



PHILIPPINES

Disaster Management Reference Handbook

2015

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Welcome - Note from the Director

Dear Reader,

The Center for Excellence in Disaster Management and Humanitarian Assistance (CFE-DMHA) has a mandate to provide and facilitate education, training, and research in civil-military operations, particularly operations that require international disaster management and humanitarian assistance and operations that require coordination between the Department of Defense and other agencies. In line with that mandate, CFE has conducted research to create reference books on disaster management roles, processes, capabilities and vulnerabilities.

This Disaster Management Reference Handbook Series is designed to provide decision makers, planners and responders a comprehensive understanding of in-country disaster management plans and structures, including information on key domestic disaster response entities, basic country background, and local and international humanitarian organizations present in the country. CFE produces country reference books to provide a commonly available baseline of information regarding disaster management environments. Many places in the Pacific Basin are subject to a variety of disasters including floods, droughts, and landslides, and these handbooks provide a context for country-specific factors that influence disaster management.

This reference book has been compiled by CFE from publicly available sources. It is a working document and will be periodically updated to reflect changes in information. We request your feedback to improve this document and help fill any gaps to enhance its future utility. Please send any feedback or questions to cfe-dmha.fct@pacom.mil.

Sincerely,

A handwritten signature in black ink, appearing to read "Joseph D. Martin". The signature is fluid and cursive, with a large initial "J" and "M".

Col Joseph D. Martin
Director

About the Center for Excellence in Disaster Management and Humanitarian Assistance

Overview

The Center for Excellence in Disaster Management and Humanitarian Assistance is a U.S. Department of Defense organization that was established by U.S. Congress in 1994 and is a direct reporting unit to U.S. Pacific Command. The Center is located on Ford Island, Joint Base Pearl Harbor-Hickam, Hawaii. The Asia-Pacific region is our priority of effort and collaboration is the cornerstone of our operational practice.

CFE-DMHA was founded because of a worldwide need based on lessons learned in complex humanitarian emergencies that took place in the Balkans, the African Great Lakes Region, Somalia and the Middle East since the beginning to mid-1980s. The need was for integrated education, training, certification, operational research, and interagency cooperation and coordination among many agencies and organizations, both civilian and military, to provide relief and regional stability.

Our Mission

The Center for Excellence advises U.S. Pacific Command leaders; enables focused engagements, education and training; and increases knowledge of best practices and information to enhance U.S. and international civil-military preparedness for disaster management and humanitarian assistance.

Vision

CFE-DMHA exists to save lives and alleviate human suffering by connecting people, improving coordination and building capability.

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Disaster Management Reference Handbook Series Overview

The Disaster Management Reference Handbook Series is intended to provide decision makers, planners, responders and disaster management practitioners with an overview of the disaster management structure, policies, laws, and plans for each country covered in the series. Overviews of natural and man-made threats most likely to affect the country are discussed. The handbooks also provide basic country background information, including cultural, demographic, geographic, infrastructure and other basic country data. Endemic conditions such as poverty, water and sanitation, food security and other humanitarian issues are included. A basic overview of the health situation in the country and disease surveillance is also covered.

The handbooks include information on key national entities involved in disaster management, disaster response and preparation, and the military's role in disaster relief is discussed. Information on UN agencies, international Non-Governmental Organizations (NGOs), major local NGOs, and key U.S. agencies and programs in the country, are also provided. The overall aim is to provide a guide that brings together important information about disaster management and response for each country in an effort to provide a basic understanding for the reader.

Information in the handbooks are compiled and based primarily on trusted, reliable, publicly-available sources. Much of the information used is from U.S. or other government sources, UN sources, NGO websites, scholarly references, foreign government websites, and various media sources.

Whenever further information available may be relevant, a link to the original internet source is provided. Each handbook is a working document and will be updated periodically as new, significant information becomes available. Constructive feedback is requested to further refine this document.

We hope that you find these handbooks informative, reliable and useful in understanding disaster management and response for this country. For comments, questions or to request additional printed copies of our Disaster Management Reference Handbooks please contact the Center for Excellence at: (808) 472-0518.

Please visit our website (<http://www.cfe-dmha.org>) to view the latest electronic versions available.

Executive Summary

This country book focusing on the Philippines is intended to be a reference for individuals deploying to conduct disaster preparedness engagements or disaster response operations in the Philippines, but it is not meant to be a checklist or manual for all disaster response operations. The research team conducted extensive research and analysis on existing Philippine plans, policies, and capabilities related to disaster management and risk reduction. The team also reached out to United States Government (USG) stakeholders and open source research to compile this book.

The Philippines is susceptible to natural disasters due to its geographical location on the “Pacific Ring of Fire.” The country experiences roughly 900 earthquakes and 20 typhoons of which 6 to 9 make landfall each year, making it the world’s third-highest disaster risk country. In late 2013, the Philippines was severely affected by Typhoon Haiyan (Yolanda) which turned out to be one of the deadliest natural disasters to ever strike the country. A storm surge followed that smashed through coastal neighborhoods and farmlands across central Philippines. The typhoon killed thousands and left millions homeless, while hitting an already poor region and pushing them deeper into poverty and increasing their vulnerability to the next disaster.

The long-lasting armed conflict in the Mindanao region and the negative impacts of effects of climate change are two notable situations which are creating obstacles for sustainable development and intensifying poverty. Climate change impacts related to increased severity and frequency of natural hazards will adversely affect the poor who are living on less than USD \$2 a day. On March 2014, the Philippine government and the country’s largest Muslim rebel group signed a peace deal which hopes to end decades of fighting on the island of Mindanao. The deal grants Muslim areas greater political autonomy in exchange for an end to the armed rebellion. Other rebel groups have vowed to keep fighting for full independence for the region.

The country is strategically located in the fastest growing region and is at the crossroads of two major trading routes – the Pacific Ocean and the South China Sea. The location makes it a critical entry point for over 500 million people in the ASEAN markets and a gateway to East Asian economies.

Map of Philippines





PHILIPPINES

Country Overview

Philippines Disaster Management Reference Handbook | 2015

Country Overview

The Philippines, officially known as the Republic of the Philippines is a sovereign island country located in Southeast Asia. It is a culturally diverse country due to its archipelagic nature and is considered one of the world's mega biodiversity countries due to its unique flora and fauna. The country's location on the Pacific Ring of Fire and proximity to the equator makes the country prone to earthquakes and typhoons. The Philippines is the third most disaster-prone country in the world.¹

The country's unique location has made it the melting pot of Asia. The Filipino people are considered freedom-loving and fun-loving individuals. The country has one of the highest birth rates in Asia, and reached 100 million people in July 2014 according to internal news reports.² It is forecasted that the population could double within three decades. There are around 80 ethnolinguistic groups, with many subgroups which make up the Philippine society. These multiple ethnicities and cultures are found throughout the islands, each practicing distinct cultures.³

The Philippines was a part of the Spanish Empire for more than three hundred years with the arrival of Miguel Lopez de Lagazpi in 1565. In 1896, the Philippine Revolution produced the short-lived First Philippine Republic, and the Philippine-American War. The United States maintained sovereignty over the islands until after World War II, when the Philippines was recognized as an independent country in 1946. The country has since gone through the People Power Revolution overthrowing the dictatorship.⁴ The Philippines is a founding member of the United Nations (UN), World Trade Organizations (WTO), East Asia Summit (EAS) and the Association of Southeast Asian Nations (ASEAN).

Culture

The Filipino culture is filled with many cultures and influences. A number of these influences are from earlier colonization and derived predominately from the cultures of Spain and the United States. In spite of these visual Hispanic and Western influences, the Filipino culture is seen through everyday life, beliefs and customs of the people.

The Philippines can be described as a country in search of their national identity. The Filipinos

have become westernized due to the occupation of numerous colonizers and as such have lost their own identity. Due to the combination of various cultures, it is difficult for Filipinos to assert their own identity. They resemble and are similar to other cultures such as the Spanish, American, and other Asian countries.⁵

The Philippines is one of two predominantly Roman Catholic countries in the Asia Pacific and the other is East Timor. Over 90 percent of the population is Christian, Muslims make up 5 percent, and the remaining populace practices other religions or none at all.⁶ The Catholic Church has great influence on the Philippine society and politics. Iglesia ni Cristo, an independent Christian church is the largest indigenous-initiated organization in the Philippines. The church is viewed as being very influential due to its ability to deliver votes through blocking elections. This is unique to the church due to its doctrine on unity and practice which can't be found outside the church.⁷

There are roughly 11 million Overseas Filipino Workers (OFWs) who live outside the nation. Each year, thousands travel to work abroad through overseas employment agencies and other programs. OFWs work as doctors, nurses, accountants, IT professionals, engineers, technicians, teachers, students, service workers and domestic helpers. The top five destinations for OFWs are: the United States, Saudi Arabia, UAE, Canada and Malaysia.⁸ The country ranks fourth in remittances representing 13.5 percent of the Gross Domestic Product (GDP).⁹

The political environment in the Philippines is a multi-party democracy with an elected president and legislature. The current President is Benigno S. Aquino III who is committed to improving the human rights situation caused by his predecessor. The number of women participating in politics has increased over the years, but the figures remain low. In 2010, just around 18 percent of women held positions as elected officials. Female involvement in the political environment was highlighted by two women elected as President, Corazon Aquino and Gloria Macapagal-Arroyo.

The Philippines ranks 94 of 177 countries on Transparency International's Corruption Perception Index (CPI) for 2013, with a score of 36 out of 100.¹⁰ Corruption is an obstacle to good governance in the country. All levels of corruption are present from bribery to patronage. Efforts are being made to rid corruption by putting in place legal and institutional frameworks.¹¹

Demographics

Understanding the demographic context of the Philippines provides insight into socio-cultural factors that will affect disaster management effectiveness, disaster vulnerabilities, and resident capabilities. It is important to reflect gender, ethnicity, economics, and vulnerable groups in the planning and implementation of disaster preparedness, mitigation, and response activities to address gaps and risks.

