of 15 days.

The forecasting system will be developed in the first year of the project; by the second year, experimental forecasts are proposed to be available.



*Source: DMH*

1. **Generation and communication of location-specific flood risk information (**Capacity building of user agencies)

Understanding the disaster context of target areas is crucial before development of disaster risk reduction measures including early warning systems. Risk assessment would be conducted in pilot sites within the target areas where application of experimental long-lead flood forecast products could be demonstrated. Selection of pilot villages will be conducted during initial stage of the project in coordination with local authorities and other stakeholders.

Risk assessment will identify areas within the pilot villages that have high exposure to floods, and grave consequences and threats of such exposure to people’s safety and livelihoods. The assessment involves inventory of historical flood hazards and their impacts; evaluation of community and household vulnerabilities and coping strategies; inventory of institutions and their policies and programs for managing or confronting flood risks; and identification of risk management gaps, needs, and options.

Evaluation of existing warning dissemination system (institutional arrangement, protocols and procedures, communication pathways, dissemination technology, etc.) will be undertaken to identify gaps, needs, and actions to improve warning delivery and address communication issues.

Flood warnings and advisories need to be framed in a form that lay people can understand. These should reach all segments of the threatened community, and delivered in time to enable people to take appropriate actions.

Assessment of user needs will be undertaken to identify user-relevant warning language, content, format, lead time, reliability, and delivery channels; support required to enable them to respond timely and appropriately to warning information; and ways to provide feedback. Existing warning messages will be evaluated and improved using assessment results. National and local disaster managers, extension workers, water resource managers, community volunteers and other institutional users will then be trained in forecast interpretation and translation.

**Activity 3.2 Support improvement of end-to-end early warning mechanism at community level**

Getting people to respond appropriately to warning is a critical component of an effective warning system. Communities need to be involved in relating warning to danger to lives and property. They need to understand the uncertainties in long-lead forecasts so that actions taken are “no regret” options. A continuous two-way communication between forecast producers, intermediary user institutions, and communities could help establish confidence in forecasts and warning information and trust in the source/ provider of the information.

Under this activity, the end-to-end early warning mechanism will be demonstrated at pilot villages, which cover flood early warning as well as storm, storm surge, tsunami. The project will coordinate with DMH, and other organizations involved in disaster risk management (DRM) in the pilot sites and other on-going initiatives on early warning; such as RIMES project in Kungyankone and Pyinsalu Township and JICA on-going project.

Lessons learned generated from the piloting early warning in villages and township levels will feed into further improvement of the national early warning system. The models developed under the project will be documented and expanded to cover other villages and townships in the country.

**Sub-activities:**

***a. Public education and awareness on early warning***

Communities need to know their risks. They need to be aware of the warning system, terminologies used, forecast uncertainty, and how to relate warning signs to levels of threat and appropriate responses. This may be done through community meetings to identify hazards and vulnerabilities, assess risks, and have dialogues with forecast producers and warning communicators to understand forecasting constraints and receive feedback; printed materials (posters, brochures, calendars, etc.); radio program; exhibitions, demonstrations, and drama in community fairs; and school-based program (incorporation of hazards, risks and risk management subjects into school curriculum – for example in geography, science, and social science courses; essay, art, drama, and debate competitions; etc.). These will be facilitated through community leaders, champions (e.g. religious leaders, respected elderly in the community, etc.), schoolteachers, community-based organizations, and community volunteers. The campaign will be based on an understanding of the different ways in which men and women access this information.

***Flood markers*** will be establishedin vicinity of habitations and cultivable lands, with inscriptions of previous flood levels at that location. This would aid communities to associate flood warnings with levels of threat, and personalize risks.

***b. Strengthening community preparedness to respond to early warning***

***Community volunteer teams*** will be established and trained at pilot sites to form a network of trained local level volunteers for DRM activities. This should complement government efforts in establishing disaster risk management committees at village levels. These community DRM teams may function under MoHA/ MoSW to assist in dissemination of early warning information, awareness raising, periodic drills/ simulations, evacuation, search and rescue, medical first response, and evacuation center/ camp operations. Equal representation of men and women in these teams will be highly encouraged.

***Village level disaster preparedness and response plans*** will be prepared and practiced *(in tandem with Activity 4.2)*. This may also include development of school emergency response plan, with participation of secondary school students. Training of relevant staff in this regard could be provided.

***c. Strengthening community resilience through application of weather forecast information***

***Capacities for preserving livelihoods*** will be strengthened through demonstration of long-lead flood risk information application in farming operations. This would require:

* An institutional mechanism for the generation, delivery, and application of flood forecasts and flood risk information
* Farming communities willing to participate in the program, for at least 2 seasons.

A climate risk information sub-committee will be established or integrated in the Information Sub Committee of the Disaster Preparedness Committee at Township Level. It will become a local level institution that disseminates climate risk information. It will be composed of DMH, Agriculture Department, Irrigation Department, Livestock Breeding and Veterinary Department and other stakeholders. The sub-committee will be provided necessary capacity building programme to be able to produce tailored climate information for their specific area, and disseminate the information and its implication to the communities (agricultural/livelihood/fishery/tourism), so that they can prepare and adapt their livelihoods to the climate risk information.

***Small grants program*** will be provided to support community-level disaster risk reduction projects in most vulnerable villages *(in tandem with Activity 4.3)*. Climate and disaster risk reduction options will be prioritized and supported through small grants, with community DRM teams as implementers. The grant will help the communities’ preparedness to respond to slow and sudden onset disasters, for effective use of climate risk and early warning.

**Target Stakeholders**

***Various line ministries***: - Myanmar Disaster Preparedness Agency, Ministry of Social Welfare, Relief and Resettlement, Ministry of Planning, General Administration Department – Ministry of Home Affairs, Department of Meteorology and Hydrology under the Ministry of Transport, Ministry of Agriculture and Irrigation, Ministry of Information.

*Local Government* – State/Region and Township Administration;

*UN, NGOs*, DRR Working Group members

*Academic, professional and private groups* – Myanmar Engineering Society, Myanmar Geological Society, private sector, media

*International – regional organizations –* APRC/BCPR-UNDP, RIMES, UNESCAP, WMO.

**Expected Results**

The project will support on-gong efforts by the Government and CSOs on increasing capacity to predict, monitor and reduce damage or address potential threats; and strengthen preparedness to respond in an emergency and assist those who have been adversely affected.

It is expected that at the end of the project, the following will have been achieved:

* Capacity within DMH to generate better and longer lead flood forecasts is enhanced using upgraded technologies and weather stations
* User-relevant, long-lead, location-specific flood risk information is available.
* Building technical capacities of user agencies in Myanmar to prepare and communicate on flood forecast and warning
* Communities have developed customized EW warning and evacuation procedures that is linked with higher level EW system and plans;
* Communities and local authorities better aware and able to act on early warning messages;

### Output 2: Resilience of vulnerable communities to natural hazards is enhanced

This planned output will seek to increase capacities of townships, village tracts and communities[[25]](#footnote-25) for disaster risk reduction. Currently, local capacity for comprehensive DRR, including risk assessment, disaster management planning, contingency and emergency management, early warning and disaster preparedness is ad hoc and lacks coherent policy and operational guidance.

CBDRM programming was initiated immediately after Cyclone Nargis in 2008. CBDRM activities included: organization of Village Disaster Management Committees, training on various skills including search and rescue, first aid, early warning; setting-up of community early warning and evacuation systems; small-scale mitigation works such as jetties, bridges, evacuation roads, cyclone shelters; and provision for education and public awareness. Since 2010, CBDRM programs of different agencies are expanded from the Delta to other areas in Rakhine, Central and Northern Regions. Several approaches, however, are being used by various organizations, including the UN, INGO and LNGO and even “non-DRR” organizations (e.g. SRG type CBOs and livelihood user groups incorporating some DRR activities and function) in implementing CBDRM. These varying approaches need to be streamlined and standardized if CBDRM is to be institutionalized in the government process. Part of the institutionalization process of CBDRM will require policy guidance on the institutional framework for DRR at community (village and village tract) level (Activity 1.1).

Likewise, while significant efforts have been done to assist and increase capacities of communities against disasters, there is a need to link CBDRM initiatives, plans and organizations to higher Government institutions at the village track and township levels.

The project will expand and scale up work on CBDRM in the target townships (e.g. broadening support from direct services to disaster risk management planning, preparedness and emergency management, mainstreaming DRR in local development planning) and address the above policy and methodological gaps. ***The project’s CBDRM practice will be geared toward informing policy formulation and feed into the development of gender responsive guidelines on mainstreaming DRR in local, regional and national development planning***.

The project will support the Government in strengthening the local capacity for DRR in target townships, village tracts and villages. ***Focus will be at strengthening township village tract and village*** authority capacity for disaster risk management and preparedness planning. This will include technical support for multi-hazard risk assessments, early warning, training and development of gender responsive planning guidelines on Disaster Management Planning, CBDRM, EW and contingency planning. The aim of capacity development is to ensure that local government units are able to analyze risk, develop, implement, monitor and evaluate risk reduction plans that incorporate village and community needs.

At community level, community based disaster risk management will lead to formation of systems and networks for early warning of impending disasters, strengthening mitigation, preparedness, response and recovery capacity. The project will provide technical advice and support in strengthening DRR institutional capacity to township authorities to effectively support target communities. CBDRM will involve community-based organizations, women and children and local responsible institutions. Gender sensitive strategies will ensure the meaningful participation of women both in training and formation of systems and networks as well as in decision making. Community awareness[[26]](#footnote-26) is included as a component of the project that consists of developing and disseminating public awareness materials, education and training provided through community facilitators and responsible authorities.

Demonstration / pilot DRR activities that include community early warning, community risk assessment and sectoral planning will be implemented, monitored and evaluated with participation of the whole community. Knowledge, Attitudes and Practices (KAP) Assessments will be conducted at project start and end of project to determine impact of public awareness campaigns. Lessons learnt will be documented and disseminated and will be used in creating models that can be replicated in other townships and hazard prone areas. Specifically, learning will inform policy formulation that aims to standardize CBDRM approach in the country.

Community safer village plans (disaster management plans) will be linked to higher-level government plans at village tract and township levels, and ensured gender responsive. The project will make sure that community plans are reflected, integrated and supported by Disaster Management Plans a township levels.

#### Result 4

***Disaster Management Committees at township, village tract and village levels able to develop, implement, mainstream, monitor and evaluate their Disaster Management Plans***

**The project context**

* The Standing Order on Natural Disaster Management in Myanmar requires the establishment of Disaster Management Committees from national to village tract levels;
* There is lack of clarity on the form and organization of a disaster management organization at village tract and village level;
* The General Administration Department is in-charge of DRR at township to village level;
* Different organizations use various CBDRM approaches, there is no standard approach or guide prescribed by Government;
* There is Township Disaster Management Plan format available. However, there is lack of clarity on a standard approach/process on Disaster Management Planning. This includes contingency planning as well;
* Most townships do not have comprehensive risk profiles, there is no standard risk assessment methodology;
* Township plans do not incorporate CBDRM plans developed by communities (piloted mostly in the delta after Nargis) with assistance from UN and NGOs;
* Risk profiles and assessments are not stored in a database at township level;
* Women are underrespresented in decision making at Township level
* Capacity for gender mainstreaming is limited at Township level

 ***(See Annex 4: Preliminary Myanmar DRR Capacity Assessment for details)***

**The project activities**

**Activity 4.1 Support capacity development of DMCs at township, village tract and**

**village levels**

**Sub-activities:**

1. **Activate DMC in target township, village tracts and villages**

At initial stage of engagement at township levels, selection of the final village tracts and villages for project implementation will be conducted in consultation with local government as well as with other stakeholders. Selection will be based on the following criteria: a) ecosystem approach (i.e. river basin or watershed), b) hazard and vulnerability ranking c) consideration on on-going DRR programs by other organizations, and d) access an enabling environment.

Likewise, at initial stage of project implementation, the project will support the Government in activating and setting up institutional arrangements at township/city, village tract and village levels as prescribed by the Standing Order on Disaster Management (or the new DM law as enacted later by parliament).

Upon activation of local DMCs, appropriate systems, rules and procedures for management of DRR institutions at township, village tract and village levels would be developed in collaboration with RRD and GAD to facilitate effective working of the DMC.

The project will follow four major activities. a) Risk Assessment; b) Planning; c) Implementation; and d) M&E. At each stage of the process, the project will provide support in the ***development of specific procedures and guidelines*** (Activity 1.2) that will guide the disaster management planning and implementation of the project at local government level.

1. **Support for comprehensive training program to enhance technical and operational capacities of DMCs**

Included in the development of institutional arrangements’ for effective implementation of the project is the development of capacities of project participants, especially the RRD and GAD staff as well as local government authorities.

To effectively implement disaster risk management, staff and focal persons involved in DRM should have the knowledge and technical capacity to implement the project. An ***institutional assessment[[27]](#footnote-27) at local level will be conducted*** during project inception to determine the existing capacity of townships, village tract and village levels, to identify their institutional and organizational needs and determine appropriate support mechanisms through the identification of key organizational, capacity and institutional strengthening requirements. The assessment will deliver a comprehensive report on the status of DRR at township, village tract and village level together with a detailed road map for project institutional capacity development. The project will support and train RRD and project team to facilitate assessment of local DMCs.

