Philippines' Country Profile *

I. General Information

The Republic of the Philippines (RP) is an archipelagic nation located in Southeast Asia. Its length measures 1,850 kilometers, starting from the point near the southern tip of Taiwan and ending close to northern Borneo. Three prominent bodies of water surround the archipelago: the Philippine Sea and the Pacific Ocean on the east, the South China Sea on the west and north, and the Celebes Sea and the coastal waters of Borneo on the south. The Philippines constitutes an archipelago of 7,107 islands and has a total land area of approximately 299,764 square kilometers.

The country's capital is Manila. The population estimated is 94.01 million as of July 2009 with a growth rate of 1.96% and rank as 12th most populous country in the world. Eighty-three percent (83%) of the Filipinos are predominantly Roman Catholics.

The country is divided into three major island groups. Luzon is the largest island group with an area of 141,000 square kilometers, followed by Mindanao covering 102,000 square kilometers, and the Visayas with 57,000 square kilometers. The rest are small islets that emerge and disappear with ebbing and rising of tides.

The Philippines has a tropical maritime climate and is usually hot and humid. There are three seasons: *tag-init* or *tag-araw*, the hot dry season or summer from March to May; *tag-ulan*, the rainy season from June to November; and *tag-lamig*, the cool dry season from December to February. The southwest monsoon (from May to October) is known as the Habagat, and the dry winds of the northeast monsoon (from November to April), the Amihan. Temperatures usually range from 21℃ (70℉) to 32℃ (90℉) although it can get cooler or hotter depending on the season. The coolest month is January; the warmest is May. The average yearly temperature is around 26.6℃ (79.88℉). The average annual temperature of Baguio (our summer capital) at an elevation of 1,500 meters (4,900 feet) above sea level is 18.3℃ (64.9℉), making it a popular destination during hot summers. Likewise, Tagaytay is a favored retreat.

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* *Disclaimer: This report was compiled by an ADRC visiting researcher (VR) from ADRC member countries. The views expressed in the report do not necessarily reflect the views of the ADRC. The boundaries and names shown and the designations used on the maps in the report also do not imply official endorsement or acceptance by the ADRC.*

II. Natural Hazards in the Philippines

A. Natural Hazards Likely to Affect the Country

The Philippines is susceptible to various types of natural hazards due to its geographical location and physical environment; being situated in the "Pacific Ring of Fire", between two Tectonic plates (Eurasian and Pacific), an area encircling the Pacific Ocean where frequent earthquakes and volcanic activity result from the movements of said tectonic plates. In fact, the country experiences an average of 20 earthquakes per day (most are too weak to be felt). There are also about 300 volcanoes, of which 22 are active and have been recorded in history to have erupted; while 5 are considered to be the most active namely: Taal, Mayon, Bulusan, Kanlaon and Hibok-Hibok. Also, being located along the typhoon belt/superhighway in the Pacific makes it vulnerable to extreme weather events. An average of 20-30 typhoons/tropical cyclones visit the country every year, with 5-7 of them considered the most destructive. Its 36,289 kms. of coastline is also vulnerable to tsunami, making the country also highly-susceptible to sea level rise and storm surges. Accompanying or resulting from these tropical cyclone events are secondary phenomena such as landslides, floods/flashfloods/flooding, tornadoes, drought, and heavy/monsoon rains.

Aside from the natural hazards, the Philippines also experiences human-induced incidents such as urban/structural fires, air, land and sea mishaps, drowning, collapsed structure, epidemic/disease outbreak, food poisoning, vehicular accidents, gas explosion, chemical poisoning, oil spillage, grenade/bomb explosion/bombings, civil disturbance, and complex emergencies, particularly those internally displaced citizens as a result of armed conflicts mostly in Southern Philippines.

B. Disaster Impact

From 1970 – 2010, the country was challenged with **292 destructive typhoons** out of the 793 tropical cyclones that entered the Philippine Area of Responsibility (PA); **nine (9) major earthquakes**: 1968 (Casiguran, Aurora), 1973 (Regay Gulf); 1976 (Moro Gulf), 1990 (Luzon, Bohol and Panay), 1994 (Mindoro Oriental), 1999 (Metro Manila and Region I) 2002 (South Cotabato) and 2003 (Masbate); **2 major volcano eruptions**: 1991 (Mt. Pinatubo) and 1993 (Mt. Mayon); **2 major El Nino Phenomenon** (1998 and 2009); **major landslides**: 1999 (Cherry Hills Tragedy), 2000 (Payatas Tragedy), 2004 and 2006 (Southern Leyte) and 2004 (Quezon)

Some of the past major natural disasters which required full interventions of national agencies and international countries and organizations were: Luzon Earthquake in 1990, Mt. Pinatubo Eruption in 1992, Ormoc City Flashflood in 1993, Mt. Mayon Eruption in 1993, El Nino Phenomenon in 1998, Typhoons Reming and Milenyo in 2006, the Southern Leyte landslide in 2006 and Typhoons Ondoy and Pepeng in 2009.

From 1970 – 2009, the annual average disaster direct damage ranges from PhP5 Billion to PhP15 billion (US$ 100 million – 300 million) and further increased by indirect and secondary impact of disasters. The cost of direct damages is equivalent to 5% of the national (GDP). An average of 1,002 casualties annually and flooding is the topmost disaster during the last 5 years.

The last Quarter storms and typhoons of 2009: Tropical Storm "Ondoy" (Ketsana), Typhoons "Pepeng" (Pharma) and "Santi", affected 12 regions in Central, Northern Luzon and Southern Luzon; casualties: 956 dead, 84 missing and 736 injured. The estimated severely affected population reached 9.3M out of the 43.2M population in the affected regions. The total estimated damages and losses incurred were: Php206 Billion or US$ 4.38 Billion which is 2.7% of GDP. More than 90% of the damages and losses were suffered by private sectors. Damages are as follows: Housing – Php 34.4 Billion; Business – Php 111.3 Billion; Transport – 6.5 Billion others around Php 6.3 Billion. A nationwide state of calamity has been declared.

Effects of Typhoon "Ondoy"

III. Disaster Management System

A. Legal Authority

(PD 1566 – old law)

PD 1566 series of 1978 disaster management centered only on the hazard and the impacts of a disaster. It is assumed that disasters cannot be avoided. Most of the plans were on the provision of relief goods and infrastructures like dikes and flood control systems. The government's response to disaster was focused on disaster response. The national and local governments were reactive to disasters.

(DRR/M Bill/Act – Law)

Republic Act (RA) 10121 known as:

"An Act Strengthening the Philippine Disaster Risk Reduction (DRR) and Management System Providing for the National Disaster Risk Reduction and Management Framework and Institutionalizing the National DRR and Management Plan, Appropriating Funds Therefore and for Other Purposes" or "Philippine DRR and Management Act of 2010" – passed into Law on May 27, 2010 (Implementing

Rules and Regulations (IRR) of RA 10121 approved on September 27, 2010)

Salient Features

- Strengthening the institutional set up/paradigm shift from reactive to proactive approach to disaster risk management
- Upholding people's rights to life and property and adherence to internationally accepted principles, norms and standards for capacity building in DRRM and humanitarian assistance
- Adoption of a holistic, comprehensive, integrated , proactive and multi-sector approach in addressing the impacts of disasters, including climate change
- Development, promotion and implementation of a comprehensive National Disaster Risk Reduction and Management Plan (NDRRMP)
- Mainstreaming DRR and Climate Change in national and local development plans and development processes (e.g. policy formulation, socio-economic development planning, budgeting and governance

Comprehensive Disaster Risk Reduction Management Framework

A comprehensive disaster management framework that encompasses disaster risk reduction, mitigation and preparedness in the pre-event; and disaster response, rehabilitation and recovery in the post-event. A framework that has evolved and adapted to lessons of past disaster events as well as emerging concerns, and anchored on the national authority's program thrusts, aimed to, among others, implement the Hyogo Framework for Action 2005 – 2015: Building the Resilience of Nations and Communities to Disasters with the five (5) Thematic Areas/Priorities for Action, as follows:

a. **Governance:** Ensure that disaster risk reduction is a national and local priority with a strong institutional basis for implementation
b. **Risk Assessment and Early Warning:** Identify, assess and monitor disaster risks and enhance early warning
c. **Knowledge Management and Education:** Use knowledge, innovation and education to build a culture of safety and resilience at all levels
d. **Risk Management and Vulnerability Reduction:** Reduce the underlying factors
e. **Disaster Preparedness:** Strengthen disaster preparedness for effective response at all levels

This framework also aims to contribute to the attainment of the UN Millennium Development Goals (UNMDGs), such as poverty eradication and environmental sustainability. The framework is aptly put into a diagram which is easier to understand and comprehensible even to a village level disaster risk management advocate and doer.