Ethnic Makeup

The diverse ethnic groups are dispersed throughout all of the islands in the country. The majority of Filipino's origin is Malayo-Polynesian, also known as Austronesian. These ethnic groups include: Cebuano, Ilocano, Pangasinense,

Kapampangan, Tagalog, Bicolano, Waray, Surigaonon and Hiligaynon (Ilonggo). Indigenous groups who practice Islam reside in Mindanao. In the highland areas of Mindanao, a mountain-dwelling group called the Lumad resides and follows animistic beliefs and traditions. The Negrito population, who migrated from mainland Asia accounts for around 30,000 and are divided into two tribes, the Ati and Aeta. Other ethnic groups existing within the population include: Japanese, Han Chinese, Indians, Americans, Spanish, Europeans, and others. People who are of mixed race are referred as Filipino mestizo. The Filipino Muslim groups are known as Moros, the Spanish name for Muslim Moors of Spain. The Moros make up roughly 5 percent of the population and are considered a minority because of their long fight for independence.¹²

Indigenous and Ethnic Groups	Tribal Groups	Non-Indigenous Ethnic Groups
Bicolano	Batak	Chinese
Gaddang	Bugkalot	American
Ibanag	Igorot	Arab
Iloccano	Ilongots	Indian
Ivatan	Kagayanen	Japanese
Kapampangan	Lumad	Hispanic
Moro	Mangyan	Jewish
Pangasinense	Molbog	Korean
Sambal	Negrito Groups	Other
Subanon	Palawan Tribes	
Tagalog	Tagbanwa	
Visayan	Tau't Bato	
Zamboangueno	Tumandok	

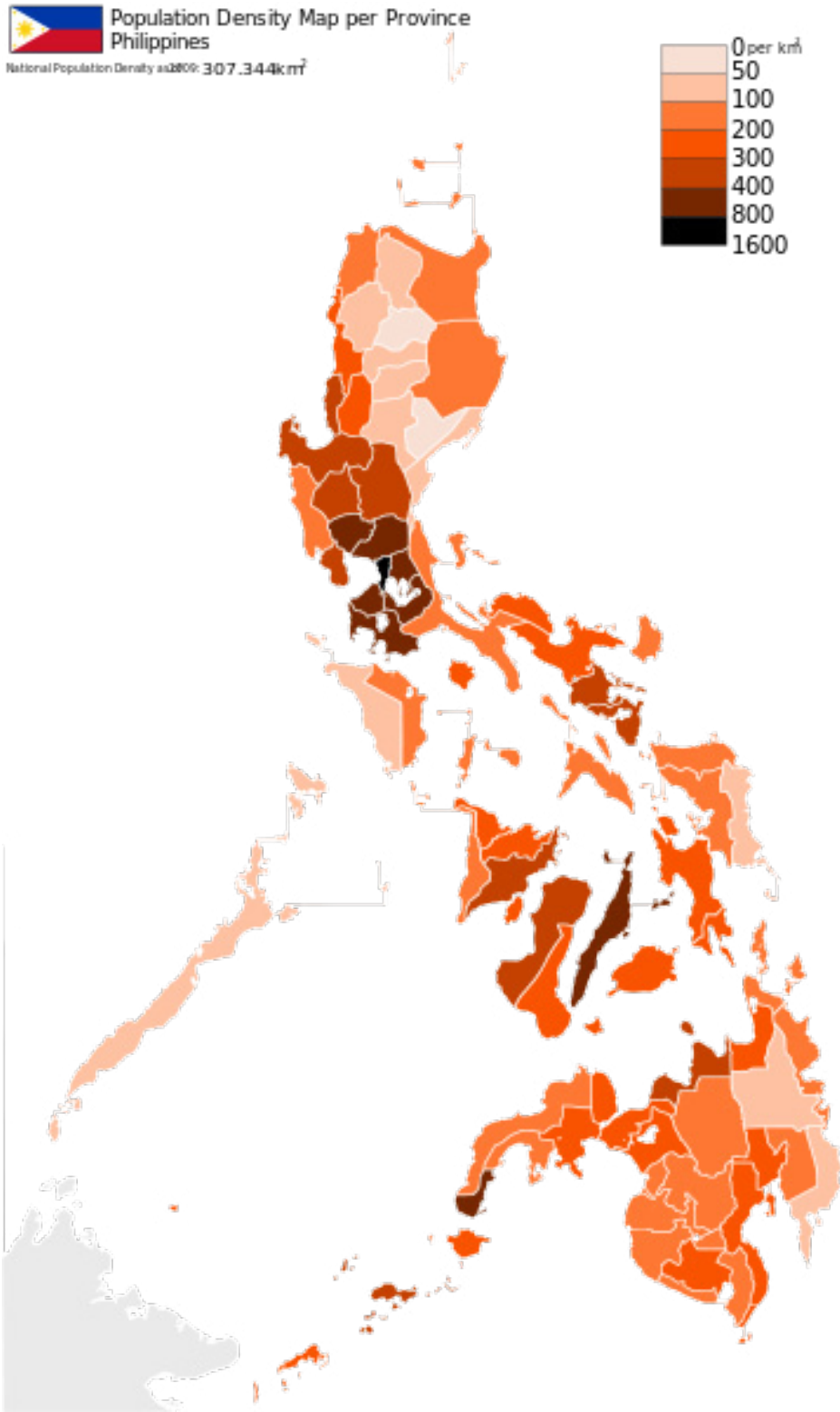
Key Population Centers

The Philippines is urbanizing quickly, it has 122 cities, 1,512 municipalities and 42,026 barangays (village/district). According to the 2010 census, the country had a total population of 92.34 million people. Urbanization is placing great stress on the urban infrastructure in country, mainly in the secondary cities which are growing the fastest. The urban areas surrounding Metro Manila, also known as the National Capital Region (NCR) are the most populated in the country at 12.6 million people. Cities throughout the Philippines are coping with urbanization problems such as: congestion, overcrowding, poor quality of life, and

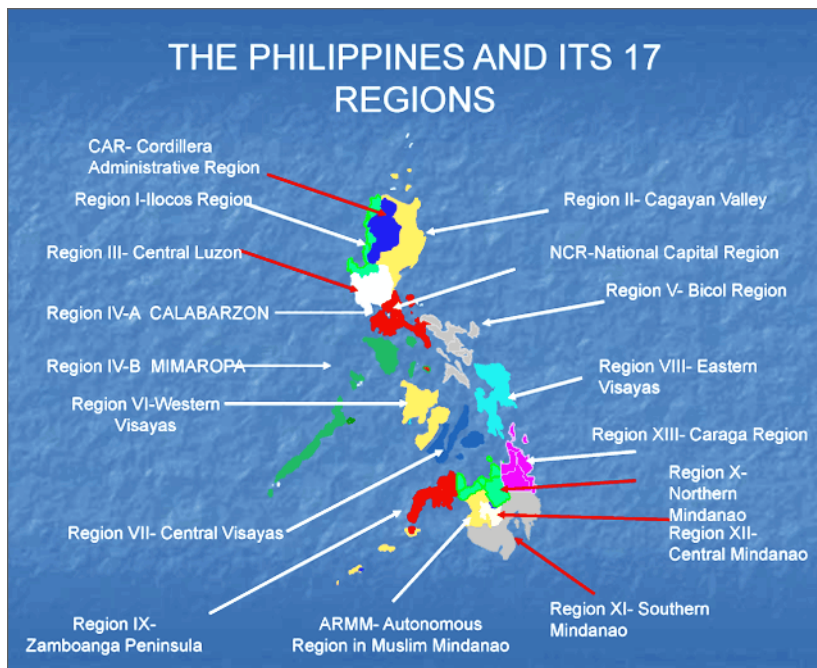
rapidly growing poor urban communities. By 2030, the urban population is expected to grow as much as 67 percent adding another 34.8 million people to urban areas. Reasons for rapid urbanization include: limited employment opportunities in rural areas, land shortage, natural disasters, and the negative impacts of climate change.¹³ According to the 2010 census, roughly 45 percent of the total population was considered urban. The four regions which are mainly considered urban along with the National Capital Region include Central Luzon, Calabarzon, the Davao Region, and Soccskargen.¹⁴

COUNTRY OVERVIEW

Urban Population ¹⁵	48.8% of total population (2011)
Rate of Urbanization	2.16% annual rate of change (2010-15 est.)



National Population Density (as of 2009)



Source: Ministry of Land, Infrastructure, Transport and Tourism, Japan

Population of Major Cities

Quezon City – 3,179,536
 Manila – 1,652,171
 Caloocan – 1,489,040
 Davao City – 1,449,296
 Cebu City – 886,171

Quezon City was the former capital of the Philippines from 1948-1976 and is the largest city of the Philippines and Metro Manila. The population of Quezon City is 3,179,536 people as of 2012, with an annual growth rate of 2.92 percent. Quezon City is divided into six districts which are then subdivided into 142 barangays. The city is home to the House of Representatives, many universities, shopping plazas and farmers markets.¹⁶ Manila is the capital and second largest city of the Philippines with a population of roughly 1.7 million (2010 census). The city is one of 16 cities which make up Metro Manila (National Capital Region) located on an isthmus between Manila Bay and Laguna de bay in southern Luzon and home to over 14 million people. Manila is the economic and political hub for the country and includes many commerce, cultural landmarks and branches of the government.¹⁷

Caloocan is the third most densely populated city in the country with a population of 1,489,040 (2010 census) and is one of the cities which make up Metro Manila. The city is located north of Manila and is mainly an industrial and residential area. The city is well-known for motorcycle dealers and parts, and is home to many banks and shopping malls.¹⁸ The largest city in Mindanao is Davao City with an estimated population of 1,449,296 million people (2010 census). The city is the main hub for trade, commerce, and industry for Mindanao.¹⁹ Cebu City is the capital of Cebu

province and is the most populated city in Visayas with 886,171 people.²⁰ The city is an important commerce, trade and education hub for Visayas. Cebu is also the main shipping port and roughly 80 percent of the Philippines domestic shipping companies are located here.²¹

Vulnerable Groups

Women, children, elderly, people with disabilities, and migrants are considered the most vulnerable groups in the Philippines. All of these individuals need special attention when disasters strike such as specific foods and toiletry items along with assistance on removing them from dangerous areas. Many of them are amongst the first to become victims of disasters because they do not have sturdy homes and safe shelters making them prone to risk.²² Women maintain higher completion rates than males in all levels of education. There is a gender disparity in terms of participation rates in secondary and tertiary education except for elementary level where rates were equal. The reason behind this disparity is Filipino males leave the education system because they need to work to help their household income. Women are more empowered through their political and economic participation. They are also becoming leaders and are more involved in policy making.²³ The Philippines has been a source, transit, and destination for cross-border

trafficking of women and children for sexual exploitation and forced labor. Roughly 60,000 to 100,000 children and over 100,000 women are trafficked annually both internally and externally.²⁴

Poverty in the Philippines still remains despite the growth of the economy in the past few years. In 2012, the percentage of people living in poverty was 19.7 percent which is a drop from 21 percent in 2006. There are over 4 million families that remain poor.²⁵ Due to poverty, these households have less capacity to meet their basic needs and more than half of the households are not able to meet nutritional requirements. Another cause of poverty is unemployment, particularly amongst vulnerable groups.²⁶

The United Nations High Commission for Refugees' (UNHCR) main focus in the

Philippines over the years has focused on asylum seekers, refugees, broader asylum-migration issues and statelessness. In 2010, UNHCR established presence in Mindanao to address the internal displacement issues. The Philippines is evolving their capacity to manage its asylum system. In 2012, a combined refugee status and stateless determination procedure was adopted. The Philippines runs a transit center for refugees who are in need of temporary relocation outside of the country of asylum pending departure for resettlement. The government is addressing the internal displacements in Mindanao by co-leading a protection cluster for people displaced by internal conflict. Areas of focus include: protection monitoring, civil and birth certification and protection of people with special needs.²⁷

UNHCR Statistics (as of January 2014)

	Residing in Philippines	Originating from Philippines
Refugees	182	726
Internally Displaced Persons (IDPs)	117,369	117,369
Asylum Seekers	79	889
Returned IDPs	211,607	211,607
Stateless Persons	6,015	N/A
Various	N/A	80,030
Total Population of Concern	335,320	410,621

The minority Muslim groups in southern Philippines, indigenous ethnic people referred to as Moros have fought for self-determination for over four decades.²⁸ Violence in Mindanao has displaced 3.5 million people since 2000, and in 2013 more than 325,000 people were displaced by conflict and violence. There have been reports of children being used by New People's Army (NPA), Moro Islamic Liberation Front (MILF), Abu Sayyaf and Moro National Liberation Front (MNLF). They are recruited mainly from rural families which are impoverished. Natural disasters have also forced thousands of people in Mindanao to leave their homes. When Typhoon Bopha (Pablo) struck Mindanao in 2012, it forced more than a million people to evacuate and damaged over 200,000 homes. Poverty levels in the war-torn areas are higher than the national average despite the region being rich in minerals, oil and gas. In October 2012, the Moro Islamic Liberation Front

and the Philippine government agreed to end the conflict and a final peace deal was signed in March 2014. The deal grants mostly Muslim areas of Mindanao greater political autonomy in exchange for an end to armed rebellion. Other rebel groups have vowed to keep fighting for full independence for the region. The two sides agreed to setup an autonomous region to be called Bangsamoro. Bangsamoro will replace the Autonomous Region in Muslim Mindanao (ARMM), a region with around 4 million people with its government.²⁹

Muslim Insurgent Groups³⁰	
Moro National Liberation Front (MNLF)	Aim was to fight oppression and create an independent Muslim state in the south. MNLF has weakened and fractured over the years, giving rise to several splinter groups.
Moro Islamic Liberation Front (MILF)	More militant and places greater emphasis on traditional and scholarly interpretations of Islam. In 2014, signed a peace deal with the government.
Abu Sayyaf	Formed by MNLF members. Smallest but deadliest Islamic militant groups in the Philippines. Linked to al Qaeda and to the regional militant network JI. Desire was to create an independent Islamic nation in the Philippines; group has broader visions of pan-Islamic super-state in Southeast Asia.
Jemaah Islamiah (JI)	Goal of JI is the creation of an Islamic super state spanning across southeast Asia. Forges international links with groups such as al Qaeda.
Communist Insurgency	The New People's Army (NPA) was formed as the military wing of the outlawed Communist Party of the Philippines, Marxist-Leninist (CPP-ML). Attacks still continue despite numerous peace talks.