A ***comprehensive training program[[28]](#footnote-28)*** *(in tandem with Activity 1.2)* will be developed based on the assessment of ***disaster management committees and technical staff at township, village tract and village levels***. DRM capacity development will be supported by formal and informal training activities. This would include development of targeted curriculum and training specific to the technical area and function of authorities and personnel in the target areas. RRD already has developed a DM curriculum and is pilot testing the materials in several states/regions. These will be adapted to the target townships. The training program may include several topics and modules such as local planning, basic DRR awareness, emergency management, preparedness planning, gender mainstreaming as well as training on technical areas such as community risk assessment, search and rescue, first aid, GIS, M&E, etc. Participants of the trainings will include local authorities, line agencies, technical units, village tract and village level authorities.

1. **Support documentation, monitoring and evaluation of disaster management planning, implementation and mainstreaming**

Appropriate M&E systems will be developed by UNDP and RRD to track and ensure the project is able to deliver outputs as well as document lessons for further improvement of the project. This will include sex disaggregated data and outputs and indicators on gender equality.

A concrete monitoring and evaluation mechanisms will be put in place by UNDP with support from MSWRR, GAD, other stakeholders and communities. Training and engaging local government agencies and staff in the assessment exercise will help build their capacity and enhance understanding of DRR. While the trained Government staff will primarily be responsible for M&E, UNDP and technical agencies will be engaged to provide technical support. Regular meetings are to be held throughout the exercise to facilitate dialogue among involved agencies and to find solutions to overcome any difficulties.

**Activity 4.2 Disaster Management Planning at Township, Village Tract and Villages**

**Sub-activities:**

1. **Conduct Risk Assessments – including hazard mapping using more robust methodology such as GPS-GIS system, vulnerability and capacity assessment**

A common problem identified by DRR agencies in Myanmar is the lack of comprehensive risk assessment data especially at region/state and township levels where informed planning is most crucial. Currently, risk assessment data exist for the Ayeyarwady Delta and Rakhine State (UNDP MHRA). Information however is still at meso-level and limited to provide detail for township level planning.

Risks Assessments form the basis of any disaster risk reduction plan. At the local level, some townships have some hazard maps but no real risk profiles. The project will support target townships, village tracts and villages in conducting risk assessments in order to produce their risk profiles. The project will work with Township authorities on risk assessment to generate township level risk profiles that can be used for risk reduction and sectoral planning. The “profile” will include hazard maps indicating the location of various hazards with zonation of risk levels (e.g. low, medium and severe). The profile will also include analysis of vulnerability and capacity of key sectors such as population, production and economic, infrastructure, social services and housing sector incorporating gender analysis. The profile will provide planners and organizations solid and scientific information from which they can inform decision-making and planning. Other hazard specific information such as the seismic zoning map of Myanmar prepared jointly by Myanmar Engineering Society (MES) and Myanmar Geoscience Society (MGS) are available and will be utilized as appropriate. Training and engaging the local agencies in assessment exercise will help build their capacity and enhance their understanding of the risks they are exposed to. Moreover, the assessment can produce valuable and reliable information for locally adaptive risk reduction programming.

While the trained local agencies will bear the main data collection responsibility, Technical Research Teams will be established and together with the local authorities in target areas will oversee the day-to-day assessment activities. The assessment will utilize various methods including GPS and GIS systems, research on secondary data, and primary data collection, including sex disaggregated data in the target areas. A database will be produced and will be managed by GAD and/or RRD as per discussions to be confirmed during inception.

Village Tract and Village Disaster Management Committees *(VDMC formed under Activity 4.1)* would facilitate Community Risk Assessment exercises. They would organize and expedite the assessment by providing local hazard information and working together with the data collection groups. Regular meetings are to be held throughout the exercise to facilitate dialogue among involved agencies and to find solutions to overcome any difficulties.

1. **Support for Disaster Management Planning**

**Safer Village Planning**

With available risk profiles, the trained VDMCs will facilitate inclusive development of their *Safer Village Plans*. The planning guidelines developed in Activity 1.2 will be modeled in the target villages. The SVP essentially will consist of following key sections:

* Geographical coverage;
* Authorization of the plan (who developed the plan and who signs off on it);
* Background disaster information of the village (previous disaster events, loss and damage data, etc.);
* Identified risks in the area (findings from risk assessment) and their rankings;
* A list of actions to be undertaken before (preparedness and mitigation), during (response) and after (recovery and rehabilitation). This will mainly be based upon the identified community needs;
* Implementation plan with associated timeline and milestones;
* List of responsible groups with specific tasks;
* Resources needed for execution of actions;
* Linkage to village tract and township plans;
* Hazard maps indicating high risk zones and safer areas;
* VDMC information (structure and memberships); and
* Schedule for plan update.

Village Disaster Management Committees will facilitate safer Village Planning with technical support from township and village tract staff and officials. Other stakeholders such as CSO, including women’s groups and networks will be engaged in the process to provide synergy, resources and promote collaboration. Careful consideration will be put in place to ensure that the concerns of the most vulnerable including women, children, aged, etc., are incorporated in the Safer Village Plans.

Safer Village Plans also have specific activities related to school safety. Schools are often used as evacuation centers and children are one of the most vulnerable during times of disasters.

The project will work with local school authorities in training of teachers regarding DRR and school safety planning. School safety planning follows a similar process as disaster management planning. It includes looking at school related hazards and risk; planning actions and establishing mechanisms, implementing the actions during emergencies; and them monitoring and review of the plan for further improvement.

The MoE has already developed several curricula and materials on DRR Education. The project will work with local education officials in ensuring that schools are made aware of DRR, develop their school safety plans and that these plans are incorporated in village, village tract and township disaster management plans. IEC materials available will likewise be utilized in school awareness and planning activities.

**Village Tract Disaster Management Planning**

Safer Village Plans (SVP) developed at village level will be linked to the preparation of Village Tract Disaster Management Plans. Village Tract Disaster Management Plans will take the same form as safer village plans. However, the scope of activities will cover a broader geographical area that incorporates plans from several villages.

Other SVPs that already exist or are available within each village tract (facilitated by other NGOs not covered under the project) will be brought together to establish linkage. The process and forms will likewise be developed in Activity 1.2.

**Township Disaster Management Planning**

Disaster Management Plans (DMP) developed at village and village tract will be linked to the **Township Disaster Preparedness Plan**.Other DMPs that already exist or are available within each township area will be incorporated to the TDMP. The planning process will follow the steps prescribed in the Guideline on Township Disaster Management as summarized below.

* Constitution of a Working Group in the township to draft the plan, making up of members representing various departments and other stakeholders. The project will make sure that the line departments that are involved in township level development planning are invited to join the Working Group in order to establish linkage between the two exercises. In addition, their expertise and experiences in township level planning would be of great value to the project. Equal participation of men and women will be encouraged.
* Review of existing township disaster risk management plan and other related documents on hazards, vulnerability, capacity and risk of the township, past disasters and their impact and existing resources.
* Most importantly, the available village/ village tract or ward disaster preparedness plans will be integrated in the TDMP.
* Preparation of a draft Township Disaster Management Plan according to relevant orders and guidelines.
* Consultation with existing Township Disaster Management Committee and non-government agencies working in the area for inputs and feedback.
* Revision and finalization of the plan.
* Dissemination of the plan to all stakeholders.

***Township Disaster Management Planning process***, that will incorporate village tract and safer village plans will be documented and evaluated and would serve as models that will ***inform national policy formulation and development of national guidelines*** that can be rolled out in other parts of the country.

1. **Linkage with other groups for generating support to DMPs**

Disaster risk reduction recognizes communities as having inherent capacities and key role in risk reduction and development. The role of external organizations is to support enhancement of their capacities, generate support and link their aspirations to development goals of the government.

Disaster management plans at various levels will need support on certain technical areas such as engineering, gender, vulnerability, M&E, technical writing, etc. The project will provide support in the whole process of the development of the plans. This can come from the UNDP central office, project technical staff and advisers, technical departments of the government at state/region level, and where there is a need, from other sources such as DRRWG or technical institutions.

The project will likewise continually forge linkages between academic, professional bodies, private sector and NGOs, and women’s groups and networks in Myanmar and international centers elsewhere to generate support and promote DRR research and development. Particular focus will be on organizations and support groups operating in the target areas especially local business, schools, religious organizations and other civic organizations as well as those working on gender equality and women’s empowerment.

**Activity 4.3 Implementation of risk reduction measures**

**Sub-activities:**

1. **Small-grants for disaster preparedness, risk mitigation and DRR mainstreaming**

Through grants, several villages will be selected for pilot and demonstration to develop models and draw lessons that will inform finalization of the standard CBDRM model approach to be used by the Government. The project will support the implementation of small-scale risk mitigation infrastructures, DRR mainstreaming for community development; identified under the Safer Village Plans. These measures that may include construction of jetties, small bridges, roads/foot paths cum evacuation routes, installation of early warning equipment, construction of storage facilities, reforestation, restoration of embankment, retrofitting of community shelters, teacher training and safety school planning, etc., will be prioritized and identified by the communities with the facilitation of VDMCs. Various implementation modes (e.g. household grant, cluster, village level or intra-village) will be determined with the community and VDMC. The project will carefully consider the arrangement and mechanism for maintenance and sustainability of the community infrastructure. The project will ensure that the most vulnerable group of people (i.e. poor women headed-households, orphaned children, persons with disability, old people and ethnic minorities) have an equal role in decision making are included in all processes and their needs are included.

Each activity will require development of community project proposals completed with detailed budget, timeframe and measurable indicators. Fund disbursements will transpire at different intervals and the continuation of funding will depend on the timely achievements of the indicators. Fund management, procurement and other administrative and financial regulations will be developed with RRD and GAD during project inception.

**Activity 4.4 Community education and risk awareness**

**Sub-activities:**

1. **Development and production of IEC materials**

Capacity development is fundamental in DRR. At individual level, changing attitudes and increasing knowledge and skills is important for effective risk reduction. In order to formulate appropriate community training and awareness strategies, the project will conduct a Knowledge, Attitude and Practices (KAP) survey in the target areas. The KAP study aims to determine the knowledge gaps and among communities and local authorities. KAP will equally cover men and women participation and results will be disaggregated by sex. This is turn will inform the project in developing appropriate strategies that will include appropriate IEC materials and mythologies for public awareness.

In the years after Nargis, several IEC materials on various hazards and thematic areas have already been produced by various agencies. The DRRWG has made a compilation of these and are available with UNDP and at the MIMU website.

During HFA monitoring and review process in Aug 2012 (Interim, 2011-2013), the need to review the materials is indicated in order to achieve a standard on the key messages being conveyed and the need to further “localize” these to cater to specific areas and groups in the country (i.e. ethnicity, language, hazard specific to area and for visibly impaired, etc.). Differences in ability and how men and women access information will also be considered.

Pre- and post project KAP studies will be conducted to measure impact of public awareness and training interventions conducted by the project. Where available, the project will partner with a local academic institution in developing the KAP tool and methodology. Results of the study will be published and disseminated to concerned organizations.

The project will work closely with the Relief and Resettlement Department, Department of Hydrology and Meteorology in ***reviewing existing IEC materials to ensure appropriate and standard messages and instructions are given and communicated to target communities’ at-risks***. Development of the IEC materials will be informed by the KAP study conducted during project inception stage. The study will determine appropriate messages and strategies that should be employed in the target areas.

Awareness initiatives for various groups including children, women, and other vulnerable community members will be undertaken at various levels and utilizing a variety of media. DRR awareness will be promoted into other sectors such as health, education, shelter and other sectors.

1. **Conduct community awareness campaigns**

Community awareness campaign will cover various topics and audiences at different levels of the project. Public awareness will be conducted at school, village, village tract and townships levels. Public awareness will consist of:

* Organizing township and village level public meetings and forums with DRR specialists or DMCs invited to give educational speeches, talks and discussions;
* Designing and installation of billboards at strategic public places, communicating DRR messages that would cover a range of topics from preparedness and mitigation, hazard awareness, project activities and early warning;
* School level awareness programs; and
* Distribution of IEC materials such as posters, booklets etc.

A community awareness plan will be developed by the project in coordination with DMCs, local NGOs and other stakeholders. The awareness campaigns will mobilize various departments of government (health department for health related DRR information, GAD and DMH for preparedness) and other organizations in the dissemination of relevant public information. Differences in ability and how men and women access information will also be considered.

1. **Simulation and mock drills**

Disaster Management Plans will be developed in Activity 4.2. These plans will include necessary instructions, mechanisms and provisions on early warning and evacuation. The training program developed in Activity 4.1. will include enhancing skills and capacity of community trainings EW teams and VDMCs to organize and manage actual emergency response including early warning and evacuation,

Simulation exercises and mock drills provide the opportunity to perform and test some or all of the proposed actions they would take in the event of plan activation. They will provide valuable lessons and assessment that will be used in further refining the plan and where necessary, identify additional training or resources that needs to be put in place in order to meet objectives.

The project will support local authorities in developing, organizing and implementing simulation and mock drills at village, village tract and township levels. The project will coordinate with various organizations in the development and actual conduct of the exercises.

The whole exercise will be documented and will produce materials (simulation guidelines and exercise sets) that can be used as guides in future similar exercises. These can also be used in other villages and townships as reference by the DRR organizations and the Government.

**Target Stakeholders**

***Local Disaster Management Committees -*** Township/City, Village Tract and Village level authorities, schools in pilot areas.

***UN, NGOs, Civil Society*** – local NGOS, private and civil society groups, DRRWG members, women’s groups and networks, and local/field based NGOs for support, media.

