

# Philippines

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

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## Outcomes for 2007-2009

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### Area 1

*The more effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction.*

#### **Outcomes:**

The legal and institutional bases for mainstreaming DRR in development at all levels have been given a boost with the passage of RA 10121 or the Disaster Risk Reduction and Management Act of 2010. With this legal framework, responsibilities and the authority for implementing DRR measures have been decentralized to local governments. Decentralization, which has been going on even before the passage of the law, is proceeding apace not only horizontally among local, regional and national levels but also across sectors. Substantial progress has been achieved in this area as well but with recognized limitations in terms of financial resources and operational capacities. The national development agency or NEDA has stepped up its efforts to integrate DRR in development planning at all levels, as one of the declared policies in the DRRM Act is to mainstream DRR and climate change in development processes. Also, Administrative Order 1 was issued by the President on 17 September 2010, directing the LGUs, particularly the provinces, to adopt and use the DRR Mainstreaming Guidelines in their development planning activities. The Guidelines are currently being rolled out to provinces.

Another sector that has progressed substantially in this regard is the environment sector. In 2009, RA 9729 or the Climate Change Act of 2009 was passed to ensure that national and subnational government policies, plans, programs and projects are founded upon sound environmental considerations and the principle of sustainable development and to systematically integrate the concept of climate change in policy formulation, development plans, poverty reduction strategies, among others by all government agencies.

Institutional arrangements for coordination are also being improved between NDRRMC and Climate Change Commission with the signing of a Memorandum of Agreement between these two bodies.

### Area 2

*The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards.*

#### **Outcomes:**

Capacity development and strengthening of institutions and mechanisms at all levels have continued apace, particularly at the local and community levels, as the government recognizes that DRR is primarily a local process and DRR measures need to be implemented at the local level with the participation of the community in order to be truly effective. The national government through the years had made ties not only with local government units and communities but also with civil society and international players to strengthen the Philippine disaster management system, including DRR.

The Strategic National Action Plan (SNAP) for DRR, which is now being reviewed in light of RA 10121 and RA 9729, contains a strategy that focuses on safety and well-being enhancement that aims to increase capacity, reduce vulnerability and achieve improved public safety and well-being and build resilience to disasters.

The NDRRMC has also adopted community-based disaster risk management (CBDRM) as a model to

engage communities in DRR undertaking. A Strategic Plan to Integrate Community-Based Disaster Risk Management (SP-CBDRM) for 2007-2011 has been crafted as part of the Partnerships for Disaster Reduction in Southeast Asia (PDRSEA). Nevertheless, it is recognized as well that, while preparedness measures are undertaken by some groups in communities, the linkages of these with the larger municipal, provincial and regional response and other post-event mechanisms is still weak. Ways and means to systematically involve volunteers and community members in contingency planning exercises and development processes should be done by the local government. Roles and responsibilities need to be therefore assigned to all stakeholders.

### **Area 3**

*The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities.*

#### **Outcomes:**

Disaster preparedness has been strengthened at the national level. Efforts to familiarize the cluster coordination mechanism to different parts of the country have been stepped up to contribute to local disaster preparedness. Its usefulness has been proven at the provincial level, cultivating a team spirit among humanitarian actors which synchronized activities by cluster. Much is achieved through regular information sharing and joint planning. Manuals and training modules for different target groups are increasing in number and quality is expected to improve from feedback with usage and knowledge building.

Good practices have been identified through Gawad Kalasag. Improvements in disaster preparedness is improved by continuing dialogues among different stakeholders, good understanding of hazard maps and risk, mobilization towards the cluster approach, existence of updated contingency plan, regular conduct of drills, installation of early warning devices (such as flood markers), and the use of local calamity fund for preparedness and mitigation.

Although good cases exist, there is still a disconnect between national and local level capacities. Updating contingency plans poses a challenge to most LGUs. Also, different hazards identified needs corresponding appropriate emergency preparedness methods.

## **Strategic goals**

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### **Area 1**

*The more effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction.*

#### **Strategic Goal Statement:**

-- not complete --

### **Area 2**

*The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards.*

**Strategic Goal Statement:**

-- not complete --

**Area 3**

*The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities.*

**Strategic Goal Statement:**

-- not complete --

**Priority for action 1**

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

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**Priority for action 1: Core indicator 1**

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

**Level of Progress achieved:**

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

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

Yes

**Means of verification:**

\* Yes: National development plan

\* Yes: Sector strategies and plans

\* Yes: Climate change policy and strategy

\* Yes: Poverty reduction strategy papers

\* Yes: Common Country Assessments (CCA)/ UN Development Assistance Framework (UNDAF)

**Description:**

At the national level, DRR finds institutional foundation with the passage of the DRRM Act of 2010 (RA 10121) and its Implementing Rules and Regulations supported by the Climate Change Act of 2009 (RA 9729), which complement each other. The DRRM Act also calls for the development of a National DRR and Management Framework and National DRR and Management Plan, which will build on, reinforce and harmonize with the current Strategic National Action Plan (SNAP) per Executive Order 888. The National Strategic Framework for Climate Change recognizes and adopts DRR as one of its strong pillars, while integration of CCA are likewise being pursued by mandated agencies. Existing policies, plans, and projects of the different sectors are now being reviewed to ensure alignment with the National DRRM framework and action plan, which are now currently being prepared.

The DRRM Act empowers local governments and communities to enforce DRR measures to effectively address their respective risks. In terms of decentralization, sectoral agencies led by the National Economic and Development Authority are implementing the Mainstreaming Disaster Risk Reduction in Subnational Development and Land Use/ Physical Planning project. A new mandate has been given on 17 September 2010 when the Office of the President issued Administrative Order No. 1 directing the local government units, particularly the provinces, to adopt the DRR Mainstreaming Guidelines and use it in their planning activities. The guideline, launched in July 2009, is being rolled out to all provinces and capacity building activities are being conducted under the NEDA/ UNDP/AusAID Integrating DRR/CCA Project.

The Medium Term Philippine Development Plan 2004-2010 has also incorporated DRR issues and investment projects dealing with environment and natural resources. The government is currently formulating a new MTPDP (2010-2016) and DRM and climate change are considered cross cutting issues and would therefore be reflected in all relevant chapters.

Meanwhile, the Department of Interior and Local Government spearheads the mainstreaming of DRRM/CCA in local government systems that are considered at high risk to natural disasters, starting with seven provinces and cities by integrating DRRM and CCA concerns into local Comprehensive Land Use Plans, Comprehensive Development Plans, and investment programs. Local governments will then have bases for enacting appropriate ordinances that reduce risks, e.g., settlement/housing, building standards.

DRR mainstreaming efforts in different sectors such as local governance, education, and public works have been sustained and are paving the way towards the replication of efforts in the other sectors of society. Different stakeholders such as donor organizations and CSOs have acknowledged the importance of concerted and coordinated efforts towards DRRM.

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

The twin laws on DRR (RA 10121 or DRRM Act of 2010) and CCA (RA 9729 or Climate Change Act of 2009) have common goals and objectives: to increase resilience of communities and the country against natural disasters and reduce damage and losses due to disasters. Implementation of these complementary laws should also then feed on each other's efforts to attain more holistic and cost-effective outcomes on the ground where it matters.

Further, the National DRRM Framework which will be developed has been preceded by other policies and plans such as the SNAP as well as by sectoral programs and project and other earlier initiatives implementing DRR. There is thus an urgent need to pursue coordination mechanisms between the primary institutions responsible for climate change and DRR, i.e. CCC and NDRRMC, respectively.

For instance, the development of the integrated DRR/CCA methodology is dependent on inputs from complementary initiatives, hence there is a need for concerned government agencies together with partner agencies to continue harmonizing their ongoing initiatives especially at the local level to ensure that they reinforce one another and synergized towards moving forward rather than developing parallel methodologies.

The challenge then is to harmonize different plans and initiatives under a strategic DRRM framework which also integrates CCA, while sustaining existing DRR efforts by providing continuity through strong democratic leadership and direction.

Capacity development is yet another challenge in terms of institutional and technical implementation of these laws at various levels from the local to the national. There is a need to Conscious effort to build

local expertise, particularly on climate change. Advocacy campaign and capacity building for DRR should also be scaled up and reach more stakeholders.

## **Priority for action 1: Core indicator 2**

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

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

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

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

Yes

### **Means of verification:**

\* TBD % allocated from national budget

\* 0 USD allocated from overseas development assistance fund

\* TBD USD allocated to hazard proofing sectoral development investments (e.g transport, agriculture, infrastructure)

\* 0 USD allocated to stand alone DRR investments (e.g. DRR institutions, risk assessments, early warning systems)

\* 0 USD allocated to disaster proofing post disaster reconstruction

### **Description:**

The DRRM Act allocates specific budget for DRRM by providing clear and continuing appropriation for DRR of Php5.0B (around USD 111 million) for National Disaster Risk Reduction and Management Fund 30 percent of which is reserved as Quick Response Fund. Php 1 Billion (around USD 22 million) has been allocated to the Office of Civil Defense as a revolving fund to enable it to perform its strengthened mandate under RA 10121. Aside for the NDRRM Fund, the law also encourages and authorizes government to use a portion of their budget appropriations to implement projects designed to address DRRM activities in accordance with the guidelines to be issued by the NDRRM Council in coordination with the Department of Budget Management. The Strategic Framework on Climate Change also provides avenues for financing DRR activities.

Other sources and financing mechanisms for funding DRR initiatives are also available. One is the development financing for disaster management activities which includes the DOF/MDFO-Disaster Management Fund, Sector Investment Loan (SIL) for mitigation, preparedness and response and the proposed Catastrophe Deferred Drawdown for rehabilitation and reconstruction.

### **Context & Constraints:**

At the national level, PhP1 billion has been allocated by the law as OCD's revolving fund. However, this has not been included in General Appropriations Act for 2011.

Aside from allocating financial resources for DRR institutions like OCD and authorizing mandated agencies to allot a portion of their budget for DRR activities, there is a need to know where investments in DRR have been and/or are being made by various government agencies, including local governments, as well as the sources of funds. A database to track investments and resources allocations for DRR

activities will expedite programming of future investments and resources and make such investments more effective and will be useful for an effective monitoring and evaluation system as part of the DRRM action plan implementation.

