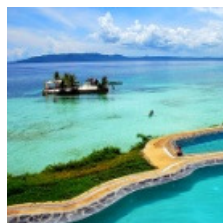


Ameerha P. Ortega (VR)

# Philippines' Country Report 2014



## **Disclaimer**

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## I. The Philippines

The Republic of the Philippines is located in Southeast Asia situated in the Western Pacific Ocean. Bordered by the Pacific Ocean to the east, the West Philippine Sea to the west, and the Celebes Sea to the south. The Philippines constitutes an archipelago of 7,109 islands with a total land area of approximately 299,764 square kilometers. Its 36,289 kilometers of coastline makes it the 5th longest coastline in the world.

There are three (3) major island groups namely Luzon, Visayas and Mindanao. Luzon is the largest island group with 141,000 sq. while Visayas is the smallest island group with 57,000 sq. kms., and lastly, Mindanao is second to Luzon with 102,000 sq. kms. The population is 100,096,496 as of July 1, 2014.

Manila is the capital city of the Philippines. The city of Manila is located on the eastern shore of Manila Bay and it has a total population of 1,652,171 (as of May 2010) making it the second most populous city in the Philippines. The populace inhabit a land area of only 2,498 hectares, making Manila arguably the most densely populated city in the world. Manila (and more broadly, Metro Manila) is the economic and political capital of the Philippines, home to extensive commerce and some of the most historically and culturally significant landmarks in the country, as well as the seat of the executive and judicial branches of the government.



The Philippines has a tropical maritime climate that is usually hot and humid. There are three seasons: tag-init or tag-araw is the hot dry season or summer from March to May; tag-ulan or the rainy season is from June to November; and tag-lamig or the cool dry season is 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 °C (70 °F) to 32 °C (90 °F) although it can get cooler or hotter depending on the season. The coolest month is January and the warmest is May.

Filipino and English are the official languages. Filipino is a standardized version of Tagalog, spoken mainly in Metro Manila and other urban regions. Both Filipino and English are used in government, education, print, broadcast media, and business. The constitution mandates that Spanish and Arabic shall be promoted on a voluntary and optional basis.

The Philippines is a secular state with a constitutional separation of church and state. As a result of Spanish cultural influence, the Philippines is one of two predominantly Roman Catholic countries in Asia. More than 90% of the population is Christian: about 81% belongs to the Roman Catholic Church while 9.5% belongs to other Christian denominations.

According to National Commission on Muslim Filipinos (NCMF), as of 2012 Muslims comprised 11% of the population, most of them live in parts of Mindanao, Palawan, and the Sulu Archipelago – an area known as Bangsamoro or the Moro region. Some have migrated into urban and rural areas in different parts of the country. Most Muslim Filipinos practice Sunni Islam according to the Shafi'i school.

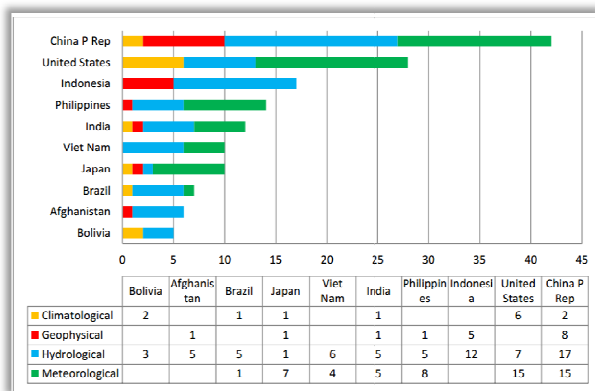
## II. The Philippines Disaster Risk Profile

According to the World Risk Index Report 2014, the Philippines places **SECOND** out of 171 countries ranked according to their “risk score” or their exposure to hazards such as earthquakes, floods and storms, drought and sea level rise.

Rank	Country	World Risk Index	Exposition	Vulnerability	Susceptibility
1.	Vanuatu	36.50 %	63.66 %	57.34 %	36.40 %
<b>2.</b>	<b>PHILIPPINES</b>	<b>28.25 %</b>	<b>52.46 %</b>	<b>53.85 %</b>	<b>33.35 %</b>
3.	Tonga	28.23 %	55.27 %	51.08 %	29.15 %
4.	Guatemala	20.68 %	36.30 %	56.98 %	37.92 %
5.	Bangladesh	19.37 %	31.70 %	61.10 %	40.28 %

“ The World Risk Index is a tool used to assess and estimate the disaster risk of a country. The aim of the Index is to demonstrate that not only the magnitude or intensity of a natural event influences disaster risk, but a multitude of different factors such as the political and institutional structures, the state of infrastructure or the nutrition situation, economic and environmental conditions of a country determine whether a natural hazard will turn into a disaster. ”

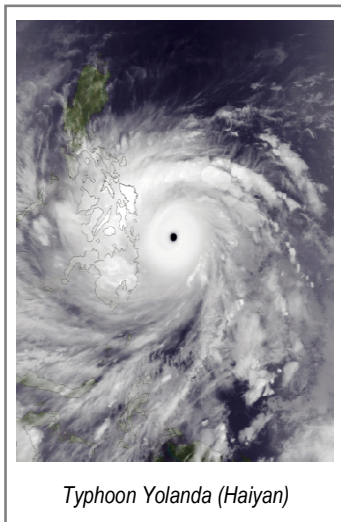
Furthermore, the Annual Disaster Statistical Review 2013 reveals that the Philippines Rank No. 4 in number of reported events in 2013 (left) and Rank No. 1 in terms of disaster mortality in 2013 (right).



Country	Disaster distribution	No. of deaths
<b>Philippines</b>		7,750
<b>India</b>		7,119
<b>China</b>		1,395

“ The Annual Disaster Statistical Review is published by Centre for Research on the Epidemiology of Disasters (CRED). CRED has been active for more than 40 years in the fields of: international disaster and conflict health studies, research and training activities linking relief, rehabilitation, and development. CRED has maintained EM-DAT, a worldwide database on disasters. It contains essential core data on the occurrence and impacts of more than 13,000 natural and 7000 technological disasters in the world dating from 1900 to the present. The data are compiled from various sources, including UN agencies, non-governmental organizations, insurance companies, research institutes and press agencies. Priority is given to data from UN. ”

The international studies and researches proved the vulnerability of the county to almost all types of natural hazards. The Philippines have been leveled as one of the most disaster-prone countries in the world and it’s mainly because of its geographical and geophysical location and physical characteristics. The country lies within the Western Pacific Basin, a generator of climatic conditions.



*Typhoon Yolanda (Haiyan)*

Tropical storms or typhoons accompanied by heavy rain and/or strong winds that may result in floods, landslides and storm surge are the most prevalent types of hydro-meteorological hazards in the country. The Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) reports that every year, an average of twenty (20) tropical cyclones enter the Philippine Area of Responsibility (PAR), nine (9) of which makes a landfall and five (5) of which shall be most destructive.