**Expected Results**

Output 2 (Result 4) focuses on enhancing capacity of local government authorities (township, village tract and village) in order to analyze risks, develop, implement, mainstream, monitor and evaluate disaster management plans. At the end of three years, the following would have been achieved in the pilot townships and villages;

* Institutional arrangements are established at township, village tract and village levels, where women’s representation in decision making is ensured
* Disaster management committees’ capacities for DRR are enhanced; Comprehensive training program is developed.
* Appropriate gender responsive systems, rules and procedures developed to facilitate effective working of the DMC. This includes planning guidelines, manuals and IEC materials.
* Risks assessments conducted in target areas; risk profiles available and database with sex disaggregated data established;
* Disaster management plans developed. Township plans incorporate Safer Village Plans; including contingency plans and school safety plans
* Pilot - demonstration projects/models implemented and documented. Including early warning and small-scale mitigation and preparedness;
* Linkages forged between academic, professional bodies, private sector and NGOs. Support generated for the project.
* Lessons learned inform policy formulation. Including mainstreaming DRR in sectoral planning.

Townships in Myanmar provide the critical link between community/village tract and national or state/region level administrative structures. At the end three years, the project would have ensured that all safer village plans would be incorporated to higher government level disaster management plans. DRR stakeholder networks and collaboration would have been promoted and support generated for the project.

## Partnership Strategy

### Strategic Partnership with Government departments and key stakeholders

The ***Ministry of Social Welfare, Relief and Resettlement,*** which is the focal agency in-charge of Disaster Risk Management in the country, will be the ***National Implementing* *Partner*** of the project. The project would provide technical assistance to the MSWRR in the implementation of the project. In collaboration with the MSWRR, the project will work with the MDPA and various Ministries, state/division, township and local government, for the design and implementation of the project.

Over a period of three years, UNDP Myanmar will work alongside national partners involved in the disaster risk reduction in the realization of project deliverables. In all project activities, UNDP will collaborate with key Government agencies such as the General Administration Department (for Village, Village Tract and Township Disaster Management Planning), the Department of Meteorology and Hydrology (for end-to-end early warning system), RRD (for development of damage and loss assessment systems); Planning Department (for DRR mainstreaming), Education and Health Departments (for DRR education, safety school planning and social services) and Agriculture and Irrigation Departments (for mitigating impact of disasters to livelihoods). UNDP will collaborate as well with other UN, INGOs, LNGOs and other organizations, especially the DRR Working Group, and the Gender Equality Network in increasing capacity for mainstreaming DRR and in linking CBDRM efforts to township and national plans. Linkage with academic, professional and private groups for research and support will be established. Finally, UNDP will facilitate the linkage with other stakeholders, including regional bodies such as ASEAN, UNISDR, RIMES, etc., to increase coverage, effectiveness and collaboration among the various DRR programs being implemented in the country.

### Resource Mobilization Strategy

The project provides a framework from which donors can support project interventions. Efforts will likewise be made to augment the project’s resources by collaborating with international development partners that have ongoing activities in Myanmar in the area of local government development and CBDRM, and committed to support the Government in disaster risk reduction and capacity building. Donors can provide resources directly (or in parallel) to the partner Government agencies or may channel resources through UNDP or the UN system.

UNDP will allocate US$1.0 million from its own resources to initiate activities of the project. The seed funding is also expected from the Bureau of Crisis Prevention and Recovery which has been supporting UNDP to strengthen DRR intervention in Myanmar since 2008. Additional financial resources will be leveraged from global and bilateral partners and the traditional donor agencies/governments for DRR, such as Norway and European Union, Japan, US Aid and AusAid. Resources for implementation of activities to achieve Result 3 (i. e. *Capacity enhanced for generation of user-relevant end-to-end early warning and effective early warning dissemination*) and the demonstration of pilot projects in Result 4 (i.e. *Disaster Management Committees at township, village tract and village levels able to develop, implement, mainstream, monitor and evaluate their Disaster Management Plans*) are also expected to channel through the Adaptation Fund and GEF-administered Least Developed Countries Fund (LDCF) under the UNFCCC.

### Gender Strategy

The Women Protection Thematic Working Group (now known as Gender Equality Network [GEN]) was formed in 2008 under the leadership of Department of Social Welfare (DSW) to respond Cyclone Nargis with specific focus on issues faced by women in cyclone-affected areas. The network now has a broader mandate by taking a more comprehensive approach to gender equality and women’s empowerment throughout Myanmar. UNDP plays an active role in GEN as Steering Committee Member and provided expertise in drafting the National Strategic Plan for Advancement of Women 2012-2021 (NSPAW) in collaboration with Department of Social Welfare (DSW). NSPAW encompasses the principles of CEDAW and the Beijing Declaration and the Beijing Platform for Action and has twelve priority areas including DRR that envision to strengthen systems, structures and practices to ensure women’s and girls’ rights to protection in emergencies and to ensure their participation in emergency preparedness, response and disaster and conflict risk reduction.

To ensure the needs and interest of the most vulnerable, including women, are considered and incorporated in the project, the following will be fostered:

* Strengthen linkage between GEN and DRR working group to effectively contribute in the implementation of DRR programs;
* Review existing training modules, curriculum, tools, and guidelines including communication materials from a gender perspective, and incorporate gender as appropriate (into the training modules, assessment tools and guidelines, etc.)
* In collaboration with DRR working group, provide technical assistance to strengthen the capacity of relevant government ministries, departments, and agencies working for DRR (gender analysis – e.g. capacities and vulnerabilities analysis] and mainstreaming in DRR interventions);
* Conduct researches and studies on 1) women’s access to information and services in emergency situation, 2) participation of women in disaster risk preparedness, emergency response, and reduction measures, 3) knowledge and capacities that belong to women and men, and 4) gender specific needs for post disaster recovery and rehabilitation processes. The findings and proposed interventions will be widely disseminated for effective DRR programming and inform decision-makers for more efficient DRR responses;
* Provide technical inputs in developing communication materials and products (documentation, media programs) for increased public awareness and to nurture the role of women as managers and the role of men as partners in DRR responses.

### Communications Strategy

Communications will be central to the success of the project. Vital to the success of the proposed initiative is the process of consultation, national and local ownership backed up by the provision of essential technical assistance and hardware resources to facilitate assessment, analysis, planning, implementation and communication.

This work is strategic, integrative, focused on inter-sectoral linkages, and always aimed at strengthening national institutions, governance capabilities and citizen participation *(in tandem with Activity 1.3)*. The project will work with the MSWRR and the Information Sub-committee under the MDPA to develop and implement the communications plan. The goal of the communications plan is to:

* Provide general and specific information to the public about the project and how people can actively contribute, thus establishing a broader and stronger constituency for the project;
* Build new partnerships between governments and civil society including local communities, indigenous people, women’s groups, the private sector and the general public;
* Enhance the government’s accountability and credibility as well as the project’s cost-effectiveness;
* Ensure effective two-way communication between the project team and stakeholders and involve them in setting priorities and allocating resources;
* Resolve potential conflicts amongst stakeholders; and
* Facilitate regional coordination with other governments and stakeholders.

The communications plan will be a written document that describes:

* What will be its objectives;
* Ways in which the objectives will be accomplished;
* Describe who is the target audience(s);
* How will the objectives be accomplished (the tools and timetable), and
* How will the results of the plan be measured (evaluation)?

Communications will include all written, spoken, and electronic interaction with target audience(s). The communication plan encompasses objectives, goals, and tools for all communications, including but not limited to:

* Periodic print publications;
* Online communications;
* Meeting and workshop materials;
* Media relations and public relations materials;
* Legal and legislative documents;
* Incoming communications,
* Committee and board minutes and communiqués;
* Corporate identity materials, including letterhead, logo, and envelopes;
* Researches, surveys and reports;
* Annual reports;
* Signage; and
* Speeches;

The different audiences and strategies include:

1. ***Internal:*** communications mechanisms will be developed for the immediate project actors i.e. MDPA, MSWRR, GAD, UNDP, Project Board, local authorities, etc. The primary internal communications mechanism will be the Project Board, which will meet at least every quarter and will keep project implementers aware of the big picture emerging from project activities as well as assist in real time monitoring of progress in project implementation.
2. ***Stakeholders*** who are to be mobilized to support the project, DMCs and Disaster Management Plans. This mobilization will require various approaches (consultations, workshops, flyers, community notice boards, community meetings, joint planning, etc.) with due consideration in difference in the ability and mechanisms men and women use to access information It will also require broad messaging at community, township, and state/region as well as at national level that creates awareness, stimulates interest and creates agreement with the targeted activities and objectives. This can be achieved through partnerships with media; DRR organizations and corporate/private organizations for support, sponsorship etc.

## Underlying Principles and Focus

In the implementation process, UNDP will follow a **participatory approach** that involves target communities and beneficiaries in all aspects of the program interventions. While pursing to achieve the objectives and ultimately the overall goal, UNDP will also adhere to principles of the **human rights-based approach** in all its activities with communities and grassroots beneficiaries and other stakeholders. In addition, **women empowerment** will be mainstreamed in all interventions. The project will focus on the following key areas to achieve project outcome:

* ***Focus on the most vulnerable***: Proper identification of the most vulnerable is crucial for UNDP to able to reach the people who warrant support. By identifying the vulnerability factors, UNDP will be able to address the needs of the vulnerable while contributing to disaster risk reduction.
* ***Focus on Women, Children and disadvantaged groups***: The programme will target specific interventions addressing the concerns of women, children and other disadvantaged groups.
* ***Strengthening governance:*** is also a priority to be attended to in order to address sustainability. All hazards and the resulting risk that can threaten a community and the country have to be considered. The complexity of disasters requires concerted effort and approach, at various levels and sectors. Local communities, Government at national and sub-national levels as well as international organizations are all partners and have a stake on DRR. Private as well as the public sector have their specific roles. Mainstreaming DRR in development planning is key at ensuring development gains are not lost or at least damage is mitigated when disasters strike.
* ***Building Partnerships***: UNDP will build close partnerships with local and International NGOs, Community Based Organizations (CBOs), academic institutions, professional bodies, private groups and business as well as with international bodies and institutions. By partnering with various organizations, UNDP would seek to build capacity to ensure the sustainability of the program and its activities through all levels.

## UNDP Comparative advantage

UNDP has a strong capacity development and governance focus in all its operations as well as a mandate for gender mainstreaming. The project formulates priorities pertaining exactly to these institutional focal areas, which are also reflected in the UNDP CPAP.

In Myanmar, UNDP has a strong link with the MSWRR and the DRRWG and its Regional Technical Advisors who can provide relevant technical guidance to the project implementation. Through the UNCT, UNDP can leverage additional support and collaboration with other development partners.

The project was developed jointly by UNDP and APRC and is informed by several meetings and workshops involving the Relief and Resettlement Department, UN, INGOs, LNGOs and other organizations[[29]](#footnote-29). Additionally, through the Country Office, project management can be supported, i.e. through competent and efficient project assurance.