While windows of opportunity for financing DRR activities are available, the questions on how these funds can be accessed, mobilized and utilized, particularly for local governments where funds for DRR are scarce. Local governments need to be further capacitated on how to access and utilize resources to meet their DRR requirements.

### **Priority for action 1: Core indicator 3**

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

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

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

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

Yes

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

\* Yes: Legislation

\* Yes: Budget allocations for DRR to local government

#### **Description:**

RA 10121 mandates local government units (LGUs) to set aside not less than five percent (5%) of the estimated revenue from regular sources as the Local DRRM Fund to support disaster risk management activities such as, but not limited to, pre-disaster preparedness programs including training, purchasing life-saving rescue equipment, supplies and medicines, for post-disaster activities, and for the payment of premiums on calamity insurance. It also mandates the creation/establishment of DRRM Office. Based on a recent inventory on DRRM structures, and information among provinces 45 of 80 provinces have DRRM units/offices and 23 of 80 province have permanent staff.

It likewise provides for the LGUs to prepare the annual LDRRMO Plan and budget, the proposed programming of the LDRRMF, other dedicated disaster risk reduction and management resources, and other regular funding source/s and budgetary support of the LDRRMO/BDRRMC. This strengthens the legal and institutional capacities of LGUs for self-determination through devolution and decentralization of responsibilities and authority that have been bestowed upon them by the Local Government Act since 1991.

The Climate Change Act of 2009 provides for the formulation of Local Climate Change Action Plan by LGUs. Administrative Order 1, series 2010 directs LGUs particularly the provinces to adopt and use in their planning activity DRR mainstreaming guidelines. Guidelines have also been issued by the Budget Department and Commission on Audit for the use and monitoring of LDRRMF.

Programs are also being implemented by the DILG and LGUs that include the promotion of LGU innovative and indigenous coping mechanisms and practices to mitigate effects of disasters and climate changes (supported by Oxfam and AusAID) as well as capacity development through knowledge management through development of advocacy and communication program, documentation of cross learning experiences and best practices as well as important lessons learned, and generation of

localized and indigenous IEC materials integrating local experiences.

The OCD in consultation with various stakeholders will also prepare the criteria and procedure for the enlistment of accredited community disaster volunteers (ACDVs), including a manual of operations for the volunteers, as mandated by the DRRM Act.

**Context & Constraints:**

Local good governance, where DRR takes place in reality, is still the exception rather than the rule. Implementation of DRR activities are still highly influenced by local political agenda and interests. As in the national and provincial/regional levels, monitoring and evaluation of progress made in DRR vis-à-vis the resources and investment made in such activities should be established.

For this to take place, cascading down of HFA monitoring, by localizing the HFA process as well as the monitoring and reporting system will have to be started by mandated national government agencies and local governments in collaboration with the leagues.

Knowledge management at the local level (cities, municipalities, barangays, and communities) is very much needed. Cascading down the knowledge accumulated from various countries should be done to facilitate replication of sound practices in good governance that incorporates DRR.

**Priority for action 1: Core indicator 4**

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

**Level of Progress achieved:**

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

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

-- not complete --

**Means of verification:**

- \* 4 civil society members (specify absolute number)
- \* 34 sectoral organisations (specify absolute number)
- \* 1 women's organisations participating in national platform (specify absolute number)

**Description:**

Multi-sectoral representation is provided according to the DRRM Act. Council membership in the NDRRMC and LDRRMCs are reserved for four CSOs and one from the Private sector.

CSO participation have always been recognized and welcomed. Memoranda of Agreement have been entered into by OCD with partner CSOs. All important DRR instruments such as the law and its implementing rules and regulations and the SNAP themselves have been realized through national multi-stakeholder consultations. The formulation of the DRRM Strategic Framework and Action Plan will also abide by the “whole-of-society and whole-of-government approach to DRR”.

**Context & Constraints:**

The newly constituted NDRRMC needs to be energized to effectively perform its tasks as the national

platform for DRR of the Philippines. The change in government due to the recent elections provides a great opportunity for the NDRRMC to build its capacities to hone its coordination system and mechanisms, not only at the national level but also a coordinate or oversee the implementation of the country's obligations with disaster management treaties such as the Hyogo Framework for Action (HFA) and the ASEAN Agreement on Disaster Management and Emergency Response (AADMER) to which it is a party and see to it that the country's disaster management treaty obligations be incorporated in its disaster risk reduction and management frameworks, policies, plans, programs and projects.

Multi-stakeholder dialogues, whether done at the national level such as the one convened by the DILG in 2008 with support from GTZ, or in smaller forums, will further facilitate the process of collaboration and coordination among NDRRMC members as well as with other stakeholders. Based on the DRRM Act, a technical management group composed of member-agencies shall coordinate and meet as often as necessary to effectively manage and sustain national efforts on disaster risk reduction and management. Regular forums of the TMG should thus be established to ensure horizontal and vertical coordination.

As for CSO engagement, the Terms of Reference have yet to be formulated.

## **Priority for action 2**

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

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### **Priority for action 2: Core indicator 1**

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

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

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

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

Yes

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

- \* Yes: Multi-hazard risk assessment
- \* unknown % of schools and hospitals assessed
- \* unknown schools not safe from disasters (specify absolute number)
- \* No: Gender disaggregated vulnerability and capacity assessments
- \* Yes: Agreed national standards for multi hazard risk assessments

#### **Description:**

The Hazards Mapping and Assessment for Effective Community-Based Disaster Risk Management (READY Project) is now on its last year of implementation. For Component 1, multihazard identification and risk assessment have been done as follows:(1)Completed 1:50,000 scale hazard maps of the following earthquake hazards: ground rupture, ground shaking, liquefaction, earthquake-induced

landslide, and tsunami for 12 provinces; (2) Volcanic hazard maps (pyroclastic flow, lava flow and lahars) have been completed for five provinces; (3) ongoing earthquake and volcanic hazards mapping for 15 more provinces.

This inter-agency project covers 28 out of 80 provinces in the country and supported by AusAID with technical assistance from UNDP for the period 2006-2011.

The NDRRMC sub committee known as Collective Strengthening for Community Awareness to Natural Disasters or CSCAND is implementing, through the Office of Civil Defense, three additional projects aside from the READY project extension namely: Building Community Resilience and Strengthening Local Government Capacities for Recovery and Disaster Risk Management ("Resilience Project"); Enhancing Risk Analysis Capacities for Flood, Tropical Cyclone, Severe Wind and Earthquake for Greater Metro Manila ("Risk Analysis" Project); and Enhancing Greater Metro Manila's Institutional Capacities for Effective Disaster/Climate Risk Management towards Sustainable Development ("CSCAND for GMMA Project"). These projects were catalyzed by the READY project following after and improving on its established methodologies. These projects will aim at Mainstreaming DRR & CCA in Physical Framework Planning; building sustainable partnership with the scientific community; bridging the gap of science-based tools for decision-makers/takers, development planners and DRR Managers; Enhancing trust and confidence of international & regional bilateral/multilateral partners in projects implementation; and ensuring increased recognition, at all levels, that DRR's strategies are indeed interlink with CCA and it is the most basic applied discipline in pushing for progressive development, in almost all sectors. Most of these projects have highly urbanized cities of Greater Metro Manila Area as their target pertaining to its watershed, and selected cities specified.

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

Provincial hazard maps will definitely fill in a huge information gap in terms of risk maps. However, municipal and city government units, through their planning and development offices, should be capacitated to conduct their own hazard and vulnerability assessment. Risk mapping is more appropriately done at the city or municipal level, preferably at the 1:5000 or 1:10:000 scale, in order to be useful for land use planning. This will also ensure that exposure and vulnerability information at the local level will be updated regularly and make the risk maps current.

More capacity building and tools are needed. One capacity building program for local governments in risk assessment that may be scaled up is being done by PHIVOLCS. PHIVOLCS has developed its own GIS-based risk assessment tool called Rapid Earthquake Damage Assessment System (REDAS). REDAS is a tool for computing hazards (deterministic ground shaking, liquefaction, landslides, tsunami) and preparing scenarios. It contains a database of critical facilities and elements at risk (schools, bridges, urban areas, houses) that can be updated by local governments.

Capacities of relevant government agencies for flood risk assessment and other hydro-meteorological risks have to be developed as well.

#### **Priority for action 2: Core indicator 2**

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

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

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

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

Yes

**Means of verification:**

\* Yes: Disaster loss database

\* No: Reports generated and used in planning

**Description:**

In terms of monitoring hydromet hazards, PAGASA currently has 58 Synoptic Stations and 23 Agromet Stations, 42 automatic weather stations with 32 under construction to perform its monitoring and early warning functions. The target is to have 100 AWS. The Doppler Radar Program aims to install the necessary equipment in the provinces of Panay, Palawan and Zamboanga. PAGASA has also embarked on the following programs:

- Strengthening of Surface-based Monitoring Network in support of Scientific Research and Disaster Mitigation in the Philippines - Installation of 15 AWS with established communication link
- Improvement of the Meteorological Radar System that includes the radars in Aparri, Guian and Virac
- Provision of Risk Information for Sustainable Livelihood in the Agriculture Sector

Regarding geophysical hazards, maintenance and continued improvement of earthquake monitoring is done by PHIVOLCS with the use of 66 station digital seismic network -30 unmanned stations with VSAT communication; 30 manned seismic stations; 6 volcanological-seismic observatories (66 short period; 9 broadband). For Metro Manila, there is a micronetwork with 5 radio-telemetered seismic station. PHIVOLCS has also acquired two new earthquake data acquisition and processing system (Nanometrics, SeisComp3) that enables PHIVOLCS to have real-time acquisition (foreign seismic record via internet) automated location of local and global earthquakes (for tsunami assessment). Clustering of seismic stations for redundancy of earthquake processing centers and continuity of operation is likewise done. A tsunami wave monitoring tool from ITIC has been acquired to enable PHIVOLCS to follow incoming tsunami.