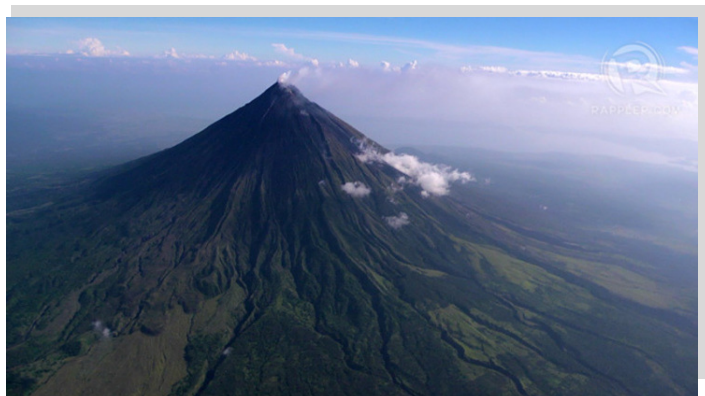
And in the past, it has been noticeable the number of cyclones being formed in the West Philippine Sea and damaging effects of Southwest Monsoon, commonly known as Hagabab, in the Luzon Regions.

The Philippines is situated along a highly seismic area lying along the Pacific Ring of Fire where two major tectonic plates (Philippine Sea and Eurasian) meet and is highly-prone to earthquakes and volcanic eruptions. According to the Philippine Institute on Volcanology and

Seismology (PHIVOLCS), the country experiences an average of 20 earthquakes per day and around 100-150 earthquakes felt per year and 90 destructive earthquakes have been recorded for the past 400 years, one (1) in every five (5) years. The 1990 Luzon Earthquake is the most notably devastating earthquake disasters in the Philippines but recently Negros Oriental was hit by earthquake on February 2012 with 6.9 Magnitude and Bohol Earthquake on 2013 with 7.2 Magnitude.

There are around 300 volcanoes in the Philippines, of which 23 are active, 26 are potentially active and have recorded 170 eruptions for past 400 years. Volcanic eruptions causes lava flows, pyroclastic flows, ashfall and volcanic gasses while lahar flows, secondary explosions, debris avalanche or volcanic landslides, fissuring and tsunami are hazards indirectly related to volcanic eruption. Volcanic eruption of the Mount Pinatubo in June 1991 was the largest volcanic explosion in the 20th century. It killed 640, affected 1,036,065. About 40,000 houses were destroyed, and more than 70,000 houses were damaged.

In September 2014, PHIVOLCS upgraded the alert level of Mayon Volcano to Level 3 which means that potentially eruptible magma has been intruded and continues to be intruded to be in the edifice. At any given time in the following weeks to months, this magma can eventually be erupted quietly as lava flows or explosively as vertical eruption columns and pyroclastic flows or both. A total of 14,400 families or 60,545 persons were affected in the municipalities of Albay Province.



*Photo credit: www.rappler.com*

Though it is seldom experience but the Philippines is also prone to tsunami. 41 tsunamis have been recorded for the past 400 years and the arrival time is typically around 2 to 30 minutes only. The 1994 Mindoro Tsunami is the recent record of arrival of tsunami in the Philippines.

Aside from the natural hazards, the country also experiences human induced-disasters brought about or influenced by political and socio-economic factors, among others. Violence continues to plague the country, with most fighting occurring in the South. Many are forced to evacuate during

times of conflict. Intense fighting between government forces and the Moro Islamic Liberation Front (MILF) during the first half of the year 2009 resulted in the displacement of hundreds of thousands of civilians. Recently, September of 2013, another attack was launched by the MILF resulting to hundreds of deaths and wounded and thousands lost their homes. Armed fighting in the South continues to threaten the security of civilian communities. Thousands of Internally Displaced Persons (IDPs) remain in the custody of their relatives or temporarily harbored in safe places. The state of Mindanao hinges upon a lasting peace settlement mechanism, so that IDPs are protected from collateral damage of every armed conflict. Such disasters consequently cause public anxiety, loss of lives, destructions of properties and sometimes socio-political stability.

## Recent Major Disasters

### ▪ Typhoon Hagupit (December 2014)

Typhoon Hagupit, locally known as Typhoon "Ruby" entered the Philippines on 4 December 2014 at 4:00AM with maximum winds of 175kph and gustiness of 210kph and is moving West Northwest at 25kph. Typhoon Hagupit is being compared to last year's Super Typhoon Yolanda that also enters PAR on the last quarter of the year.

A total of 944,249 families or 4,149,484 persons were affected in Regions III, IV-A, IV-B, V, VI, VII, VIII, CARAGA and NCR. There were 18 fatalities and 916 injured persons and damaged 290,670 houses. Furthermore, it damaged infrastructure and agriculture amounting to Php5,090,265,462.00.

### ▪ Volcanic Activity (September 2014)

Mayon Volcano (*Bulkang Mayon*), also known as Mount Mayon, is an active volcano in the Province of Albay. Mayon is the most active volcano in the Philippines having erupted over 49 times in the past 400 years.

On 12 August 2014 a new 30m-50m high lava dome appeared in the summit crater. This event was preceded by inflations of the volcano (measured by precise leveling, tilt data, and GPS), and increases in sulphur dioxide gas emissions. On 14 September, rockfall events at the southeastern rim of the crater and heightened seismic activity caused PHIVOLCS to increase the alert level for Mayon from 2 to 3, which indicates relatively high unrest and that magma is at the crater and that hazardous eruption is possible within weeks. The rock falls, and visible incandescence of the crater from molten lava and hot volcanic gas indicated a possible incipient breaching of the growing summit lava dome. On 15 September, NASA's Moderate-Resolution Imaging Spectroradiometer (MODIS) detected thermal anomalies near Mayon's summit, consistent with magma at the surface.

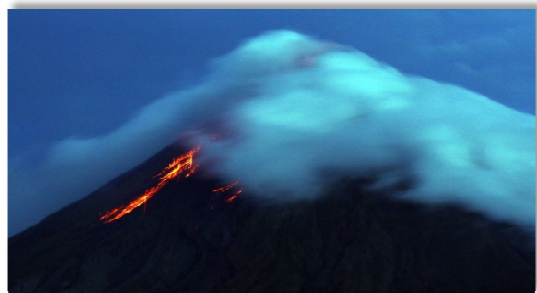


Photo credit: .wikipedia.org

On 16 September 2014, Provincial Governor Joey Salceda said that the government would begin to "fast-track the preparation to evacuate 12,000 families in the 6-8 km extended danger zone", and soldiers would enforce the no-go areas. On 18 September 2014, PHIVOLCS reported 142 Volcanic Tectonic Earthquake events and 251 rockfall events during the past day. White steam plumes drifted to the south-southwest and rain clouds covered the summit. Sulfur dioxide (SO<sub>2</sub>) emission was measured at 757 tonnes/day on 17 September 2014, after it had peaked at 2,360 tonnes/day on 6 September 2014. Ground deformation (precise leveling and tilt meters) during the 3rd week of August 2014 recorded edifice inflation.