# RESULTS AND RESOURCES FRAMEWORK

|  |
| --- |
| **Intended Outcome: Reduced vulnerability to natural disasters and climate change** |
| **Outcome indicators as stated in the Country Programme Results and Resources Framework, including baseline and targets:*****Outcome indicators*****Indicator 1**: Number of national and regional development plans that have incorporated DRR Baseline: to be determined during start of projectTarget (2015): a). Number of national and regional development plans that incorporate DRR b). Number of townships having completed multi-hazard risk assessments (MHRA) MoV: Project Evaluation Report, project M&E reports, MDPA reports, final capacity assessment report**Indicator 2**: Number of vulnerable communities with increased resilience to natural disasters Baseline: Standing Order on Disaster Management mandates constitution of Disaster Management Committees at State/Region, Township, Village  Tract and Village levelsTarget (2015): a). number of villages having Community Based Disaster Risk Management (CBDRM) plans and connecting into the end-to-end early warning system. MoV: Project Evaluation Report, project M&E reports, MDPA reports |
| **Applicable Key Result Area:**  |
| **Partnership Strategy:**UNDP will work with the Ministry of Social Welfare, Relief and Resettlement (MSWRR) (the National Implementing Partner, NIP) and the Department of Meteorology and Hydrology (DMH) under the Ministry of Transport, as well as with other departments such as Ministry of National Planning and Economic Development, General Administration Department under the Ministry of Home Affairs. UNDP will build on its leading role in the Disaster Risk Reduction Working Group to help build the capacity of the MSWRR, the MDPA[[30]](#footnote-30) and the Disaster Management Committees at national and sub-national levels. In addition, UNDP will work on certain actions with other UN agencies, notably UN-Habitat (urban risk mitigation), UNESCO (Safety Schools program), UNEP (Climate Change Adaptation) and FAO (Livelihoods), DRRWG (HFA and capacity development), etc.***Primary partnerships*:** The MSWRR, other departments within the MDPA at the national and sub-national level in selected divisions/states and townships; members of the DRR Working Group, academic and research institutions and Environment, Climate Change, Education, Gender and Livelihood Working Groups ***Collaboration:*** Department of Meteorology and Hydrology for enhancement of early warning; Ministry of Planning for DRR mainstreaming guidelines; Ministry of Finance for budget allocation for DRR; Ministry of Environment for DRR-CCA linkage; state/division/city government for piloting and demonstration; DRRWG members for public awareness and CBDRM; specific research/academic institutions; professional bodies such as Myanmar Engineering Society and Myanmar Geological Society; UNDP regional/global Bureau for Crisis Prevention and Recovery, UNISDR and other UNDP offices in the region. |
| **Project title:** *Building disaster resilient communities through strengthening disaster risk management institutions, systems, networks and mainstreaming DRR into development planning* |
| **INTENDED OUTPUTS** | **OUTPUT TARGETS FOR (YEARS)** | **INDICATIVE ACTIVITIES** | **RESPONSIBLE PARTIES** | **INPUTS** |
| **Output 1:****Enhanced national institutional capacity for DRR intervention and mainstreaming DRR in development planning****Indicator 1:** Number of national and regional development plans that incorporate gender responsive DRR and CCA**Indicator 2:** Number of townships having completed Multi-hazard Risk Assessments. **Indicator 3:** Increase in number of days for lead-time of location-specific flood forecasts. | **RESULT 1:** ***Enhanced capacity of DM institutions and key stakeholders to strengthen disaster risk reduction related policies, strategies, systems and networks*****Indicator 1.1**Number of national and regional development plans that incorporate DRR and CCA where Gender is mainstreamed.**Baseline:**New DM law being deliberated in Parliament. Soon to be approved**Target (2013)**Rules and regulation related to DM law is developed, approved and disseminated **Target (2015)**DRR related policy and guidelines developed (TDB); **MoV** Myanmar Government legal gazette, type and # of guidelines as produced | **Activity 1.1 Support Myanmar Disaster Preparedness Agency to promulgate DRR related policies, legal framework and strategy****Sub-activities:**1. Support formulation of National DRR policy and other subsequent policies and guidelines.
2. Support for dissemination of National DRR policy and DM law
 | MDPA, MSWRR, RRD,Parliament,Attorney General Office, DRR WG, Civil Society Organizations, NGOs. | US$480,380 |
| **Activity 1.2 Support strengthening technical and operational systems and strategies for Disaster Risk Management****Sub-activities:**1. Undertake capacity assessment of DM institutions at national and target state/region and townships
2. support development of DRR planning guidelines
3. Support the development of DRM human resources capacities through development of a comprehensive training program to enhance technical and operational capacities of MDPA and DMCs.
4. Establishment of Disaster Management Training Centre
 | MSWRR, RRDPlanning Dept.GADDMHState/Division, Township AuthoritiesDRRWG | US$759,693 |
| **Activity 1.3 Support national DRR awareness programme** **Sub-activities:**1. Support national and sub-national awareness campaigns sensitizing the population and local communities on DRR
 | MSWRR, RRD, Ministry of Information, MediaDRRWGPrivate Sector | US$ 145,590 |
| **Activity 1.4 Support for National DRR Platform on DRR** **Sub-activities:**1. Support to MDPA and DRR WG for strengthening DRR Coordination and multi-stakeholder engagement
 | MDPA, MSWRR, RRD, different line departments, DRR WG, CSO. | US$ 72,795 |
| **Activity 1.5 Support Government in meeting its international commitments****Sub-activities:**1. Support RRD in its role as national focal point for HFA, AADMER/AHA center/SASOP
2. Provide support for the engagement of GoM staff to ensure full and active participation in international, regional and national meetings, workshops, seminars, training events, etc.
 | MDPA, MSWRR, MOFA | US$ 33,000 |
|  | **RESULT 2:** ***Enhanced capacity of sector departments and development partners for mainstreaming DRR into development planning*****Indicator 1.2**Number of policy/technical guidelines on mainstreaming DRR into development sectors. **Baseline (2013)**No guidelines available on mainstreaming DRR in development planning. Available guidelines on health, education and rural shelter are limited in scope.**Target (2013)**Priority sector(s) to be identified with stakeholders.**Target (2015)**Guidelines on mainstreaming for a priority sector(s) produced.DRR incorporated into development plans of at least two national Ministries and at least one state or region.**MoV** Mainstreaming Guidelines, Pilot/demonstration report, sectoral plan indicating incorporation of DRR, Final Hyogo Framework for Action Report**Indicator 1.3**Number of townships having completed Multi-hazard Risk Assessments.**Baseline (2013)**Multi-hazard Risk Assessments have been covered in 71 townships of the Delta area and all 17 townships in Rakhine state. Other vulnerable states and regions have not prepared Multi-hazard Risk Assessments. **Target (2013)**# of townships to be determined as per need and in consultation with stakeholders. **Target (2015)**# of townships to be determined as per need and in consultation with stakeholders. **MoV** Report of Assessments, research.Project Report.  | **Activity 2.1 Build capacity of national institutions to develop policy and guidelines for mainstreaming DRR** **Sub-activities:** 1. Comprehensive review of selected sectors and national policy (ies) and programs in terms of DRR
2. Develop selected sector specific DRR mainstreaming guide and plan
 | RRD, Planning Dept., GAD, DMH, different line departments,State/Division, Township AuthoritiesDRRWG | US$208,475 |
| **Activity 2.2 Promote DRR related research to inform policy formulation, implementation and mainstreaming** **Sub-activities:** 1. Conduct Risk Assessment and DRR related research
2. Develop Linkages with academic and research institutions to promote DRR research, depository of knowledge products
3. Dissemination of research findings to support policy formulation and inform DRR discourse
 | RRD, Planning Dept., GAD, DMH, MOST, MoE, MES, MGS, different line departments,State/Division, Township AuthoritiesDRRWG | US $ 239,855 |
| **Activity 2.3 Support establishment and institutionalization of damage and loss assessment system and disaster data base (Desinventar system)**1. Set-up and configuration of National Disaster Loss Database
2. Data Collection, validation and cleaning
3. Analysis of disaster data and sharing the findings
 | RRD, GAD, DMH, ,different line departments, State/Region and Township Authorities | US $ 34,100 |
|  | **RESULT 3:** ***Capacity enhanced for generation of user-relevant end-to-end early warning and effective early warning dissemination*****Indicator 1.4**Increase in number of days for lead-time of location-specific flood forecasts;**Baseline (2013)**Current capacity for early warning is weak. Lead time is currently at 3-days**Target (2013)**Capacity and risk assessment to be conducted. **Target (2015)**User-relevant end-to-end flood forecast generation and application system developed and demonstrated in target river basins in Myanmar**MoV**Regular warning bulletins, user feedback, project M&E reports | **Activity 3.1 Support improvement of end-to-end flood forecast generation and application System****Sub-activities:**1. Support to enhance observation and monitoring capacities on flood
2. Generation of Long-lead Location-specific Flood Forecast Products
3. Generation and communication of location-specific flood risk information
 | RRD, GAD, DMHSelected Research and academic InstitutionsRIMESAPRC-BCPRState/Division, Township AuthoritiesMinistry of Information, Media | US$964,752 |
| **Activity 3.2 Support improvement of end-to-end early warning mechanism at community level****Sub-activities:**1. Public education and awareness on early warning
2. Strengthening community preparedness to respond to early warning
3. Strengthening community resilience through application of weather forecast information
 | RRD, GAD, DMHState/Division, Township AuthoritiesRIMES | US$ 231,616 |
| **INTENDED OUTPUTS** | **OUTPUT TARGETS FOR (YEARS)** | **INDICATIVE ACTIVITIES** | **RESPONSIBLE PARTIES** | **INPUTS** |
| **Output 2****Enhanced resilience of vulnerable communities to natural hazards** **Indicator 4:** Number of villages having gender responsive Community Based Disaster Risk Management (CBDRM) plans and connecting into the end-to-end early warning system.  | **RESULT 4*****Disaster Management Committees at township, village tract and village levels able to develop, implement, mainstream, monitor and evaluate their Disaster Management Plans*****Indicator 2.1**Number of villages having gender responsive Community Based Disaster Risk Management (CBDRM) plans and connecting into the end-to-end early warning system. **Baseline**1034 villages have been trained in CBDRM during 2009-2012. Early Warning mechanism in place, but needs to be strengthened to reach to the communities at risk **Target (2013)**DMCs established in target villages for Year 1, and VDMC members trained in Village Safer Planning. 30% of year 1 target villages develop Safer Village Plans; **Target (2015)**VDMCs are established in all target townships, 100% of staff are trained and show competence in implementing gender responsive risk reduction, 100% of target villages develop Safer Village Plans**MoV**Annual DMC reports, project M&E indicators, capacity assessment**Indicator 2.2**# of households and # of men and women within households demonstrating increased knowledge and practice of DRR measures**Baseline**On-going CBDRM by different organizations. Various IEC materials produced and distributed. Coverage however is limited. **Target (2013)**Not applicable at start of program. Knowledge, Attitude, Practice (KAP) KAP Assessment which covers gender mainstreaming capacity to be conducted during inception **Target (2015)**60% of households in target villages implementing at least 3 DRR measures compared to KAP baseline and parity in participation of men and women**MoV**Pre and post project KAP assessment, project generated reports  | **Activity 4.1****Support capacity development of DMCs at township, village tract and village levels****Sub-activities:**1. Activate DMC in target township, village tracts and villages
2. Support for comprehensive training program to enhance technical and operational capacities of DMCs
3. Support documentation, monitoring and evaluation of disaster management planning and implementation
 | RRD, GAD, DMHState/Division, Township Authoritiesdifferent line departments at township levelNGOs, Civil Society Organizations,Private Sector  | US$386,175 |
| **Activity 4.2****Disaster Management Planning at Township, Village Tract and Villages****Sub-activities:**1. Conduct Risk Assessments – including hazard mapping using more robust methodology such as GPS-GIS system, vulnerability and capacity assessment
2. Support for Disaster Management Planning
3. Linkage with other groups for generating support to DMPs
 | RRD, GAD, DMHState/Division, Township Authoritiesdifferent line departments at township levelNGOs, Civil Society Organizations,Private Sector  | US$ 646,302 |
| **Activity 4.3 Implementation of risk reduction measures****Sub-activities:**1. Small-grants for preparedness and mitigation measures
 | RRD, GAD, DMHState/Division, Township Authoritiesdifferent line departments at township levelNGOs, Civil Society Organizations,Private Sector  | US$3,518,925 |
| **Activity 4.4 Community education and risk awareness** **Sub-activities:**1. Development and production of IEC materials
2. Conduct public awareness campaigns
3. Simulation and mock drills
 | RRD, GAD, DMH, MoE, Ministry of Information,State/Division, Township Authoritiesdifferent line departments at township levelNGOs, Civil Society Organizations,Private Sector | US$138,475 |
| Project Management Cost | US $ 234,260 |
| GMS | US $405,607 |
| **TOTAL** | **US$ 8,500,000** |

# ANNUAL WORK PLAN

**Year: 2013**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **EXPECTED OUTPUTS***And baseline, associated indicators and annual targets* | **PLANNED ACTIVITIES***List activity results and associated actions*  | **TIMEFRAME** | **RESPONSIBLE PARTY** | **PLANNED BUDGET** |
| Q1 | Q2 | Q3 | Q4 | Funding Source | Budget Description | Amount |
| **Output 1:**Enhanced national institutional capacity for DRR intervention and mainstreaming DRR in development planning**Indicator 1.1**Number of national and regional development plans that incorporate gender responsive DRR and CCA where Gender is mainstreamed.**Baseline:**New DM law being deliberated in Parliament. Soon to be approved**Target (2013)**Rules and regulation related to DM law is developed, approved and disseminated **Target (2015)**DRR related policy and guidelines developed (TDB); **MoV** Myanmar Government legal gazette, type and # of guidelines as produced**Indicator 1.2**Number of policy/technical guidelines on mainstreaming DRR into development sectors. **Baseline (2013)**No guidelines available on mainstreaming DRR in development planning. Available guidelines on health, education and rural shelter are limited in scope**Target (2013)**Priority sector(s) to be identified with stakeholders.**Target (2015)**Guidelines on mainstreaming for a priority sector(s) produced.DRR incorporated into development plans of at least two national Ministries and at least one state or region.**MoV** Mainstreaming Guidelines, Pilot/demonstration report, sectoral plan indicating incorporation of DRR, Final Hyogo Framework for Action Report**Indicator 1.3**Number of townships having completed Multi-hazard Risk Assessments.**Baseline (2013)**Multi-hazard Risk Assessments have been covered in 71 townships of the Delta area and all 17 townships in Rakhine state. Other vulnerable states and regions have not prepared Multi-hazard Risk Assessments. **Target (2013)**# of townships to be determined as per need and in consultation with stakeholders. **Target (2015)**# of townships to be determined as per need and in consultation with stakeholders. **MoV** Report of Assessments, research.Project Report.**Indicator 1.4**Increase in number of days for lead-time of location-specific flood forecasts;**Baseline (2013)**Current capacity for early warning is weak. Lead time is currently at 3-days**Target (2013)**Capacity and risk assessment to be conducted. **Target (2015)**User-relevant end-to-end flood forecast generation and application system developed and demonstrated in target river basins in Myanmar**MoV**Regular warning bulletins, user feedback, project M&E reports | **RESULT 1:** ***Enhanced capacity of DM institutions and key stakeholders to strengthen disaster risk reduction related policies, strategies, systems and networks*****Activity 1.1**Support Myanmar Disaster Preparedness Agency to promulgate DRR related policies, legal framework and strategy**Activity 1.2**Support strengthening technical and operational systems and strategies for Disaster Risk Management**Activity 1.3**Support DRR national awareness**Activity 1.4** Support for National DRR Platform on DRR **Activity 1.5**Support Government in meeting its international commitments |  |  |  |  | MSWRR | CoreNon-core | Fees for studies/research and capacity assessment on sectoral planningTools/guideline development (including production and dissemination)Multi-hazard risk assessment (including production and dissemination)Support for meetings, workshops and planning (including travel)Pilot / demonstration on DRR mainstreaming | US$463,650 |
| **RESULT 2:** ***Enhanced capacity of sector departments and development partners for mainstreaming DRR into development planning*****Activity 2.1**Build capacity of national institutions to develop policy and guidelines for mainstreaming DRR**Activity 2.2**Promote DRR related research to inform policy formulation, implementation and mainstreaming **Activity 2.3**Support establishment and institutionalization of damage and loss assessment system and disaster data base (Desinventar system) |  |  |  |  | MSWRR | CoreNon-core | Fees for studies/research and capacity assessment consultancies in MDPATool/guideline developmentSupport for meetings, workshops and planning (including travel)Training and awareness programs; IEC development and production | US$223,250 |
| **RESULT 3:** ***Capacity enhanced for generation of user-relevant end-to-end early warning and effective early warning dissemination*****Activity 3.1**Support improvement of end-to-end flood forecast generation and application System**Activity 3.2** Support improvement of end-to-end early warning mechanism at community level |  |  |  |  | MSWRR,DMH | Non-core | Fees for studies/research and capacity assessment consultancies on EWSupport for weather and flood forecasting stationsTools/guideline developmentSupport for meetings, workshops and planning (including travel)Pilot / demonstration on EW including training and awareness programs; IEC development and productionSupport for establishing database system (DesInventar and risk profiles) | US$503,572 |
| **Output 2****Enhanced resilience of vulnerable communities to natural hazards** **Indicator 2.1**Number of villages having gender responsive Community Based Disaster Risk Management (CBDRM) plans and connecting into the end-to-end early warning system. **Baseline**1034 villages have been trained in CBDRM during 2009-2012. Early Warning mechanism in place, but needs to be strengthened to reach to the communities at risk **Target (2013)**DMCs established in target villages for Year 1, and VDMC members trained in Village Safer Planning. 30% of year 1 target villages develop Safer Village Plans; **Target (2015)**VDMCs are established in all target townships, 100% of staff are trained and show competence in implementing gender responsive risk reduction, 100% of target villages develop Safer Village Plans**MoV**Annual DMC reports, project M&E indicators, capacity assessment **Indicator 2.2**# of households and # of men and women within households demonstrating increased knowledge and practice of DRR measures**Baseline**On-going CBDRM by different organizations. Various IEC materials produced and distributed. Coverage however is limited. **Target (2013)**Not applicable at start of program. Knowledge, Attitude, Practice (KAP) KAP Assessment which covers gender mainstreaming capacity to be conducted during inception **Target (2015)**60% of households in target villages implementing at least 3 DRR measures compared to KAP baseline and parity in participation of men and women**MoV**Pre and post project KAP assessment, project generated reports | **RESULT 4*****Disaster Management Committees at township, village tract and village levels able to develop, implement, mainstream, monitor and evaluate their Disaster Management Plans*****Activity 4.1**Support capacity development of DMCs at township, village tract and village levels**Activity 4.2**Disaster Management Planning at Township, Village Tract and Villages**Activity 4.3**Implementation of risk reduction measures**Activity 4.4**Community education and risk awareness  |  |  |  |  | MSWRR | CoreNon-core | Fees for studies/research and capacity assessment consultancies (sub-national level)Tools/guideline developmentSupport for meetings, workshops and planning (including travel)Community risk assessment (including production and dissemination)Pilot / demonstration on EW including training and awareness programs; IEC development and production (community level)Community awareness (including media campaign) | US$0 |
| **Project Management Cost** |  | **70,800** |
| **GMS** |  | **35,250** |
| **TOTAL** |  | **1,296,522** |