PHIVOLCS also continues its maintenance and improvement of volcano monitoring systems with 6 volcano observatories using various techniques, radio-telemetry short-period seismic network, two volcanoes monitored with 1-seismic sensor with radiotelemetry. Upgrading of volcano monitoring system through collaborative projects are also being implemented for Kanlaon, Taal and Mayon and other active volcanoes. A protocol is also established for releasing volcano information and tsunami alerts by PHIVOLCS.

As in the previous reporting period, some effort is done to collect data, record, and store disaster information such as casualties, population affected, damages (houses and agricultural, infrastructure and private property) and total cost of assistance by OCD through Calamidat.ph. Disaster reports are accessible through NDRRMC website.

**Context & Constraints:**

A national disaster loss database has to be pursued and implemented sustainably. For this, capacities and resources of OCD have to be further enhanced and awareness of various actors in government and non-government sectors have to be increased at the same time to make such a database useful and sustainable.

For monitoring hazards, costly equipment is required and has to be maintained and upgraded as well. Thus, investments in such scientific and technological monitoring instruments and equipment have to be done continuously.

## Priority for action 2: Core indicator 3

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

### Level of Progress achieved:

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

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

Yes

### Means of verification:

- \* Yes: Early warnings acted on effectively
- \* Yes: Local level preparedness
- \* Yes: Communication systems and protocols
- \* Yes: Active involvement of media in early warning dissemination

### Description:

In terms of flood early warning system (EWS), a community based flood EWS and Information Dissemination Network has been implemented by PAGASA. A related program is the Enhancement of Flood Forecasting and Warning System (FFWS) which utilizes three types of flood bulletins: Flood Outlook-Possibility of flooding within next 24 hours, Suggests awareness; Flood Alert - Threat of flooding within next 24 hours, Suggests preparedness; and Flood Warning - Flooding expected within next 24 hours or flooding has occurred, Suggests response. PAGASA implements the following programs:

- Establishment of Early Warning and Monitoring System for Disaster Mitigation covering Metro Manila and Rizal Province (Pasig-Marikina River Basin)
- Improvement of the Flood Forecasting and Warning System in the Pampanga and Agno River Basin involves the construction, procurement and installation of FFWS.
- Strengthening of the Flood Forecasting and Warning System for Dam Operation  
Yecovering 6 dams in Luzon
- Improvement of the Flood Forecasting and Warning System in Magat Dam and Downstream Communities
- Strengthening of the Flood Forecasting and Warning System in the Bicol River Basin

For geophysical hazards, a community—based EWS for tsunami is being piloted by PHIVOLCS in several high-risk barangays all over the country.

### Context & Constraints:

Scientific and technological capacities of early warning agencies have been improving. The other big challenge is to increase the awareness of people themselves to understand the early warning system and take action based on early warning information as well as widen the reach of early warning to get to the more vulnerable groups of society in time.

One approach that may be scaled up is the community-based early warning system that PAGASA and PHIVOLCS have already embarked on for relevant hazards. PAGASA is also looking into enhancing its cellular-based information dissemination system.

Another approach is to explore indigenous means for early warning.

## **Priority for action 2: Core indicator 4**

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

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

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

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

Yes

### **Means of verification:**

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

### **Description:**

The Philippines is an active member of the ASEAN Committee on Disaster Management (ACDM) and is currently the Chair of the ACDM. Currently, regional cooperation is underway to fully establish an operational ASEAN Coordinating Centre for Humanitarian Assistance in disaster management (AHA Centre) as mandated by the regional Agreement on Disaster Management and Emergency Response (AADMER). The AHA Centre premises, fully furnished and partially equipped, have been established by the host country of Indonesia in Jakarta as part of AADMER implementation. Simultaneously, under the AADMER Work Programme 2010-2015, regional systems for risk identification and assessment, early warning, and monitoring are in the process of being established by the ACDM. The intention is to connect national early warning and monitoring systems with the regional so that regional hazards could be taken into account at the national level.

Early warning agencies have long been a member of regional and international networks such as the World Area Forecast System (WAFS) which is a system for the world wide broadcast of aviation related weather information via satellite. There is PAGASA collaboration with ADPC and RIMES in the South China Sea as well as with neighboring countries on typhoon monitoring. Specifically for tsunami, PHIVOLS is already a part of the tsunami warning system for the Pacific region.

### **Context & Constraints:**

Plans are in the pipeline to establish a national disaster loss database to collect and organize historical data that can be then used for assessing and analyzing risks. Training on the establishment and maintenance of this tool will be done through the ACDM, tentatively set in March 2011.

The Online Southeast Asia Disaster Inventory (OSADI) and DiscNet that are regional tools to collect disaster information but have not been leveraged to support national level risk assessments. The challenge is therefore to capacitate the national disaster management organizations to establish and maintain national databases that are linked to a regional network at AHA Centre in order to share national and regional risk information. Continuous capacity development and training will have to be

undertaken to make such a system sustainable and useful for all concerned.

Data collection and sharing agreements or protocols are still needed in many countries as disaster data involve many government agencies and thus data are stored in a fragmented manner in various formats. Regional agreement is also necessary for national level data to be collected and shared in order to be useful for risk assessment of transboundary risks.

## **Priority for action 3**

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

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### **Priority for action 3: Core indicator 1**

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

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

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

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

Yes

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

\* Yes: Web page of national disaster information system

\* No: Established mechanisms for accessing DRR information

#### **Description:**

The NDCC (now NDRRMC) website provides disaster information and is accessible to those who have Internet connections. As previously reported, the Philippines also uses the web-based Global Unique Disaster Identifier (GLIDE) number established by the Asian Disaster Reduction Center (ADRC) in Japan and maintains CALAMIDAT.PH, a Philippine database of natural and human-induced disaster events that uses the code. READY multi-hazard maps are posted on the PHIVOLCS website.

Also, the Department of Social Welfare and Development (DSWD) still maintains the Disaster Response Operations Monitoring and Information Center (DROMIC) which serves as a “focal point for carrying out activities for generation of data from the local levels and other sources towards decisions for timely and appropriate response.

The annual Tropical Cyclone Disaster Review (TCDR) is a comprehensive information about the cyclone passage, damage incurred, and post evaluation survey of the Special Tropical Weather Disturbance Reconnaissance, Information Dissemination and Damage Evaluation (STRIDE) is also being continued by PAGASA. Updated information on weather forecast and bulletins (hourly updates during severe weather disturbance) are also being provided through publicly accessible social network sites such as Twitter.

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

Sharing disaster information and risk information is a huge challenge. Disaster information are fragmented and are in different types, formats, and resolution. Most information are also posted on websites, which may not be accessible to stakeholders and communities that are in the rural areas,

which are usually highly vulnerable.

More horizontal coordination and collaboration among relevant government agencies and stakeholders is necessary in order to effectively and efficiently share information on disaster risks. As mandated by the DRRM Act, OCD should ensure multi-stakeholder participation in the development, updating, and sharing of a Disaster Risk Reduction and Management Information System and Geographic Information System-based national risk map that can be used as policy, planning and decision-making tools.

Vertical coordination for sharing disaster information from the national to the local levels should be improved, particularly for local authorities in high risk areas to be able to exchange risk information and take necessary protection options.

Community-based approaches for sharing information is being done by many members of civil society and non-government organizations. However, such piecemeal approach to risk sharing has to be scaled up and be made comprehensive by making it all-hazards and widening its geographic coverage.

### **Priority for action 3: Core indicator 2**

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

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

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

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

Yes

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

- \* Yes: Primary school curriculum
- \* Yes: Secondary school curriculum
- \* Yes: University curriculum
- \* Yes: Professional DRR education programmes

#### **Description:**

The Department of Education is continuing the implementation of the project on “Prioritizing the Mainstreaming of Disaster Risk Reduction Management in the School System and Implementation of Programs and Projects as mandated by Department Order No. 55 series of 2007.” So far, public grade school and secondary school curricula have been updated to incorporate DRR. Lesson exemplars and other learning materials to guide both teachers and school children have been developed. Oxfam GB has implemented a similar initiative in certain regions in Mindanao. In addition, teacher training has been started to effectively deliver the lesson exemplars to school children.

In addition, DepEd has also begun the Integration of Disaster Risk Reduction and Climate Change Adaptation, Environment education, road safety and peace education in the Basic Education Curriculum of public schools. DepEd has prepared and distributed education, information and communication materials to schools in hazard prone provinces on DRR and CCA.

In the area of training, OCD has also been partnering with the World Bank Institute and Earthquakes and

Megacities Initiative since 2006 in implementing and delivering customized online courses for professionals.

A 3-day seminar-workshop on natural hazards awareness and Public School Teachers preparedness focusing on earthquake and volcanoes is annually conducted for public school teachers of Metro Manila by PHIVOLCS since 2002.

Many non-government organization such as DRRNet and Center for Disaster Preparedness have developed and implemented various training programmes that target different endusers. The CDP, for instance, has sustained its CBDRM Training and Learning Circle through the years.

DepEd has also implemented the “Institutionalization of the Cluster Approach through the implementation of Building Safe Learning Environment - Safe Schools Project”  
The cluster approach is being implemented through the Education in Emergencies cluster headed by the Department of Education. The project is now in its 4th year of implementation. This was issued as one of the policy directions of the NDCC through an NDCC Circular dated May 10, 2007 to institutionalize the Cluster Approach in dealing with humanitarian responses. The Department of Education issued a DepED Order No. 74, s. 2007 to implement cluster approach in dealing with disasters. Identified members of the education in emergencies cluster, developed the 3W matrix identifying location and services of members, revised data gathering tools and strengthened capability of members on DRM. A capability building is scheduled in Nov. 23-25, 2010 for frontliners.

The School Mapping Exercise (SME) through the GIS-Based School Profiling System to Know the risks and take actions. The School Mapping project has continuously establishing its database and spatial data. The unit has encoded 50% of the school profiles including uploading of photographs per building and scanning of ownership documents, vicinity and location maps, site development plans, validated 14,000 GPS coordinates. To date the Unit is coordinating with the Office of the Secretary and various NGOs for possible assistance in surveying, data management and GIS. A MOU will be signed by Sec. Luistro and CyberSoft, a GIS system provider for Globe Telecommunication and other TV networks, in preparing a spatial map of the Philippines showing the various locations of all public schools using barangay locations and GPS coordinates from the SMU database.