On 19 December 2014, the Alert Level Status of Mayon Volcano has been lowered from Alert Level 3 to Alert Level 2. Since the last recorded seismic swarm on 29 November, a general decline in the overall activity of Mayon Volcano has been observed as indicated in the monitored parameters: Volcanic Earthquake Activity, Ground Deformation, Gas Emission, and Visual Observation of the Summit.

A total of 14,400 families / 60,545 persons were affected in 39 barangays in two (2) cities and five (5) municipalities of Albay Province.

▪ **Super Typhoon Haiyan (November 2013)**

Super Typhoon Haiyan, locally known as Typhoon Yolanda entered the Philippine Area of Responsibility PAR on 6 November 2013 and made landfall on (1) Guiuan, Eastern Samar; (2) Tolosa, Leyte; (3) Daanbantayan, Cebu; (4) Bantayan Island, Cebu; (5) Conception, Iloilo; and finally (6) Busuanga, Palawan and left the Philippines on 9 Nov 2013. The wrath of “Yolanda” affected a total of 3,424,593 Families or 16,078,181 Persons in 12,139 Brgys in 44 Prov, 591 Mun, 57 Cities in the Regions of IV-A, IV-B, 5,6,7,8,10,11 & Caraga. A total of 1,140,332 houses were damaged and killed 6,318 individuals, 28,689 were injured and 1,061 went missing during the onslaught. The dreadful event left a total of PhP89,598,068,634.88 worth of damages to infrastructure, productive, social and cross-sectoral sectors.

Due to the massive destruction and immense effects of TY Yolanda, the President issued Presidential Proclamation No 682 declaring a state of national calamity on 11 Nov 2013 and Presidential Assistant for Recovery and Rehabilitation (PARR) was designated to oversee the TY Yolanda Reconstruction and Rehabilitation.

▪ **Earthquake in Central Visayas (October 2013)**

An earthquake of tectonic origin with 7.2 magnitude occurred in Region VII on 15 Oct 2013 at about 8:12AM with an epicenter at Sagbayan, Bohol and recorded 3,198 aftershocks and 94 of which were felt. It causes 222 fatalities, 976 were injured, and 8 were missing.

Secondary to the quake, landslide incidents occurred in different municipalities in Bohol. Stampede occurred at Barba Sports Complex in Toledo City and Pinamungahan Auditorium both in Cebu. A ground subsidence was also reported by Mines and Geosciences Bureau (MGB) at Purok 7 and 8 Barangay Poblacion I, Tagbilaran City, Bohol and residents nearby were advised to preemptively evacuate.



A total of 671,103 families / 3,221,248 persons were affected in 1,527 barangays in 60 municipalities and 6 cities in 6 provinces of Regions VI and VII. A total of 73,002 houses, 41 bridges and 18 roads were damaged. A total of PhP2,257,182.90 worth of damaged roads, bridges, flood control, school buildings, hospitals and other public buildings.



▪ **Armed Conflict in Zamboanga (September 2013)**

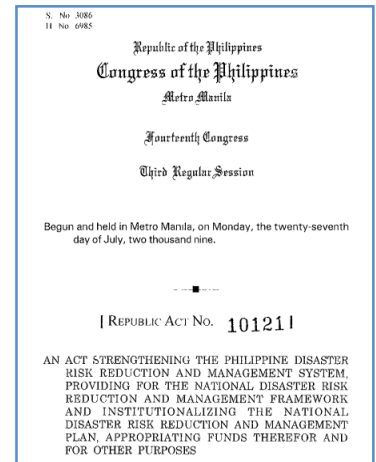
23,794 families or 118,819 persons were displaced from their homes when armed rebels took 4 Brgy in the City of Zamboanga on 9 Sept 2013. 140 were killed in the battle and wounded 268 individuals and 10,160 houses were damaged and a total of 200M pesos worth of facilities and houses were damaged.

Series of meetings was conducted: On 14 Sept, for the conduct of Rapid Needs Assessment to the 10 evacuation areas; on 23 Sept, for the organization of cluster approach and early recovery and rehabilitation; and on 26 Sept, in coordination with the Regional Development Council IX, a planning meeting was convened for the rehabilitation of Zamboang City.



### III. Philippines Disaster Risk Reduction and Management System (PDRRMS)

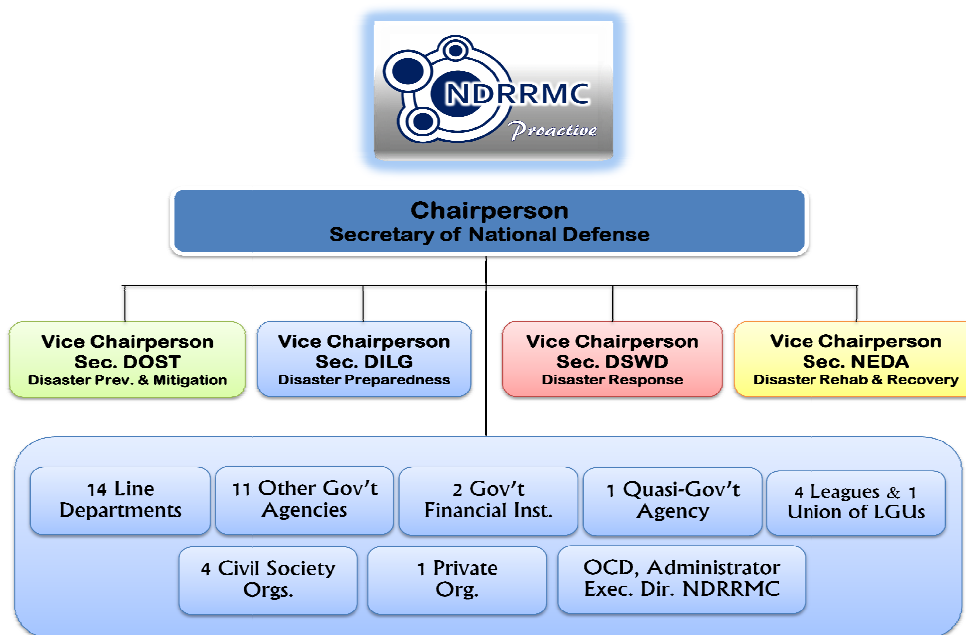
On 27 May 2010, the Republic Act 10121 or the Philippine Disaster Risk Reduction and Management (PDRRM) Act was passed into law and paved the way for the need to “adopt a disaster risk reduction and management approach that is holistic, comprehensive, integrated, and proactive in lessening the socio-economic and environmental impacts of disasters including climate change, and promote the involvement and participation of all sectors and all stakeholders concerned, at all levels, especially the local community.” The Act provides for the development of policies and plans and implementation of actions and measures pertaining to all aspects of disaster risk reduction and management, including good governance, risk assessment and early warning, knowledge building and awareness raising, reducing underlying risk factors, and preparedness for effective response and early recovery.