Economics

The Philippines is a lower middle income country. The United Nations Development Programme (UNDP) 2013 Human Development Index (HDI) value for the Philippines is 0.654, placing them in the medium human development category, and placing them 114 out of 187 countries. In the 2012 Gender Inequality Index (GII) which reflect gender-based inequalities (reproductive health, empowerment, and economic activity) ranked the Philippines 77 out of 148 countries.³¹ More than a third of the population lives in poverty, mainly in rural areas. The poorest people are indigenous people, small-scale farmers who received land through agrarian reform, landless workers, fishermen, people in upland areas and women. Indigenous people living in delicate and vulnerable environments, such as people in the Cordillera highlands and Mindanao Island are considered the poorest in the country. Some causes are high illiteracy rates and declining farming productivity and profitability, however reasons vary for each location.³²

The Philippines economic freedom score is 60.1, ranking its economy the 89th freest in the 2014 index. The score rose almost two points from the previous year due to notable improvements in investment, business freedom, monetary freedom, and the control of government spending. The

GDP (PPP):	\$424.4 billion
	6.6% growth
	4.7% 5 yr annual growth
	\$4,430 per capita
Unemployment:	7.0%
Inflation (CPI):	3.1%
FDI Inflow:	\$2.8 billion

Philippines ranked 16 out of the 42 countries in the region in the same index, making its score slightly below the global average. The country has demonstrated a high degree of resilience, the economy has documented an average growth of roughly 5 percent over the past 5 years.³³

Although the country has challenges due to natural disasters, President Aquino has been able to build the economy into one of the fastest growing in Asia, with the hopes of pulling many out of poverty.³⁴ According to The World Bank, the Philippines is one of the emerging markets in the region due to its comprehensive economic fundamentals and highly-skilled workforce. Growth has averaged about 5 percent since 2002 and in 2012, the economy posted a 6.6 percent

growth in GDP which was driven by higher government spending and exports.³⁵

Agriculture is an important means to decrease poverty and reach the Millennium Development Goal (MDG) to reduce poverty in half by 2015. According to The World Bank, agriculture employed 32 percent of the Filipino workforce in 2013 and accounted for 12 percent of GDP.³⁶ The Philippine economy revolves around maritime trade and commerce. Roughly 98 percent of raw materials and products imported and exported by the country are facilitated through maritime exchanges.³⁷ The economy is growing due to its natural resources, imports, and overseas workers. The main industries are: electronics assembly, garments, footwear, pharmaceuticals, chemicals, wood products, food processing, petroleum refining and fishing. The main agricultural products are: sugarcane, coconut, rice, corn, banana, cassava, pineapple, mango, pork, eggs, beef and fish.

Environment

Environmental considerations influence disaster management in profound ways, from the types of risks that are prevalent to natural protections that mitigate disasters. This section outlines some of the key environmental factors that contribute to the Philippines disaster hazards and affect potential response operations.

Borders

The Philippines is an island nation located in Southeast Asia between the Philippine Sea and the South China Sea, and therefore has no land borders. The country is an archipelago made up of over 7,000 islands of which, only 2,000 are inhabited.

A maritime boundary exists between Malaysia and the Philippines, located in the South China, Sulu and Celebes Seas. It divides the Malaysian State of Sabah, located on the island of Borneo and the Sulu Islands of southern Philippines. After over two decades of on-going negotiations, the Philippines and Indonesia have settled maritime claims. The agreement resulted from a rules-based negotiation between Manila and Jakarta to achieve an “equitable delimitation of their overlapping exclusive economic zone” located in the Mindanao Sea, Celebes Sea and the Philippines Sea. The exclusive economic zone (EEZ) boundary line defines the limits of the sea space in the southern Philippines. The EEZ will

increase the efforts of government agencies to enforce Philippine fishing, maritime and security laws.³⁸

The Philippines is in a long heated territorial dispute with China over island and maritime claims in the South China Sea (SCS). The specific disputes concerning the Philippines involve the following:

- Maritime boundary north of Borneo between Vietnam, China, Taiwan, Malaysia, Philippines and Brunei
- Maritime boundary off the coast of Palawan and Luzon between the Philippines, Taiwan, and China
- Islands in the southern reaches of the SCS, including Spratly Islands between Vietnam, Malaysia, Philippines, Brunei, Taiwan and China
- Maritime boundary in the Luzon Strait between the Philippines and Taiwan
- The nine-dash line area claimed by China which covers most of the SCS and overlaps the exclusive economic zone claims of Brunei, Malaysia, Philippines, and Vietnam

In 2002, China signed a joint declaration with the Association of Southeast Asian Nations (ASEAN) which set principles on conflict resolution in the SCS. Discussions to upgrade the declaration to a code of conduct have been on hold since. Currently, China rejected the Philippines proposed “triple action plan” to freeze on perceived provocative acts that stirred tensions in the SCS.³⁹ According to the Philippine Foreign Secretary Albert del Rosario, the rest of the ASEAN members have no objection to the Philippines’ proposals which call for a halt on activities which could escalate tension, a speedy conclusion of a code of conduct in the SCS, and for disputes to be resolved through arbitration.⁴⁰

Geography

The Philippines has a land area of roughly 300,000 square kilometers of which 1,830 is water area.⁴¹ The country is surrounded by the South China Sea to the west, the Philippines Sea (section of western North Pacific Ocean) to the east, the Sulu Sea and Celebes Sea in the south, and the Bashi Channel to the north. The northern most islands are located 240 kilometers south of Taiwan, and the southern most islands are 24 kilometers off the coast of Borneo (Malaysia).^{42,43}

It is an archipelago comprised of 7,107 islands, of which 2,000 are occupied and 11 islands hold 95 percent of the total country's land area. The country is divided into three main geographic areas: Luzon, Visayas, and Mindanao. The largest is Luzon at 105,000 square kilometers, followed by Mindanao at 95,000 square kilometers. Luzon and Mindanao have a diverse topography and are made of high mountains with alluvial plains and narrow fertile valleys. The smaller islands are mountainous surrounded by flat lowlands.⁴⁴

Main Island	Islands
Luzon	Luzon Island Palawan Mindoro Marinduque Masbate Batanes Islands
Visayas	Panay Negros Cebu Bohol Leyte Samar
Mindanao	Mindanao Island Sulu Archipelago (Basilan, Sulu Island, Tawi-Tawi)

Topographically, the Philippines are broken up by the sea which gives them one of the longest coastlines in the world. The topography of the islands is mainly mountainous with narrow to large coastal lowlands depending on which island. Mountain ranges extend from north to south. The four major lowland plains are: the Central Plains (Luzon), the Cagayan Valley (Luzon), the Agusan Valley (Mindanao) and the Cotabato Valley (Mindanao).⁴⁵ The country is part of the "Pacific Ring of Fire" with many active volcanoes throughout the island and a high frequency of earthquakes.⁴⁶ The most notable active volcanoes are: Mount Pinatubo (Northwest of Manila), Mount Mayon (Legazpi City), Taal Volcano (South Manila), and Mount Apo (Mindanao). Mount Mayon is the most active volcano and since 1616, there have been around 47 eruptions with the last eruption in 2010.⁴⁷ The Taal Volcano is known as the world's most active smallest volcano with its last eruption occurring in 2009.⁴⁸ Mount Apo is an active volcano and holds the highest point in the country at 9,692 feet and is located in the

southern ranges in Mindanao.⁴⁹ A submarine trench, called The Philippine Trench is a belt as a result of the collision of tectonic plates. It is 820 miles long and is located east of the Philippines Mobile Belt.

The Luzon rainforests is home to many endemic species along with the Philippine eagle (or monkey-eating eagle). There are also hundreds of orchid species and thousands of species of flowering plants. Many of the islands were covered in tropical rainforests, but illegal logging has reduced forest cover to less than 10 percent of total land area.⁵⁰

There are five main river systems in the Philippines.⁵¹ The Cagayan River (Rio Grande De Cagayan) is located in northern Luzon Island, and is the longest river in the Philippines with a total length of 508 kilometers. The river and its tributaries are prone to flooding during the monsoon season. The river has caused loss of property and life along with economic impacts. The government setup flood warning stations along the river to monitor.⁵² The Mindanao River (also called the Rio Grande De Mindanao or the Cotabato River) is located in central Mindanao. The river is a key inland transportation route with the banks lined with trading centers in different towns.⁵³ The longest river in Mindanao is the Agusan River at 240 miles. The river forms a fertile valley between the Central Mindanao Highlands and the Pacific Cordillera.⁵⁴ Located on Luzon Island, the Pampanga River flows 120 miles and empties into the Manila Bay. The Agno River is also located on Luzon Island in the province of Pangasinan. It originates in the Cordillera Mountains and empties into the South China Sea through the Lingayen Gulf. The river has the tendency to flood the entire province and the Pangasinan Plain.⁵⁵