Institutional Mechanisms

There are four (4) major institutional mechanisms for DRRM provided for under the new law:

1. DRRMC Networks from the national, regional, provincial, city and municipal level, and BDRRM Committees at the barangay level;
2. Local Disaster Risk Reduction and Management Offices;
3. Office of Civil Defense, and
4. Disaster Volunteers

- Renaming of the present Disaster Coordinating Councils as N/R/L Disaster Risk Reduction and Management Councils (DRRMCs)
- Creation of four (4) posts of Vice-Chairpersons at the National and Regional DRRMCs
- Increase in the membership of DRRMCs
- Enhanced OCD functions and organizational structure
  - OCD Administrator with the rank and privileges of an Undersecretary
  - Can create necessary offices to perform its mandate under the law
  - OCD Civil Defense Officers who are or may be designated as OCDRDs to serve as Chairpersons of the RDRRMCs; OCDRCs as Secretariat thereof
- Abolition of the Barangay Disaster Coordinating Councils (BDCCs) and their powers and functions will be assumed by the Barangay Development Councils which shall serve as the LDRRMCs in every barangay. known as Barangay Disaster Risk Reduction and Management Committee (BDRRMC) and will be one of the Committees under the Barangay Development Council
- Monitoring and Evaluation Functions of OCD
- More empowered community and LGUs

Powers and Functions of the NDRRMC

- NDRRMC empowered with policy-making, coordination, integration, supervision, monitoring and evaluation functions to be carried out through seventeen (17) tasks / responsibilities:

A. Policy-making, Planning and Decision-making

Develop tools / mechanisms for its policy-making, planning and decision-making processes, namely:

- National Disaster Risk Reduction and Management Framework (NDRRMF) that shall provide for a comprehensive, all-hazards, multi-sector, inter-agency and community-based approach to DRRM;
- DRRM Information and Management System and Geographic Information System;
- National Early Warning and Emergency Alert System;
- Risk transfer mechanisms;

- Guidelines and procedures on the Local DRRM Fund releases, utilization and auditing;
- Assessment tools on existing and potential hazards and risks due to climate change in coordination with the CCC;
- National Institutional Capability Building Program for DRRM;
- National Agenda for R & T development on DRRM ,;
- Framework for CCA and DRRM in coordination with the CCC

B. Coordination, Integration and Supervision

- Ensure that the National Disaster Risk Reduction and Management Plan (NDRRMP) is consistent with the NDRRMF;
- Advise the President of the Philippines on status of DRRM implementation;
- Recommend calamity area declaration and calamity fund allocation to restore normalcy in affected areas
- Manage and mobilize resources for DRRM including the NDRRMF;
- Develop vertical and horizontal coordination mechanisms for more coherent DRRM policy and program implementation by sectoral agencies and LGUs;
- Constitute a technical management group to be composed of member agencies of the NDRRMC;
- Coordinate / oversee the implementation of the country's obligations with DM Treaties to which it is a Party and see to it that the country's obligations are incorporated in DRRM frameworks, policies, plans, and programs

C. Monitoring and Evaluation Functions

- Monitor the development and enforcement by agencies and organizations of the various laws, guidelines, codes or technical standards required by this Act and
- Task OCD to conduct periodic assessment and performance monitoring of the member-agencies of the NDRRMC and the RDRRMCs (sub-section p)

The Legal System and Framework

Disaster management in the Philippines has started from a purely disaster response approach by focusing on the provision of assistance or intervention during or immediately after a disaster. Within the same perspective, geophysical approaches prevailed that relied on physical and engineering means such as dams, levees, channel improvements and river training. This has been the practice till the 20th century.

On the other hand, scientific studies have started which focused on prediction and modeling of natural hazards such as earthquakes and floods. Such continued to flourish. With science and technology applied to reduce the impact of hazard on human, this has gradually changed some views and perspectives in addressing disasters. Around the same period, international disaster agencies channeled lots of their resources on humanitarian

assistance, disaster aid, and relief operations. The way of thinking about solutions was that, it is within the domain of public policy applications of essentially geophysical and engineering knowledge.

In such development process, disaster perspective has shifted from reactive to more proactive framework. The humanitarian, relief and response approach in which the intervention was provided only during or immediately after a disaster has gradually shifted to a developmental approach. Within the developmental approach, disasters are seen in a growing manner as a development concern and may arise as a result of unsustainable development practices.

The previously technical approach using engineering and technological solutions including prediction and modeling of natural hazards and modifying hazards were transformed into promoting non-structural and non-engineering measures such as community-based disaster preparedness and early warning, indigenous knowledge, and land use planning, which emphasize the need to modify vulnerabilities (and capacities) instead of hazards.

The practice of single hazard approach in the past has switched to multi or all-hazards approach. The sectoral focus has become inter-sectoral, inter-agency, and an all-government effort. And the public sector led management of disaster became an all-society approach which is participatory, inclusive, transparent, and gender fair.

Such paradigm shift gave equal emphasis to vulnerabilities and capacities aside from hazard. It provided opportunities for land use planning to be promoted as a tool for disaster risk reduction. The shift in focus from hazards to vulnerabilities had emphasized the varying exposure of population groups living in the city, the poorly constructed buildings, the informal settlements, incorrectly sited developments, and the inadequacy of open spaces, among others, as well as capacities of people and institutions to cope with and adapt to natural hazards.

This paradigm shift likewise involved the promotion of non-structural and non-engineering measures such as community-based disaster preparedness and early warning, the use of indigenous knowledge, and land use planning, therefore, encouraging the application of land use policies and land use planning in disaster risk management.

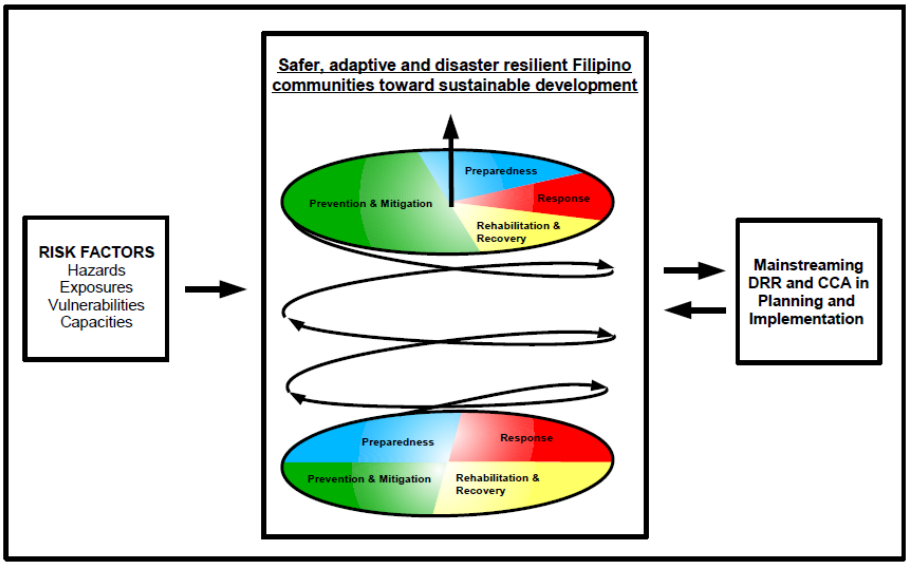
The NATIONAL DRRM FRAMEWORK

The Philippine National DRRM Framework is not only an essential part of our development process but is also an important component to ensure the country's sustainable development. Its effectiveness relies heavily on strongly supported national ownership and leadership of the DRR process.