The former National Disaster Coordinating Council (NDCC) is now known as the National Disaster Risk Reduction and Management Council (NDRRMC) or sometimes called as that National Council. The NDRRMC is empowered with policy-making, coordination, integration, supervision, monitoring and evaluation functions shall carry out 17 responsibilities as stipulated in the law. The NDRRMC Chairperson may call upon other instrumentalities or entities of the government and nongovernment and civic 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. This authority includes the power to call on the reserve force as defined in Republic Act No. 7077 to assist in relief and rescue during disasters or calamities.

The National Council is headed by the Secretary of National Defense (DND) as Chairperson with Secretary of Science and Technology (DOST) as Vice Chairperson for Prevention and Mitigation, the Secretary of Department of Interior and Local Government (DILG) as Vice Chairperson for Preparedness, the Secretary of Department of Social Welfare and Development (DSWD) as Vice Chairperson for Disaster Response, and Director-General of National Economic and Development Authority (NEDA) as Vice Chairperson for Disaster Recovery and Rehabilitation.

The National Council is composed of 43 members coming from various sectors in the country.



## The Office of Civil Defense

The Office of Civil Defense (OCD), as stipulated in Section 8 of RA 10121, 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.

The Administrator of the OCD serves as the Executive Director of the National Council and, as such, shall have the same duties and privileges of a department undersecretary. All appointees shall be universally acknowledged experts in the field of disaster preparedness and management and of proven honesty and integrity. The National Council shall utilize the services and facilities of the OCD as the Secretariat of the National Council.

“We  
**ORCHESTRATE**  
Disaster Management Activities with Utmost  
**COMMITMENT**  
in order to  
**DELIVER**  
what is Best for the Country and our People”



At the regional level, Section 10 of RA 10121 provides of the creation of the Regional Disaster Risk Reduction and Management Council (RDRRMC). RDRRMC coordinates, integrates, supervises, and evaluates the activities of the local Disaster Risk Reduction and Management Councils (LDRRMCs). The RDRRMC is responsible in ensuring disaster sensitive regional development plans, in case of emergencies, and shall convene the different regional line agencies and concerned institutions and authorities.

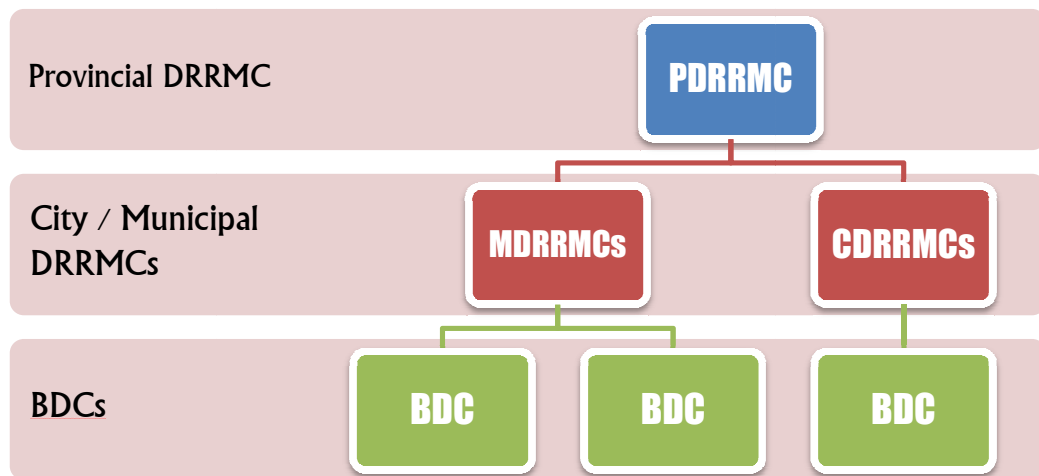
The Regional Directors of OCD serves as chairpersons of the RDRRMCs. Its Vice Chairpersons shall be the Regional Directors of DOST, DILD, DSWD, and NEDA. The existing regional offices of the OCD shall serve as secretariat of the RDRRMCs. The RDRRMCs are composed of the executives of regional offices and field stations at the regional level of the government agencies.

## The Local DRRMCs

There are Provincial, City, Municipal Disaster Risk Reduction and Management Councils that are mandated to be organized at the local levels. In the case of the Barangays, a Barangay DRRM Committee shall operate under the Barangay Development Council (BDC).

The Local DRRMCs shall be chaired by the local chief executives, the Governor for the provincial level, the mayor for the city and municipal levels and the barangay captain for the barangay level. The members are the heads of various offices assigned at the local levels together with the four (4) members from the CSOs and one (1) private sector representative. Section 12 of the states that “there shall be established a Local DRRM Office in every province, city, and municipality, and a Barangay Disaster Risk Reduction and Management Committee in the case of the barangay which

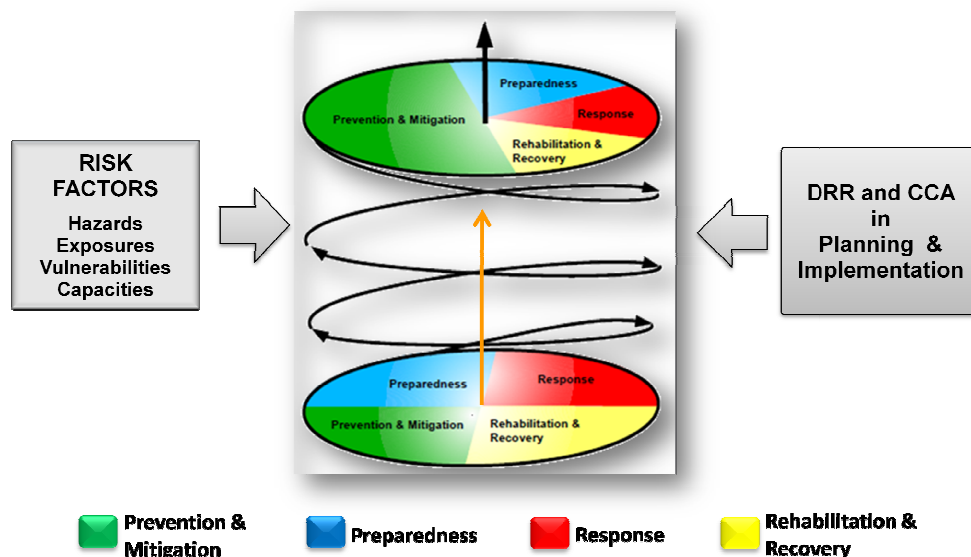
shall be responsible for setting the direction, development, implementation and coordination of disaster risk management programs within their territorial jurisdiction.