**Year: 2014**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **EXPECTED OUTPUTS***And baseline, associated indicators and annual targets* | **PLANNED ACTIVITIES***List activity results and associated actions*  | **TIMEFRAME** | **RESPONSIBLE PARTY** | **PLANNED BUDGET** |
| Q1 | Q2 | Q3 | Q4 | Funding Source | Budget Description | Amount |
| **Output 1:**Enhanced national institutional capacity for DRR intervention and mainstreaming DRR in development planning**Indicator 1.1**Number of national and regional development plans that incorporate gender responsive DRR and CCA where Gender is mainstreamed.**Baseline:**New DM law being deliberated in Parliament. Soon to be approved**Target (2013)**Rules and regulation related to DM law is developed, approved and disseminated **Target (2015)**DRR related policy and guidelines developed (TDB); **MoV** Myanmar Government legal gazette, type and # of guidelines as produced**Indicator 1.2**Number of policy/technical guidelines on mainstreaming DRR into development sectors. **Baseline (2013)**No guidelines available on mainstreaming DRR in development planning. Available guidelines on health, education and rural shelter are limited in scope**Target (2013)**Priority sector(s) to be identified with stakeholders.**Target (2015)**Guidelines on mainstreaming for a priority sector(s) produced.DRR incorporated into development plans of at least two national Ministries and at least one state or region.**MoV** Mainstreaming Guidelines, Pilot/demonstration report, sectoral plan indicating incorporation of DRR, Final Hyogo Framework for Action Report**Indicator 1.3**Number of townships having completed Multi-hazard Risk Assessments.**Baseline (2013)**Multi-hazard Risk Assessments have been covered in 71 townships of the Delta area and all 17 townships in Rakhine state. Other vulnerable states and regions have not prepared Multi-hazard Risk Assessments. **Target (2013)**# of townships to be determined as per need and in consultation with stakeholders. **Target (2015)**# of townships to be determined as per need and in consultation with stakeholders. **MoV** Report of Assessments, research.Project Report.**Indicator 1.4**Increase in number of days for lead-time of location-specific flood forecasts;**Baseline (2013)**Current capacity for early warning is weak. Lead time is currently at 3-days**Target (2013)**Capacity and risk assessment to be conducted. **Target (2015)**User-relevant end-to-end flood forecast generation and application system developed and demonstrated in target river basins in Myanmar**MoV**Regular warning bulletins, user feedback, project M&E reports | **RESULT 1:** ***Enhanced capacity of DM institutions and key stakeholders to strengthen disaster risk reduction related policies, strategies systems and networks*****Activity 1.1**Support Myanmar Disaster Preparedness Agency to promulgate DRR related policies, legal framework and strategy**Activity 1.2**Support strengthening technical and operational systems and strategies for Disaster Risk Management**Activity 1.3**Support DRR national awareness**Activity 1.4** Support for National DRR Platform on DRR **Activity 1.5**Support Government in meeting its international commitments |  |  |  |  | MSWRR | CoreBCPRNon-core | Fees for studies/research and capacity assessment on sectoral planningTools/guideline development (including production and dissemination)Multi-hazard risk assessment (including production and dissemination)Support for meetings, workshops and planning (including travel)Pilot / demonstration on DRR mainstreaming | US$543,530 |
| **RESULT 2:** ***Enhanced capacity of sector departments and development partners for mainstreaming DRR into development planning*****Activity 2.1**Build capacity of national institutions to develop policy and guidelines for mainstreaming DRR**Activity 2.2**Promote DRR related research to inform policy formulation, implementation and mainstreaming **Activity 2.3**Support establishment and institutionalization of damage and loss assessment system and disaster data base (Desinventar system) |  |  |  |  | MSWRR | CoreNon-core | Fees for studies/research and capacity assessment consultancies in MDPATool/guideline developmentSupport for meetings, workshops and planning (including travel)Training and awareness programs; IEC development and production | US$136,740 |
| **RESULT 3:** ***Capacity enhanced for generation of user-relevant end-to-end early warning and effective early warning dissemination*****Activity 3.1**Support improvement of end-to-end flood forecast generation and application System**Activity 3.2** Support improvement of end-to-end early warning mechanism at community level |  |  |  |  | MSWRR | CoreNon-core | Fees for studies/research and capacity assessment consultancies on EWSupport for weather and flood forecasting stationsTools/guideline developmentSupport for meetings, workshops and planning (including travel)Pilot / demonstration on EW including training and awareness programs; IEC development and productionSupport for establishing database system (DesInventar and risk profiles) | US$472,221 |
| **Output 2****Enhanced resilience of vulnerable communities to natural hazards** **Indicator 2.1**Number of villages having gender responsive Community Based Disaster Risk Management (CBDRM) plans and connecting into the end-to-end early warning system. **Baseline**1034 villages have been trained in CBDRM during 2009-2012. Early Warning mechanism in place, but needs to be strengthened to reach to the communities at risk **Target (2013)**DMCs established in target villages for Year 1, and VDMC members trained in Village Safer Planning. 30% of year 1 target villages develop Safer Village Plans; **Target (2015)**VDMCs are established in all target townships, 100% of staff are trained and show competence in implementing gender responsive risk reduction, 100% of target villages develop Safer Village Plans**MoV**Annual DMC reports, project M&E indicators, capacity assessment **Indicator 2.2**# of households and # of men and women within households demonstrating increased knowledge and practice of DRR measures**Baseline**On-going CBDRM by different organizations. Various IEC materials produced and distributed. Coverage however is limited. **Target (2013)**Not applicable at start of program. Knowledge, Attitude, Practice (KAP) KAP Assessment which covers gender mainstreaming capacity to be conducted during inception **Target (2015)**60% of households in target villages implementing at least 3 DRR measures compared to KAP baseline and parity in participation of men and women**MoV**Pre and post project KAP assessment, project generated reports | **RESULT 4*****Disaster Management Committees at township, village tract and village levels able to develop, implement, mainstream, monitor and evaluate their Disaster Management Plans*****Activity 4.1**Support capacity development of DMCs at township, village tract and village levels**Activity 4.2**Disaster Management Planning at Township, Village Tract and Villages**Activity 4.3**Implementation of risk reduction measures**Activity 4.4**Community education and risk awareness  |  |  |  |  | MSWRR | CoreNon-core | Fees for studies/research and capacity assessment consultancies (sub-national level)Tools/guideline developmentSupport for meetings, workshops and planning (including travel)Community risk assessment (including production and dissemination)Pilot / demonstration on EW including training and awareness programs; IEC development and production (community level)Community awareness (including media campaign) | US$2,344,950 |
| **Project Management Cost** |  | **81,730** |
| **GMS** |  | **196,061** |
| **TOTAL** |  |  |  |  |  |  |  |  | **3,775,232** |