This national framework is based on the following principles on disaster risk reduction and disaster risk management or DRRM:

- It is about addressing the underlying causes of vulnerability;
- It is a national responsibility within a sustainable development approach;
- It stresses the need for community empowerment and shared responsibilities;
- It is about good responsive governanceand mutually reinforcing partnerships;
- It needs strong and responsive political will, commitment and leadership; and
- It is best done through local and customized adoption (and adaptation)

National Disaster Risk Reduction and Management Framework



The country is challenged by increasing disaster and climate risks caused by dynamic combinations of natural and human-induced hazards, exposure, and people's vulnerabilities and capacities. There is an urgent need for the country to work together through multi-stakeholder partnerships and robust institutional mechanisms and processes so that Filipinos will be able to live in safer, adaptive and disaster resilient communities on the path to developing sustainably.

This DRRM framework indicates the paradigm shift towards a proactive and preventive approach to disaster management. This conceptual representation emphasizes that resources invested in disaster prevention, mitigation, preparedness and climate change adaptation will be more effective towards attaining the goal of adaptive, disaster resilient communities and sustainable development. The Framework shows that mitigating the

potential impacts of existing disaster and climate risks, preventing hazards and small emergencies from becoming disasters, and being prepared for disasters, will substantially reduce loss of life and damage to social, economic and environmental assets. It also highlights the need for effective and coordinated humanitarian assistance and disaster response to save lives and protect the more vulnerable groups during and immediately after a disaster. Further, building back better after a disaster will lead to sustainable development after the recovery and reconstruction process.

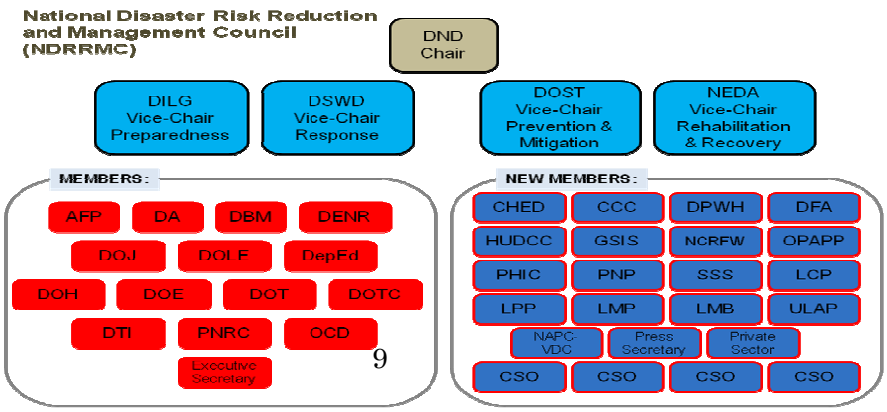
The upward motion indicated by the spiraling arrows represents a bottom-up participatory process, enhanced level of awareness, strengthened multi-stakeholder partnerships, and pooling of resources. These positive changes will be realized through the mainstreaming of DRR and CCA into national and local plans which help us refocus our development goals, objectives and targets to be able to adequately respond to as well as identify and implement appropriate interventions to address the impacts of disaster risks.

Mainstreaming DRR is a means towards (a) refocusing the development goals, objectives and targets to be able to adequately respond to disaster risks; and (b) identifying and implementing appropriate interventions to address the impacts of disaster risks. Mainstreaming DRR is an important step towards avoiding huge losses from disasters. Resources invested in risk reduction are justified because these could prevent or at least minimize enormous costs of post-disaster recovery, repair and reconstruction works.

In the end, these processes will synergize efforts and create rippling positive changes toward addressing the underlying causes of vulnerabilities and mainstreaming DRRM in national and local policy-making, planning, investment programming and in the policy/plan implementation.

The National Disaster Risk Reduction and Management Council (NDRRMC)

- Secretary, DND as Chairperson
- *Four (4) Vice-Chairpersons:*
  - DILG – Disaster Preparedness
  - DSWD – Disaster Response
  - DOST – Disaster Prevention and Mitigation
  - NEDA – Disaster Rehabilitation and Recovery



Members: Thirty-Nine (39)

- Fourteen (14) line departments
  - Department of Health (DOH)
  - Department of Environment and Natural Resources (DENR)
  - Department of Agriculture (DA)
  - Department of Education (DepEd)
  - Department of Energy (DOE)
  - Department of Finance (DOF)
  - Department of Trade and Industry (DTI)
  - Department of Transportation and Communication (DOTC)
  - Department of Budget and Management (DBM)
  - Department of Public Works and Highways (DPWH)
  - Department of Foreign Affairs (DFA)
  - Department of Justice (DOJ)
  - Department of Labor and Employment (DOLE) and
  - Department of Trade (DOT)
- Twelve (12) other government agencies / offices
  - Office of the Executive Secretary
  - Office of the Presidential Adviser on Peace Process (OPAPP)
  - Commission on Higher Education (CHED)
  - Armed Forces of the Philippines (AFP)
  - Philippine National Police (PNP)
  - Office of the Press Secretary
  - National Anti Poverty Commission – Victims of Disaster and Calamities (NAPC-VDC)
  - National Commission on the Role of Filipino Women (NCRFW)
  - Housing and Urban Development (HUDCC)
  - Climate Change Commission (CCC)
  - PHILHEALTH, and
  - Office of Civil Defense (OCD)
- Two (2) Government Financial Institutions
  - Government Service Insurance System (GSIS), and
  - Social Security System (SSS)
- One quasi-government agency - Philippine Red Cross (PRC)
- Five (5) Local Government Units (LGU) Leagues
  - Union of Local Authorities of the Philippines (ULAP)
  - League of Province of the Philippines (LPP)
  - League of Cities of the Philippines (LCP)
  - League of Municipalities of the Philippines (LMP), and

Liga ng mga Barangay (LnB)

- Four (4) Civil Society Organizations
- One (1) Private Sector Organization

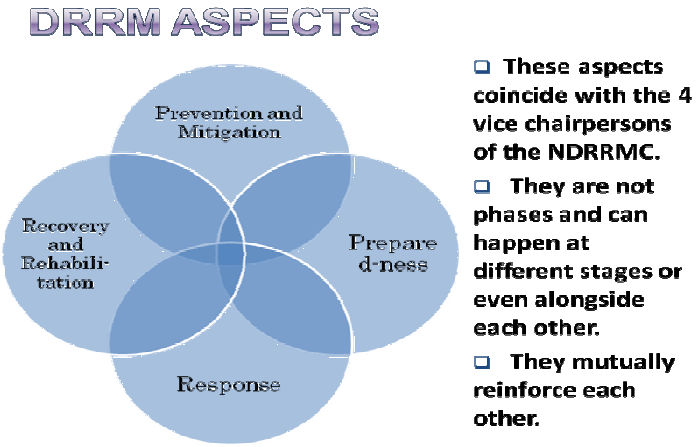
- Executive Director: OCD Administrator with the rank of Undersecretary

DRRM Section 7 (IRR Rule 3 Section 4.) Authority of the Chairperson -The Chairperson of the NDRRMC may call upon other instrumentalities or entities of the government and non-government, civic and private organizations for assistance in terms of the use of their facilities and resources for the protection and preservation of life and properties in the whole range of disaster risk reduction and management.

DRRM IRR Rule 3 Section 5 - Duties and Responsibilities of the National Council members

- The Chairperson, assisted by the four (4) Vice-chairpersons, shall provide the overall direction, exercise supervision and effect coordination of relevant DRRM programs, projects and activities consistent with respective National Council Member Departments or Agency mandates.
- Every member agency shall be assigned functions relevant to their mandates, programs, geographic jurisdiction and special constituencies to be indicated in the NDRRMP. Each agency shall formulate its own DRRM Implementing Plan and their manual of operations.
- Every member agency of the NDRRMC shall establish their respective Emergency Operations Center (EOC), subject to exemptions granted by the National

IRR Section 6: Meetings of the National Council – The National Council shall meet regularly every quarter or the Chairperson may call for a special meeting as the need arises. The Council shall formulate internal rules for its meetings



Prevention and Mitigation:

Department of Science and Technology (DOST) – Lead

- To avoid hazards and mitigate heir potential impacts by reducing vulnerabilities and exposure and enhancing capabilities of communities
- Key Result Areas
  1. Mainstreamed and integrated DRR and CCA in national, sectoral, regional and local development, policies, plans and budget
  2. DRRM/CCA sensitive environmental management
  3. Increased disaster resiliency of infrastructure systems
  4. Community-based and scientific DRR/CCA assessment, mapping, analysis and monitoring
  5. Risk transfer mechanism