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

The DepEd recognizes the need to set-up a monitoring and evaluation system of its programs and projects in order to improve them. However, resource constraints such as budget and lack of dedicated staff to work on mainstreaming DRR in the curriculum are barriers to this. Further, personnel handling DRRM and CCA are borrowed from different offices in the department, who have their regular workload. Hence, mainstreaming programs may suffer from lack of focus and permanency of personnel. The sustainability of capacity building and training programs also has to be ensured. In this regard, the DRMM Act provides for the establishment of Disaster Risk Reduction and Management Training Institutes to train public and private individuals. The institute shall consolidate and prepare training materials and publications of disaster risk reduction and management books and manuals to assist disaster risk reduction and management workers in the planning and implementation of this program and projects. The institute is also mandated to conduct periodic awareness and education programs to accommodate new elective officials and members of the LDRRMCs.

#### **Priority for action 3: Core indicator 3**

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

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

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

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

Yes

\* Yes: Research outputs, products or studies

\* Yes: Research programmes and projects

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

#### **Description:**

Research for multi-risk assessments is normally done by government research institutes such as PHIVOLCS and other agencies under the Department of Science and Technology (DOST) as well as by universities. Some of the researches conducted by PHIVOLCS are the following:

- Development of integrated tools and cost from volcanic impact on effective methodologies to mitigate risks from various hazards Kanlaon Volcano (vulnerability and resilience assessment, prevention other scientific and crisis management). Building inventory information was undertaken in 2009
- Strengthening Natural Hazard Risk Assessment Capacity in the Philippines involves the development of national exposure data and vulnerability modeling for effective disaster management, and ash fall simulation modeling using open source system for Southeast Asian volcanoes (study areas: Philippines and Indonesia). PHIVOLCS technical personnel underwent a training on Ashfall Modelling using Fall3D, an open source volcanic ash impact software that can run on standard desktop PC.
- Interdisciplinary Studies on Volcanic and Geothermal History of Irosin Caldera - establish a database of eruptive products from the caldera, estimate the activity of the caldera for the last 100,000 years and evaluate the hydrothermal processes and environmental changes brought about by the calderagenic eruption. For 2009, preliminary field survey was conducted to coordinate with the local government units, organize meetings and plannings for borehole drilling. Borehole drilling was conducted during the first semester of 2010.
- Monitoring of the creeping fault segment of the Valley Fault System - deformation surveys are conducted to determine the nature, triggering mechanism(s), and future behavior of the creeping segment of the Valley Fault System.
- Active fault mapping is being done to regularly update the active fault map of the Philippines. The active fault map is used as input in the seismic designs of buildings.

Under NEDA's project "MDG-F 1656: Strengthening the Philippines' Institutional Capacity to Adapt to Climate Change," tools for vulnerability assessment and climate change impact assessment are currently being finalized and consultations/validations of these tools with end-users are ongoing. NEDA also leads the enhancement of a disaster risk assessment methodology developed under the Mainstreaming DRR Guidelines to incorporate climate change aspects through the formulation of the Supplemental Guidelines under the Integrating DRR/ CCA Project.

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

International bank institutions such as the World Bank and Asian Development Bank have released some publications on the cost-benefit analysis of DRR measures in the past. However, there is a dearth of studies on the economic costs and benefits of DRR in the Philippine context.

There is also a need to forge linkages between the academe, which is doing their own basic and applied research on hazards, vulnerabilities and risk assessments, and the government. Scientists and researchers have to reach out to the end users of their studies, such as policy makers, and communicate their academic and research outputs in a language that can be appreciated by the decision makers. A regular forum to create institutional linkages between the academe and research sector and the

NDRRMC (though the Commission on Higher Education is a member of the council) is needed to be established in order for DRR policies, plans and programs to be reinforced by scientific evidence and findings.

To institutionalize research on DRR, the DRRM Act provides for the establishment of Disaster Risk Reduction and Management Training Institutes that are tasked to conduct research programs to upgrade knowledge and skills and document best practices on disaster risk reduction and management.

### **Priority for action 3: Core indicator 4**

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

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

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

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

Yes

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

\* Yes: Public education campaigns.

\* Yes: Training of local government

\* Yes: Availability of information on DRR practices at the community level

#### **Description:**

Various government agencies undertake their respective disaster awareness and advocacy programs nationwide. For instance, PHIVOLCS has provided a depository of tsunami hazard information, tools and materials (i.e., assessment tools, public awareness tools, training material, best practices) in order to optimize the use of these materials for wider public awareness and education under the "Tsunami Awareness and Preparedness Tools for Materials Assessment Project." Further, PHIVOLCS have developed, packaged and published information materials that are used in the conduct of information dissemination on disaster awareness and preparedness. The mainstreaming of disaster risk management into local development planning is introduced through the provision of hazard and risk assessment software called "Rapid Earthquake Damage Assessment System" (REDAS) has trained local disaster managers and development planners of municipalities/cities in nine provinces.

NEDA also is developing training modules for LGUs to enhance both national and local capacity to develop, manage and administer plans, programmes and projects addressing climate change risks under its MDG-F 1656: Strengthening the Philippines' Institutional Capacity to Adapt to Climate Change Project. To sustain this training program, a Climate Change Academy will be established. As part of its Integrating DRR and Climate Change Adaptation (CCA) in Local Development Planning and Decision-making Processes, NEDA has conducted the Experts Group Forum, five sessions of Training of Trainers (155 participants) on GIS Application for Mainstreaming DRR and CCA in Sub-national Development and Land Use/Physical Framework Plans, Forum Workshop (75 participants) on the Development of the Climate Change and Disaster Risk Information System for Planning, and produced IEC materials.

DepEd has a continuing training program under the banner of its "Schools Water and Electrical Facilities Project (SWEFaP) Environment Safety and Health project" that train personnel on environment safety and health in 12 schools and organization of ESH committees in schools to conduct risk assessment and

hazard, vulnerability and capacity of pilot areas. The Department of Health likewise regularly conduct its HEMS trainings.

DILG is presently implementing a project that promotes LGU innovative and indigenous coping mechanisms and practices to mitigate effects of disasters and climate changes with support from Oxfam and AusAID. It also continues its development of Advocacy and Communication Program, documentation of cross learning experiences and best practices as well as important lessons learned, and generation of localized and indigenous IEC materials integrating local experiences.

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

A comprehensive, nationwide public advocacy program for the general public to know how to reduce their vulnerability and prepare for natural disasters needs to be instituted. This will complement the prevailing approach to increasing awareness of the public that is hazard-specific.

The current top-down strategy to increasing disaster awareness can also be scaled up if local government units will conduct their own information and education campaigns in their respective territories. Mobilizing non-government organization and church-based organizations will also widen the geographic reach of awareness programs.

## **Priority for action 4**

*Reduce the underlying risk factors*

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### **Priority for action 4: Core indicator 1**

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

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

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

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

Yes

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

- \* Yes: Protected areas legislation
- \* Yes: Payment for ecosystem services (PES)
- \* Yes: Integrated planning (for example coastal zone management)
- \* Yes: Environmental impacts assessments (EIAs)
- \* Yes: Climate change adaptation projects and programmes

#### **Description:**

The Philippines has an impressive array of environmental laws and policies which date back to the 1970s with Presidential Decrees 1121 (Creation of the National Environmental Protection Council) and 1151 (Philippine Environmental Decree). Currently, legal instruments are in place to govern the

utilization and management of various environmental and ecological system such as RA 7586 -The National Integrated Protected Areas System, RA 7076 and RA 7942 – Mining, RA 8371 – Indigenous People's Rights Act (IPRA), RA 8550 – Fisheries Code of 1998, PD 705 – Forestry Code, RA 8435 – Agriculture and Fisheries Modernization Act (AFMA), and RA 7279 – Urban Development and Housing Act (UDHA) for the urban built environment.

There are also physical framework plans at the provincial, regional and national levels that are indicative of areas that should be classified as protected land use, production land use, infrastructure development, and settlements development. These land use policies and plans are intended to promote the rational population distribution and settlements development; rational, holistic, and just allocation, utilization, management, and development of land resources; optimum use consistent with the principle of sustainable development; sustainable and just management and utilization of natural resources; and maintenance and preservation of environmental integrity and stability. At the local level, the Comprehensive Land Use Plan is required by the Local Government Act of 1991 to be developed by cities and municipalities in consonance with the higher level physical framework plans.

The national physical framework plan also indicates areas that are considered environmentally critical as mandated by Proclamation 2146 such as areas frequently visited and/or hard-hit by natural calamities (geologic hazards, floods, typhoons, volcanic activity, etc.) and areas with critical slopes. As provided for under Presidential Decree No. 1586, Presidential Proclamation No. 2146 and its implementing rules and regulations, all proponents of subdivision development projects, housing projects and other land development and infrastructure projects, private or public, shall undertake an Engineering Geological and Geohazard Assessment (EGGA) in addition to the Environmental Impact Assessment (EIA) requirement for the issuance of an Environmental Compliance Certificate (ECC).

With the passage of the Climate Change Act of 2009 or RA 9729, more programmatic collaboration and enhanced institutional coordination between the CCA and DRR are expected. The NDRRMC counts the Executive-Director of the Climate Change Office of the Climate Change Commission as one of its members and vice-versa.

The precautionary principle guides the Philippine Climate Change Framework and shall take precautionary measures to anticipate, prevent or minimize the causes of climate change and its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures.

Following the same precautionary principle, the Philippine judiciary, on April 13, 2010, promulgated the Rules of Procedure for Environmental Cases which will serve as a significant catalyst in support of important and far-reaching reforms in the field of disaster risk reduction, and other environmental and climate change concerns. These Rules are the first of its kind in the world. One such rule is the availability of the Writ of "Kalikasan" (Nature) which protects the constitutional right to a balanced and healthful ecology from being threatened with violation by an unlawful act or omission of a public official or employee, or private individual or entity, involving environmental damage of such magnitude as to prejudice the life, health or property of inhabitants in two or more cities or provinces. The petition for the issuance of a writ of kalikasan can be filed with the Supreme Court or with any of the stations of the Court of Appeals. Likewise, the summary process leading to the issuance of the writ of kalikasan dispenses with extensive litigation; this facilitates the prompt disposition of matters before the court.