### The National DRRM Framework (NDRRMF)

On June 16, 2011, the National Disaster Risk Reduction and Management Framework (NDRRMF) was approved by the executive committee of the National Disaster Risk Reduction and Management Council (NDRRMC). The framework is in conformity with and captures the essence and priorities of Republic Act 10121.

### **Safer, adaptive and resilient Filipino communities toward sustainable development**



The Framework envisions a country which have **“safer, adaptive and disaster-resilient Filipino communities toward sustainable development.”** The goal is to have a paradigm shift from reactive to proactive DRRM wherein men and women have increased their awareness,

understanding on DRRM with the end in view of increasing people's resilience and decreasing their vulnerabilities. Our aim is to empower leaders and communities and to develop the "right" mindset and positive behavioral changes towards reducing and managing risks and lessening the effects of disasters. This term is about building back better or building on from our learning's, good practices, research and experiences, helping us address the underlying causes of our vulnerability and increasing our ability to adjust to the situation before us. By being adaptive, we learn to innovate and go to the next level. Disaster-resilient communities are achieved when the risk reduction efforts have been successful and have made the people stronger (in a positive way and not just in terms of their coping mechanism), increasing their ability to bounce back after a disaster. It is important to instill the culture of safety by increasing people's capacity to bounce back and decrease disaster losses and impact. In the end, DRRM is all about addressing the underlying causes of people's vulnerability; building their individual, collective and institutional capacities and building back better wherein people's lives become sustainably better.

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 emphasizes that through time, 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 and building better lives after a disaster will lead to sustainable development after the recovery and reconstruction process.

### **The National DRRM Plan**

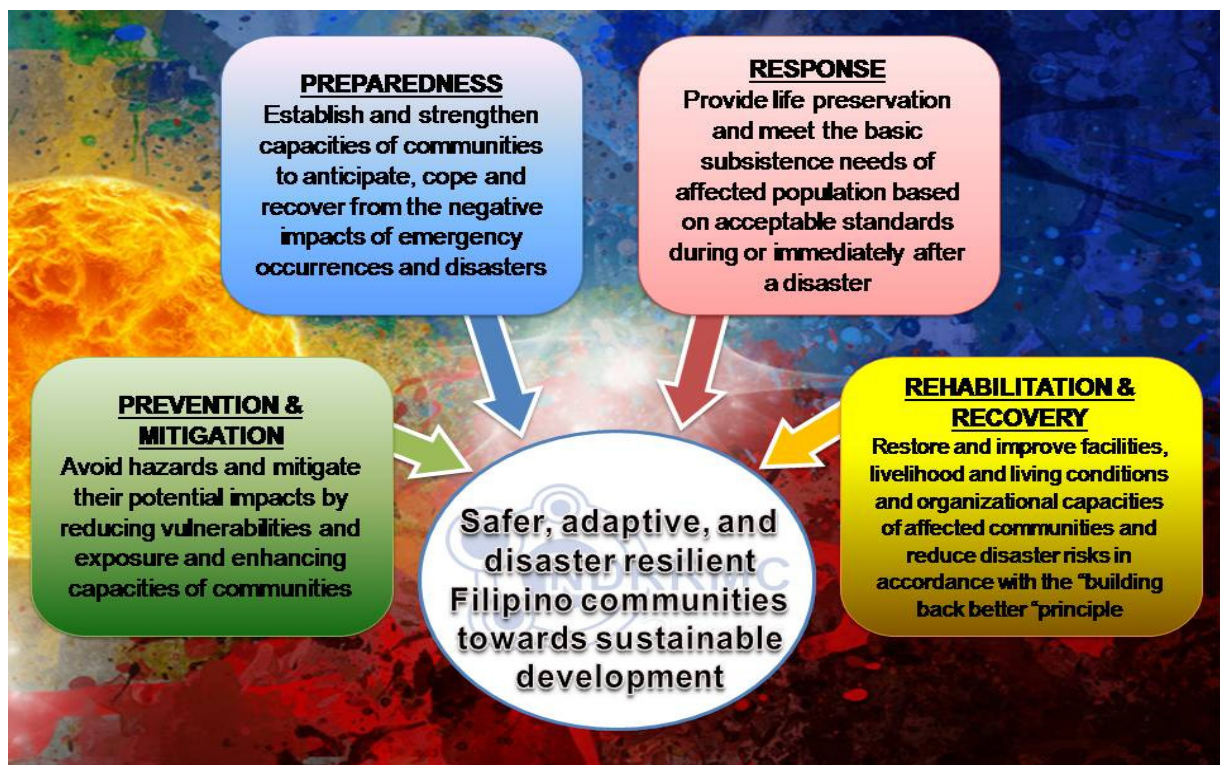
The National Disaster Risk Reduction and Management Plan (NDRRMP) fulfill the requirement of RA No. 10121 of 2010, which provides the legal basis for policies, plans and programs to deal with disasters. The NDRRMP covers four thematic areas, namely, (1) Disaster Prevention and Mitigation; (2) Disaster Preparedness; (3) Disaster Response; and (4) Disaster Rehabilitation and Recovery, which correspond to the structure of the NDRRMC. By law, the OCD formulates and implements the NDRRMP and ensures that the physical framework, social, economic and environmental plans of communities, cities, municipalities and provinces are consistent with such plan.

The NDRRMP is consistent with the NDRRM Framework, which serves as "the principal guide to disaster risk reduction and management (DRRM) efforts to the country..." The Framework envisions a country of "safer, adaptive and disaster resilient Filipino communities toward sustainable development." It conveys a paradigm shift from reactive to proactive DRRM wherein men and women have increased their awareness and understanding of DRRM, with the end in view of increasing people's resilience and decreasing their vulnerabilities.

The NDRRMP is guided by good governance principles within the context of poverty alleviation and environmental protection. It is about partnerships towards effective delivery of services to the citizenry, i.e. working together through complementation of resources. Thus, harnessing and mobilizing the participation of civil society organizations (CSOs), the private sector and volunteers in

the government's DRRM programs and projects is part and parcel of the plan. Efforts were made to align the NDRRMP with national plans such as the Philippine Development Plan, National Climate Change Action Plan, and National Security Policy such that DRRM activities are integrated with budget allocation by relevant government line agencies. Specific DRRM-related activities are undertaken using timelines that will help national leaders and local chief executives to ensure completion within their terms.