Preparedness

Department of the Interior and Local Government (DILG) – Lead

- To establish and strengthen capacities of communities to anticipate, cope and recover from the negative impacts of emergency occurrences and disasters
- Key Result Areas
  1. Community awareness and understanding of the risk factors
  2. Contingency planning at the local level (to include the Incident Command System, Early Warning Systems, Pre-emptive evacuation, stockpiling and equipping)
  3. Local drills and simulation exercises
  4. National disaster response planning

Response

Department of Social Welfare and Development (DSWD) - Lead

- To provide life preservation and meet the basic subsistence needs of affected population based on acceptable standards during or immediately after a disaster
- Key Result Areas
  1. Disaster and Needs Assessment (DANA) as a generic activity (NDRRMC DANA methodology was adopted from ADPC)
  2. Relief operations
  3. Search, Rescue, Retrieval
  4. Dissemination/Information sharing of disaster-related information
  5. WATSAN and Sanitation
  6. Development/provision of temporary shelter
  7. Psychosocial support

8. Early Recovery Mechanism
9. Management of Dead and Missing
10. Evacuation Management
11. Social Protection Intervention
12. Civil and uniformed services coordination

Rehabilitation and Recovery

National Economic and Development Authority (NEDA) – Lead

- To restore and improve facilities, livelihood and living conditions and organizational capacities of affected communities, and reduced disaster risks in accordance with the "building back better" principle
- Key Results Area
  1. Livelihood
  2. Shelter
  3. Infrastructure

OFFICE OF CIVIL DEFENSE

IRR Rule 7. Section 1. Mandate – The Office of Civil Defense (OCD), as the implementing arm of the National Council, shall have the primary mission of administering a comprehensive national civil defense and disaster risk reduction and management program by providing leadership in the continuous development of strategic and systematic approaches as well as measures to reduce the vulnerabilities and risks to hazards and manage the consequences of disasters.

IRR Rule 7. Section 2 The Administrator – The Administrator of OCD shall also serve as Executive Director of the National Council and as such, shall have the same duties and privileges of a department undersecretary. The Administrator shall be a universally acknowledged expert in the field of disaster risk reduction management and of proven honesty and integrity.

DRM Act Section 9 and IRR Rule 7. Section 3 Powers and Functions – The OCD shall have the following powers and functions in partnership and coordination with member agencies and in consultation with key stakeholders, as may be applicable.

(a) Advise the National Council on matters relating to disaster risk reduction and management consistent with the policies and scope as defined in this Act and Rules;

(b) Formulate and implement the NDRRMP within six (6) months from the effectivity of these rules and provide leadership in the implementation of the plan. It shall ensure that the physical framework, social, economic

and environmental plans of communities, cities, municipalities and provinces are consistent with such Plan. The Strategic National Action Plan (SNAP) for Disaster Risk Reduction (DRR) adopted through Executive Order No. 888 shall be used as the strategic foundation and building block for the NDRRMP. The National Council shall approve the NDRRMP.

(c) Identify, assess and prioritize hazards and risks in consultation with key stakeholders;

(d) Develop and ensure the implementation of national standards and standard operating procedures (SOP) in carrying out disaster risk reduction programs including preparedness, mitigation, prevention, response and rehabilitation works, from data collection and analysis, planning, implementation, monitoring and evaluation. These national standards and SPOs shall be developed alongside the NDRRMP.

(e) Review and evaluate the Local Disaster Risk Reduction and Management Plans (LDRRMPs) in coordination with concerned line agencies or instrumentalities to facilitate the integration of disaster risk reduction measures into the local Comprehensive Development Plan (CDP) and Comprehensive Land Use Plan (CLUP);

(f) Ensure that the LGUs, through the Local Disaster Risk Reduction and Management Offices (LDRRMOs) are properly informed and adhere to the national standards and programs;

(g) Formulate standard operating procedures for the deployment of rapid damage assessment and Analysis (DANA) teams, information sharing among different government agencies, and coordination before and after disasters at all levels;

(h) Establish an incident command system (ICS) as part of the country's existing on-scene disaster response system, to ensure effective consequence management of disasters or emergencies.

(i) Establish standard operating procedures on the communication system among provincial, city, municipal, and barangay disaster risk reduction and management councils, for purposes of warning and alerting them and for gathering information on disaster areas before, during and after disasters;

(j) Establish Disaster Risk Reduction and Management Training Institutes in such suitable location as may be deemed appropriate, in accordance of with rule 8 herein

(k) Ensure that all disaster risk reduction programs, projects and activities

requiring regional and international support shall be in accordance with duly established national policies and aligned with international agreements;

(l) Ensure that government agencies and LGUs give top priority and take adequate and appropriate measures in disaster risk reduction and management ;

(m) Create an enabling environment for substantial and sustainable participation of CSOs, private groups, volunteers and communities, and recognize their contributions in the government's disaster risk reduction efforts;

(n) Conduct early recovery and post-disaster needs assessment institutionalizing gender analysis as part of it;

(o) Establish an operating facility to be known as the "National Disaster Risk Reduction and Management Operations Center (NDRRMOC)" that shall be operated and staffed on a twenty-four (24) hour basis;

(p) Prepare the criteria and procedure for the enlistment of accredited community disaster volunteers (ACDVs). It shall include a manual of operations for the volunteers which shall be developed by the OCD in consultation with various stakeholders;

(q) Provide advice and technical assistance and assist in mobilizing necessary resources to increase the overall capacity of LGUs, specifically the low income and in high-risk areas;

(r) Create the necessary offices to perform its mandate as provided under this Act; and

(s) Perform secretariat functions of the National Council; and

(t) Perform such other functions as may be necessary for effective operation and implementation of this Act.

The National Disaster Risk Reduction Management Center

(Camp General Emilio Aguinaldo, Quezon City, Philippines)

Presently, OCD is maintaining 17 fully-operational regional centers which provide secretariat services and the Regional Directors to serve as Regional Chairman to 17 regional disaster risk reduction management councils.

OCD and its Regional Centers operates on a 24/7 basis, manned by OCD personnel round-the-clock, with complementation from selected NDRRMC member-agencies, such as, DSWD, DOH, AFP, DPWH, PRC during emergency situations.

The NDRRMC Operation Center

- Center for coordination of all pre- and post-disaster operational activities
- Central command and control facility
- It does not normally control field assets and leaves tactical decisions to local disaster risk reduction management councils (DRRMCs)

Core functions

- Alert and monitoring
- Multi-agency operational coordination
- Response resource mobilization
- Information management, and
- Program coordination for operations capability upgrade

NDRRMC Operational Framework

The flow of information and response for emergencies is defined by Republic Act 10121 and the Strategic National Action Plan. The National Disaster Risk Reduction Management Operation Center is the operations center of the NDRRMC.

A warning bulletin or information is issued relative to an impending disaster or emergency by any of the warning agencies (PAGASA for meteorological hazards, PHIVOLCs for seismic and geological hazards, PNRI for radioactive contamination, DOH for epidemics, and AFP & PNP for civil unrest). The bulletin or advisory is relayed to the National Disaster Risk Reduction Management Operation Center (NDRRMOC), to concerned regional/field offices, and to the general public through the broadcast media for widest and quickest dissemination.

Upon receipt of the warning bulletin, the NDRRMOC shall:

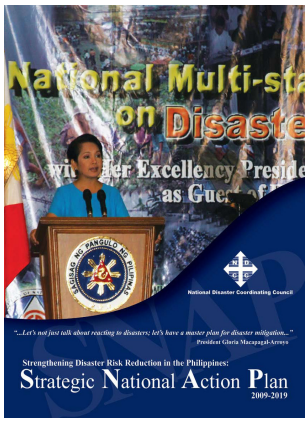
1. Process and evaluate the bulletin;
2. Disseminate the alert notice to the OCD Regional Center/RDRRMOC likely to be affected by the disaster and to cooperating agencies for possible activation of their implementing plans as members of the NDRRMC;
3. Deploy rapid needs and damage assessment team and establish an Incident Command Post in the calamity area;
4. Activate the Emergency Broadcast System, if and when necessary
5. Monitor and coordinate preparedness and actions taken by cooperating/implementing agencies, RDRRMCs and Local DRRMCs to ensure that requirements in the affected areas are effectively addressed and acted upon;
6. Recommend to the President calamity area declaration and/or calamity fund releases, if necessary;

7. Mobilize NDRRMC Response Teams to augment regional and local DRRMCs disaster operations activities.
8. Prepare and submit progress reports to the Department of National Defense Secretary/NDRRMC Chairman, President of the Philippines and NDRRMC Member Agencies and other authorities concerned.