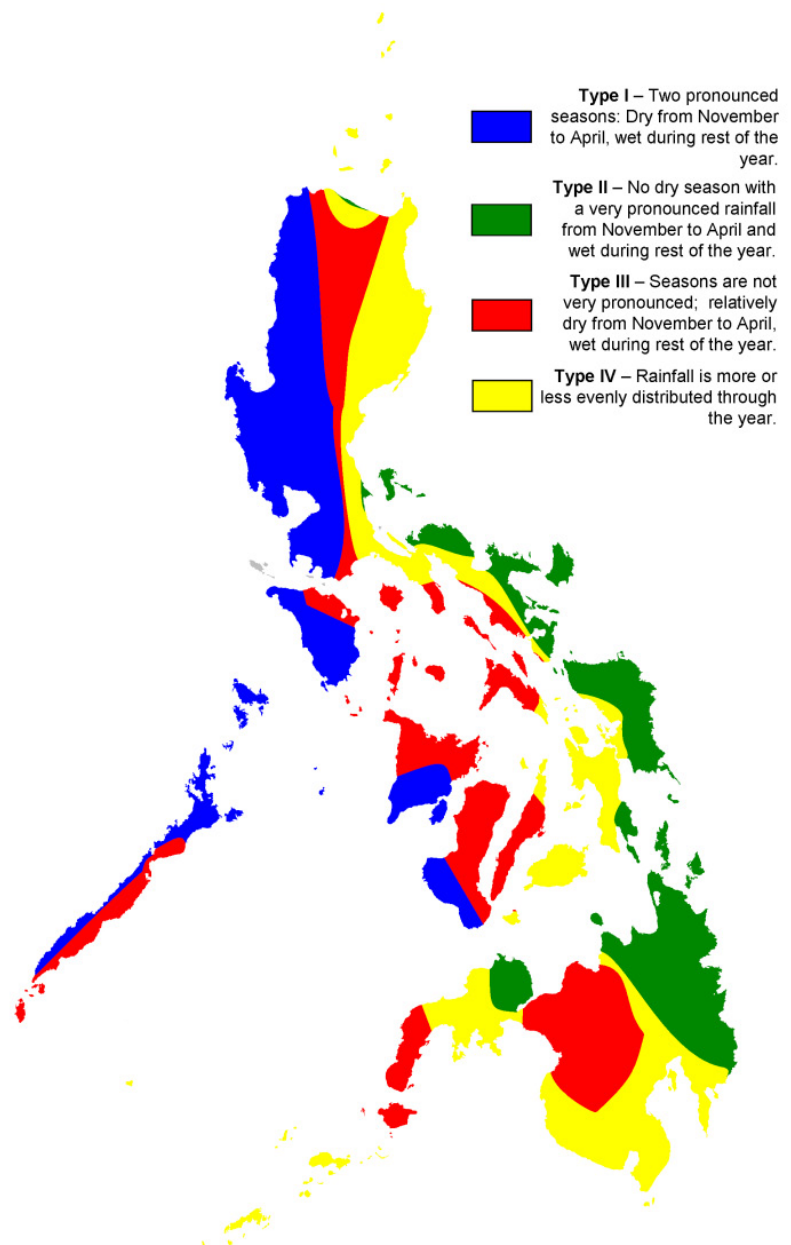
Climate

The Philippines has a tropical rainforest climate throughout the country due to its geographical location. The main characteristics are high temperatures and high humidity which are present all year long. Another characteristic is strong typhoons which occur June through November. Rainfall is likely every month and differs throughout the year. Heavy rain is expected in June through October, while hardly any rainfall occurs from December to May due to trade winds from the northeast. The monsoon is a rainy wind originating from the southwest.⁵⁶ Many of the islands are prone to excessive flooding and

damage during the typhoon season, while the northern portion of the Philippines experiences a greater frequency of typhoons than the south.⁵⁷

The World Wildlife Foundation (WWF) considers the Philippines as one of the most vulnerable countries to climate change. Impacts range from extreme weather events and periodic inundation to droughts and food shortages. Climate change is a topic which many Filipinos are aware of and had to deal with. The most affected are those living in coastal communities and urban communities that lack awareness on proper disaster preparedness procedures.⁵⁸ A United Nations report identified the Philippines as the third most at risk country in the world from climate change after Vanuatu and Tonga. The country is prone to climate change as an island located in an area where there are many tropical storms. Another geographical factor which contributes to its vulnerability is wind patterns which can worsen the risk created by extreme rainfall events. The country averages eight to nine tropical storms each year and is expected to increase in severity due to climate change. Most of the damage comes from rising sea levels.⁵⁹ Ecosystems such as mangrove forests which serve as sanctuaries and feeding grounds for fish could be gone. Mangroves also serve as a buffer by reducing typhoons and storm wind damage. Wildlife will be pushed to extinction since national parks would no longer be able to preserve the habitat for the wildlife.⁶⁰

In 2009, Congress passed the Climate Change Act which provides policy framework to address the rising threats to the impacts on the environment. The act created the Climate Change Commission (CCC) to develop policies and coordinate government programs on climate change. The CCC developed the National Climate Change Action Plan (NCCAP) 2011-2028 that acts as a road map for all climate change programs in the Philippines.⁶¹ The plan prioritizes food security, water sufficiency, ecosystem and environmental stability, human security, and sustainable energy.⁶²



Source: Philippine Meteorological Institute



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Disaster Overview

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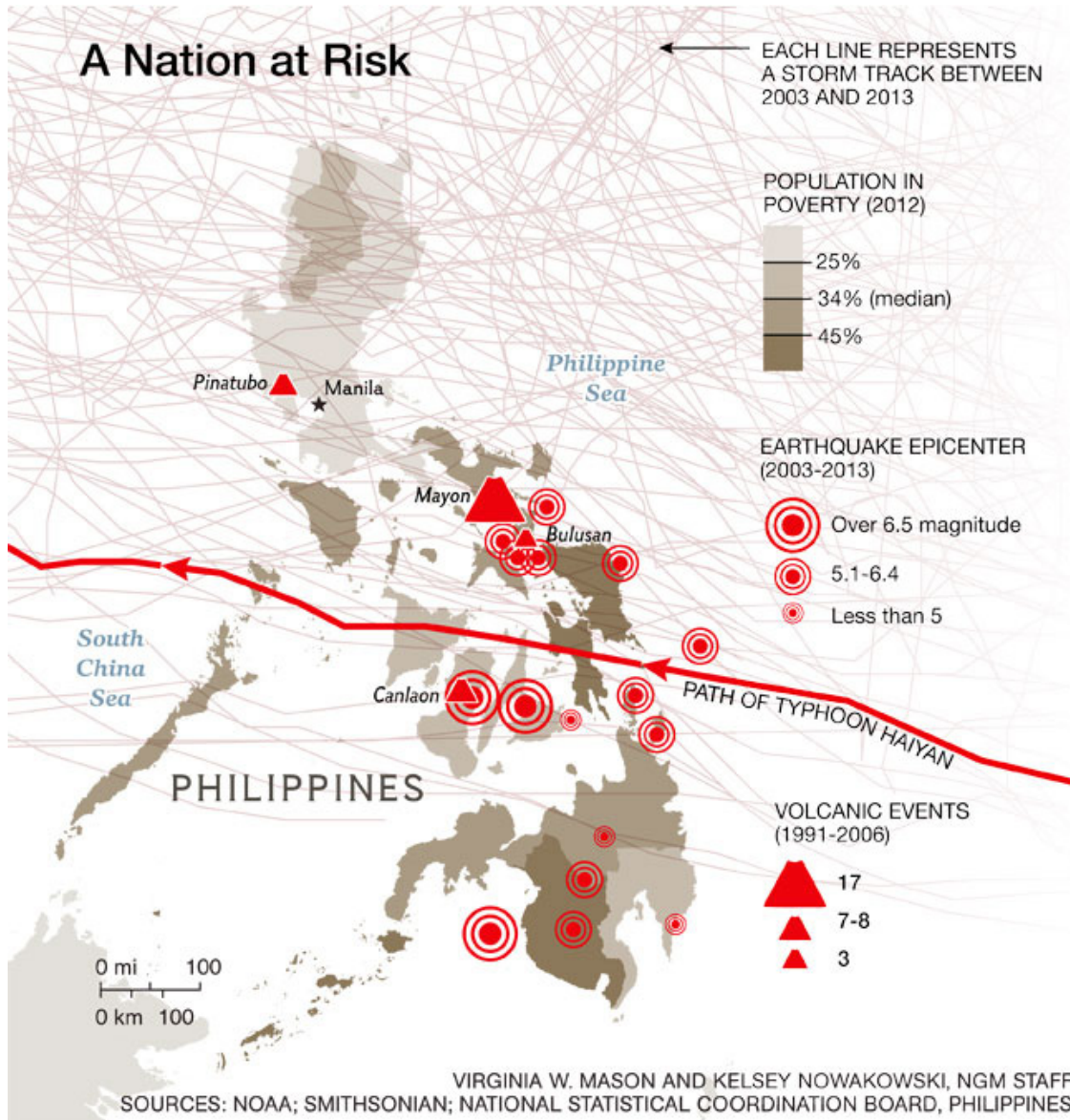
Disaster Overview

Hazards

The Philippines faces disaster threats that are linked by the country's geographic position on the "ring of fire" and its extreme vulnerability to typhoons. The nation's disaster hazards are largely intertwined because of the contributing weather, climate, and environment factors, therefore one type of disaster has effects that create conditions for another type of disaster. These interconnected hazards pose significant threats to infrastructure and housing, with secondary societal and economic effects.

Natural

The most common and most devastating disasters in the Philippines come from natural hazards. The agricultural tradition and rapid development in some areas of the country, leave large portions of the population and the economy vulnerable to natural hazards. The image below displays the metrological, seismic, and volcanic hazards the country is exposed to in aggregate.⁶³



Typhoon

Typhoons are both the most common and most destructive natural disasters in the Philippines. Annually, approximately 80 typhoons develop above tropical waters, of which an estimated 20 enter the Philippine region and six to nine make landfall, according to the Joint Typhoon Warning Center (JTWC).⁶⁴ Due to the number of typhoons generated in the region annually, the country has gained the name: Asia's typhoon welcome mat.⁶⁵ There are several factors, some natural and some man-made, that increase the country's vulnerability to typhoons. The warm equatorial ocean waters of the western Pacific, large coastal populations, and underdeveloped infrastructure in the Philippines lead to increased vulnerability and risk levels.

For example, Typhoon Haiyan (Yolanda) made landfall on the Philippine coast as a category 5 on 8 November 2013. The United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) reports place the number of affected people at 13.28 million. As of 22 November 2013, Haiyan had caused 4,015 deaths and 4,330,502 displacements. Housing damage reports indicate 536,313 homes completely destroyed with another 549,133 partially damaged.⁶⁶

In total, the Philippines experienced 88 typhoons between 2004 and 2014 resulting in 18,015 deaths, 43,840 injuries, 70,844,704 affected, and USD \$13.7 billion in damages.⁶⁸ This level of exposure and destruction is highly unusual. As a result, typhoons are widely considered the top priority for disaster management professionals in the country.

Damaging Typhoons in the Philippines, 1990-2014

Year	Name	Areas Affected	Damages in Million US\$
1990	Mike	Central Visayas	236
1991	Ruth	Northern Luzon	75
1993	Flo	Central Luzon	190
1995	Angela	Southern Luzon	202
1995	Sybil	Visayas	61
2001	Utor	Luzon	78
2001	Nanang	Visayas	61
2003	Imbudo	Luzon	70
2004	Mindulle	Southern Luzon	53
2006	Xangsane	Luzon	144
2006	Durian	Southern Luzon	118
2006	Chan Chu	North and South Luzon	53
2008	Fengshen	Visayas and Luzon	293
2009	Ketsana	Luzon	241
2009	Parma	Luzon	426
2010	Juan/Megi	Luzon	255
2011	Pedring/Nesat	Luzon	333
2012	Pablo/Bopha	Mindanao	1,040
2013	Yolanda/Haiyan	Visayas	2,860
2014	Ruby/Hagupit	Visayas	71