The significant aspect of the Rules as derived from the transboundary and temporal nature of ecological injury finds direct application in the evaluation of evidence in cases before the courts. The precautionary principle bridges the gap in cases where scientific certainty in factual findings cannot be achieved. By applying the precautionary principle, the court may construe a set of facts as warranting either judicial action or inaction, with the goal of preserving and protecting the environment. This is further

strengthened with a bias created in favor of the fundamental right the people to a balanced and healthful ecology.

**Context & Constraints:**

The abovementioned environmental laws and policies naturally focuses on environmental protection and do not contain explicit provisions for reducing vulnerability to natural disasters. Also, having many laws also do not assure the enforcement of such laws. In addition, with laws governing the uses of various natural resources and ecosystems, a national land use act has been proposed in Congress. However, this piece of legislation has been languishing in the halls of Congress and repeatedly filed since the 9th Congress.

Strengthening of institutional and programmatic linkages with the Department of Environment and Natural Resources and its various bureaus in charge of implementing the laws such as the Forest Management Bureau has to be undertaken by the NDRRMC and OCD. Environmental policies, programs and projects need to explicitly include DRR and vice-versa. Climate change adaption programs and plans that are now being developed by the Climate Change Commission are also expected to include DRR objectives and initiatives.

Environmental awareness and advocacy programs conducted by DENR and local governments may also do well by integrating DRR and CCA in their IEC materials for a more holistic approach.

There is a need to continue rallying public support for the passage of important proposed legislations such as the People's Survival Fund Bill which will provide additional resources to finance DRR and CCA programs.

**Priority for action 4: Core indicator 2**

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

**Level of Progress achieved:**

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

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

Yes

**Means of verification:**

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

**Description:**

Per RA 10121, at the local level, not less than five percent (5%) of the estimated revenue from regular

sources shall be set aside as the Local Disaster Risk Reduction and Management Fund (LDRRMF) to support disaster risk management activities such as, but not limited to, pre-disaster preparedness programs including training, purchasing life-saving rescue equipment, supplies and medicines, for post-disaster activities, and for the payment of premiums on calamity insurance.

Of the amount appropriated for LDRRMF, thirty percent (30%) shall be allocated as Quick Response Fund (QRF) or stand-by fund for relief and recovery programs in order that situation and living conditions of people in communities or areas stricken by disasters, calamities, epidemics, or complex emergencies, may be normalized as quickly as possible. Unexpended LDRRMF shall accrue to a special trust fund solely for the purpose of supporting disaster risk reduction and management activities of the LDRRMCs within the next five (5) years. Any such amount still not fully utilized after five (5) years shall revert back to the general fund and will be available for other social services to be identified by the local council.

Moreover, the DILG is exploring policies for tapping possible sources of disaster financing such as the 20 percent Development Fund of LGUs that could include mitigation and preparedness activities and pooling of the LDRRM Funds at the provincial level as a proposed National Disaster Funds Pool for LGUs or “Paluwagan Para sa Paghahanda sa Kalamidad.” The DILG is also looking into revenue Generation thru taxation such as the local application of the “polluter pays” principle, the use of penalties and fines to be used to compensate victims of anthropogenic risks, and taking out insurance policies for vulnerable sectors.

The newly adopted Micro insurance Regulatory Framework in 2010 promotes insurance, insurance-like and other similar business activity of providing specific products and services that meet the needs of the poor for risk protection and relief against distress, misfortune or contingent event. The promotion of microinsurance in the Philippines will hopefully provide the poor access to a basket of insurance, support and services that will also support poverty reduction objectives.

The World Bank has also completed a study on risk financing and transfer options that included a review of previous studies and identification of feasible options that could be adopted by the Philippine Government. Options include: insurance and reinsurance; social insurance; microinsurance; new insurance schemes for Government Service Insurance System; catastrophe bonds; crop insurance; weather derivatives; contingent credit reserve fund; GOP lending instruments for LGUs; and microfinance.

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

Risk transfer schemes such as insurance have a very low penetration rate in the Philippines. But with the advent of the micro insurance regulatory framework, this may slowly change. Private sector participation should be largely encouraged in order to competitive products and services. One approach is for private companies to work in partnership with organizations that are currently serving the poor such as microfinance organizations, rural banks, as well as humanitarian organizations that are providing non-financial services.

The absence of or inadequate reinsurance facilities is considered as a constraining factor for the insurance industry.

Community-based approaches to micro insurance and microfinancing may complement the modest initiatives emanating from the private sector.

#### **Priority for action 4: Core indicator 3**

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

**Level of Progress achieved:**

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

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

Yes

**Means of verification:**

\* Yes: National and sectoral public investment systems incorporating DRR.

\* Yes: Investments in retrofitting infrastructures including schools and hospitals

**Description:**

Per RA 10121, at the national level, the National Disaster Risk Reduction and Management Fund (NDRRM Fund) shall be established and used for disaster risk reduction or mitigation, prevention and preparedness activities such as but not limited to training of personnel, procurement of equipment, and capital expenditures. It can also be utilized for relief, recovery, reconstruction and other work or services in connection with natural or human-induced calamities which may occur during the budget year or those that occurred in the past two (2) years from the budget year. Of the amount appropriated for NDRRM Fund, thirty percent (30%) shall be allocated as Quick Response Fund (QRF) or stand-by fund for relief and recovery programs in order that situation and living conditions of people in communities or areas stricken by disasters, calamities, epidemics, or complex emergencies, may be normalized as quickly as possible. Lastly, all departments, bureaus, offices and agencies of the Government are hereby authorized to use a portion of their appropriations to implement projects designed to address DRRM activities in accordance with the guidelines to be issued by the NDRRMC in coordination with the DBM.

The National Framework Strategy on Climate Change (2010 -2011) promotes the protection of agricultural communities and crops. It aims to increase the resilience of agriculture communities through the development of climate change-sensitive technologies, establishment of climate proof agricultural infrastructure and climate-responsive food production systems, and provision of support services to the most vulnerable communities and strengthen the crop insurance system as an important risk sharing mechanism by implementing weather-based insurance system. The private sector will again play a crucial role in this regard.

**Context & Constraints:**

Similar challenges involved in providing social safety nets confront the protection of economic and productive assets of society. Disaster insurance schemes need private-public participation in order to thrive.

As mentioned, lack or reinsurance facilities may constrain the growth of disaster insurance as a risk transfer mechanisms.

Areas with no weather stations but have high client demand for weather index products may also limit insurance penetration.

**Priority for action 4: Core indicator 4**

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

**Level of Progress achieved:**

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

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

Yes

**Means of verification:**

- \* Yes: Investment in drainage infrastructure in flood prone areas
- \* Yes: Slope stabilisation in landslide prone areas
- \* No: Training of masons on safe construction technology
- \* No: Provision of safe land for low income households and communities

**Description:**

The NEDA DRR Mainstreaming Guidelines were completed and pilot tested in Regions 1 and 13, which prepared DRR-enhanced Regional Physical Framework Plans (RPFs) 2004-2030; and Surigao del Norte, which developed a DRR-enhanced Provincial Development and Physical framework Plan (PDPFP). In September 2010, Administrative Order No. 1 was issued, directing the LGUs, particularly the provinces, to adopt and use in their planning activities the DRR Mainstreaming Guidelines. The DRR Mainstreaming Guidelines are now being rolled out to all provinces and IEC campaigns and capacity building activities on the Guidelines are being conducted under the NEDA/ UNDP/AusAID Integrating DRR/CCA Project.

The government has started to invest more in urban risk reduction, especially after the devastation wrought by Typhoon Ondoy (International name: Ketsana), Pepeng (Parma) and Frank. Cities are guided by DILG's program on Integration of Disaster Risk Management in Local Planning and Budgeting. One initiative complement's NEDA's mainstreaming DRR program. This is mainstreaming of DRM including CCA strategies/measures in the Land Use Plans, Comprehensive Development Plans, and AIPs to ensure financing, address vulnerabilities of the localities to be resilient (livelihoods, protection of agricultural resources, minimizing disaster-related diseases, safe shelter location), ensure development efforts do not increase vulnerability to hazards (subdivision developments), and treat DRM as integral to the development process and ensure integration into local policies. Another DILG program aims to mainstream DRRM/CCA in Local Government Systems and Processes which are considered at high risk to natural disasters starting with 7 provinces (supported by WB), 19 municipalities and two cities (supported of UN-Habitat). This includes community-based diagnosis of vulnerabilities and mitigating and preparing for the impacts of disasters and enacting appropriate ordinances/policies/ instruments that reduce risks, e.g., settlement/housing, building standards. For low risk LGUs, integration of DRM/ CCA into the Comprehensive Land Use Plan and the Comprehensive Development Plan is undertaken. For high risk LGUs, preparation of a separate Contingency Plans and Counter-Disaster Plan, within the context of the Comprehensive plans is done.

Moreover, DILG promotes the compliance and enforcement of policies impacting on DRR through safe building regulations, enforcement of national building code, review of design and construction practices, zoning ordinances and locational clearances for developments, among others.

The Earthquakes and Megacities Initiative has also implemented a trailblazing project on risk-sensitive urban redevelopment planning with Makati City as pilot city. The project assessed the physical and social vulnerabilities of a barangay in Makati City to earthquakes and developed an urban redevelopment plan that contextualizes risk within the framework of sustainable urban development.

**Context & Constraints:**

Local government units are responsible for land use planning in the Philippines. Unfortunately, most LGUs, particularly third and fifth class municipalities and less capable cities, do not have sufficient capacities to prepare a comprehensive land use plan that integrates risk factors as bases for planning. Moreover, basic information on risk, such as hazard maps are most often not available or have not been prepared for lack of capacity, expertise, resources, or data. Exposure data and vulnerability maps are likewise hardly available for most LGUs, except for the most advanced. The difficulty of preparing vulnerability maps has been a long standing concern. Technical assistance to LGUs is of utmost importance.

Aside from hazard and vulnerability mapping, assessing risks is yet another stumbling block for risk reduction to be part of the land use plan. A risk profile of a city or municipality is not a standard product of planning and development coordinators. Hence, risk assessment as a systematic process that can inform land use planning and integrate risk reduction objectives in the land use plan.