IV. Disaster Management Strategy and Plan

A. Strategic National Action Plan (SNAP)

The Strategic National Action Plan (SNAP) on Disaster Risk Reduction (2009-2019) is a "road map" indicating the vision and strategic objectives of the Philippines for the next 10 years while pursuing the strategic goals of the Hyogo Framework for Action (HFA). It is a by-product of actors and stakeholders who participated in the conduct of dialogues, consultations and discussions - sharing their experiences and good practices on DRR as well as their expectations from the national government, especially from the NDCC. With this "road map", mainstreaming of DRR with plans and policies of national and local agencies, communities, and other sectors will be intensified. The SNAP is an integral part of the nation's commitment to the HFA and other relevant global agreements, as well as support to the achievement of the United Nations Millennium Development Goals (UNMDG).



Consistent with the global commitment, the Philippine SNAP aims to build the resilience of communities to disasters, reduce disaster losses in lives, in the social, economic and environmental assets of communities and the countries. The SNAP objectives provide support to strengthen cooperation and coordination mechanisms among various sectors and stakeholders. It will sustain disaster risk reduction initiatives in the country and promote good practices of individuals, organizations, local government units, and the private sector.

The SNAP takes off from the Four-Point Plan of Action on Disaster Preparedness (4PPADP) of the NDCC and contains 18 priority programs and projects from 2009 to 2019 based on 150 strategic actions gathered after several consultations with stakeholder groups. The SNAP utilizes the multi-hazards approach in managing the impact of natural and human-induced disasters especially the threat of climate change. Another principle of SNAP is that DRR is directly linked to poverty alleviation and sustainable development. The SNAP is also consistent with parallel effort to design the Philippine Comprehensive Disaster Risk Management Framework.

To better implement SNAP, the Philippine legislature enacted a progressive bill to amend the reactive stance that PD 1566 posits. The SNAP rightfully fits into a national

disaster risk management framework which emphasizes the mainstreaming of DRR into national plans and budgets. Approval of SNAP is in progress.

SNAP Strategic Objectives

The figure above presents the five strategic objectives under which the 18 priority SNAP programs/projects are classified. (Please see NDRRM website for details)

B. Update on the Implementation of the NDCC Four-Point Plan of Action on Disaster Preparedness

In early 2005, the NDCC implemented the Four Point Plan of Action on Disaster Preparedness which strengthens the DRM stance of the country and enhances its disaster prevention strategies. This aims to increase public awareness and involvement in measures put in place by the government to minimize the impact of disasters in the future. This plan of action also provides direction to all NDCC member-agencies in terms of the allocation of capacities, capabilities and resources. It has so far achieved the following:

1. **Upgrading of the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) and the Philippine Institute of Volcanology and Seismology (PHIVOLCS) Forecasting Capability**

   PAGASA and PHIVOLCS are the warning agencies for meteorological-hydrological and geological hazards, respectively. The capability upgrade focused on improving forecasting capability of natural hazards such as typhoons, earthquakes, volcanic eruptions and tsunamis through the acquisition of equipment and personnel development. The capability upgrade is geared towards strengthening linkages with foreign forecasting institutions to make forecasting, not only a domestic, but a regional concern. Geo-hazard mapping in identified areas is designed to serve as scientific reference for land-use planning, formulation of

disaster management plans, and establishment of an effective early warning system to include real-time information dissemination.

PAGASA's Forecasting Capability

The PAGASA has undertaken several projects to upgrade and improve its climate and weather forecasting capability through the acquisition of modern equipment and technologies. The capability upgrade focused on improved forecasting of typhoons and other weather-related hazards monitoring and warning services. In July 2005, PAGASA completed the rehabilitation of five (5) weather surveillance radars funded under the Department of Science and Technology (DOST) grant. Weather surveillance radars play a vital role in the observation systems of PAGASA-DOST in support to climate and weather forecasting and typhoon warning operations. Aside from typhoon tracking, these radars are also useful for identifying rain-bearing cloud clusters for flood warning.

Aside from the surveillance radars, PAGASA was also able to secure funds from the Office of the President (OP) and DOST for the establishment of Doppler Weather Radar Network for disaster prevention and preparedness in the country. The radar sites covered are Tagaytay, Subic, Cebu, Tampakan, and Hinatuan. PAGASA was also able to get funding through grant aid from Japan International Cooperation Agency (JICA) for the upgrading of Guian, Virac and Aparri radar stations. Doppler radars can provide timely and accurate observation of atmospheric parameters such as rainfall intensity, wind speed and direction that are useful in typhoon and flood warning.

Also included in the improvement of PAGASA forecasting capabilities is the upgrade of Laoag, Mactan, and Legaspi Upper Air stations which was funded by DOST, and Tanay Upper Air station funded by the Taiwan Economic Cooperation Office (TECO). Upper Air stations conduct observation on the state of the weather at different heights in the atmosphere. Detailed information in the upper layers of the atmosphere is very important in order to get a completed data representation with respect to the vertical layers of the atmosphere and not only at the ground or surface layer. It is useful in climate modeling as well as in formulating weather forecast for aviation. Together with all the other data, the use of upper air observations will result in an increased accuracy of forecasts.

To address the issues on safe and efficient air navigation through improvement of the quality and timeliness of weather forecasts intended for aviation, PAGASA-DOST acquired and installed at the Ninoy Aquino International Airport (NAIA) the Aviation Information System (AVIS) that can access the World Area Forecast System (WAFS) products. The WAFS is a system developed by the World

Meteorological Organization (WMO) and International Civil Aviation Organization (ICAO) to improve the quality of en-route guidance weather forecast provided to international aircraft operations including local aviation.

In its thrust to further enhance its climate and weather monitoring capability, forecasting, and warning, the DOST-PAGASA acquired various satellite receiving systems. Tracking the location of a weather system in oceanic areas where other types of observational data are scarce or not available makes satellite data important if not indispensable. The available data from the MTSAT, NOAA, MODIS and FY2D receiving system will complement the other data and forecasting tools and enhance the accuracy of climate and weather forecasts.

To address the concern on disastrous floods, PAGASA-DOST implemented the JICA Technical Cooperation Project (TCP) entitled “Enhancement of Flood Forecasting and Warning Administration”. The project aimed to address the issues on the issuance of timely and accurate flood forecasts in the major river basins monitoring system in Pampanga, Agno, Bicol, and Cagayan (PABC). As an offshoot of this TCP, the JICA grant project “Upgrading of the Flood Forecasting and Warning System in the Pampanga and Agno River Basin” was implemented and is expected to be completed by March 2010.

Data transmission and dissemination of warnings is also enhanced utilizing Short Messaging System (SMS) Technology. In collaboration with the local government units (LGUs), community-based early warning system on floods was undertaken in areas not covered by PAGASA-DOST existing flood monitoring network.

The establishment of automatic weather station (AWS) is also underway. The AWS is an automated version of the traditional weather station equipped with instruments and equipment to make manual readings of the atmospheric conditions, to provide information to make climate and weather forecasts, and to study the climate patterns. The measurements taken include temperature, barometric pressure, humidity, wind speed, wind direction, and precipitation amounts. AWS observations can be taken more frequently and can provide detailed data in time.

The PAGASA- DOST also established the Community-Based Flood Early Warning System (CBFEWS) in areas with no existing flood forecasting system. The CBFEWS undertakes monitoring and registering rain data and river behavior upstream in order to provide timely warnings to downstream communities from a possible flood. Its main objective is to save human lives by enabling local authorities and the community to take timely mitigation measures to minimize the impacts of floods.

In support to the flood forecasting system of DOST-PAGASA, it also undertakes

hazard mapping for floods and storm surge in order to develop a systematic approach to community based disaster risk management by mapping and identifying the communities that are prone to flood and storm surge that can cause coastal inundation.