**Year: 2015**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **EXPECTED OUTPUTS***And baseline, associated indicators and annual targets* | **PLANNED ACTIVITIES***List activity results and associated actions*  | **TIMEFRAME** | **RESPONSIBLE PARTY** | **PLANNED BUDGET** |
| Q1 | Q2 | Q3 | Q4 | Funding Source | Budget Description | Amount |
| **Output 1:**Enhanced national institutional capacity for DRR intervention and mainstreaming DRR in development planning**Indicator 1.1**Number of national and regional development plans that incorporate gender responsive DRR and CCA where Gender is mainstreamed.**Baseline:**New DM law being deliberated in Parliament. Soon to be approved**Target (2013)**Rules and regulation related to DM law is developed, approved and disseminated **Target (2015)**DRR related policy and guidelines developed (TDB); **MoV** Myanmar Government legal gazette, type and # of guidelines as produced**Indicator 1.2**Number of policy/technical guidelines on mainstreaming DRR into development sectors. **Baseline (2013)**No guidelines available on mainstreaming DRR in development planning. Available guidelines on health, education and rural shelter are limited in scope**Target (2013)**Priority sector(s) to be identified with stakeholders.**Target (2015)**Guidelines on mainstreaming for a priority sector(s) produced.DRR incorporated into development plans of at least two national Ministries and at least one state or region.**MoV** Mainstreaming Guidelines, Pilot/demonstration report, sectoral plan indicating incorporation of DRR, Final Hyogo Framework for Action Report**Indicator 1.3**Number of townships having completed Multi-hazard Risk Assessments.**Baseline (2013)**Multi-hazard Risk Assessments have been covered in 71 townships of the Delta area and all 17 townships in Rakhine state. Other vulnerable states and regions have not prepared Multi-hazard Risk Assessments. **Target (2013)**# of townships to be determined as per need and in consultation with stakeholders. **Target (2015)**# of townships to be determined as per need and in consultation with stakeholders. **MoV** Report of Assessments, research.Project Report.**Indicator 1.4**Increase in number of days for lead-time of location-specific flood forecasts;**Baseline (2013)**Current capacity for early warning is weak. Lead time is currently at 3-days**Target (2013)**Capacity and risk assessment to be conducted. **Target (2015)**User-relevant end-to-end flood forecast generation and application system developed and demonstrated in target river basins in Myanmar**MoV**Regular warning bulletins, user feedback, project M&E reports | **RESULT 1:** ***Enhanced capacity of DM institutions and key stakeholders to strengthen disaster risk reduction related policies, strategies systems and networks*****Activity 1.1**Support Myanmar Disaster Preparedness Agency to promulgate DRR related policies, legal framework and strategy**Activity 1.2**Support strengthening technical and operational systems and strategies for Disaster Risk Management**Activity 1.3**Support DRR national awareness**Activity 1.4** Support for National DRR Platform on DRR **Activity 1.5**Support Government in meeting its international commitments |  |  |  |  | MSWRR | CoreBCPRNon-core | Fees for studies/research and capacity assessment on sectoral planningTools/guideline development (including production and dissemination)Multi-hazard risk assessment (including production and dissemination)Support for meetings, workshops and planning (including travel)Pilot / demonstration on DRR mainstreaming | US$484,278 |
| **RESULT 2:** ***Enhanced capacity of sector departments and development partners for mainstreaming DRR into development planning*****Activity 2.1**Build capacity of national institutions to develop policy and guidelines for mainstreaming DRR**Activity 2.2**Promote DRR related research to inform policy formulation, implementation and mainstreaming **Activity 2.3**Support establishment and institutionalization of damage and loss assessment system and disaster data base (Desinventar system) |  |  |  |  | MSWRR | CoreNon-core | Fees for studies/research and capacity assessment consultancies in MDPATool/guideline developmentSupport for meetings, workshops and planning (including travel)Training and awareness programs; IEC development and production | US$ 122,440 |
| **RESULT 3:** ***Capacity enhanced for generation of user-relevant end-to-end early warning and effective early warning dissemination***Capacity enhanced for generation of user-relevant end-to-end early warning and effective early warning dissemination**Activity 3.1**Support improvement of end-to-end flood forecast generation and application System**Activity 3.2** Support improvement of end-to-end early warning mechanism at community level |  |  |  |  | MSWRR | CoreNon-core | Fees for studies/research and capacity assessment consultancies on EWSupport for weather and flood forecasting stationsTools/guideline developmentSupport for meetings, workshops and planning (including travel)Pilot / demonstration on EW including training and awareness programs; IEC development and productionSupport for establishing database system (DesInventar and risk profiles) | US $ 220,574 |
| **Output 2****Enhanced resilience of vulnerable communities to natural hazards** **Indicator 2.1**Number of villages having gender responsive Community Based Disaster Risk Management (CBDRM) plans and connecting into the end-to-end early warning system. **Baseline**1034 villages have been trained in CBDRM during 2009-2012. Early Warning mechanism in place, but needs to be strengthened to reach to the communities at risk **Target (2013)**DMCs established in target villages for Year 1, and VDMC members trained in Village Safer Planning. 30% of year 1 target villages develop Safer Village Plans; **Target (2015)**VDMCs are established in all target townships, 100% of staff are trained and show competence in implementing gender responsive risk reduction, 100% of target villages develop Safer Village Plans**MoV**Annual DMC reports, project M&E indicators, capacity assessment **Indicator 2.2**# of households and # of men and women within households demonstrating increased knowledge and practice of DRR measures**Baseline**On-going CBDRM by different organizations. Various IEC materials produced and distributed. Coverage however is limited. **Target (2013)**Not applicable at start of program. Knowledge, Attitude, Practice (KAP) KAP Assessment which covers gender mainstreaming capacity to be conducted during inception **Target (2015)**60% of households in target villages implementing at least 3 DRR measures compared to KAP baseline and parity in participation of men and women**MoV**Pre and post project KAP assessment, project generated reports | **RESULT 4*****Disaster Management Committees at township, village tract and village levels able to develop, implement, mainstream, monitor and evaluate their Disaster Management Plans***Disaster Management Committees at township, village tract and village levels able to develop, implement, mainstream, monitor and evaluate their Disaster Management Plans**Activity 4.1**Support capacity development of DMCs at township, village tract and village levels**Activity 4.2**Disaster Management Planning at Township, Village Tract and Villages**Activity 4.3**Implementation of risk reduction measures**Activity 4.4**Community education and risk awareness  |  |  |  |  | MSWRR | CoreNon-core | Fees for studies/research and capacity assessment consultancies (sub-national level)Tools/guideline developmentSupport for meetings, workshops and planning (including travel)Community risk assessment (including production and dissemination)Pilot / demonstration on EW including training and awareness programs; IEC development and production (community level)Community awareness (including media campaign) | US$2,344,927 |
| **Project Management Cost** |  | **81,730** |
| **GMS** |  | **174,296** |
| **TOTAL** |  |  |  |  |  |  |  |  | **3,428,246** |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Output / Activity** | **Fund Source** | **2013** | **2014** | **2015** | **TOTAL** |
| **Result 1** |
| Activity 1.1 | Core: | 0 | 14,500 | 14,500 | 29,000 |
| Non-core | 233,900 | 108,740 | 108,740 | 451,380 |
| Activity 1.2 | Core: | 24,500 | 26,180 | 26,180 | 76,860 |
| Non-core | 93,975 | 324,055 | 264,803 | 682,833 |
| Activity 1.3 | Core: | 8,200 | 29,000 | 29,000 | 66,200 |
| Non-core | 60,650 | 9,370 | 9,370 | 79,390 |
| Activity 1.4 | Core: | 13,200 | 16,000 | 16,000 | 45,200 |
| Non-core | 18,225 | 4,685 | 4,685 | 27,595 |
| Activity 1.5 | Core: | 11,000 | 11,000 | 11,000 | 33,000 |
| Non-core | 0 | 0 | 0 | 0 |
|  | **Sub-total** | **463,650** | **543,530** | **484,278** | **1,491,458** |
| **Result 2** |
| Activity 2.1 | Core: | 54,000 | 38,000 | 38,000 | 130,000 |
| Non-core | 31,625 | 23,425 | 23,425 | 78,475 |
| Activity 2.2 | Core: | 61,200 | 37,590 | 37,590 | 136,380 |
| Non-core | 56,625 | 23,425 | 23,425 | 103,475 |
| Activity 2.3 | Core: | 14,800 | 14,300 | 0 | 29,100 |
| Non-core | 5,000 | 0 | 0 | 5,000 |
|  | **Sub-total** | **223,250** | **136,740** | **122,440** | **482,430** |
| **Result 3** |
| Activity 3.1 | Core: | 0 | 0 | 0 | 0 |
| Non-core | 473840 | 363930 | 126981 | 964752 |
| Activity 3.2 | Core: | 0 | 0 | 0 | 0 |
| Non-core | 29732 | 108291 | 93593 | 231616 |
|  | **Sub-total** | **503572.08** | **472221.12** | **220574.32** | **1196367.5** |
| **Result 4** |
| Activity 4.1 | Core: | 0 | 8000 | 8000 | 16000 |
| Non-core | 0 | 148088 | 222088 | 370175 |
| Activity 4.2 | Core: | 0 | 10000 | 10000 | 20000 |
| Non-core | 0 | 279463 | 346840 | 626302 |
| Activity 4.3 | Core: | 0 | 10000 | 10000 | 20000 |
| Non-core | 0 | 1822963 | 1675963 | 3498925 |
| Activity 4.4 | Core: | 0 | 7000 | 7000 | 14000 |
| Non-core | 0 | 59438 | 65038 | 124475 |
|   | **Sub-total** | **0** | **2344950** | **2344927** | **4689877** |
| Management Cost | Core: | 70800 | 56730 | 56730 | 184260 |
|   | Non-core | 0 | 25000 | 25000 | 50000 |
|   | **Sub-total** | 70800 | 81730 | 81730 | 234260 |
| GMS | Non-core | 35250 | 196061 | 174296 | 405607 |
| **TOTAL** | Core: | 257,700 | 278,300 | 264,000 | 800,000 |
| Non-core | 1,038,822 | 3,471,932 | 3,139,246 | 7,700,000 |
|  | **Total** | **1,296,522** | **3,750,232** | **3,403,246** | **8,500,000** |

# MANAGEMENT ARRANGEMENTS

The Project will be **implemented by** the Ministry of Social Welfare, Relief and Resettlement (MSWRR). Implementation oversight will be by UNDP.

Detailed TORs for each entity are included in Annex 2 and 3.

***Day-to-day management***

As per UNDP guidelines, a ***National Project Director*** (NPD) nominated by MSWRR will be responsible for the management of the project under the overall guidance of the MSWRR and in accordance to workplans and budgets and the Project Board.

A ***National Project Manager*** will be hired under the project for the day-to-day management under the supervision of the NPD. The National Project Manager will have extensive national and international experience in disaster risk management. The overall management responsibility of the project rests with the appointed Project Manager and his/her support team. The Project Manager is primarily responsible for leading project planning, implementation, financial management and M&E (see detailed TOR in Annex 2).

***Project oversight***

A Project Board shall be established at the national level to review and decide on policy, approval of periodic reports and workplans and substantive issues including changes, if any, in program strategy, contents and priorities. The Project Board will meet quarterly during the first year to review the progress of the project, determine whether the project products meet the set quality standards and approve proposed work plans and at least twice a year or as determined by need in the succeeding years. The Project Board will be comprised of the following:

1. UNDP (Project Executive)
2. MSWRR (implementing agency)
3. Ministry of National Planning and Economic Development
4. Department of Meteorology and Hydrology
5. Representative from State/Region (to be determined)
6. DRRWG representative (to be determined)
7. Local NGO representative (to be determined)
8. Representative from other UN Agencies (to be determined)
9. National Project Director
10. National Project Manager

***Project Coordination Committees*** (PCC) will be formed at Township levels. The PCC will review project progress quarterly and will provide strategic inputs regarding project implementation, including mobilization of additional resources if needed. The members of the PCC are:

1. State / Region Head of General Administration Department (or appointed representative)
2. State/Regional head of RRD
3. District Head of General Administration Department
4. District Head of RRD
5. GAD township head
6. Township Authorities representative
7. UNDP Township Manager
8. Local NGO representative (to be determined)
9. Others (e.g. academicians, private groups) (to be determined)

***Technical, policy and programme guidance***

A technical team within RRD shall be established. The composition of the team includes technical staff to ensure that critical aspects of the project will be adequately addressed. The M&E unit as well other technical specialists at UNDP, as well as the experts from the DRRWG can provide additional technical support and oversight as needed

***Project assurance***

The UNDP country office, through its Country Director and supported by the UNDP DRR program analyst, is responsible for project assurance and ensures that financing, reporting and M&E are duly implemented. Project assurance includes periodic monitoring visits and “spot checks” concerning project implementation.

***Implementation arrangements***

The Project Team will take office at the Relief and Resettlement Department premises and from there coordinate implementation arrangements. It is, however, noted that this project will be implemented by a number of important partners, notably a range of line Ministries and other organizations, especially those under the DRRWG as per output. Contracts will potentially be drawn up with implementation partners and resources will be allocated for such work to partner institutions.

 **Project Organizational Structure**

**Project Board**

 UNDP

Senior Supplier

Project Support Team

Project Coordinator

Admin/finance Assistant

Logistic Assistant

 Project Coordination Committee

Delta-based

 Project Coordination Committee

Dry zone-based

Project Management Unit (NPT or YGN based)

Project Manager

Technical Advisor

Project Coordinator

Admin/finance Assistant

 MSWRR

Executive

 MNPED & DMH

Senior Beneficiary

**Project Assurance UNDP**

 Project Coordination Committee

(DMH)

Project Support Team

Project Coordinator

Admin/finance Assistant

Logistic Assistant

Project Support Team

Project Coordinator

Admin/finance Assistant

Logistic Assistant

# MONITORING AND EVALUATION FRAMEWORK

In accordance with the programming policies and procedures outlined in the UNDP Programme and Operations Policies and Procedures, the project will be monitored through the following:

***Within the annual cycle***

* On a quarterly basis, a quality assessment shall record progress towards the completion of key results, based on quality criteria and methods captured in the Quality Management table below.
* An Issue Log shall be activated in Atlas and updated by the Project Manager to facilitate tracking and resolution of potential problems or requests for change.
* Based on the initial risk analysis submitted (see annex 1), a risk log shall be activated in Atlas and regularly updated by reviewing the external environment that may affect the project implementation.
* Based on the above information recorded in Atlas, a Quarterly Progress Reports (QPR) shall be submitted by the Project Manager to the Project Board through Project Assurance, using the standard report format available in the Executive Snapshot.
* A project Lesson-learned log shall be activated and regularly updated to ensure on-going learning and adaptation within the organization, and to facilitate the preparation of the Lessons-learned Report at the end of the project
* A Monitoring Schedule Plan shall be developed during the inception period of project execution and activated in Atlas and updated to track key management actions/events
* A project inception workshop will be conducted with the full project team, Project Director, relevant government counterparts, non-state partners, the UNDP-CO as appropriate. The fundamental objective of the inception workshop will be to assist the project team to understand and take ownership of the project’s goals and objectives, as well as finalize preparation of the project’s first annual work plan on the basis of the project’s log-frame matrix. This will include reviewing the logframe (indicators, means of verification, assumptions), imparting additional detail as needed, and on the basis of this exercise, finalize the Annual Operational Plan (AOP) with precise and measurable performance (process and output) indicators, and in a manner consistent with the expected outcomes for the project.

Additionally, the purpose of the inception workshop will be to: (i) introduce project staff to the UNDP expanded team which will support the project during its implementation, namely the CO and responsible Project Management Unit (PMU) staff; (ii) detail the roles, support services and complementary responsibilities of UNDP-CO and Project staff with respect to the project team; (iii) provide a detailed overview of UNDP reporting and monitoring and evaluation (M&E) requirements, with particular emphasis on the combined Annual Project Reports -Annual Project Implementation Reviews (APR/PIRs), as well as midterm and final evaluations. The initiation workshop will also provide an opportunity to inform the project team on UNDP project-related budgetary planning, budget reviews, and mandatory budget re-phasing.

***Annually***

* ***Annual Monitoring*** will occur through the Annual Project Review meeting. This is the highest policy-level meeting of the parties directly involved in the implementation of a project. The project will be subject to Project Board meetings on a quarterly basis. The first such meeting will be held within the first three months following the initiation workshop. For each year-end meeting of the PB, the PMU will prepare harmonized Annual Project Report / Project Implementation Reviews (APR/PIR) and submit it to UNDP-CO, the UNDP Regional Bureau, and all PB members at least two weeks prior to the meeting for review and comments.
* ***Annual Review Report***. An Annual Review Report shall be prepared by the Project Manager and shared with the Project Board. As minimum requirement, the Annual Review Report shall consist of the Atlas standard format for the QPR covering the whole year with updated information for each above element of the QPR as well as a summary of results achieved against pre-defined annual targets at the output level.
* ***Annual Project Review***. Based on the above report, an annual project review shall be conducted during the fourth quarter of the year or soon after, to assess the performance of the project and appraise the Annual Operational Plan (AOP) for the following year. In the last year, this review will be a final assessment. This review is driven by the Project Board and may involve other stakeholders as required. It shall focus on the extent to which progress is being made towards outputs, and that these remain aligned to appropriate outcomes.