The NDRRM Plan 2011-2028 sets down the expected outcomes, outputs, key activities, indicators, lead agencies, implementing partners and timelines under each of the four distinct yet mutually reinforcing thematic areas. The goals of each thematic area lead to the attainment of the country's overall DRRM vision, as graphically shown below.



### The National DRRM Fund

Section 22 of RA 10121 states that the present Calamity Fund appropriated under the annual General Appropriations Act shall henceforth be known as the National Disaster Risk Reduction and Management Fund (NDRRM Fund) and it shall be 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. The specific amount of the NDRRM Fund and the appropriate recipient agencies and/or LGUs shall be determined upon approval of the President of the Philippines in accordance with the favorable recommendation of the NDRRMC. (c) Of the amount appropriated for the 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.

Section 23 specifies funding of the OCD as lead agency to carry out the provisions the PDRRMC Act of 2010. The OCD shall be allocated a budget of one billion pesos (PhP 1,000,000,000.00) revolving fund starting from the effectivity of this Act. The National Council, through the OCD, shall submit to the Office of the President, the Senate and the House of Representatives, within the first quarter of the succeeding year, an annual report relating to the progress of the implementation of the NDRRMP.

### **The Local DRRM Fund**

Section 21 stipulates that the Local Disaster Risk Reduction and Management Fund (LDRRMF) which is not less than five percent (5%) of the estimated revenue from regular sources shall be set aside as the 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. The LDRRMC shall monitor and evaluate the use and disbursement of the LDRRMF based on the LDRRMP was incorporated in the local development plans and annual work and financial plan. Upon the recommendation of the LDRRMO and approval of the sanggunian or council concerned, the LDRRMC may transfer the said fund to support disaster risk reduction work of other LDRRMCs which are declared under state of calamity.

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 sanggunian.

## **IV. Implementation of Hyogo Framework for Action (HFA)**

On June 21, 2010, through Executive Order Number 888, the Strategic National Action Plan (SNAP) on DRR 2009-2019 was adopted by then President Gloria Macapagal Arroyo. The SNAP is a road map indicating the vision and strategic objectives on disaster risk reduction of the country for the next 10 years and was based on (a) an assessment of the disaster risks, vulnerability, and capacity; (b) gap analysis that identifies and maps out significant ongoing initiatives; and (c) DRR activities based on the HFA that are considered by stakeholders as achievable priorities for country, with adequate relevant resources and capacity for implementation over the next three to ten years.

However, due to lack of resources, most of the priority projects have not yet fully realized. Also, since there was no institutionalized mechanism to monitor the progress of SNAP's implementation, a formal review after its adaptation could not be done. Thus, as part of the development of the NDRRM Plan, a general review of the SNAP's implementation was conducted in order to see which among the 18 projects have been implemented, at what stage, and when. The review confirms that the five (5) strategic objectives, eighteen (18) projects, twenty two (22) outputs, three (3) sets of timelines, and one hundred six (106) activities are consistently aligned with the paradigm shift called for by RA 10121 and the new NDRRM Framework.

Hyogo Framework for Action (HFA)			Alignment with the 4 Priority Areas	
Priority Areas	Indicators			
1	Ensure that DRR is a national and local priority with a strong institutional basis for implementation	1.1	National policy and legal framework for DRR exists with decentralized responsibilities and capacities at all levels	Prevention & Mitigation Preparedness
		1.2	Dedicate and adequate resources are available to implement DRR plans and activities at all administrative levels	Prevention & Mitigation Preparedness
		1.3	Community participation and decentralization is assured through the delegation of authority and resources to local levels	In all 4 priority areas
		1.4	A national and multi-sectoral platform for DRR is functioning	Prevention & Mitigation
2	Identify, assess and monitor disaster risks and enhance early warning	2.1	National and local risk assessments bases on hazard data and vulnerability information are available and include risk assessment for key sectors	Prevention & Mitigation
		2.2	Systems are in place to monitor, archive and disseminate data on key hazards and vulnerabilities	Prevention & Mitigation Preparedness
		2.3	Early warning systems are in place for all major hazards with outreach to communities	Prevention & Mitigation Preparedness
		2.4	National and local risk assessments take account of regional/trans boundary risks, with a view to regional cooperation and risk reduction	Prevention & Mitigation
3	Use knowledge, innovation and education to build a culture of safety and resilience at all levels	3.1	Relevant information on disasters is available and accessible at all levels, to all stakeholders	Prevention & Mitigation Preparedness
		3.2	School curricula, education material and relevant trainings include DRR and recovery concept and practices	Prevention & Mitigation Preparedness Rehab & Recovery
		3.3	Research methods and tools for multi-risk assessment and cost benefit analysis are developed and strengthened	Prevention & Mitigation
		3.4	Countrywide public awareness strategy exists to stimulate a culture of disaster resilience, with a view to regional cooperation and risk reduction	Prevention & Mitigation Preparedness
4	Reduce the underlying risk factors	4.1	DRR is an integral objective of environment relate policies and plans, including for land use, natural resource management and adaptation to climate change	Prevention & Mitigation
		4.2	Social development policies and plans are being implemented to reduce the vulnerability of people at risk	Prevention & Mitigation Rehab & Recovery
		4.3	Economic and productive sectoral policies and plans have been implemented to reduce the vulnerability of economic activities	Prevention & Mitigation Rehab & Recovery
		4.4	Planning and management of human settlements incorporate DRR elements, including enforcement of building codes	Prevention & Mitigation Rehab & Recovery
		4.5	DRR measure are incorporated into post disaster recovery and rehabilitation process	Prevention & Mitigation Rehab & Recovery

		4.6	Procedures are in place to assess disaster risks of major development projects, especially infrastructure	Prevention & Mitigation Rehab & Recovery
5	Strengthen disaster preparedness for effective response at all levels	5.1	Strong policy, technical and institutional capacities and mechanisms for disaster risk management, with a disaster risk reduction perspective are in place	Preparedness
		5.2	Disaster preparedness plans and contingency plans are in place at all administrative levels and regular training drill and rehearsals are held to test and develop disaster response programs	Preparedness Response
		5.3	Financial reserves and contingency mechanisms are in place to support effective response and recovery when required	In all 4 priority areas
		5.4	Procedures are in place to exchange relevant information during hazard events and disasters and to undertake post event reviews	Prevention & Mitigation Preparedness Response

## V. Recent Major Projects on Disaster Risk Reduction (DRR)

### ▪ **Sunset Review of the RA 10121**

Section 27 of the law states that, five (5) years after the effectivity of the law, the Congressional Oversight Committee shall conduct a sunset review. For purposes of the Act, the term "sunset review" shall mean a systematic evaluation by the Congressional Oversight Committee of the accomplishments and impact of the Act, as well as the performance and organizational structure of its implementing agencies, for purposes of determining remedial legislation.