2. **Public Information Campaign on Disaster Preparedness -** development, promotion, and implementation of an integrated and coherent public information campaign and strategic communications plan to increase awareness of the public on natural hazards and communicate effectively preparedness measures that can be undertaken by the community in case these hazards translate into emergencies. The increasing trend and momentum on awareness needs to be sustained and complemented by programs focusing also on other aspects of preparedness.
   - The regular conduct of nationwide synchronized Building Emergency Evacuation Plan (B.E.E.P.) drills; tsunami and earthquake drills; distribution of posters and flyers on natural hazards; and other information education campaigns (IEC) activities through the tri-media, has substantially increased awareness of communities, including the various sectors of society.
   - The airing of “Safe Ka Ba?” (Are you safe?) public awareness program and the Disaster Management School-on-Air has reached the consciousness of the general public.
   - The organization of the Private Sector Disaster Management Network (PSDMN) composed of private organizations, INGOs, and NGOs was a positive step forward. This network can make available rapid technical assessment capacities when the need arise utilizing expertise of the Philippine Institute of Civil Engineers (PICE), the Philippine Mines Safety and Environmental Association, and the PHK9 SAR, among others.

3. **Capacity Building for Local Government Units in Identified Vulnerable Areas**

Local Chief Executives (LCEs) have to take leadership role in all phases of disaster management. So, disaster management skills training and contingency planning formulation seminars/workshops have been conducted giving priority to high-risk areas to capacitate the local government units (LGUs). The warning agencies of the country, such as, PHIVOLCS, PAGASA, and the Mines and Geosciences Bureau (MGB-DENR); including the Local Disaster Coordinating Councils (LDCCs); League of Municipalities of the Philippines (LMP); and local, national, international, and non-government organizations are the major proponents. Technical assistance is also provided to LGUs of identified vulnerable communities

in their formulation and development of plans/programs particularly in the area of mitigation and preparedness.

4. Mechanisms for Government and Private Sector Partnership in Relief and Rehabilitation

To come up with a mechanism that will promote government-private sector-community participation synergy, and improve coordination to achieve a seamless interface of local and national interventions through effective logistics management, information management, and redundant communications systems. One is through the forging of Memorandum of Agreement (MOA) and Memorandum of Understanding (MOU) with NGOs, IOs, other government and private institutions (foreign and local) covering response, relief and rehabilitation aspects of disaster management, such as:

- Development of a web-based, GLIDE system associated with CALAMIDAT.PH – a national disaster event database for OCD, NDCC member agencies, development stakeholders, local government units concerned, and international government organizations with Asian Disaster Reduction Center (ADRC)
- Program for Hydrological-Meteorological Risk Mitigation in Secondary Cities in Asia PROMISE Project with Center for Disaster Preparedness Foundation, Inc. (CDP)
- The NDCC and its member-agencies also entered into various engagements and partnerships with several agencies, such as, the Philippine Institute of Civil Engineers (PICE) and the Association of Structural Engineers of the Philippines, Inc. (ASEP) on provision for the organization of a National Response Action Program (NERAP) teams in various chapters of the country to undertake rapid and detailed evaluation of structures in disaster stricken areas.
- Association of Contractors and Equipment Lessors (ACEL) to assist in the emergency rescue operations like demolition of buildings, disposal of debris and provision of construction heavy equipment with operator, free rental charge.
- Philippine Canine SAR Association, Inc. (PHK9SAR)
- National Society for Earthquake Technology (NSET) on the Program for the Enhancement of Emergency Response (PEER)
- World Bank Institute (WBI) on Web-based Natural Disaster Risk Management Courses

- PHapCares Foundation, Inc., for the *"Gamot-Agad"* Program which is aimed to provide immediate dispatch of essential quality medicines to disaster victims and other victims of prevalent emergencies.
- The Philippine College of Surgeons and the Philippine Society for the Surgery of Trauma (PSST) to implement the Disaster Injury/ Trauma Management (DITM) Project. The DITM project consists of the development of a training module on proper medical response to disaster-related injuries and conduct of training on trauma management for rural/municipal health personnel.
- Private Radio Clubs (REACT, TCAG, KABALIKAT CIVICOM of Philippine Mine Safety and Environment Association (PHIMSEA)

C. Institutionalization of the Cluster Approach

In September 2005, the Inter-Agency Standing Committee (IASC) (the primary mechanism for inter-agency coordination of humanitarian assistance; a unique forum involving the key UN and non-UN humanitarian partners), agreed to designate global "cluster leads" - specifically for humanitarian emergencies – in nine sectors or areas of activity. In December 2005, the IASC welcomed the "Cluster Approach" as a mechanism that can help address identified gaps in response and enhance the quality of humanitarian action. It is part of a wider reform process aimed at improving the effectiveness of humanitarian response by ensuring greater predictability and accountability, and at the same time strengthening partnerships between NGOs, international organizations, the International Red Cross and Red Crescent Movement, and UN agencies. In the process, partners are fully involved in decision-making and planning and they have access to global resources, stockpiles, technical expertise, tools, and standards.

The Cluster Approach operates at two levels. At the global level it aims to strengthen system-wide preparedness and technical capacity to respond to humanitarian emergencies by designating global Cluster Leads. At the country level, the aim is to ensure a more coherent and effective response by mobilizing groups of agencies, organizations, and NGOs to respond in a strategic manner across all key sectors or areas of activity, each sector having a clearly designated lead, as agreed by the UN Humanitarian Coordinator and the Country Team, with specific Terms of Reference (ToR), and in support of existing government coordination structure and emergency response mechanisms. This will ensure operational synergy and optimization of deliverable benefits to the affected areas.

The Cluster Approach clearly defines leadership roles among government cluster leads that are expected to craft cluster operational strategies covering phases before, during, and after disasters, which will provide a clear direction for cluster partners and other stakeholders on how, what, when, and where to contribute; facilitate a process aimed at ensuring well-coordinated and effective humanitarian responses in the sector or area of

activity concerned; and, ensure continuous improvement in the implementation of the Cluster Approach in the country by identifying best practices and carrying out lessons learned and activities either individually or in collaboration with other clusters. These arrangements will all redound to more benefits that are timely delivered and wider areas covered.

The Terms of Reference (ToR) sets the standard for a coordinated response and accountability with the: 1) inclusion of key humanitarian partners; 2) appropriate coordination mechanisms; 3) coordination with national/local authorities, local civil society etc.; 4) participatory and community-based approaches; 5) attention to priority cross-cutting issues (age, environment, gender, HIV/AIDS, etc.); 6) needs assessment and analysis; 7) emergency preparedness; 8) planning and strategy development; 9) application of standards; 10) monitoring and reporting; 11) advocacy and resource mobilization; 12) training and capacity building of national authorities and civil society; and, 13) provider of last resort.

The following are the designated Cluster Leads in conjunction with agency mandates (amended, as per NDCC Memorandum No. 12, series of 2008, dated 6 October 2008), merging several clusters and designating government leads:

Cluster	Government Lead	IASC Country Team Counterpart
Food and Non-Food Items (NFI)	Department of Social Welfare and Development (DSWD)	World Food Programme (WFP), United Nations Children's Fund (UNICEF)
Camp/IDP Management, Emergency Shelter and Protection	-do-	International Federation of the Red Cross (IFRC)/UN Habitat, United Nations High Commission for Refugees (UNHCR), International Organization for Migration (IOM)
Permanent Shelter and Livelihood	-do-	International Labor Organization (ILO), UN Habitat
WASH, Health, Nutrition, and Psychosocial Services	Department of Health (DOH)	UNICEF, World Health Organization (WHO), WFP
Logistics and Emergency Telecommunications	Office of Civil Defense/NDCC Operations Center	WFP, UNICEF, United Nations Office for the Coordination of Humanitarian Affairs (UN-OCHA)
Education	Department of Education (DepED)	UNICEF and Save the Children
Agriculture	Department of Agriculture (DA)	Food and Agriculture Organization (FAO)

Early Recovery	Office of Civil Defense (OCD)	United Nations Development Programme (UNDP)
Water	Metropolitan Waterworks and Sewerage System (MWSS)	

During major emergencies and disasters in the Philippines, when the government would request for international assistance, the UN Country Team would implement the Cluster Approach to address the emergency needs of the affected population/areas in close coordination with government counterparts and other humanitarian partners.