***Evaluations***

* An independent mid-term evaluation (MTE) will be undertaken at the end of the second year of project implementation. The MTE will determine progress being made towards the achievement of outcomes and will identify corrective actions, as needed. The MTE will focus on: a) the cost effectiveness, efficiency and timeliness of project implementation and performance; b) highlight issues requiring decisions and actions; and c) present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project’s term. The organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between UNDP and MSWRR. The Terms of Reference for this MTE will be prepared by the UNDP-CO based on guidance from the UNDP Regional Bureau.
* An independent final evaluation will take place three months prior to the terminal tripartite review meeting, and will focus on the same issues as the mid-term evaluation. The final evaluation will also look at project outcomes and their sustainability. The final evaluation should also provide recommendations for follow-up activities, as appropriate. The terms of reference for the final evaluation will be prepared by the UNDP-CO based on guidance from the UNDP-Regional Bureau.

***Quality Management for Project Activity Results***

*To be completed during the project Inception Period. Replicate the table for each activity result of the AOP to provide information on monitoring actions based on quality criteria*

|  |
| --- |
| **OUTPUT 1:** |
| **Activity Result 1**(Atlas Activity ID) | Short title to be used for Atlas Activity ID | **Start Date**:**End Date:** |
| **Purpose** | What is the purpose of the activity? |
| **Description** | Planned actions to produce the activity result. |
| **Quality Criteria**How/with what indicators the quality of the activity result will be measured? | **Quality Method**Means of verification. What method will be used to determine if quality criteria has been met? | **Date of Assessment**When will the assessment of quality be performed? |

|  |
| --- |
| **OUTPUT 1:** |
| **Activity Result 2**(Atlas Activity ID) | Short title to be used for Atlas Activity ID | **Start Date**:**End Date:** |
| **Purpose** | What is the purpose of the activity? |
| **Description** | Planned actions to produce the activity result. |
| **Quality Criteria**How/with what indicators the quality of the activity result will be measured? | **Quality Method**Means of verification. What method will be used to determine if quality criteria has been met? | **Date of Assessment**When will the assessment of quality be performed? |
| **OUTPUT 1:** |
| **Activity Result 3**(Atlas Activity ID) | Short title to be used for Atlas Activity ID | **Start Date**:**End Date:** |
| **Purpose** | What is the purpose of the activity? |
| **Description** | Planned actions to produce the activity result. |
| **Quality Criteria**How/with what indicators the quality of the activity result will be measured? | **Quality Method**Means of verification. What method will be used to determine if quality criteria has been met? | **Date of Assessment**When will the assessment of quality be performed? |
| **OUTPUT 2:** |
| **Activity Result 4**(Atlas Activity ID) | Short title to be used for Atlas Activity ID | **Start Date**:**End Date:** |
| **Purpose** | What is the purpose of the activity? |
| **Description** | Planned actions to produce the activity result. |
| **Quality Criteria**How/with what indicators the quality of the activity result will be measured? | **Quality Method**Means of verification. What method will be used to determine if quality criteria has been met? | **Date of Assessment**When will the assessment of quality be performed? |

# LEGAL CONTEXT

This document together with the CPAP signed by the Government and UNDP which is incorporated by reference constitute together a Project Document as referred to in the SBAA and all CPAP provisions apply to this document.

Consistent with the Article III of the Standard Basic Assistance Agreement, the responsibility for the safety and security of the implementing partner and its personnel and property, and of UNDP’s property in the implementing partner’s custody, rests with the implementing partner.

The implementing partner shall:

1. put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
2. assume all risks and liabilities related to the implementing partner’s security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The implementing partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via <http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm>. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

# Annexes

## Annex 1: Risk Log

|  |  |  |
| --- | --- | --- |
| Project Title:  | Award ID: | Date: |
| **#** | **Description** | **Date Identified** | **Type** | **Impact & Probability****(1 – 5)** | **Countermeasures / Mgmt. response** | **Owner** | **Submitted, updated by** | **Last Update** | **Status** |
| 1 | Non-responsive / lack of Gov’t management responses | October 2012 | Operational | P = 4I = 4 | Create political will for change by supporting MSWRR (RRD) in bringing together other line ministries to come together and discuss integrated policy making  |  |  |  |  |
| 2 | Project Management: technical capacities overstretched for managing complex and large project | October 2012 | Operational | P = 4I = 5 | Include Project Manager and Technical Advisor position in project design; extensive training activities included in the design |  |  |  |  |
| 3 | Organizational: implementation arrangements difficult to set-up (i.e. collaboration with line Ministries) | October 2012 | Operational | P = 3I = 4 | Include key Ministries in Project Board (i.e. Planning, Finance) |  |  |  |  |
| 4 | Local Authorities resist to involve civil society organizations in the decision-making process - Local Authorities lack of enthusiasm  | October 2012 | Political | P = 3I = 4 | Involvement of the Minister/Ministry responsible for Local Government in sensitizing local authorities  |  |  |  |  |
| 5 | Insufficient resources to implement the Township and Village Disaster Management Plans activities  | October 2012 | Regulatory | Lack of funding for DMCs; P = 3I = 4 | Identification of available existing resources during the capacity assessment; involve CSO/DRRWG in project processes  |  |  |  |  |
| 6 | Change in Local Government  | October 2012 | Political | New administration might not provide same level of support to project P = 3 I = 3  | Ensure involvement of other political parties before and during implementation to get buy-in  |  |  |  |  |
| 7 | Low participation by DMC members | October 2012 | Other | Partially successful training sessions - Intended catalytic effect of project will be affected P = 3 I = 3  | Organization of meetings with DMC members to seek buy-in; Capacity development of PB and PCC members through training  |  |  |  |  |
| 8 | Partnerships fail to deliver  | October 2012 | Strategic | Lack of clarity on responsible parties’ role within the project - Responsible Parties’ lack of commitment P = 3 I = 3  | Annual Work Plan and Quarterly Work Plans to be developed on a timely fashion - Project Manager to ensure proper monitoring of activities - Quarterly meetings of project steering committee to re-affirm commitment of partners  |  |  |  |  |
| 9 | Community groups not receptive to proposed interventions | October 2012 | Social | P = 2I = 3 | The project suggests a participatory approach aimed at building capacities of communities allowing their full engagement in the project delivery. It is hoped that facilitating active participation will improve community “buy-in‟ to suggested processes. |  |  |  |  |
| 10 | InsufficientAcknowledgement of gender roles in deliveries. | October 2012 | Social | P = 3 I = 3 | The proposed approach on engendering deliverables is one not commonly considered within the national context. The project has built within its activities specialized interventions aimed at increasing stakeholders consideration of gender issues. |  |  |  |  |
| 11 | Sustainability ofProposed interventions | October 2012 | Economic | P = 3 I = 3 | Project interventions have been developed closely with the principal beneficiary group and were ensured to complement ongoing efforts in the area of disaster risk management. It was ensured that interventions fit within a national agenda |  |  |  |  |
| 12 | Staff turnover in project or within partner agency | October 2012 | Organizational | P = 3 I = 3 | Disruptions within the PMU and within staff complements attached to the project can result in a lag in execution as new individuals are brought into the process. In the event of loss of PMU staff the UNDP CO will take on direct management of the project allowing continuity in project actions. Partner agencies will be asked to have alternates briefed in project allowing for smooth transition in the event of staff changes of key participating personnel. |  |  |  |  |

## Annex 2: Terms of Reference for Project Staff

1. **Project Manager**
* Plan the activities of the project and monitor progress against the initial quality criteria;
* Mobilize goods and services to initiative activities, including drafting TORs and work specifications;
* Monitor events as determined in the Project Monitoring Schedule Plan, and update the plan as required;
* Manage requests for the provision of financial resources by UNDP, using advance of funds, direct payments, or reimbursement;
* Monitor financial resources and accounting to ensure accuracy and reliability of financial reports;
* Responsible for preparing and submitting financial reports to UNDP on a quarterly basis;
* Manage and monitor the project risks initially identified, submit new risks to the Project Board for consideration and decision on possible actions if required; update the status of these risks by maintaining the Project Risks Log;
* Be responsible for managing issues and requests for change by maintaining an Issues Log;
* Prepare the Project Progress Report (progress against planned activities, update on Risks and Issues, expenditures) and submit the report to the Project Board and Project Assurance;
* Prepare the Annual Review Report, and submit the report to the Project Board;
* Annual Performance Report (APR)/Project Implementation Review (PIR)
* Prepare the AWP for the following year, as well as Quarterly Plans if required;
* Update the Atlas Project Management module if external access is made available.
* Review technical reports
* Monitor technical activities carried out by responsible parties
1. **Technical Advisor**
* Provide technical expertise and guidance to all project components, and support the PM in the coordination of the implementation of planned activities under the project as stipulated in the project document/work plan;
* Specifically responsible for the technical input into the development of all outcomes; includes carrying out critical project activities with the project team and/or with the support of international specialists and national experts as appropriate;
* Ensure that technical contracts meet the highest standards; provide input into development of Terms of Reference for sub-contracts, assist with selection process, recommend best candidates and approaches, provide technical peer function to sub-contractors; provide training and backstopping were necessary;
* Provide technical inputs into the work of the multi-stakeholder coordination mechanism at all levels and other relevant institutions;
* Give input into the development of technical training packages for all target groups and provide peer review function; in certain cases carry out selected training events;
* Serve in a mentoring and back stopping function to staff of RRD, as relevant;
* Assist the PM in the development of a effective project M&E plan; jointly design and implement M&E activities;
* Advise on key policy and legal issues pertaining to the project; engage on and contribute to policy dialogues on all levels, including the national level;
* Undertake regular reporting in line with project management guidelines.
1. **Programme Specialist**
* Support CO programme in mainstreaming and implementation of Disaster Risk Reduction;
* Implementation of the Disaster Risk Reduction programme on the ground ensuring linkage of DRR with the other UNDP programmes;
* Support in enhancing DRR capacity within programme and project units and amongst UNDP project staff.
* Design, formulate & implement Disaster Risk Reduction project, translating UNDP’s priorities into programmatic interventions.
* Devise participation strategies that involves the Government, community, local NGOs/CBOs;
* Coordinate program implementation with executing/implementing agencies and monitor project progress, delivery and results
* Financial monitoring and identification of operational and financial problems and development of solutions
* Support the CO in identifying opportunities for joint project/programme development with other Programme Units and/or other UN agencies
* Provide technical guidance to the UNDP project personnel for effective day-to-day program implementation
* Support in building strategic partnerships for and in the implementation of the UNDP resource mobilization strategy
* Support preparation of funding proposals and briefing documents for donors and other agencies, organize donor and partner briefings for resource mobilization
* Comply with donor reporting requirements, assist in report preparation, both narrative and financial aspects
* Coordinate with the Government counterparts and various stakeholders for effective coordination and policy dialogue in the field of Disaster Risk Reduction
* Monitor project progress and ensure timely programme delivery on the ground
* Identify and document DRR programming best practices and lessons learned. Disseminate and mainstream resultant learnings into UNDP’s broader corporate knowledge networks.
1. **Project Admin/Finance and logistic Assistant**
* Set up and maintain project files
* Collect project related information data
* Update plans
* Administer Project Board meetings
* Administer project revision control
* Establish document control procedures
* Compile, copy and distribute all project reports
* Assist in the financial management tasks under the responsibility of the Project Manager
* Provide support in the use of Atlas for monitoring and reporting
* Responsible for procurement
* Under guidance of the PM, provide inputs into the preparation of project working plans and financial plans, as required by Government and UNDP, in collaboration with project staff
* Ensure proper management of funds consistent with UNDP requirements, and budget planning and control
* Responsible and accountable for financial reporting

## Annex 3 : Key Responsibilities of Units

1. **Project Board**
* Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;
* Address project issues as raised by the Project Manager;
* Provide guidance and agree on possible countermeasures/management actions to address specific risks;
* Agree on Project Manager’s tolerances as required;
* Review the Project Progress Report and provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans.
* Review Combined Delivery Reports (CDR) prior to certification by the Implementing Partner;
* Appraise the Project Annual Review Report, make recommendations for the next AWP, and inform the Board about the results of the review.
* Provide ad-hoc direction and advice for exception situations when project manager’s tolerances are exceeded;
* Assess and decide on project changes through revisions;
	1. **Senior Supplier:** Usually a UNDP representative is the Senior Supplier, representing the interests of the parties concerned that provide funding and/or technical expertise to the project. He/she will provide guidance regarding technical feasibility and support to the project.
	2. **Executive:** Ministry of Social Welfare Relief and Resettlement. Represents project ownership and Chairs the Project Board.
	3. **Direct Beneficiaries:** The Ministry of National Planning and Economic Development shall be the primary beneficiary of the Project. Representatives from other agencies involved in the project implementation will likewise benefit.
1. **Project Assurance**

UNDP has main responsibility for project assurance. UNDP has an M&E unit as well as other technical experts that can provide input and oversight. Project Assurance is independent of the Project Manager. The assigned UNDP Programme Officer will hold primary responsibility for Project Assurance. This role supports the project implementation by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed. Project assurance shall:

* Ensure that funds are made available to the project;
* Ensure that risks and issues are properly managed, and that the logs in Atlas are regularly updated;
* Ensure that critical project information is monitored and updated in Atlas, using the Activity Quality Assessment page in particular;
* Ensure that Project Progress Reports are prepared and submitted on time, and according to standards in terms of format and content quality;
* Ensure that financial reports are submitted to UNDP on time, and that CDRs are prepared and submitted to the Project Board;
* Perform oversight activities, such as periodic monitoring visits and “spot checks”.
* Ensure that the Project Data Quality Dashboard remains “green”
1. **UNDP Programme Manager** (UNDP Resident Representative or delegated authority):
* Approve and sign the Annual Work Plan for the following year;
* Approve budget for the first year in Atlas.