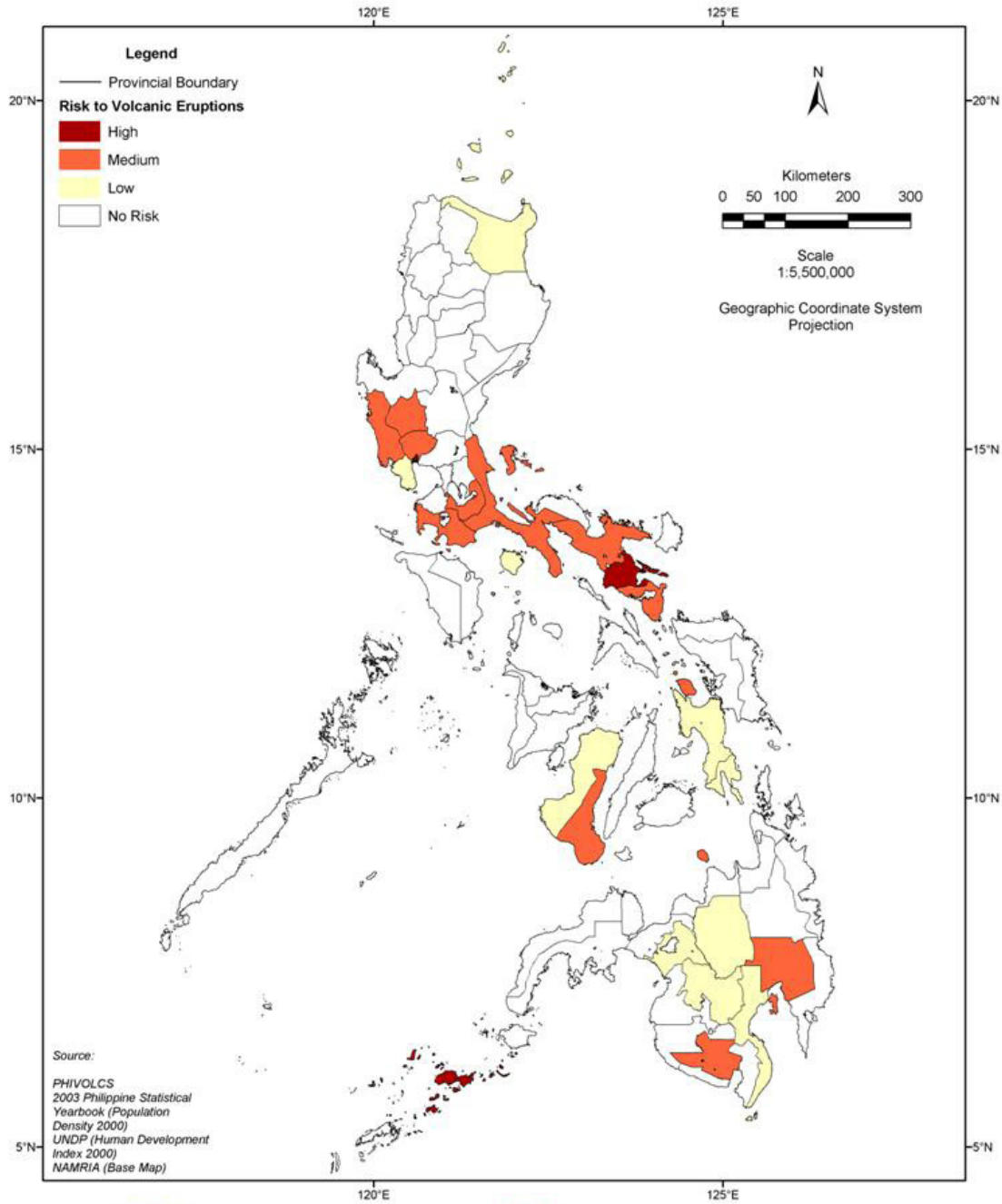
Volcanic

The Philippines is also unique for its high level of exposure to volcanic hazards. Located on the Pacific Ring of Fire, the country lies at the intersection of two tectonic plates - the Eurasian and the Pacific. These plates move continually, causing both volcanic events and earthquakes (see earthquake section below). The country is host to approximately 300 volcanoes, of which 22 are active and 5 are very active: Taal, Mayon, Bulusan, Kanlaon and Hibok-Hibok.⁶⁹ Of these, Mayon erupted most recently in 2013. Located just 200 miles from Manila, the ash blast eruption killed 5 and injured 7, all of whom were recreational climbers.⁷⁰

There are several hazards associated with volcanic eruptions, most of which the Philippine volcanoes are capable of producing. While lava flow consumes anything it contacts, the more common hazards from these eruptions are pyroclastic clouds, lateral blasts, ash flows (lahars), and earthquakes. These hazards were all seen in the most famous eruption from the Philippines—Mt. Pinatubo in June of 1991. The eruption was the second largest in modern history, causing a 160 km evacuation zone to be enforced, the abandonment of 360 towns, and over 300 deaths (resulting mostly from roof collapse under ash).⁷²

Volcano ⁷¹	Location	Last Eruption	Associated Hazards
Taal	Batangas	Oct 1977	Base surges, ashfalls and ballistic projectiles, lava flows, seiches/ tsunamis and flooding, lakeshore landslide, fissuring and ground subsidence- entire island permanent danger zone
Mayon	Albany, 200 miles from Manila	Ongoing	Airfall tephra, lava flows, pyroclastic flows, lahar -6km radius from summit permanent danger zone
Bulusan	Sorsogon, 175 miles from Manila	May 2011	Airfall tephra, lava flows, pyroclastic flows, lahar -4km radius from summit permanent danger zone
Kanlaon	Negros Oriental	July 2006	Tephra falls, pyroclastic flows and base surges, lava flows, lahar, debris avalanche and structural collapse -4km radius from summit permanent danger zone
Hibok-Hibok	Northwest end of Camiguin Island	July 1953	Steam blasts, glowing avalanches, lava flows, lahars -3km radius permanent danger zone

Risk to Volcanic Eruptions



MANILA OBSERVATORY



DEPARTMENT OF ENVIRONMENT AND
NATURAL RESOURCES

Risk to Volcanic Eruptions⁷³

Flood

Monsoon rains are those not associated with an organized named storm, but they can nonetheless be very damaging to the many low lying, marginally developed areas in the country. Annual rains are expected in the Philippines. However, unusually strong monsoon events have recently combined with urban development that blocks traditional flooding channels to create a hazard in vulnerable urban communities. For example, monsoon rains in 2012 brought Manila to a standstill as 80 percent of the city was submerged, 157 people died, and 35,762 people were left homeless.⁷⁸ The country is working on a long term flood risk management plan which will include dredging, pump station modernization, and better building codes.⁷⁹ In the meantime, the Metropolitan Manila Development Authority (MMDA) identified a list of 22 flood-prone areas in Metro Manila. The MMDA has flood control crews on hand 24/7 to address any flooding or traffic problems due to flooding.⁸⁰

Top 10 Flood Prone Provinces in the Philippines:

1. Pampanga (Central Luzon)
2. Nueva Ecija (Central Luzon)
3. Pangasinan (Western Luzon)
4. Tarlac (Central Luzon)
5. Maguindanao (ARMM)
6. Bulacan (Central Luzon)
7. Metro Manila (Luzon)
8. North Cotabato (Mindanao)
9. Oriental Mindoro (Southwest Luzon)
10. Ilocos Norte (Northwest Luzon)

Source: Department of Environment and Natural Mines and Geo-Science Bureau (DENR-MGB), 2011

Tsunami

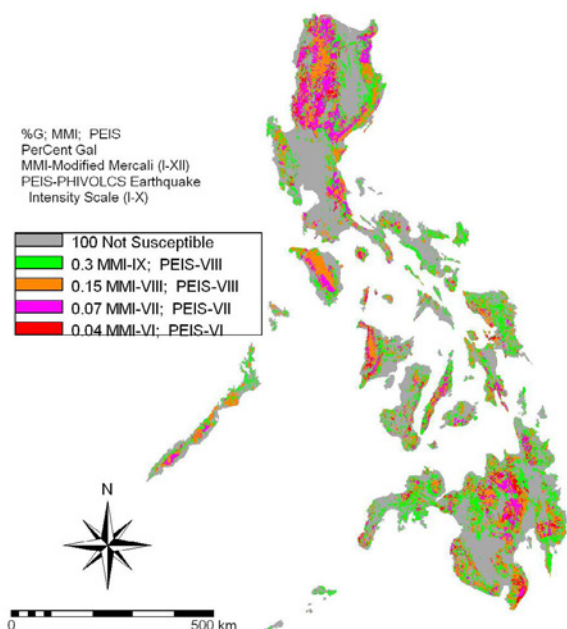
Tsunamis are of some concern in the Philippines as it is an island nation and very seismically active. However, the country has not experienced major tsunami-related economic losses and does not consider tsunamis a high risk hazard. Almost every coastline is vulnerable, but typhoon related flooding is much more common. Recorded events include the 1976 Minandao tsunami, the 1990 Bohol earthquake and tsunami,

and the 1992 Davao tsunami.⁸² Of most concern are local tsunamis – events generated by nearby earthquakes that will leave little warning before they make landfall. The country was largely unaffected by the 2004 Indian Ocean tsunami, and while a large earthquake near Chile could cause a destructive tsunami in the Philippines, it has not done so in recent history.

Landslide

Landslides are an important secondary hazard in the Philippines. They are most often generated by a volcanic eruption, an earthquake, and typhoon or monsoon related rainfall. Common in the mountainous inland portion of each island, affected populations tend to be rural and vulnerable. Additionally, human activities including logging and construction exacerbate the problem by causing slope instability. For example, a village on the southern part of Leyte was buried when an entire mountainside collapsed on 17 February, 2006. The disaster occurred after torrential rains of up to 200 centimeters (78 inches) dumped down on the region within 10 days.⁸³

Earthquake-triggered Landslide Susceptibility Map Based on Critical Acceleration Values and Earthquake Intensities



Landslide Susceptibility Map Based on Critical Acceleration Values and Earthquake Intensities⁸⁴

Drought

The Philippines is also vulnerable to the El Niño phenomenon that induces drought and delays the onset of monsoon rains. This results in drinking water scarcity in urban areas and shortfalls in hydro-electricity generation because of reduced water levels in major dams.⁸⁵ Further, during drought events there is less water available for household use, income losses, increased water-borne disease, and diminished water quality. There were eight drought events between 1970 and 2009, which together affected more than 6.5 million people and caused an economic loss of USD \$353 million.⁸⁶ In 2014, environmentalists

advised that the year's El Niño season could be one of the worst in years and environmentalists suggest the Philippine government remains unprepared for severe drought conditions. This seasonal weather phenomenon is expected to bring below average rainfall starting in the last quarter of 2014 through the first quarter of 2015. The Department of Agriculture formed a task force on El Niño and declared 44 of the 81 provinces to be highly vulnerable to any resulting dry spell. In 1997 and 1998, the Philippines experienced the worse effects of El Niño causing roughly USD \$68 million in damage to agriculture.⁸⁷

Areas Vulnerable to El Nino Identified by Department of Agriculture⁸⁸

<p><u>CAR</u></p> <ul style="list-style-type: none"> • Abra • Apayao • Benguet • Ifugao • Mountain Province 	<p><u>Ilocos Region</u></p> <ul style="list-style-type: none"> • Ilocos Norte • Ilocos Sur • La Union • Pangasinan 	<p><u>Cagayan Valley</u></p> <ul style="list-style-type: none"> • Cagayan • Isabella • Nueva Vizcaya • Quirino 	<p><u>Calabarzon</u></p> <ul style="list-style-type: none"> • Cavite • Batangas • Laguna • Quezon • Rizal
<p><u>Central Luzon</u></p> <ul style="list-style-type: none"> • Aurora • Bataan • Bulacan • Nueva Ecija • Pampanga • Tarlac • Zambales 	<p><u>Mimaropa</u></p> <ul style="list-style-type: none"> • Occidental Mindoro • Palawan • Romblon 	<p><u>Zamboanga Peninsula</u></p> <ul style="list-style-type: none"> • Zamboanga City • Zamboanga de Norte • Zamboanga de Sur • Zamboanga Sibugay 	<p><u>Western Visayas</u></p> <ul style="list-style-type: none"> • Aklan • Antique • Negros Occidental • Capiz • Guimaras • Iloilo
<p><u>Central Visayas</u></p> <ul style="list-style-type: none"> • Bohol 	<p><u>Eastern Visayas</u></p> <ul style="list-style-type: none"> • Samar 	<p><u>Bicol Region</u></p> <ul style="list-style-type: none"> • Sorsogon 	<p><u>Northern Mindanao</u></p> <ul style="list-style-type: none"> • Misamis Oriental • Bukidon
<p><u>Davao Region</u></p> <ul style="list-style-type: none"> • Davao City • Davao Oriental 	<p><u>Soccsksargen</u></p> <ul style="list-style-type: none"> • Misamis Oriental • Sarangani • South Cotabato 		

Infectious Disease

The Philippines struggles with high incidences of all key communicable diseases and 80 percent of the World Health Organization (WHO) recognized neglected tropical diseases remain problematic in the country.⁸⁹ These problems are compounded by frequent flooding related disasters, which increase the probability of disease spread. Diseases including cholera, malaria, dengue fever, Japanese encephalitis, and leptospirosis peak during flood incidents.⁹⁰ HIV is also a concern- the country's overall incidence is low, but it is experiencing a very high growth rate – a 587% increase has been reported between 2007 and 2012 of people living with HIV.⁹¹

Endemic Conditions

Endemic communicable and infectious diseases in the Philippines include malaria and a group of distinct diseases that are generally classified as neglected tropical diseases (NTD). Malaria is considered highly endemic in 5 provinces, endemic in 57 provinces, and 22 provinces are completely malaria free.⁹² Overall, the government has made great progress in controlling malaria, and it is likely that it will no longer be considered highly endemic in the coming years.