During the recent major typhoon disasters in the Philippines (Ketsana, Parma, Lupit, Mirinae), a joint rapid needs assessment was conducted immediately by the NDCC and the UN System in the Philippines to identify and prioritize urgent needs of victims and evacuees on food, shelter, water, sanitation, health and nutrition, among others; providing findings, recommendations, gaps, challenges to improve response and relief efforts. The clusters are incessantly in operation until this time, conducting post-disaster needs assessment, holding regular meetings, undertaking and participating in recovery, rehabilitation, reconstruction initiatives/plans/programs which also focus, aside from those mentioned above, on health and disease surveillance, the environment, agriculture, education, and early recovery.

During Cluster Coordination Meetings, UN agencies, NGOs, IOs, and other partners gather together and discuss, give updates on their assessments, highlighting the need for food, water, medicines, psychosocial support, health, disease surveillance, etc., with each cluster raising their own concerns on their areas of coordination and activities.

In the present institutional set-up, it has been observed that the cluster approach has been working so well in terms of putting together the stakeholders which share the same DRR functions.

Creation of the Water Cluster

The President of the Republic of the Philippines instructed the creation of the Water Cluster, as per NDCC Memorandum Order No. 20, series of 2009, dated 4 October 2009. The Metropolitan Waterworks and Sewerage System (MWSS) was tasked to take the lead in the supply of all water requirements in the conduct of relief operations in response to Typhoon *"Ondoy"* (Ketsana), whether it be for drinking water, clean-up, sanitation, and other related purposes. The Water Cluster shall ensure the effective coordination and prompt delivery of all water requirements of Typhoon *"Ondoy"* relief operations to alleviate the plight of the disaster victims.

This is an amendment to NDCC Circular No. 05 s-2007 as amended on NDCC

Memorandum No. 4, s-2008 and Memorandum No. 12 s-2008 on the “Institutionalization of the Cluster Approach in the Philippine Disaster Management System, Designation of Cluster Leads and their Terms of Reference at the National, Regional, and Provincial Level”.

V. Budget Size on National Level

"Under the General Appropriations Act for CY 2009, Two Billion Pesos (PhP2,000,000,000.00) was allocated as National Calamity Fund (NCF) for aid, relief, and rehabilitation services to communities/areas affected by man-made and natural calamities; repair and reconstruction of permanent structures, including other capital expenditures for disaster operation and rehabilitation activities. Release from this Fund shall be made directly by the Department of Budget and Management (DBM) to the appropriate implementing agencies and or Local Government Units (LGUs) upon approval of the President of the Republic of the Philippines in accordance with the recommendation of the National Disaster Coordinating Council (NDCC)."

Maintenance and Other Operating Expenses (MOOE) - for aid, relief, and rehabilitation services to communities/areas affected, including training of personnel, and other pre-disaster activities - PhP1,150,000,000.00

Capital Outlay (CO) - for repair and reconstruction of permanent structures, including capital expenditures for pre-disaster operations, rehabilitation, and other related activities - P850,000,000.00

Special Provision:

1. Use and Release of Fund - the amount appropriated herein may be made available for relief, rehabilitation, reconstruction, and other works or services in connection with natural calamities, epidemics, as declared by the Department of Health (DOH); crises resulting from armed conflict; insurgency; terrorism; and other catastrophe, which may occur during the budget year of those that occurred in prior years, including pre-disaster activities such as preparation of relocation sites/facilities, and training of personnel engaged in direct disaster management: Provided, that the beneficiaries of relief, rehabilitation, reconstruction, and other works or services in connection with specific calamities, epidemics, crises, and catastrophe already covered by special laws shall not be entitled to support or assistance from this fund until the appropriation that have originally availed of shall have been fully expended. Releases from this fund shall be made directly by DBM to the appropriate implementing agencies and/or LGUs upon approval of the President of the Republic of the Philippines in accordance with the

favorable recommendation of the NDCC for local disaster or the appropriate agency for international crises.

2. Quick Response Fund (QRF)

   25% x PhP1.150B = Department of Social Welfare and Development (DSWD)

   20% x PhP1.150B = Office of Civil Defense (OCD)

   20% x PhP800M = Department of Public Works and Highways (DPWH)

   15% x PhP800M = Department of National Defense (DND)

   Provided, that other government agencies concerned may be allocated their QRFs on a need basis upon the favourable recommendation of the NDCC or the appropriate agency: Provided further, that the QRF shall be released immediately by the DBM and shall serve as a stand-by fund to be used for relief and rehabilitation programs in order that the situation and living conditions of the people living in communities or areas stricken by calamities, epidemics, crises, and catastrophe occurring during the year may be normalized as quickly as possible. Provided, finally, that the agencies availing of their QRFs shall not pre-allocate the same to their subordinate agencies and shall report to the NDCC or the concerned government agency the status of the utilization of such fund on a quarterly basis, copy furnished the DBM.

3. Requirements in Granting Calamity Fund to the Local Government Units (LGUs):
   a. Local Disaster Coordinating Council (DCC) Damage Report/Calamity Impact Assessment Report/Work and Financial Plan (to include pictures)
   b. Sangguniang Resolution declaring the area under a State of Calamity/Imminent Danger and appropriating local counterpart for the project
   c. Due to limited CY 2009 Calamity Fund, the Local Chief Executives (LCEs) concerned shall certify thru a Sangguniang Resolution, assuring the NDCC that whatever amount be provided by NDCC, the project shall be completed/finished
   d. Endorsement of Regional Disaster Coordinating Council (RDCC) Chairman and OCD Regional Director
   e. Specific and reasonable recommended amount for the project
   f. Any other justification to grant request, and Implementing Agency for the project

VI. Progress on the Implementation of the Hyogo Framework for Action (HFA)

(Please click on the link below on the Government of the Philippines' National Progress Report on the Implementation of the Hyogo Framework for Action (HFA), as of 29 May 2009.

* http://www.preventionweb.net/files/7495_Philippines%5B1%5D.pdf

VII. Current Major Disaster Risk Reduction Strategies/Initiatives

A. Tools that We Use

1. NDRRMC short messaging service (SMS) Alert and Warning System (SAWS) - http://saws.ndrrmc.gov.ph
2. NDRRMC Website - http://ndrrmc.gov.ph/home/
3. NDRRMC-OCD Geographic Information System (GIS)

B. Governance

1. Development of Policies and Guidelines
   a. Forging of national and regional agreements (e.g. ASEAN Agreement on Disaster Management and Emergency Response (AADMER), International Humanitarian Assistance Network (IHAN), Standard Operating Procedures for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations (SASOP), Cluster Approach) to define the detailed procedures and mechanism in facilitating accommodation of international humanitarian assistance
   b. Finalization of the Implementing Rules and Regulation (IRR) and submission for approval for the full implementation of the DRRM Bill/DRM Act which shall be known as the *"Philippine Disaster Risk Reduction, Management and Recovery Act of 2009"* (Senate Bill No. 3086 entitled: *"An Act Strengthening the Philippine Disaster Risk Reduction, Management and Recovery Capability by Institutionalizing the National Disaster Risk Reduction, Management and Recovery Framework, Appropriating Funds Therefor and For Other Purposes"*) without the IRR the DRM bill cannot be fully implemented and while awaiting for the IRR the next step is to formulate the NDRRM Plan.
2. National Assessment of the State of DRM in the Philippines (Asian Development Bank (ADB)/UNDP) – to assess the state of DRM in the Philippines, augment the Hazards Mapping and Assessment for Effective Community-based Disaster Management (READY Project's) community awareness raising and mobilization towards preparedness, and to assess the country's other needs towards development of a holistic DRM framework.
   a. Assessment of DRM Issues in the Philippines
   b. Formulation of 50 Community Contingency Plans
   c. Documentation and Dissemination of Lessons Learned
   d. Preparation of NDRRM Framework
3. Strategic National Action Plan (SNAP) Project (European Union (EU)/UNISDR/UNDP)
   a. Establishment of a Multi-stakeholder Consultative Mechanism on DRR

b. Formulation of a Strategic National Action Plan in the Philippines
c. Development of DRR Capacity Building Programme for Selected Sectors
d. Support to Mainstreaming of DRR in Selected Sectors