## Annex 4: Myanmar DRR Capacity Assessment (Preliminary Report)

Please see the attached Myanmar DRR Capacity Assessment (Preliminary Report)

## Annex 5: Project Workplan

|  |  |  |  |
| --- | --- | --- | --- |
| **INTENDED OUTPUTS** | 2013 | 2014 | 2015 |
| Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| **Output 1: Enhanced national institutional capacity for DRR** |
| **RESULT 1: Enhanced capacity of DM institutions and key stakeholders to strengthen disaster risk reduction related policies, strategies and networks** |
| **Activity 1.1 Support MDPA to effectively promulgate DRR policy and strategic framework** |
| **Sub-activities** |  |  |  |  |  |  |  |  |  |  |  |   |
| a. Support formulation of National DRR policy and other subsequent policies and guidelines. |   |   |   |   |   |   |   |   |   |   |   |   |
| b. Support for development and dissemination of Disaster Management Law, Rules and Regulations |   |   |   |   |   |   |   |   |   |   |   |   |
| **Activity 1.2 Support strengthening technical and operational systems and strategies for Disaster Risk Management** |
| **Sub-activities** |  |  |  |  |  |  |  |  |  |  |  |   |
| 1. Undertake capacity assessment of Disaster Management institutions at national and target states/regions
 |   |   |   |   |   |   |   |   |   |   |   |   |
| 1. support development of DRR planning guidelines
 |   |   |   |   |   |   |   |   |   |   |   |   |
| 1. Support the development of DRM human resources capacities through development of a comprehensive training program to enhance technical and operational capacities of MDPA and DMCs.
 |   |   |   |   |   |   |   |   |   |   |   |   |
| 1. Establishment of Disaster Management Training Centre
 |  |  |  |  |  |  |  |  |  |  |  |  |
| **Activity 1.3 Support DRR national awareness** |
| **Sub-activities** |   |   |   |   |   |   |   |   |   |   |   |   |
| 1. Support national and sub-national awareness campaigns sensitizing the population and local communities on DRR
 |   |   |   |   |   |   |   |   |   |   |   |   |
| **Activity 1.4 Support for National DRR Platform on DRR** |
| **Sub-activities** |  |  |  |  |  |  |  |  |  |  |  |   |
| 1. Support to MDPA and DRR WG for strengthening DRR Coordination and multi-stakeholder engagement
 |   |   |   |   |   |   |   |   |   |   |   |   |
| **Activity 1.5 Support Government in meeting its international commitments** |
| **Sub-activities** |  |  |  |  |  |  |  |  |  |  |  |   |
| 1. Support RRD in its role as national focal point for HFA, AADMER/AHA center/SASOP
 |   |   |   |   |   |   |   |   |   |   |   |   |
| b.   Provide support for the engagement of GoM staff to ensure full and active participation in international, regional and national meetings, workshops, seminars, training events, etc. |   |   |   |   |   |   |   |   |   |   |   |   |
| **RESULT 2: Enhanced capacity of sector departments and development partners for mainstreaming DRR into development planning** |
| **Activity 2.1 Build capacity of national institutions to develop policy and guidelines for mainstreaming DRR** |
| **Sub-activities** |  |  |  |  |  |  |  |  |  |  |  |   |
| 1. Comprehensive review of selected sectors and national policy (ies) and programs in terms of DRR.
 |   |   |   |   |   |   |   |   |   |   |   |   |
| 1. Develop selected sector specific DRR mainstreaming guide and plan
 |   |   |   |   |   |   |   |   |   |   |   |   |
| **Activity 2.2 Promote DRR related research to inform policy formulation, implementation and mainstreaming**  |
| **Sub-activities** |   |   |   |   |   |   |   |   |   |   |   |   |
| 1. Conduct Risk Assessment and DRR related research
 |   |   |   |   |   |   |   |   |   |   |   |   |
| 1. Develop Linkages with academic and research institutions to promote DRR research, depository of knowledge products
 |   |   |   |   |   |   |   |   |   |   |   |   |
| 1. Dissemination of research findings to support policy formulation and inform DRR discourse
 |   |   |   |   |   |   |   |   |   |   |   |   |
| **Activity 2.3 Support establishment and institutionalization of damage and loss assessment system and disaster data base (Desinventar system)** |
| **Sub-activities** |  |  |  |  |  |  |  |  |  |  |  |   |
| 1. Set-up and configuration of National Disaster Loss Database
 |   |   |   |   |   |   |   |   |   |   |   |   |
| 1. Data Collection, validation and cleaning
 |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Analysis of disaster data and sharing the findings
 |  |  |  |  |  |  |  |  |  |  |  |  |
| **RESULT 3: Capacity enhanced for generation of user-relevant end-to-end early warning and effective early warning dissemination** |
| **Activity 3.1 Support improvement of end-to-end flood forecast generation and application System** |
| 1. Support to enhance observation and monitoring capacities on flood
 |   |   |   |   |   |   |   |   |   |   |   |   |
| 1. Generation of Long-lead Location-specific Flood Forecast Products
 |   |   |   |   |   |   |   |   |   |   |   |   |
| 1. Generation and communication of location-specific flood risk information
 |   |   |   |   |   |   |   |   |   |   |   |   |
| **Activity 3.2 Support improvement of end-to-end early warning mechanism at community level** |
| 1. Public education and awareness on early warning
 |   |   |   |   |   |   |   |   |   |   |   |   |
| 1. Strengthening community preparedness to respond to early warning
 |   |   |   |   |   |   |   |   |   |   |   |   |
| 1. Strengthening community resilience through application of weather forecast information
 |   |   |   |   |   |   |   |   |   |   |   |   |
| **Output 2: Resilience of at-risk and vulnerable communities and groups to natural hazards is enhanced** |
| **RESULT 4: Disaster Management Committees at township, village tract and village levels able to develop, implement, monitor and evaluate their Disaster management Plans** |
| **Activity 4.1 Support capacity development of DMCs at township, village tract and village levels**  |
| **Sub-activities** |  |  |  |  |  |  |  |  |  |  |  |   |
| 1. Activate DMC in target township, village tracts and villages
 |   |   |   |   |   |   |   |   |   |   |   |   |
| 1. Support for comprehensive training program to enhance technical and operational capacities of DMCs
 |   |   |   |   |   |   |   |   |   |   |   |   |
| 1. Support documentation, monitoring and evaluation of disaster management planning, implementation and mainstreaming
 |   |   |   |   |   |   |   |   |   |   |   |   |
| **Activity 4.2 Disaster Management Planning at Township, Village Tract and Villages** |
| **Sub-activities** |  |  |  |  |  |  |  |  |  |  |  |   |
| 1. Conduct Risk Assessments – including hazard mapping using more robust methodology such as GPS-GIS system, vulnerability and capacity assessment
 |   |   |   |   |   |   |   |   |   |   |   |   |
| 1. Support for Disaster Management Planning
 |   |   |   |   |   |   |   |   |   |   |   |   |
| 1. Linkage with other groups for generating support to DMPs
 |   |   |   |   |   |   |   |   |   |   |   |   |
| **Activity 4.3 Implementation of risk reduction measures** |
| **Sub-activities** |  |  |  |  |  |  |  |  |  |  |  |   |
| 1. Small-grants for preparedness and mitigation measures
 |   |   |   |   |   |   |   |   |   |   |   |   |
| **Activity 4.4 Community education and risk awareness** |
| **Sub-activities** |  |  |  |  |  |  |  |  |  |  |  |   |
| 1. Development and production of IEC materials
 |   |   |   |   |   |   |   |   |   |   |   |   |
| 1. Conduct public awareness campaigns
 |   |   |   |   |   |   |   |   |   |   |   |   |
| 1. Simulation and mock drills
 |   |   |   |   |   |   |   |   |   |   |   |   |

1. Myanmar National Adaptation Program of Action (NAPA) 2012, National Coordinating Body: National Environmental Conservation Committee, Ministry of Environmental Conservation and Forestry, pg. 20 [↑](#footnote-ref-1)
2. Pluvial flooding can be defined as flooding that results from rainfall-generated overland flow, before the runoff enters any watercourse or sewer. Fluvial Flood occurs when rivers overflow and burst their banks, due to high or intense rainfall which flows into them. [↑](#footnote-ref-2)
3. Concluding Comments of the CEDAW Committee on Myanmar’s Second and third reports 2007 [↑](#footnote-ref-3)
4. UNISDR 2012 <http://www.unisdr.org/archive/28886> [↑](#footnote-ref-4)
5. A practical guide to National HFA monitoring and review through a multi-stakeholder engagement process 2011 – 2013; UNISDR [↑](#footnote-ref-5)
6. Relief and Resettlement Department, Final National Progress Report on the implementation of the Hyogo Framework for Action (2009-2011). 6 April 2011, pg. 5-6 [↑](#footnote-ref-6)
7. UNDP produced Multi-Hazard Risk Assessment studies in the Ayeyawaddy and Bago Divisions and Rakhine State in 2011 and 2012 respectively [↑](#footnote-ref-7)
8. Consultation on ‘*Emerging DRR Needs in Changing Context of Myanmar’*, 2nd April 2012, Central Hotel, Yangon, Central Hotel, Yangon. MRCS, FRC, ADPC & UNDP [↑](#footnote-ref-8)
9. Post-Nargis Joint Assessment Report. Pg. 25, July 2008 [↑](#footnote-ref-9)
10. Decision 5/CP.7 of the 7th Conference of the Parties (COP) acknowledged the specific situation of LDCs and established an LDC work programme. Decision 28/CP.7 adopted the guidelines for NAPAs, and Decision 29/CP.7 set up an LDC Expert Group (LEG) to provide guidance and advice on the preparation and implementation strategy for NAPAs [↑](#footnote-ref-10)
11. Terminal Evaluation Of The UNEP GEF Projects “Enabling Activities For The Preparation Of A National Adaptation Programme Of Action (NAPA)”. 2008. Mauritania, Senegal, Djibouti, Haiti, Comoros, Tanzania, Uganda, Liberia, Lesotho, Rwanda, The Gambia, Central African Republic And Afghanistan. Final Report – Synthesis Of Findings. [↑](#footnote-ref-11)
12. MAPDRR, 2012 [↑](#footnote-ref-12)
13. UNDP, Mainstreaming Disaster Risk Reduction into Development Practice at the National Level: A Practical Framework [↑](#footnote-ref-13)
14. ibid. [↑](#footnote-ref-14)
15. A practical guide to National HFA monitoring and review through a multi-stakeholder engagement process 2011 – 2013; UNISDR [↑](#footnote-ref-15)
16. [www.aseansec.org/publications/**AADMER**%20WP%202011.pdf](http://www.aseansec.org/publications/AADMER%20WP%202011.pdf); Strategic Component Four : Recovery; extracted 16 Oct. 2012 [↑](#footnote-ref-16)
17. To be included in the National DRR Communications Strategy to be developed under Activity 1.4 [↑](#footnote-ref-17)
18. different from review in Activity 1.2 which is for policy formulation and DRR mainstreaming. i.e. sector review. [↑](#footnote-ref-18)
19. A Preliminary Myanmar DRR Capacity Assessment was done during project formulation stage. See Annex 4 [↑](#footnote-ref-19)
20. where there is internal capacity at RRD-MSWRR or MNPED to conduct the review, they will be engaged to facilitate the review. If not, other options will be studied (e.g. maybe engaging a University or research institution or contracting a consultant. [↑](#footnote-ref-20)
21. Words into Action: A Guide for Implementing the Hyogyo Framework [↑](#footnote-ref-21)
22. Where available, existing mainstreaming tools will be used and adapted to the Myanmar country context and needs [↑](#footnote-ref-22)
23. Proposal for *“Development and Implementation of User-Relevant End-to-End Flood Forecast Generation and Application System for Disaster Mitigation in the Ayeyarwady, Chindwin, Sittoung Basins”* – Myanmar; DMH, RIMES, 8 Feb. 2012 [↑](#footnote-ref-23)
24. Regional Integrated Multi-Hazard Early Warning System for Africa and Asia. Based in Bangkok, Thailand. An international and intergovernmental institution, owned and managed by its Member States, for the generation and application of early warning information. [↑](#footnote-ref-24)
25. Focus will be in coastal and dry zone. This line of activity will reinforce work of pillar 1 in strengthening organizational capacity of CBOs. [↑](#footnote-ref-25)
26. This line of activity will provide technical resource material for work on DRR awareness referenced in pillar 1 [↑](#footnote-ref-26)
27. Complimentary but different from national assessment which is focused on national institutions and staff. This assessment is at local level. The training program to be developed as a result of the assessment is different as well from the training program at national level. [↑](#footnote-ref-27)
28. ibid [↑](#footnote-ref-28)
29. Through individual meetings; HFA workshops; Delta workshop [↑](#footnote-ref-29)
30. Inter-ministerial body for disaster risk management in Myanmar [↑](#footnote-ref-30)