The preparation of the review started as early as 2<sup>nd</sup> quarter of 2014. Flaws are being identified, clarifications and further detailing of information and guidance is being settled. Positions of the special economic zones are being clarified. Furthermore, the utilization of Fund is being critically dissected for a more effective usage.

### ▪ **JICA – OCD DRRM Capacity Enhancement Project**

In order to expedite DRRM activities in the Philippines under the new framework, it is necessary to strengthen the capacity of the Office of Civil Defense (OCD). Under this circumstance, the Government of the Philippines (GOP) requested the Government of Japan (GOJ) for a technical assistance. In response, the GOJ, through JICA, is supporting OCD to implement the Disaster Risk Reduction and Management Capacity Enhancement Project or DRRM-CEP from March 2012 to March 2015 under JICA's Technical Cooperation Program (TCP).

The Project started with the dispatch of Japanese experts in March 2012. Since then until October 2014, 15 experts were dispatched on short-term basis, totaling 2,605 days, in the fields of disaster management planning, CBDRRM, DRRM operation, human resource development, local DRRM planning, DRRM technology, and information management system. The Japanese experts come from the Japanese consulting companies and organization of Oriental Consultants Co. Ltd., CTI Engineering International Co.Ltd., Pacific Consultants Co.Ltd., and Asian Disaster Reduction Center (ADRC).

The Project will strengthen the DRRM capability of the OCD and is expected to deliver four (4) outputs (also referred to as "component"): (1) Planning and implementing capacity of OCD on DRRM is strengthened; (2) DRRM activities including information management are standardized; (3) DRRM education and training system and capacity is strengthened; and (4) Support system to CBDRRM is strengthened. The following major outputs were achieved throughout the implementation of the project:



## **Planning Component**

### 1) Formulation of the Cagayan Valley RDRRMP

To promote the formulation of DRRM Plans at the regional level, the planning Component considered a Regional DRRM Plan template during the first year of the project implementation period and selected one (1) region to support the RDRRMP formulation and to check the validity of the draft template. Based on the analysis of data and reports on the risk profile and the presence of structural and non-structural countermeasures in each region, Region 2 (Cagayan Valley Region) was selected.

### 2) Formulation of four (4) LDRRMPs for the Selected Areas

To enhance the formulation of “comprehensive” plans in which the mid- and long-term vision and strategies on DRRM of the Local Government Units (LGU) are defined, a standard LDRRMP template was presented and adopted during the National DRRM Summit held in March 2013 and the Provinces of Cagayan and Isabela, City of Ilagan and Municipality of Alcala were selected as a result of consultation with OCD-R2.

### 3) Development of monitoring system for Local DRRM Plans (LDRRMP) and Local DRRM Offices (LDRRMO)

To achieve this goal, comprehensive LDRRMP formulation and a periodic review must be institutionalized. During the KS seminar and Project Cycle Management Workshop, the development of a monitoring and evaluation system was strongly requested and was added to the PDM.

### 4) Suggestions for Sunset review of RA10121 and improvement of NDRRMP on LGUs' DRRM activities

The Planning Component suggests the following: (a) adding one output or revising NDRRMP Outcome 9 Output 2.1 in order to enhance the formulation of a comprehensive LDRRMP; (b) Strengthen the coordination among related agencies to revise the LDRRMP template/review checklist and formulation manual; (c) Promote the use of science-based tools; and (d) Need to ensure the establishment of functional LDRRMOs.

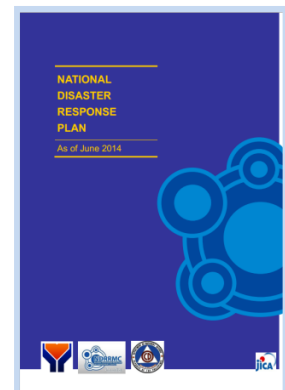
## **Operations' Component**

### 1) NDRP (National Disaster Response Plan)

The formulation of the NDRP is one of prioritized activities specified in the NDRRMP (National Disaster Risk Reduction and Management Plan). In the Project, the NDRP for Hydro-Meteorological Disasters and Earthquakes and Tsunamis has been developed.

### 2) OCD Operation Manual for Response

The OCD Operation Manual for Response (hereinafter, “the Manual”) has been prepared based on roles and responsibilities of OCD-CO and OCD-RO designated according to the NDRP. The Manual also includes Memorandum Circulars (MCs), SOPs and Manual-related response operations as Annexes.



### 3) IMS (Equipment and Manuals/Training Modules)

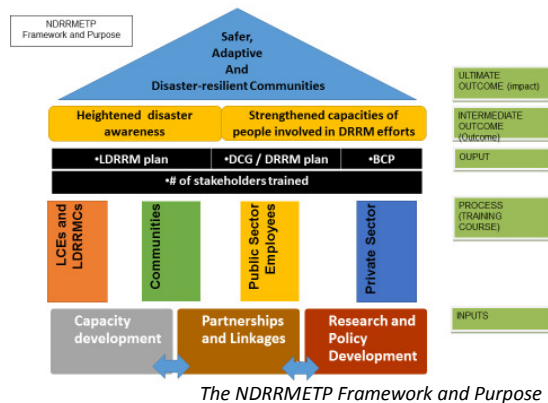
Procurement of Equipment for operating IMS introduced to OCD, including server computer, desk-top computer, A0 Plotter, GIS Software (Arch GIS). These are utilized for developing databases and modules necessary for improving disaster response operations and compiling disaster historical data as well as their knowledge. In addition, the manuals, guidelines, and training modules for IMS and GIS to be sustainably utilized in OCD were also prepared. These manuals are attached at the end of the OCD Operation Manual for Response as one of Annexes.

## HR and Training Component

### 1) National DRRM Education and Training Program (NDRRMETP)

The NDRRMETP shall be utilized to effectively deliver appropriate and quality training and education to all DRRM stakeholders, in a concerted and a well-coordinated manner. Further the NDRRMETP shall serve one of the integral references for defining the National DRRM Education and Training System ensuring that all DRRM related education and training activities/ modules and courses are at par with standards. It shall prescribe standard titles, programs of instruction, curricula, and instructor guides, and training measures or regulations as well as a recommended training budget programming to optimize utilization of resources.

The NDRRMETP is designed to heighten the disaster awareness and strengthen the capacities of people involved in DRRM efforts. Currently, the inter-agency technical working group (TWG) for the Establishment of DRRM Training Institutes (DRRMTI) have identified four priority stakeholder groups which shall be target beneficiaries of the NDRRMETP.: (1) Local Government Units in particular Local Chief Executives and Local DRRM Councils; (2) Communities; (3) Public Sector Employees; and (4) the Private Sector.