Risk assessment tools (i.e. database, GIS for spatial analysis of risks) that cater to the needs

Training and capacity building programs of NEDA, DILG and PHIVOLCS (using REDAS) on mainstreaming DRR in development and land use planning should be scaled up and continuously undertaken. The planning and development office of LGUs should also be able to collaborate well with the LDRRM office through programmatic linkages and mechanisms.

**Priority for action 4: Core indicator 5**

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

**Level of Progress achieved:**

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

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

No

**Means of verification:**

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

\* Yes: Measures taken to address gender based issues in recovery

**Description:**

After the devastation brought about by typhoons Ondoy, Pepeng and Frank, the Special National Public Reconstruction Commission was created by virtue of Executive Order No. 838 to spearhead, implement and adopt urgent and effective measures to bring about the reconstruction of affected areas in the country and to address the needs of the affected population. It is headed by the Secretary of Finance. The Philippine Disaster Recovery Foundation (PDRF) was created as well out of the need to tap the resources of the private sector for the reconstruction efforts to address the continuing emergency brought about by the recent calamities.

On October 2009, a cooperation agreement was drawn up between the Public Commission and PDRF to enhance and facilitate the cooperation and coordination between the Philippine Government and the private sector in formulating and implementing a reconstruction strategy.

PDRF is composed mostly of executives of private corporations. Some of its key programs are:

- Reforestation of the Marikina Watershed to decrease water run-off which flooded Metro Manila during the 2009 typhoons.

- Installation of rain gauges at strategically-located cell sites of mobile phone companies. The rain gauges will be able to send rainfall data to Pagasa by telemetry. PDRF is hoping to coordinate a partnership with the cellular networks of the various local carriers.
- Rehabilitation of damaged schoolhouses in flood-ravaged areas.
- Support to the idea of constructing the Paranaque spillway, draining water from Laguna de Bay to Manila Bay and dredging waterways and creeks.
- Exploring a menu of options for resettlement of informal communities along the Pasig River, Napindan and Manggahan Floodway.
- Explore financing low interest and long term loans for small businesses and farmers hurt by the floods together with government financial institutions and multilateral and bilateral agencies and work with the microfinance industry in providing alternate sources of income for informal settlers who are relocated.

### **Context & Constraints:**

During a disaster or emergency situation, it is doubly difficult to incorporate DRR objectives and gender concerns while planning for the recovery and reconstruction of a disaster-affected area. The tyranny of urgency to bring back normalcy as soon as possible puts certain priorities always on top of the agenda, and DRR and gender concerns may fall by the wayside in the desire of the officials and people to go back to their feet.

Building back better approaches have been getting a lot of attention, which promotes the idea of not recreating the kinds of vulnerability and risks that place the people and affected communities in harm's way in the first place.

Another approach to ensure that DRR becomes an integral part of the recovery process in case a disaster strikes is pre-disaster planning for recovery (early and long-term recovery). This kind of planning for recovery before a disaster strikes combines the concept of sustainability and resilient recovery. Planning for recovery that is done in a normal situation and not under duress will result to a more effective recovery plan. There are certain activities that can already be done before and after a disaster occurs. It helps communities in identifying issues they will face after a disaster. The intent is to provide a process for communities to start pre-disaster planning for catastrophic events by engaging partnerships in identifying critical issues the community will face in a post-disaster environment. This will also contribute in making a community more disaster resilient and sustainable. For this purpose, a Recovery Checklist can be developed that is customized to the local context.

A complementary approach is to engage in a holistic disaster recovery planning to enable community recovery from long-term consequences of a major disaster and to reduce or eliminate risk from future incidents, where feasible. Post-disaster recovery planning, especially for the longer-term, should outline and define a community's vision of how it would like to rebuild in the aftermath of a disaster. If a community engages in post-disaster recovery planning prior to the event, it can more effectively direct external resources once the disaster occurs. As a result, community redevelopment and recovery can take place in a manner that is consistent with community values. A comprehensive guide is needed to help LGUs to engage in this kind of planning as part of their regular development planning process.

Overall, recovery planning is still a new process and area of opportunity to be fully utilized for disaster risk reduction. Making recovery planning a proactive process will redound to lesser recreation of risks.

### **Priority for action 4: Core indicator 6**

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

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

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

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

Yes

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

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

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

#### **Description:**

The DepEd has implemented a School Mapping Exercise (SME) through the GIS-Based School Profiling System, which establishes a database with spatial data. So far, 50 percent of the school profiles including ownership documents, vicinity and location maps, site development plans, and validated 14,000 GPS coordinates. A map of the Philippines showing the location of all public schools will also be prepared. GIS mapping of public schools will help in assessing their exposure to various hazards. DepEd also has also constructed the Learning and Public Use School buildings in Region 5 with hazard resilient features and developed hazard resilient designs of school buildings with regional costing under its Building Hazard Resilient School Buildings Project.

The DOH is also continuing its Safe Hospitals Program, Hospital Preparedness Program, and Technical assistance in the development of Hospital Emergency Preparedness, Response and Recovery Plan (HEPRRP).

As reported previously, Mainstreaming DRR into the infrastructure sector has been undertaken to incorporate risk impact assessment procedures before construction of new roads and bridges.

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

For the abovementioned programs and projects, monitoring and evaluation needs to be performed. There is also the necessity to forge proactive partnership with the private health sector, increase manpower complement, and ensure continuity of funding support in view of increasing intensity of health risks in the environment.

A challenges for the health sectors specifically is to mainstream climate change adaptation in mitigation measures.

A better linkage with the environmental impact system of the DENR needs to be established in order to make the EIS more responsive to DRR concerns and issues.

## **Priority for action 5**

*Strengthen disaster preparedness for effective response at all levels*

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### **Priority for action 5: Core indicator 1**

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

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

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

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

Yes

### **Means of verification:**

\* Yes: Policies and programmes for school and hospital safety

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

### **Description:**

Under DILG, a Disaster Preparedness Audit was undertaken, considering 8 major factors such as functionality of LDCCs, availability of evacuation centers, appropriate equipage, quality of the Disaster Risk Management Plan. Results revealed that of LGUs surveyed, 33 % of the Provinces, 34 % of cities and 60% of municipalities are said to be not prepared.

DILG also implements Calamity Response Protocols which calls for among others the activation of all disaster councils and committees, area-wide warning and alarm system and deployment of emergency response, rescue and medical teams in areas hit by disasters. Enhancement of DILG's institutional capacity for disaster preparedness will strengthen the LDRRMCs at the provincial, city and municipal levels by setting parameters for functionality and build-up of organizational structure and functions of the LDRRMCs.

As for school safety, DepEd's continuing programs include the assessment of Schoolbuildings' Structural Integrity and Sustainability (ASSISt) and Schools Water and Electrical Facilities Project (SWEFaP) Environment Safety and Health project and training of personnel on environment safety and health in 12 schools as well as organization of ESH committees in schools to conduct risk assessment and hazard, vulnerability and capacity assessment of pilot areas. Kindly refer to Priority Area 4 Indicator 6 for more related information.

As mentioned under Priority Area 4 Indicator 6, DOH is implementing a Hospital Preparedness Program. In addition, its Health Emergency Management program is constantly improved through policy development and establishment of HEM structure at all levels.

The Philippines also spearheaded and launched the Pledging Campaign for One Million Safe Schools and Hospitals Programs as a collaboration among ACDM Focal Point, Office of Civil Defense, DepEd, and DOH in ASEAN in March of this year. During the pledging, both DepEd and DOH pledged to make about more than 100,000 education and health facilities in the country safe from natural disasters.

Regular drills in schools and hospitals for emergency preparedness are likewise conducted by DepEd and DOH.

### **Context & Constraints:**

The DILG's stocktaking and audit on disaster preparedness of LGUs is an eye opener. With 60 percent of municipalities and 34 percent of cities found as being unprepared, there is a greater risk that huge damage and losses will be incurred in future disaster events. More capacity building in preparedness has to take place in order for these cities and municipalities to better prepared to respond to disasters. A capacity needs analysis may have to be done to determine which types of resources are most urgent for LGUs.

## **Priority for action 5: Core indicator 2**

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

**Level of Progress achieved:**

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

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

Yes

**Means of verification:**

\* Yes: Contingency plans with gender sensitivities

\* Yes: Operations and communications centre

\* Yes: Search and rescue teams

\* Yes: Stockpiles of relief supplies

\* No: Shelters

\* Yes: Secure medical facilities

\* No: Dedicated provision for women in relief, shelter and emergency medical facilities

**Description:**

Contingency plans have been prepared for flood in many cities and municipalities in the country. A manual on “Contingency Planning for Emergencies” for LGUs is one effective tool in capacitating the LDCCs (now LDRRMCs).

Annual National Disaster Consciousness Month is observed with simultaneous nationwide earthquake drills as well as search and rescue exercises.

The DRRM Act will further energize the Operations Center of the NDRRMC. Search and rescue teams of the Philippine military (e.g. disaster management unit of the Army Engineers Brigade which was deployed during Typhoon Ondoy) as well as of some LGUs such as Makati and Pasig are operation ready.

**Context & Constraints:**

The status of stockpiles and its distribution system has to be assessed. Gender concerns have yet to be fully integrated in the provision of relief, shelter and emergency medical facilities. Some palliative gender fair measures were instituted in the past, but these measures have yet to be institutionalized.

Updating contingency plans and preparing contingency plans for various hazards still pose a huge challenge for LGUs. Again, more technical capacity building is necessary in this area.

**Priority for action 5: Core indicator 3**

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

**Level of Progress achieved:**

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

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

Yes

**Means of verification:**

\* Yes: National contingency funds

\* Yes: Catastrophe insurance facilities

\* No: Catastrophe bonds

**Description:**

As mentioned in Priority Area 4, the National Disaster Risk Reduction and Management Fund (NDRRM Fund) and the LDRRM Fund shall be established and used for disaster risk reduction or mitigation, prevention and preparedness activities as well as for relief, recovery, reconstruction.

Thirty percent (30%) of both these Funds shall be allocated as Quick Response Fund (QRF) or stand-by fund for relief and recovery programs in order that situation and living conditions of people in communities or areas stricken by disasters, calamities, epidemics, or complex emergencies, may be normalized as quickly as possible.