However, NTD's do not have the same hopeful prognosis. These diseases include lymphatic filariasis (elephantitis), schistosomiasis, and soil transmitted helminthiasis (STH). Lymphatic filariasis is transmitted from infected persons to others via mosquitos. Common in rural areas, it causes excessive swelling of the lymphatic system. The disease is currently endemic in 44 provinces in the Philippines despite the government's National Filariasis Elimination Program (NFEP) which has been in place since 2000.⁹³

Schistosomiasis and other STH's are diseases caused by parasitic worms generally associated with agriculture and fishing. Endemic in 28 provinces, STH's are spread via inadequate sanitary and waste management facilities, lack of potable water, ignorance of healthy practices, and poor eating habits.⁹⁴ Symptoms are wide ranging (from fever to intestinal discomfort), but treatment is relatively uncomplicated via widely available drugs. Children are at greatest risk due to symptom-associated malnutrition during growth stages.



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Government

Philippines Disaster Management Reference Handbook | 2015

Government Structure for Disaster Management

Historically, disaster management began in the Philippines in 1941 with the issuance of Executive Order (EO) 335 and the creation of the Civil Emergency Administration by President Manuel L. Quezon. EO 335 sought to prepare the population for war in the Pacific and to adopt measures to control and coordinate civilian participation in serious emergencies. The Executive Order established the National Emergency Commission (NEC) at the national level and the Provincial Emergency Committee in every province to oversee and control municipal and city emergency committees. Republic Act No. 1190 or the Civil Defense Act of 1954 instituted the Civil Defense Administration (NCDA) and civil defense councils at the national and local levels.⁹⁵ Presidential Decree No. 1 later abolished NCDA and transferred the responsibilities to the Office of Civil Defense.⁹⁶ The chronicles of disaster management in the Philippines illustrate the involvement of national, provincial and local administrative levels of government. Over the years, disaster management has continued to evolve in the nation with the renaming of organizations and re-designation of responsibilities by the government. Most significant has been the transformation from a reactive disaster management approach to a disaster risk reduction strategic approach.

National

National Disaster Coordinating Council (NDCC)

President Ferdinand Marcos signed Presidential Decree No. 1566 in June 1978, which created the National Disaster Coordinating Council (NDCC). The Secretary of National Defense led the council and members included the Secretaries of Agriculture, Education, Finance, Labor, Justice, Public Works, Transportation and Communication, Social Welfare and Development, Trade and Industry, Local Government, Health and Natural Resources. The Armed Forces Chief of Staff and Executive Secretary supported as council members as well.

NDCC informed the President on the status of efforts by the government and private sectors in preparedness programs, disaster operations, and rehabilitation.⁹⁷

National Disaster Risk Reduction and Management Council (NDRRMC)⁹⁸

Republic Act No. 10121 renamed the NDCC as the National Disaster Risk Reduction and Management Council (NDRRMC) or the National Council. The NDRRMC is empowered with policy making, coordination, integration, supervision, monitoring, and evaluation functions. The National Council has critical responsibilities to:

1. Develop a National Disaster Risk Reduction and Management Framework (NDRRMF) to provide an comprehensive all-hazards, multi-sectoral, inter-agency and community-based approach to disaster risk reduction and management.
2. Ensure the National Disaster Risk Reduction and Management Plan (NDRRMP) is consistent with the national framework.
3. Advise the President on the status of disaster preparedness, prevention, mitigation, response and rehabilitation operations undertaken by the government, civil society organizations, private sector, and volunteers; recommend to the President to declare a state of calamity in extensively damaged areas; and submit recommendations to restore normalcy in affected areas with appropriate funding.
4. Ensure multi-stakeholder participation in the development, update, and sharing of disaster risk reduction and management information system and geographic information system-based national risk map as policy, planning, and decision-making tools.
5. Establish a national early warning and emergency alert system to provide accurate and timely advice to national or local emergency response organizations and to the general public through mass media (analog and digital broadcast, television, radio, wireless and landline communications).
6. Develop risk transfer mechanisms to

- ensure social and economic protection and enhance resiliency against disasters.
7. Monitor agency development and enforcement of the guidelines in the Act.
 8. Manage and mobilize resources for disaster risk reduction and management to include the National Disaster Risk Reduction and Management Fund.
 9. Monitor and provide guidelines and procedures on the Local Disaster Risk Reduction and Management Fund (LDRRMF).
 10. Develop assessment tools on hazards and risks due to climate change to vulnerable areas and ecosystems in coordination with the Climate Change Commission.
 11. Develop coordination mechanisms for sound implementation of disaster risk reduction and management policies and programs by sectoral agencies and local government units.
 12. Formulate a national institutional capability building program for disaster risk reduction and management to address areas of improvement of government agencies and local government units.
 13. Formulate into policies, a national agenda for research and technology development on disaster risk reduction and management.
 14. Coordinate with the Climate Change Commission and develop a framework for climate change adaptation and disaster risk reduction and management.
 15. Convene a technical group of government representatives to coordinate, manage and sustain national efforts on disaster risk reduction and management.
 16. Task the Office of Civil Defense to conduct assessment and performance monitoring of the NDRRMC and Regional Disaster Risk Reduction and Management Councils according to the NDRRMP.
 17. Coordinate and oversee implementation of the country's obligations with disaster management treaties.

Organizational structure of the NDRRMC:

Title	Member
Chairperson	Secretary of the Department of National Defense (DND)
Vice Chairperson for Disaster Preparedness	Secretary of the Department of the Interior and Local Government (DILG)
Vice Chairperson for Disaster Response	Secretary of the Department of Social Welfare and Development (DSWD)
Vice Chairperson for Disaster Prevention and Mitigation	Secretary of the Department of Science and Technology (DOST)
Vice Chairperson for Rehabilitation and Recovery	Director-General of the National Economic and Development Authority (NEDA)
Members	Secretary of Department of Health (DOH) Secretary of the Department of Environment and Natural Resources (DENR) Secretary of the Department of Agriculture (DA) Secretary of the Department of Education (DepED) Secretary of the Department of Energy (DOE) Secretary of the Department of Finance (DOF) Secretary of the Department of Trade and Industry (DTI)

Organizational structure of the NDRRMC (continued):

Title	Member
Members	<p>Secretary of the Department of Transportation and Communications (DOTC)</p> <p>Secretary of the Department of Budget and Management (DBM)</p> <p>Secretary of Department of Health (DOH)</p> <p>Secretary of the Department of Environment and Natural Resources (DENR)</p> <p>Secretary of the Department of Agriculture (DA)</p> <p>Secretary of the Department of Education (DepED)</p> <p>Secretary of the Department of Energy (DOE)</p> <p>Secretary of the Department of Finance (DOF)</p> <p>Secretary of the Department of Trade and Industry (DTI)</p> <p>Secretary of the Department of Transportation and Communications (DOTC)</p> <p>Secretary of the Department of Budget and Management (DBM)</p> <p>Secretary of the Department of Public Works and Highways (DPWH)</p> <p>Secretary of the Department of Foreign Affairs (DFA)</p> <p>Secretary of the Department of Justice (DOJ)</p> <p>Secretary of the Department of Labor and Employment (DOLE)</p> <p>Secretary of the Department of Tourism (DOT)</p> <p>The Executive Secretary</p> <p>Secretary of the Office of the Presidential Advisor on the Peace Process (OPAPP)</p> <p>Chairperson, Commission of Higher Education (CHED)</p> <p>Chief of Staff, Armed Forces of the Philippines (AFP)</p> <p>Chief, Philippines National Police (PNP)</p> <p>The Press Secretary</p> <p>Secretary General of the Philippine National Red Cross (PNRC)</p> <p>Commissioner of the National Anti-Poverty Commission-Victims of Disasters and Calamities Sector (NAPC-VDC)</p> <p>Chairperson, National Commission on the Role of Filipino Women</p> <p>Chairperson, Housing and Urban Development Coordinating Council (HUDCC)</p> <p>Executive Director of the Climate Change Office of the Climate Change Commission</p> <p>President, Government Service Insurance System (GSIS)</p> <p>President, Social Security System (SSS)</p> <p>President, Philippine Health Insurance Corporation (PhilHealth)</p> <p>President of the Union of Local Authorities of the Philippines (ULAP)</p> <p>President of the League of Provinces of the Philippines (LPP)</p> <p>President of the League of Cities of the Philippines (LCP)</p> <p>President of the League of Municipalities of the Philippines (LMP)</p> <p>President of the Liga ng Mga Barangay (LMB)</p> <p>Four representatives from the Civil Society Organizations (CSOs)*</p> <p>One representative from the private sector*</p> <p>Administrator of Office of Civil Defense (OCD)</p> <p>*As selected based on criteria set by the council</p>

Regional Disaster Risk Reduction and Management Councils (RDRRMCs)⁹⁹

RA 10121 renamed the Regional Disaster Coordinating Councils to the Regional Disaster Risk Reduction and Management Councils with the responsibilities to coordinate, integrate, supervise, and evaluate the activities of the Local Disaster Risk Reduction and Management Councils. The RDRRMCs will convene regional line agencies, institutions and authorities in the event of emergencies and are responsible for disaster sensitive regional development plans. The regional councils should establish an operating facility designated the Regional Disaster Risk Reduction and Management Operations Center (RDRRMOC) as needed.

Civil Defense Officers of the OCD serve as chairpersons of the RDRRMCs.

Organizational structure of the RDRRMC:

Title	Member
Chairperson	Civil Defense Officer or Regional Governor for Autonomous Region in Muslim Mindanao
Vice Chairpersons	Regional Directors of Department of Social Welfare and Development, Department of the Interior and Local Government, Department of Science and Technology, National Economic and Development Authority
Secretariat	Regional offices of Office of Civil Defense
General membership	Executives of regional offices and field stations at regional level of government agencies

Local Disaster Risk Reduction and Management Councils (LDRRMCs)¹⁰⁰

The Provincial, City and Municipal Disaster Coordinating Councils were renamed as Provincial, City, and Municipal Disaster Risk Reduction and Management Councils by RA 10121. The Barangay Disaster Coordinating Councils structure and membership ended under the Act, and the powers and functions were assumed by the Barangay Development Councils (BDCs) which will serve as the

LDRRMCs in every barangay. The LDRRMCs are responsible to approve, monitor, and evaluate the implementation of the Local Disaster Risk Reduction and Management Plans (LDRRMPs) and regularly review the plan for consistency with other national and local planning programs. The local councils ensure the integration of disaster risk reduction and climate change adaptation into the local development plans, programs, and budgets as a part of the sustainable development and poverty reduction strategy. The council recommends the need of forced or preemptive evacuation of local residents as necessary. To carry out these responsibilities, the councils meet at least every three months or as required.