### 2) Priority training modules for DRRM TIs

- a. *DRRM Government Executive Course (for Local Chief Executives)* is designed to ensure the familiarity and full understanding of newly elected Local Chief Executives of the basic concepts of DRRM. Further, this course shall facilitate in-depth appreciation of LCEs vis a vis the significance of DRRM in such a way that they may mainstream DRRM in their LGUs programs, projects, and activities
- b. *DRRM Government Orientation Course for Local DRRM Councils.* Through this course, the participants shall be familiar and able to fully understand the concepts of DRRM as well as internalize their roles and functions as provided by law.
- c. *CBDRRM Training Course (BIG)* is purposed to provide guidance to the pool of CBDRRM Trainers in enabling community members to explain the importance and key concepts of CBDRRM and the laws supporting it.
- d. *DRRM Training Course for DRRM Public Sector Employees.* The primary goal of this training course is to create a pool of trainers for all government agencies equipped with knowledge, skills and competencies for more effective and efficient cascading of DRRM knowledge and awareness to all employees within their respective agencies through the delivery and implementation of DRRM initiatives and activities.
- e. *DRRM Is Everybody's Business (DRRM Training Course for the Private Sector)* will provide middle to top level managers with knowledge, skills and competencies on DRRM which will enable them to make their businesses more disaster resilient and will enable them to forge and strengthen partnerships within and among other private and public entities for the effective collaborative activities towards a safer and more sustainable communities.

### 3) Civil Defense Education and Training Program (CDETP) on DRRM

The Civil Defense Education and Training Program (CDETP) on DRRM serve as guideline and roadmap for the human capital development of OCD. This program aims to enhance the capacities of OCD personnel, empowering them in the performance of their duties

thereby making them major players in the attainment of the NDRRMP's goal and also readying them in future career succession.

**CBDRRM Component**

- 1) CBDRRM Concept Paper and National Policy including Action Plan  
 CBDRRM activity should be conducted for all the communities in the Philippines. However, there is not an implementation policy of CBDRRM activity as a nation and many agencies are conducting CBDRRM activity based on their own policies and rules. In order to utilize the limited resources, the national policy to implement CBDRRM activity nationwide should be prepared. Therefore, it was decided to prepare the Concept Paper which would be the basis for the national policy to implement CBDRRM activity nationwide.
  
- 2) CBDRRM Training Course and Basic Instructor's Guide (BIG)  
 The guidelines and the training course were finalized based on the results of the pilot testing and the evaluation workshop. The guideline for the 3-day community training and the guideline for the 5-day TOT were prepared
  
- 3) Database to record, monitor and analyze CBDRRM activities  
 The national policy to implement CBDRRM activity nationwide will be prepared based on the concept paper. The methodology, the role allocations, the target of nationwide implementation, action planning, etc., will be defined in the national policy for the basis of nationwide implementation of the CBDRRM activity. The OCD will monitor the implementation conditions of the CBDRRM activities by utilizing the database and will take necessary actions depending on the condition



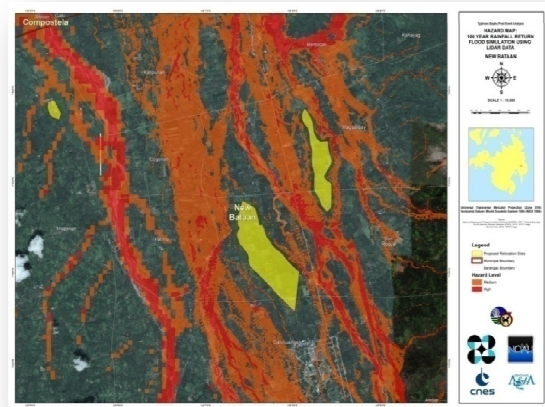
*CBDRRM Basic Instructor's Guide (BIG) in Filipino Version*

▪ **Current Efforts of the 4 Thematic Areas**

Based on the NDRRM Framework and Plan the Council undertakes various efforts to reduce the risks of disasters.

**Disaster Prevention and Mitigation**

The National Council prioritizes the installation of early warnings based on knowledge, monitoring, communication and local capabilities to respond. It also conduct national flood forecasting, monitoring and geo-hazard mapping and provides input to comprehensive land use planning, while also enforcing building and safety standards. Furthermore, engineering interventions are being done to mitigate impacts of hazards to infrastructure. A concrete intervention to apply knowledge is highlighted by the Nationwide Operational Assessment of Hazards, better known as, Project NOAH, implemented by DOST.



*Rainfall Return Flood Simulation by PAGASA*

In terms of geo-hazard mapping and assessment, the Mines and Geosciences Bureau (MGB) has already covered all the municipalities and cities in the country. This is in the scale of 1:50,000 which are only indicative of highly susceptible areas which actually need further validation through the production

of 1:10,000 maps. Detailed mapping with the use of 1:10,000 scale focuses on the identified highly susceptible barangays to include assessment of possible relocation / evacuation sites in each locality.

Flood prone areas are already identified based on the Lidar project of PAGASA. Moreover, active fault lines and trenches have been long identified and disseminated by PHIVOLCS.

### **Disaster Preparedness**

Efforts in Contingency Planning and review have been continuing since the issuance of a Contingency Planning Manual in 2007. Agencies concerned are also prepositioning equipment and supplies in preparation for anticipated events. NDRRMC continuously implementing necessary measure to upgrade the capability of the operation and coordination centers as it expands its capability for organization, training and equipping of responders. At the community level, we have been organizing volunteers on top of disaster trainings and drills.

### **Disaster Response**

In response to actual calamities and disasters, we immediately mobilize search, rescue and health services and establish Incident Command Post (ICP) and implement Incident Command System (ICS).

For affected citizens, we provide temporary shelters, water, sanitation and hygiene. Financial assistance is also given to calamity victims while efficient management of evacuation centers is always aspired in order to minimize disruption to the way of life of affected communities.



### **Disaster Recovery and Rehabilitation**

As much as possible, early recovery and rehabilitation efforts are undertaken to restore normalcy in affected areas. Subsequently reconstruction of damaged settlements is undertaken unless resettlement is seen as better option. There is a provision for livelihood while restoration and implementation of damaged facilities are undertaken by concerned local and national agencies. The ultimate objective of these efforts is to “build back better”.

## **VI. ADRC Counterpart**

### **Office of Civil Defense (OCD)**

Department of National Defense (DND)

Camp General Emilio Aguinaldo, Quezon City, Philippines

### **USEC Alexander P. Pama**

Administrator, OCD and Executive Director, NDRRMC

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