For the agricultural sector, the National Framework Strategy on Climate Change (2010 -2011) promotes the protection of agricultural communities and crops by strengthening the crop insurance system as an important risk sharing mechanism system. The Philippine Crop Insurance Corporation attached to the Department of Agriculture, which has been around since the 1970s. It was created by virtue of PD 1467 (June 11, 1978), later on amended by PD 1733 (October 21, 1980) and further amended by RA 8175 (December 29, 1995), as the implementing agency of the government's agricultural insurance program. It offers various insurance products intended to benefit farmers, fisher folks, lending institutions and agricultural stakeholders by protecting their production investments against losses to agricultural risks (such as typhoons, floods, drought, earthquakes and volcanic eruptions as well as plant pests and diseases) and to further facilitate credit for agricultural production of farmers. It provides insurance for crops such as rice, corn and high value commercial crops, livestock, and non-crop agricultural assets. It also provides insurance and credit services for farmers.

**Context & Constraints:**

As previously mentioned under Priority Area 4, risk financing through risk transfer schemes such as insurance have a very low penetration rate in the Philippines. Aside from low awareness of endusers such as farmers and households and low capacity to pay premiums, insurance companies need adequate data sets to assess risks. This has been identified as a barrier for the private sector to enter this market.

In this kind of situation, community-based approaches to micro insurance and microfinancing may be more appropriate, particularly with the passage of the micro insurance regulatory framework. According to one study on microinsurance industry in the Philippines, there are 17 players in the emerging microinsurance industry, consisting of 12 cooperatives, three NGOs/MFIs, and two transport associations that are offering home-made microinsurance. Institutional, policy and regulatory issues and challenges face microinsurance.

## Priority for action 5: Core indicator 4

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

### Level of Progress achieved:

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

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

Yes

### Means of verification:

- \* Yes: Damage and loss assessment methodologies and capacities available
- \* Yes: Post disaster need assessment methodologies
- \* No: Post disaster needs assessment methodologies include guidance on gender aspects
- \* Yes: Identified and trained human resources

### Description:

Trainings on damage and loss assessment and on post disaster needs assessment have been undertaken for the last two years. There is local expertise for these methodologies.

As for exchange of information during disasters, particularly during response and relief operations, the OCD operates and maintains the NDRRMC Operations Center on a 24/7 basis. The OPCEN is activated into an Emergency Operations Center (EOC) in the event of a disaster. The facility is linked with international response systems such as UNDAC, OSOCC, and INSARAG and recently, with AHA Centre in the ASEAN region.

Under R.A. 7581 or the Price Act, DTI, DA, DOH and DENR are mandated to regularly monitor price and supply of basic necessities and prime commodities. DTI monitors price and supply of basic necessities and prime commodities under its jurisdiction on a weekly basis for key Cities nationwide and monthly in other provinces. In times of disasters or when an area is declared under state of calamity, DTI monitors price and supply on a daily basis in all affected areas especially those that are declared under a state of calamity/disaster, convenes the National Price Coordinating Council (NPCC) to discuss supply and prices especially in affected areas, mobilizes the Local Price Coordinating Councils (LPCCs) in affected areas to assist DTI in monitoring prices and supply of basic necessities and prime commodities and to find solutions to any price or supply problem, post guide prices of basic necessities and prime commodities in newspapers of national circulation, and activates the DTI Call Center to receive reports and/or complaints.

### Context & Constraints:

With the DRRM Act, more coordination among the various levels of government may now be fostered. In the past and up to the present, there is no feedback mechanism between the NDRRMC and the municipalities and cities.

Post-event reviews that involve various stakeholders are not institutionalized as part of the disaster management process.

Data gathering methods among the members of NDRRMC may differ and may therefore need harmonization.

Disruption in services such as electricity failures, downed communication lines, and impassable roads delay monitoring reports.

## Drivers of Progress

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

#### **Levels of Reliance:**

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

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

Yes

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

Yes

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

Studies, reports, and atlases on multi-hazard analyses do exist in the country in the sub-regional level. The READY project has spearheaded this initiative and is now being pursued as a model methodology to be replicated throughout the country. A standard methodology for the conduct of Disaster Risk Assessment in the sub-national level is also being promoted through the NEDA initiated project of Mainstreaming DRR and CCA in Sub-national Development Planning, the REDAS software developed by PHIVOLCS is likewise being enhanced and developed to accommodate multi-hazard risk analysis.

CSCAND will be implementing two new projects focusing on the development of multi-hazard risk analysis for Greater Metro Manila Area. One following after the methodologies set forth by the READY project, Enhancing Greater Metro Manila's Institutional Capacities for Effective Disaster/Climate Risk Management towards Sustainable Development or "CSCAND for GMMA Project" and another project on Enhancing Risk Analysis Capacities for Flood, Tropical Cyclone, Severe Wind and Earthquake for Greater Metro Manila or "Risk Analysis" Project which aims to provide the following information on Seamless digital elevation model for GMMA and acquisition of high-resolution DEM (LIDAR) for GMMA; Exposure database for key areas; Flood hazard and risk information for the Marikina-Pasig river system; Severe wind hazard and risk information for GMMA; Earthquake hazard and risk information for GMMA; complemented with IEC on risk from earthquakes, flood and typhoon severe wind for LGUs and communities in GMMA.

#### **Related links:**

> GOP and AusAid Project

<http://www.philippines.embassy.gov.au/files/mnla/RiskAnalysisProject-PMTORsandSelectionCriteria.pdf>

> READY Project <http://albaycirca.org/ajax/rtd/bautista.pdf>

> UNDP Energy and Environment for Sustainable Development <http://www.undp.org.ph/?link=11>

> READY Project

[http://www.phivolcs.dost.gov.ph/index.php?option=com\\_content&task=view&id=305&Itemid=64](http://www.phivolcs.dost.gov.ph/index.php?option=com_content&task=view&id=305&Itemid=64)

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

### **Levels of Reliance:**

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

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

In terms of capacity development, DRR programs continuously recognize gender perspectives in risk reduction and recovery. Customized DRR/M trainings that address the disparate needs, capacities and resources of the various duty bearers and claim holders. For instance community-based, gender-responsive, early warning monitoring teams and first responders are being organized and trained in target localities under the "Building Community Resilience and Strengthening Local Government Capacities for Recovery and Disaster Risk Management Project. In terms of policy, the Philippines is also one of the few countries in the world that has adopted a Gender and Development (GAD) Policy Budget that requires all government agencies and local governments to utilize at least five percent of their respective total budgets for programs and projects that address the needs and uphold rights of women. As for institutional machinery, the National Commission on the Role of Filipino Women (NCRFW) established on 7 January 1975, is mandated to review, evaluate and recommend measures and priorities to ensure the full integration of women for economic, social and cultural development at national, regional and international levels and to ensure further equality between men and women. The Philippine Plan for Gender Responsive Development (PPGD) 1995-2025 has also been adopted. To operationalize the PPGD, the Framework Plan for Women (FPW) in 2001 was formulated focusing on three priority areas: promotion of women's economic empowerment, protection and advancement of women's rights, and promotion of gender responsive governance.

The Climate Change Act of the Philippines, RA 9729, also mandates the incorporation of "Gender Mainstreaming" as one of the 10 Components of the Framework Strategy and Program on Climate Change and the identification of differential impacts of climate change on men, women and children in the National Climate Change Action Plan.

### **Related links:**

> Gender and Mainstreaming <http://www.ncrfw.gov.ph/index.php/gender-maintreaming>  
> Gender and Development Portal of the Philippines <http://www.ncrfw.gov.ph/>  
> Mainstreaming Gender in Development Planning  
<http://www.ncrfw.gov.ph/index.php/knowledgebase/37-faq-gender-mainstreaming-philippines/246-mainstreaming-gender-planning-philippines>

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

### **Levels of Reliance:**

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

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

With the advent of the recent law on DRRM, the DRRM Act of 2010, a DRRM Institute will be established to cater to the needs of all stakeholders. There are also ongoing capacity building activities sponsored by OCD and other NDRRMC member agencies such as PHIVOLCS, DILG, NEDA, to name a few. As always, these capacity building activities are hindered by resource constraints, although local expertise, knowledge and experience are widely available.

Local NGOs and international organizations also contribute to enhancing capacities of stakeholders in

the country. The vibrant NGO and CSO participation in the area of DRR indicates that capacity development for DRR is high priority. Their initiatives significantly complement the existing programs of government. The academe also plays an important role in this regard, with their formal education courses and training and outreach activities.

The Climate Change Act, or RA 9729, also mandates the government to enhance capacities for local adaptation planning, implementation and monitoring of climate change initiatives in vulnerable communities and areas; promote and provide technical and financial support to local research and development programs and projects in vulnerable communities and areas, among others.

However, recovery is one area that is given insufficient attention in terms of capacity development. There is very little capacity development that is related to recovery. Some initiatives are done by the private sector in business continuity planning, which should be one of the priorities in capacity building in the recovery process.

Reference document:

> Climate Change Act of the Philippines (2009)

[http://www.preventionweb.net/files/17303\\_ra9729cca\[1\].pdf](http://www.preventionweb.net/files/17303_ra9729cca[1].pdf) [PDF 83.03 KB]

Related links:

> Philippine Disaster Recovery Foundation <http://www.pdrf.org/>

> Disaster Recovery and Business Continuity Planning

<http://computerworld.com.ph/disaster-recovery-and-business-continuity/>

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

##### **Levels of Reliance:**

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

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

The issues of human security and social equity with regard to DRR and recovery are still incipient in the country. As human security goes beyond poverty and inequality, it fits into the broader approach of rights-based disaster management, which includes DRR and early recovery. Early recovery also overlaps with disaster response and relief to some extent and with the development process itself when the recovery process goes into reconstruction and rehabilitation.

Natural disasters are increasing in severity and intensity in recent years, and with climate change, more severe disasters shall be expected. Human security and social equity have to be integrated into climate change adaptation as well. The reality is that this still has to be brought to the awareness of all stakeholders. In the Philippines, disasters always hurt the poor and marginalized more than others. Access to assistance is often very difficult for this stakeholder group. Assistance is not neutral. Recovery is faster for some groups that have more access to resources. Sometimes, response and recovery itself may exacerbate inequities. The public sector and NGOs are aware of such issues to a limited extent.