Organizational structure of the LDRRMC:

Title	Member
Chairperson	Local Chief Executives
Membership shall be composed of but not limited to	Local Planning and Development Officer, Head of the following organizations: LDRRMO, Local Social Welfare and Development Office, Local Health Office, Local Agriculture Office, Gender and Development Office, Local Engineering Office, Local Veterinary Office, Local Budget Office, Division Head/Superintendent of Schools of the DepEd, Highest ranking officer of the Armed Forces of Philippines assigned to area, Provincial Director/City Municipal Fire Marshall of the Bureau of Fire Protection (BFP), President of the Association of Barangay Captains (ABC) Philippines National Red Cross (PNRC), Four accredited CSOs, One private sector representative

Local Disaster Risk Reduction and Management Office (LDRRMO) and Barangay Disaster Risk Reduction and Management Committee (BDRRMC)¹⁰¹

The Local Disaster Risk Reduction and Management Office (LDRRMO) and Barangay Disaster Risk Reduction and Management Committee (BDRRMC) share similar responsibilities and functions as stated in RA 10121. The LDRRMO is established in every province, city and municipality. The BDRRMC is established in every barangay. Both organizations are responsible to set the direction, development, implementation and coordination of disaster risk management programs within their territorial jurisdiction. The LDRRMO administratively aligns under the office of the governor, city, or municipal mayor and the BDRRM aligns under the punong barangay. The LDRRMOs are composed of a Disaster Risk Reduction and Management Office (DRRMO) with three staff responsible for 1) administration and training, 2) research and planning, and 3) operations and warning. The LDRRMOs and BDRRMCs organize, train, and directly supervise the local emergency response teams and accredited community disaster volunteers (ACDVs).

Key responsibilities at the local level are summarized below.

- Coordinate with the local government units and LDRRMC on disaster risk reduction and management, framework and plans.
- Design, program, and coordinate disaster risk reduction and management activities consistent with the National Council's standards and guidelines.
- Support risk assessments, contingency planning, and collate disaster risk information which includes natural hazards, vulnerabilities and climate change.
- Organize and conduct training and knowledge management on disaster risk reduction and management. Train and equip emergency response teams and ACDVs.
- Implement LDRRMP using national, regional and provincial framework and policies with the local development council and coordinate at the various local

levels on the programming and budget.

- Facilitate support from LGUs, CSOs, private sector and organized volunteers to monitor for disasters and utilize available resources.
- Establish a Provincial/City/Municipal/Barangay disaster risk reduction and management operations center.
- Educate and raise public awareness.
- At least two civil society organization representatives shall be involved at the BDRRMC level.

Disaster Risk Reduction and Management Councils are replicated at all levels of government with national, regional, provincial, city, municipal, and barangay organizations.



Disaster Risk Reduction Management Councils¹⁰²

Office of Civil Defense¹⁰³

RA 10121 designated the Office of Civil Defense (OCD) with the primary mission of administering a comprehensive national civil defense and disaster risk reduction and management program. The OCD responsibilities are to:

1. Advise the National Council on disaster risk reduction and management matters consistent with policies and laws.
2. Prepare and implement the National Disaster Risk Reduction and Management Plan and ensure the physical framework, social, economic and environmental plans of the communities, cities, municipalities, and provinces are consistent with the plan.
3. Identify, assess, and prioritize hazards

and risks in consultation with key stakeholders.

4. Develop and ensure the implementation of national standards as conducted in disaster risk reduction programs of preparedness, mitigation, prevention, response and rehabilitation.
5. Review and evaluate the Local Disaster Risk Reduction and Management Plans (LDRRMPs) to facilitate the integration of disaster risk reduction measures in the local Comprehensive Development Plan (CDP) and Comprehensive Land-use Plan (CLUP).
6. Ensure the local government units are provided information through the Local Disaster Risk Reduction and Management Offices (LDRRMOs) and adhere to national standards and programs.
7. Develop standard operating procedures for the development of rapid assessment teams, information sharing between government agencies, and coordination before and after disasters at all levels.
8. Establish standard operating procedures for the communication systems at the provincial, city, municipal, and barangay disaster risk reduction and management councils to provide for warning and alert information and gathering of information before, during and after disasters.
9. Establish Disaster Risk Reduction and Management Training Institutes according to the guidance in the Act for the institutes.
10. Establish the National Disaster Risk Reduction and Management Operations Center (NDRRMOC) to be operated and staffed on a 24 hour basis.
11. Other responsibilities of OCD involve coordination with government agencies, civil society organizations, private sector, volunteers, and communities are involved and able to participate in disaster risk reduction programs.

Emergency Coordination and Declaration of State of Calamity¹⁰⁴

Emergency coordination is initiated from the front lines of government at the local level and is elevated dependent on the severity of the event and level of impact on the areas. Congress of the Philippines Republic Act No. 10121 sanctions the authorities of the administrative levels of government. The Local Disaster Risk Reduction and Management Councils assume the lead in preparing for, responding to, and recovering from disaster effects. The responsibilities denoted by the RA state:

1. The Barangay Development Council if a barangay is affected;
2. The city/municipal Disaster Risk Reduction and Management Councils if 2 or more barangays are affected;
3. The provincial Disaster Risk Reduction and Management Councils if 2 or more cities/municipalities are affected;
4. The regional Disaster Risk Reduction and Management Councils if 2 or more provinces are affected;
5. The National Disaster Risk Reduction and Management Councils if 2 or more regions are affected.

The National Council is responsible for recommending to the President of the Philippines, the declaration of the barangays, municipalities, cities, provinces, and regions under a state of calamity following defined criteria. International humanitarian assistance could be deemed necessary as stated in the President's declaration. The local sanggunian (council) has the authority to declare and lift a state of calamity as recommended by the LDRRMC based on damage assessments and need analysis.

Laws, Policies, and Plans on Disaster Management

Presidential Decree 1566

Presidential Decree 1566 established the National Disaster Coordinating Council (NDCC) in 1978 as the highest policy making body and principal disaster management organization in the country. The law founded Disaster Coordinating

Councils (DCCs) at the regional, provincial, city, municipal, and barangay levels. The coordinating councils were created to advise the President and/or local chief executive on all natural disaster preparedness and management plans, recommend the declaration of a state of calamity, and release of calamity funds for relief and rescue operations.¹⁰⁵ The membership of 17 regional, 80 provincial, 117 city, and 1496 municipal DCCs duplicated the structure of the NDCC at the national level. While the NDCC did not have an annual budget it operated through the member agencies and DCCs. The National Calamities and Disaster Preparedness Plan (NCDPP) defined the responsibilities of the NDCC members and provided planning guidance for disaster management activities in the country.¹⁰⁶

Republic Act No. 10121

The Congress of the Philippines enacted the Republic Act (RA) No. 10121, titled the Philippine Disaster Risk Reduction and Management Act of 2010, on July 27, 2009. RA 10121 is written to strengthen the disaster risk reduction and management system, provide for the national disaster risk reduction and management framework, and institutionalize the national disaster risk reduction and management plan and appropriate funds.¹⁰⁷ The Act also provides the legal framework to decentralize the responsibilities and authority for implementing disaster risk reduction measures to the local governments.¹⁰⁸ The Act replaced PD No. 1566 of 1978, Strengthening the Philippine Disaster Control, Capability and Establishing the National Program of Community Disaster Prevention which no longer adequately reflected the need for a strong institutional and legal basis to support disaster risk reduction and management and climate change.¹⁰⁹

Executive Order Number 888

President Arroyo approved Executive Order 888 on June 7, 2010, which adopted The Strengthening Disaster Risk Reduction in the Philippines: Strategic National Action Plan (SNAP) 2009-2019 and institutionalized disaster risk reduction. The SNAP captures the country's roadmap to achieve the vision and strategic objectives for disaster risk reduction in the ten year time period.¹¹⁰ The Executive Order directs the implementation of SNAP, tasks the Agencies of Primary Responsibility (APRs) to integrate SNAP into the agency's programs, projects and budgets,

and instructs the government departments and corporations to inform staff of SNAP and their respective roles regarding disaster risk reduction. To institutionalize disaster risk reduction, the government agencies and corporations are charged to:

1. Integrate disaster risk reduction into policies, plans and programs
2. Incorporate disaster risk reduction programs, projects, and activities (PPAs) into agency budgets through specific budget lines for PPAs into mitigation and preparedness
3. Participate in the 18 priority projects and programs of the SNAP
4. Cooperate with national and international NGOs and the private sector to build safer and more resilient communities¹¹¹

National Disaster Risk Reduction and Management Framework

On June 16, 2011, the National Disaster Risk Reduction and Management Council adopted the National Disaster Risk Reduction and Management Framework (NDRRMF). The framework is considered an essential part of the development process and a key component to ensure the country's sustainable development. The framework reinforces the paradigm shift in approach from disaster response to disaster risk reduction (DRR) and disaster risk management principles.

The framework:

- Addresses underlying causes of vulnerability
- Demonstrates the framework is a national responsibility with a sustainable development approach
- Stresses the need for community empowerment and shared responsibilities
- Demonstrates good responsive governance and mutually reinforces partnerships
- Requires a strong and responsive political will, commitment and leadership
- Is best managed through local and customized adoption (and adaptation)

The NDRRMF emphasizes four key disaster risk reduction and management (DRRM) aspects with expected outcomes and key results areas.

DRRM Aspect	Expected Outcome	Key Result Areas
Prevention and Mitigation	Avoid hazards and mitigate potential impacts by reducing vulnerabilities and exposure, and enhance community capacities	<ol style="list-style-type: none"> 1. Mainstream and integrate DRR and Climate Change Adaptation (CCA) in national, sectoral, and local development, policies, plans and budget 2. DRRM/CCA sensitive environment management 3. Increase disaster resiliency of infrastructure systems 4. Community based and scientific DRR/CCA assessment, mapping, analysis and monitoring 5. Risk transfer mechanisms
Preparedness	Establish and strengthen capacities of communities to anticipate, cope and recover from the negative impacts of emergency occurrence and disasters	<ol style="list-style-type: none"> 1. Community awareness and understanding of the risk factors 2. Contingency planning at the local level (to include Incident Command System, early warning Systems, pre-emptive evacuation, stockpiling and equipping) 3. Local drills and simulation exercises 4. National disaster response planning
Response	Provide life preservation and met the basic subsistence needs of affected population based on acceptable standards during or immediately after a disaster	<ol style="list-style-type: none"> 1. Damage and Needs Assessments (DANA) as a generic activity (adopted from ADPC) 2. Relief Operations 3. Search, Rescue, Retrieval 4. Dissemination/Information sharing of disaster related information 5. Water Sanitation and Health 6. Development/provision of temporary shelters 7. Psycho social support 8. Early recovery mechanism 9. Management of deceased and missing 10. Evacuation management 11. Social Protection Intervention 12. Civil and uniformed services coordination
Rehabilitation and Recovery	Restored and improved facilities, livelihood and living conditions and organizational capacities of affected communities, and reduced disaster risks in accordance with the “building back better” principle	<ol style="list-style-type: none"> 1. Livelihood (1st priority) 2. Shelter (2nd Priority) 3. Infrastructure (3rd Priority)¹¹²

National Disaster Coordinating Council Four Point Plan of Action for Preparedness (4PPAP)

The NDCC Four Point Plan of Action for Preparedness (4PPAP) approved by the President 3 weeks after the December 2004 Indian Ocean Tsunami, aimed to increase public awareness and involvement in government measures initiated to minimize disaster impacts. The plan focused on:

1. Upgrading of the Philippine Atmospheric, Geo-physical and Astronomical Services Administration (PAGASA) and Philippine Institute of Volcanology and Seismology (PHIVOLCS) Forecasting Capability –
The upgrade worked to improve forecasting capability of natural hazards such as typhoons, earthquakes, tsunamis, and eruptions through the acquisition of equipment and personnel development
2. Public Information Campaign on Disaster Preparedness –
The development and implementations of a strategic Communications plan to amplify public awareness on natural hazards and to communicate preparedness measures in the event of a hazard or emergency
3. Capacity Building for Local Government Units in Identified Vulnerable Areas –
Provide technical assistance to local government units of vulnerable communities to improve mitigation and preparedness programs
4. Mechanisms for Government and Private Sector Partnership in Relief and Rehabilitation –
To identify the mechanism to promote government-private sector-community coordination and collaboration and result in effective logistics management, information management, and redundant communication systems¹¹³

Strategic National Action Plan (SNAP) 2009-2019

The National Disaster Coordinating Council through the Office of Civil Defense formulated the Strategic National Action Plan 2009-2019, as initially guided by President Arroyo's speech on July 25, 2007. President Arroyo spoke of

creating a master plan for disaster mitigation instead of just reacting to disasters. Work on the plan began in 2008 with technical assistance from the United Nations International Strategy on Disaster Reduction (UNISDR) and United Nations Development Programme (UNDP). The SNAP unites the various disaster management efforts to reduce disaster risks in the Philippines. The NDCC crafted the strategic action plan by consolidating the best practices of the local government units, communities, and all pertinent stakeholders through consultations and focus group discussions. Priority actions are classified under five strategic objectives.