4. Supporting Local Government Capacity to Manage Natural Disaster Risks in the Philippines (World Bank/Department of the Interior and Local Government (DILG)
5. Mainstreaming Disaster Risk Reduction in Local Governance (German Technical Cooperation (GTZ)/DILG/European Commission on Humanitarian Aid Organization for Disaster Preparedness (ECHO)
6. Partnership for Disaster Reduction in Southeast Asia (PDRSEA) Phase 4 Project (ECHO/Asian Disaster Preparedness Center (ADPC)
   a. National Strategic Plan on Community-Based Disaster Risk Management (CBDRM)
   b. CBDRM Pilot Project in Albay Province
   c. CBDRM Training for Local Authorities
   d. Integration of CBDRM Recognition Scheme in the Gawad KALASAG *("Kalamidad at Sakuna ay Labanan, Sariling Galing ang Kaligtasan")* Awarding
7. Learning from Good Practices in DRM (ECHO/Oxford Committee for Famine Relief – Great Britain (OXFAM GB)
   a. CBDRM Case Studies Development and Publication
   b. Promotion and replication of CBDRM Good Practices and Institutionalization of DRM Office

C. Risk Assessment and Early Warning

1. Hazards Mapping and Assessment for Effective Community-based Disaster Management (READY Project) (UNDP/AusAID/ADB/Department of Science and Technology (DOST)/Department of Environment and Natural Resources (DENR)/ National Mapping and Resource Information Authority (NAMRIA) (June 2006 to May 2011) - covers 27 high-risk provinces to natural hazards. The project aims to address the problem of disaster risk management (DRM) at the local level by 1) institutionalize and standardize DRM measures and process; 2) to empower the most vulnerable municipalities and cities and enable then to prepare disaster risk management plans and to develop a systematic approach to community based disaster risk management. The project has three main components:
   a. Multi-hazard identification and assessment
      - Ground rapture (active faults) mapping

- Ground shaking mapping
- Liquefaction hazard mapping
- Tsunami hazard mapping
- Rainfall induced landslide hazard mapping
- Floods and flashfloods mapping
- Storm surge hazard mapping

b. Community-Based Disaster Preparedness
   - Development of community based early warning system
   - Installation of rain gauges, communication set-ups, water levels, signage, and conduct dry runs
   - Development of community evacuation plan, installation of signage, training of trainers and conduct of drills
   - Development of IEC strategies and materials for specific target groups
   - Conduct of information and education campaign (Mayors, barangay captains, municipal planners, deputized coordinators, high school and elementary school teachers)
   - Distribution of pamphlets, flyers and posters

c. Initiate the mainstreaming of risk reduction into the local development planning process
   - Conduct preparatory meeting
   - Provision of training for rapid earthquake damage assessment system (REDAS) to local government units and its planners
   - Mainstreaming/institutionalization thru consultation and resource mobilization and donor coordination (partnership with other organizations both local and international)

2. National Disaster Coordinating Council – Collective Strengthening of Community Awareness to Natural Disasters (NDCC-CSCAND) (AusAID–DFAT/Philippine Institute of Volcanology and Seismology (PHIVOLCS)/Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)/NAMRIA/Mines and Geosciences Bureau (MGB-DENR)
3. Government of the Philippines (GoP) Harmonization and Prioritization of Hazard Mapping to complement the efforts of READY Project - covers additional 16 provinces
4. Climate Change Adaptation Project (Spanish Government/World Bank/DENR) – a study to establish the impact of climate change in the agriculture sector in two pilot areas (Bicol Region and Region 2).

D. Knowledge Management and Education

1. Development of a web-based GLIDE associated national disaster event database under the CALAMIDAT.ph – a collaborative project with the ADRC
2. NDRRMC–WBI web-based DRM Courses
3. Priority Implementation Project on "Mainstreaming Disaster Risk Reduction into the Education Sector and Development in the Philippines" (MDRD-EDU) (ADPC/UNDP/ ECHO)

   Phase I: January 2007 - April 2008

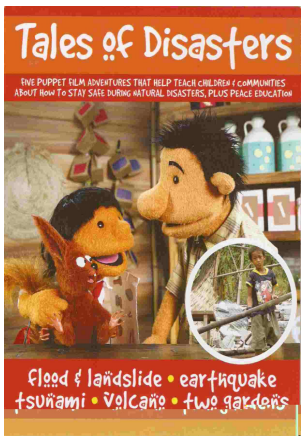
   Accomplishments: 1) Development of DRM modules for secondary school curriculum, 2) Training of teachers (ToT) on the use of the modules, 3) Pilot-testing of the DRM module in six (6) schools in the Philippines, and, 4) Revision of the DRM module according to the findings in the pilot-testing.

   A total of 1,020 students and 75 teachers, regional educational supervisors, and officers have benefited from the project.

   Phase II: November 2008 - December 2009

   The second phase of the MDRD-EDU Project aims to provide "Support to the Implementation of the HFA through MDRD into Development Planning and Implementation: Advocacy and Pilot Project Implementation in the Education Sector in Three Southeast Asian Regional Consultative Committee (RCC) Member Countries".

   Phase II also intends to institutionalize the DRR modules and the ToT module (developed in Phase I) in the national curriculum and in the teachers training system.



4. Stepping up of Department of Education's (DepED's) efforts on production and distribution of educational multi-media on natural and man-made hazards
5. Continuous conduct of hazard-specific multi-sectoral Contingency Planning Workshops
6. Enhancing effective incident management through conduct of trainings on Incident Command System (ICS)
7. Introduction of the ASEAN Rapid Damage Assessment and Needs Analysis (RDANA) Training for effective response
8. Continuous conduct of Collapsed Structure Search and Rescue (CSSR) and Medical First Responders (MFR) trainings under the Program for Enhancement of Emergency Response (PEER) Project (National Society for Earthquake Technology

(NSET)/USAID)

9. Conduct of Nationwide Water Search and Rescue (WASAR) Training for local government and volunteer rescue groups in order to enhance their response capacity for flooding and landslide incidents

10. Capacity-building of health personnel through skills development courses (e.g. Basic Life Support) and management courses (e.g. Hospital Preparedness for Emergency (HOPE) Course)
11. PHIVOLCS, PAGASA, and DENR continue to hold Seminars/Trainings on Seismic and Hydrological-Meteorological Hazards Awareness and Preparedness

E. Risk Management and Vulnerability Reduction

1. Mainstreaming Disaster Risk Management in Sub-National Development and Land Use/Physical Planning in the Philippines (ECHO/UNDP/National Economic and Development Authority (NEDA)
   a. Formulation of Guidelines
   b. Formulation of DRR-enhanced plans (Region 1 and Surigao Del Norte)
   c. Documentation of the application of the risk assessment methodology (Leyte, Southern Leyte, Surigao Del Sur, and Real, Infanta, and General Nakar Municipalities in Quezon Province (REINA areas)
   d. Training of 400 regional and provincial land-use planners nationwide
2. Priority Implementation Project on Mainstreaming DRR in the Infrastructure Sector (ADPC/Department of Public Works and Highways (DPWH) by incorporating Risk Impact Assessment procedures into planning process before construction of new roads and bridges
3. Mines and Geosciences Bureau - Department of Environment and Natural Resources (MGB-DENR) carries out the National Geo-hazards Mapping; Suitability Assessment of Relocation Sites; and Environmental Impact Assessment
4. Implementation of the “Be Better, Build Better” program that envisions the construction of innovative school buildings that are not only conducive for learning but also safe from disasters

F. Disaster Preparedness

1. Update on the Implementation of the NDCC Four-Point Plan of Action on Disaster Preparedness (Please refer to page 25 of this document)
2. Annual Observance of the National Disaster Consciousness Month (NDCM)

(July) – as per Executive Order No. 137 declaration, dated 10 August 1999

3. Search for Excellence in Disaster Management and Humanitarian Assistance (Gawad KALASAG) – this search aims to recognize outstanding performance of Local Disaster Coordinating Councils (DCCs) (Provincial, Cities, Municipalities, and Barangays), private/volunteer organizations, local and national non-government organizations (NGOs) providing humanitarian assistance, and government responders (GOERs), as major stakeholders and partners in the implementation of disaster management programs and activities. It also aims to recognize individuals, groups, or institutions that have shown extraordinary courage, heroism, self-sacrifice, and bravery against all odds in times of natural and human-made disasters and emergencies.

4. National campaign to “Keep the Philippines Bird Flu Free” through the National Avian Influenza Task Force (NAITF) and the civil society organizations led “AI/PI Network”.
5. Institutionalization of the Cluster Approach in the Philippine Disaster Management System

VIII. ADRC Counterpart

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