Reference document:

> Climate Change Act of the Philippines (2009)

[http://www.preventionweb.net/files/17303\\_ra9729cca.pdf](http://www.preventionweb.net/files/17303_ra9729cca.pdf) [PDF 83.03 KB]

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

### **Levels of Reliance:**

Significant and ongoing reliance: significant ongoing efforts to actualize commitments with coherent strategy in place; identified and engaged stakeholders.

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

The "whole of society" approach has been in practice for many years in the Philippines. One clear indication of this is the significant participation and contribution of civil society in all aspects of disaster management, not only in DRR, and in all levels of governance to date.

With the DRRM Act of 2010, this partnership has been taken to a higher level, legally requiring four representatives from civil society and one representative from the private sector to sit in the National DRRM Council. Terms of reference will be formulated to establish formal and organizational relationships with the said stakeholders.

RA 9729, or the Climate Change Act of the Philippines, likewise mandates the participation of one representative from the NGO sector, one sectoral representative from the DRR community, and one representative from the private sector as member of the Climate Change Commission.

DRRNet, a loose coalition of NGOs and CSOs in the country, has also been established a few years ago to further capacitate themselves and widen the space for participation for such stakeholders.

The private sector has also been tapped in the recovery process after Typhoon Ondoy (Ketsana) through the establishment of the Philippine Disaster Recovery Foundation.

### Reference document:

> DRRM Act of the Philippines (2010) [http://www.preventionweb.net/files/17303\\_ra10121drrmact.pdf](http://www.preventionweb.net/files/17303_ra10121drrmact.pdf) [PDF 817.35 KB]

> Climate Change Act of the Philippines (2009)

[http://www.preventionweb.net/files/17303\\_ra9729cca\[2\].pdf](http://www.preventionweb.net/files/17303_ra9729cca[2].pdf) [PDF 83.03 KB]

### Related links:

> Philippine Disaster Recovery Foundation <http://www.pdrf.org/>

## **f) Contextual Drivers of Progress**

### **Levels of Reliance:**

Significant and ongoing reliance: significant ongoing efforts to actualize commitments with coherent strategy in place; identified and engaged stakeholders.

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

Identified Political champions for DRR and CCA continue to lead the way and inspire others to follow their examples. One notable champion is the Governor of the Province of Albay, Joey Salceda who was recently recognized by the UNISDR as Senior Champion in DRR and CCA and Senator Loren Legarda as Regional Champion for Asia.

Champions and advocates also abound in NDRRMC member agencies who continue to push forward initiatives on implementing DRR programs such as the Department of Education, which has implemented the "Institutionalization of the Cluster Approach through the implementation of Building Safe Learning Environment - Safe Schools Project" for instance.

The continuing efforts to improve institutional arrangements for DRR and DRM are also stepping up efforts for a more coherent strategy for DRR and in engaging a wider sector of the society.

Another driver of progress is the recognition of the DRR and climate change communities that climate change and disaster risk reduction are "closely interrelated and effective disaster risk reduction will enhance climate change adaptive capacity" and thus "the State shall integrate disaster risk reduction into climate change programs and initiatives." Recently, a Memorandum of Understanding has been signed by the NDRRMC and CCC to forge formal institutional ties and "strengthen, integrate, consolidate and institutionalize government initiatives to achieve coordination in the implementation of plans and programs to address climate change in the context of sustainable development."

Reference document:

> MOU between NDRRMC and CCC (2011) [http://www.preventionweb.net/files/17303\\_mouddrccc.pdf](http://www.preventionweb.net/files/17303_mouddrccc.pdf)  
[PDF 1.68 MB]

## Future outlook

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### Area 1

*The more effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction.*

#### **Overall Challenges:**

The overall challenge for the Philippines at present is the implementation and enforcement of RA 10121 or the DRRM Act of 2010. The new law aims to strengthen the Philippine disaster risk reduction and management system through the provision of a National Disaster Risk Reduction and Management Framework (NDRRM Framework) and institutionalizing the National Disaster Risk Reduction and Management Plan (NDRRM Plan). Currently, the NDRRM Council is in the process of regional and local consultations to gather inputs for the NDRRM Framework. At the same time, the SNAP for DRR is also being reviewed and will be revised after the NDRRM Framework has been finalized.

By the same law, the decentralization of the responsibility and authority for DRR has also been effected. The bigger challenge therefore is the enhancement of the capacities of thousands of local government units (city, municipal and provincial). LGUs are mandated to institutionalize the Local DRR and Management Offices (LDRRMOs) that are capable to adhere to the national standards and programs as well as develop Local DRRM Plans to facilitate the integration of DRR measures into the local Comprehensive Development Plan and Comprehensive Land Use Plan.

Corollary to this is the challenge of formulating and implementing a framework for climate change adaptation and DRRM from which all policies, programs, and projects shall be based to be done in coordination with Climate Change Commission. The legal and institutional bases have been laid out for this integration, especially now the MOU between the NDRRMC and CCC. The challenge then is the actual integration of DRR and CCC at the local level and translation of these national policies and plans in terms of action and practice on the ground and their sustainability to result to concrete outcomes in vulnerability and risk reduction.

**Future Outlook Statement:**

With a very conducive enabling environment in terms of legal and policy bases and institutional frameworks at the national, regional and local level, the outlook for a more effective integration of DRR consideration into sustainable development policies, planning and programming at all levels is promising. The strengthening of capacities of local governments should be the next immediate step in order to put all these policies and plans into practice and eventually result to less vulnerabilities and more resilience to disaster.

Relevant sectoral agencies that are in charge of the productive sectors of society such as agriculture, industry, forestry, fishery, mining, to name a few, should also be engaged further and deeper in DRR and CCA. Disasters remain a priority development concern, and will have to be considered in relevant sectoral policy making and planning.

**Area 2**

*The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards.*

**Overall Challenges:**

Developing institutional and technical capacities to systematically contribute to building resilience to disasters remains to be a huge task for the Philippines. Building capacity to develop and implement DRR initiatives at all levels is a continuing task and capacity development programs need to be improved and updated regularly to remain always relevant.

One area of capacity development that needs to be further strengthened is knowledge management. Many of the information and knowledge about natural hazards already exist and these can be readily applied to formulate measures to enhance resilience of communities, for instance, for flood early warning systems, for mitigating the impact of ground shaking due to earthquakes through good construction practices, for determining landslide prone areas, and so on. The knowledge and expertise exist within the country, and this remains not to be fully tapped by communities and local governments. There is thus a need to systematize available knowledge resources on disaster risk reduction needed by a variety of local audiences.

Both national and local governments are likewise challenged in implementing training programs to all stakeholders due to resource constraints. In this area, civil society organizations, NGOs and the private sector need to be mobilized more.

The education sector also has started to mainstream DRR in the primary and secondary school curriculum and teacher training in the country. Building a disaster resilient society and nurturing a disaster resilient culture starts not only at home and in the community, but in schools. The challenge here is to scale up and sustain such initiatives by the education department to include private schools as well as tertiary education.

**Future Outlook Statement:**

A lot has to be done to enhance the capacities of institutions and communities in reducing vulnerability of people to disasters. The government is poised to fulfill its mandate and lead role in implementing the various instruments that pertain to DRR: Hyogo Framework for Action, ASEAN Agreement for Disaster Management and Emergency Response, the DRRM Act, Climate Change Act and other relevant laws, as well as national plans and mechanisms for DRR. Capacity development will continue to be done by all sectors involved and continue to approach DRR as a cross-sectoral concern, particularly in light of climate change adaptation.

The mandate given by national policies and laws should also translate into a broader and more meaningful participation of all stakeholders in the process of DRR. A more effective coordination of efforts and collaboration among civil society, private sector and government should result to tangible reduction of vulnerability of all sectors of society and actual mitigation of disaster losses and damage in the future.

Lastly, forging of international and regional partnerships, not only for DRR but also for emergency preparedness and response, will significantly help in strengthening institutions and mechanisms at all levels.

### **Area 3**

*The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities.*

#### **Overall Challenges:**

Another challenge in the areas of response and recovery is resource mobilization. The LDRRM Fund may not be sufficient to support response needs much less post-disaster recovery and rehabilitation. Risk transfer mechanisms and options that could be appropriate given the country's risk profile and financing needs. The serious funding gap needs to be reduced while the economic security of the vulnerable and poor also needs to be addressed.

Risk financing and microfinance could provide a more pro-active and sustainable means to relieve government and households of the economic costs of disasters.

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

With the DRRM Act, the Local Disaster Risk Reduction and Management Fund (LDRRMF) has been pegged to be not less than five percent (5%) of the estimated revenue from regular sources to support DRM activities such as, but not limited to, pre-disaster preparedness programs including training, purchasing life-saving rescue equipment, supplies and medicines, for post-disaster activities, and for the payment of premiums on calamity insurance. This will help local governments to be financially prepared to a certain extent.

Government is also now looking at disaster risk financing as a potential mechanism to proactively lessen the potential economic and financial impacts of disasters in the country. It has recently signed a Memorandum of Cooperation with the Asian Development Bank to implement a study on risk transfer options for large cities.

The cluster approach will continue to be strengthened. Capacity building of DRRM councils in contingency planning at all levels needs to be sustained from province to barangay. A more systematic process of capacity development will make sure that progressive improvements will be made over a period of time. A system of prioritizing LGUs may be devised in tandem with a set of target indicators to monitor progress.

## **Stakeholders**

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### **Departments/organizations that have contributed to the report**

- \* NDRRMC members - DepEd, PHIVOLCS, DILG, NEDA, etc. (Gov) - Ronald I. Flores, Director
- \* Civil Society - EMI, Oxfam GB, etc. (NGO) - Violeta Seva
- \* Miriam College (Acad & Research) - Miguel Puzon
- \* ASEAN Secretariat (Regl Inter-gov) - Marqueza L. Reyes
- \* DRRNet Philippines (Networks & Others) - Ramon Padilla
- \* World Bank Philippines (UN & Intl) - Cathy Vidar