1. Enabling Environment – Adopt a responsive legal and policy framework which creates an enabling environment for all Filipino citizens and the government and guides them towards reducing losses from disaster risk.
2. Financial and Economic Soundness (Mobilizing Resources) – Pursue cost-effective ways and means to offset socio-economic losses from disasters and prepare the nation for disaster recovery.
3. Supportive Decision-Making for an Enlightened Citizenry – Use the best available and practicable tools and technologies from social and natural sciences to support decisions by stakeholders in avoiding, preventing, and reducing disaster impacts.
4. Safety and Well-being Enhancement – Increase capacity, reduce vulnerability and achieve improved public safety and well-being.
5. Implementation and Evaluation of Disaster Risk Reduction – Monitor and assess progress on disaster risk reduction and prepare better for disasters in terms of identified risks and warning systems¹¹⁴

The SNAP is based on:

- Assessment of the disaster risk, vulnerability and capacity
- Gap analysis that identified and mapped out significant ongoing initiatives
- DRR activities incorporated in the HFA which are considered achievable priorities for the country with adequate resources and capacity for implementation in 3 to 10 years

The plan aims to build resilient communities and reduce disaster losses in life and in the social, economic, and environmental assets of the country.¹¹⁵

Philippine Development Plan 2011-2016¹¹⁶

The Philippine Development Plan (PDP) 2011-2016 is considered the national development roadmap of the country which focuses on achieving inclusive growth, creating employment opportunities, and reducing poverty. Inclusive growth is defined as economic growth of 7 to 8 percent per year for a six year time frame with generation of mass employment and meeting or exceeding the Millennium Development Goals. The PDP approaches include the following:

1. Mainstream disaster risk reduction and management and climate change adaptation into existing policies (land use, building codes, General Appropriation Act or GAA), plans and programs (research, school curricula, etc.).
2. Reduce vulnerability especially in the high-risk areas through continued and sustained assessments.
3. Integrate disaster risk reduction and management and climate change adaptation in all educational levels, in specialized technical training, and research programs.
4. Develop and implement a communication plan for disaster risk reduction and climate change adaptation to raise public awareness of disaster risk reduction and mitigating the impacts of natural disasters.
5. Increase resilience of communities through the development of climate change sensitive technologies and systems and the provision of support services to the most vulnerable communities.
6. Strengthen the capacity of communities to respond effectively to climate and other natural and human-induced hazards and disasters.
7. Institutionalize disaster risk reduction and management and climate change adaptation in various sectors and increase local government and community participation in the associated activities.

8. Press the practice and use of integrated Water Resources Management (WRM) and prioritize construction of flood management structures in vulnerable areas. Apply disaster risk reduction and management and climate change adaptation strategies in the planning and design of flood management structures.
9. Increase development and utilization of renewable energy and environment-friendly alternative energy resources/ technologies.

National Disaster Risk Reduction and Management Plan 2011-2028¹¹⁷

The National Disaster Risk Reduction and Management Plan (NDRRMP) 2011-2028 is required by RA No. 10121 from 2010, which provides the legal framework for the policies, plans, and programs to manage disasters. NDRRMP is also consistent with the National Disaster Risk Reduction and Management Framework and the vision to develop safer, more resilient communities. There are four thematic areas in the NDRRMP, 1) Disaster Prevention and Mitigation, 2) Disaster Preparedness, 3) Disaster Response, and 4) Disaster Rehabilitation and Recovery which correlates to the structure of the National Disaster Risk Reduction and Management Council.

NDRRM Plan 2011-2028, February 2012



Figure 4: National Disaster Risk Reduction and Management Plan 2011-2028

Source: State of DRRM in the Philippines. Undersecretary Eduardo Del Rosario, 2013.

NDRRM Plan

The plan outlines the key activities, indicators, lead agencies and implementing partners and expected results. The plan uses a three phase timeline to accomplish the detailed activities. The

short term time frame is 2011-2013, medium term is 2014-2017, and long term is 2017-2028. The implementation of the four thematic areas will lead to achieving the overall disaster risk reduction and management vision for the country.

Thematic areas with lead agency and partners and desired effects:

Thematic Area 1: Disaster Prevention and Mitigation: <i>Avoid hazards and mitigate their potential impacts by reducing vulnerabilities and exposure and enhancing capacities of communities</i>	
Overall responsible agency: Department of Science and Technology	
Lead Agency	Outcome
Office of Civil Defense	1. Disaster risk reduction and management and climate change adaptation integrated in national, sectoral, regional, and local development policies, plans and budget
Department of Environment and Natural Resources	2. Disaster risk reduction and management and climate change adaptation-sensitive environmental management
Department of Public Works and Highways	3. Increased resiliency of infrastructure systems
Office of Civil Defense	4. Enhanced and effective community-based scientific disaster risk reduction and climate change adaptation assessment, mapping, analysis and monitoring
Department of Finance	5. Communities access to effective and applicable disaster risk financing and insurance
Department of Science and Technology	6. End to end monitoring (monitoring and response), forecasting and early warning systems are established and/or improved
Thematic Area 2: Disaster Preparedness: <i>Establish and strengthen capacities of communities to anticipate, cope, and recover from the negative impacts of emergency occurrences and disasters</i>	
Overall responsible agency: Department of Interior and Local Government	
Lead Agency	Outcome
Philippine Information Agency (PIA)	7. Increased level of awareness and enhanced capacity of the community to the threats and impacts of all hazards
Department of Interior and Local Government (to coordinate) and OCD (to implement)	8. Communities are equipped with necessary skills and capability to cope with the impacts of disasters
Department of Interior and Local Government	9. Increased disaster risk reduction and management and climate change adaptation capacity of local disaster risk reduction and management councils, offices and operations centers at all levels
Department of Interior and Local Government and Office of Civil Defense	10. Developed and implemented comprehensive national and local preparedness and response policies, plans and systems
Department of Interior and Local Government	11. Strengthened partnership and coordination among all key players and stakeholders

Thematic Area 3: Disaster Response: <i>Provide life preservation and meet the basic subsistence needs of affected population based on acceptable standards during or immediately after a disaster</i>	
Overall responsible agency: Department of Social Welfare and Development	
Lead Agency	Outcome
Department of Social Welfare and Development	12. Well-established disaster response operations
Disaster Risk Reduction and Management Councils, Office of Civil Defense, and Department of Interior and Local Government	13. Adequate and prompt assessment of needs and damages at all levels
Department of National Defense, Department of Interior and Local Government, Department of Health	14. Integrated and coordinated Search, Rescue and Retrieval capacity
Local government units	15. Safe and timely evacuation of affected communities
Department of Social Welfare and Development	16. Temporary shelter needs adequately addressed
Department of Health	17. Basic social services provided to affected population (whether inside or outside evacuation centers)
Department of Health	18. Psychological needs of directly and indirectly affected population addressed
Department of Social Welfare and Development	19. Coordinated, integrated system for early recovery implemented
Thematic Area 4: Disaster Rehabilitation and Recovery: <i>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</i>	
Overall responsible agency: National Economic and Development Authority	
Lead Agency	Outcome
Office of Civil Defense	20. Damages, losses and needs assessed
Agency to be determined based on the affected sectors	21. Economic activities restored, and if possible strengthened or expanded
National Housing Authority (NHA)	22. Houses rebuilt or repaired to be more resilient to hazard events, safer sites for housing
Department of Public Works and Highways	23. Disaster and climate change resilient infrastructure constructed/reconstructed
Department of Health and Department of Social Welfare and Development	24. A psychologically sound, safe and secure citizenry that is protected from the effects of disasters is able to restore to normal functioning after each disaster

Government Capacity and Capability

The Philippine Government transformed the approach to disasters from reactive to proactive disaster risk reduction and management with the constitution of RA No. 10121. The Act applies a holistic, comprehensive, and integrated management approach to disaster risk reduction to include climate change.¹¹⁸ The Philippine National Progress Report on the Implementation of the Hyogo Framework for Action (2009-2011) documents the Government's disaster management actions against the Hyogo framework with progress levels ratings. The Priority for Action items and the ratings provide insight on the government's progress.¹¹⁹

A summarization of the results is detailed below:

Priority for Action 1: *Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation*

Core Indicator 1: *National policy and legal framework for disaster risk reduction exists with decentralized responsibilities and capacities at all levels*

Level of Progress Achieved: 4

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

Description: The institutional foundation for disaster risk reduction (DRR) is the Disaster Risk Reduction and Management (DRRM) Act of 2010, RA 10121 and the Climate Change Act of 2009, RA 9729. Under the DRRM Act, the National Disaster Risk Reduction and Management Framework, and National Disaster Risk Reduction and Management Plan will be developed and reinforce the current Strategic National Action Plan per Executive Order 888. The National Strategic Framework for Climate Change adopts DRR and integrates Common Country Assessments (CCA) as mandated. Local governments and communities are empowered to enforce DRR measures to effectively address their needs.

Sectoral agencies led by the National Economic and Development Authority are implementing the Mainstreaming Disaster Risk Reduction in Subnational Development and Land Use/Physical Planning project. Administrative Order No. 1

from the Office of the President dated September 17, 2010, directs the local government units and provinces to adopt the Mainstreaming Guidelines and to incorporate them into their planning activities.

The Medium Term Philippine Development Plan incorporates DRR issues and investment projects involving the environment and natural resources. The HFA report noted the Development Plan ended in 2010 and was in the process of being updated. The plan was updated for the time period of 2011-2016 by the government and adopted on March 28, 2011.¹²⁰

The Department of Interior and Local Government leads the efforts for mainstreaming the DRRM/CCA in the local government systems for locations considered at high risk for natural disasters. DRRM and CCA areas of concern are assimilated into local Comprehensive Land Use Plans, Comprehensive Development Plans and investment programs. The local government is able to build on the plans and programs and enact the appropriate ordinances to reduce risks through building standards, etc.

Discussion on Context and Constraints:

The challenge exists to coordinate the various efforts under a strategic disaster risk reduction management framework and collaborate between the government agencies involved due to the multiple acts, initiatives, and plans utilized to develop disaster risk reduction and climate change. A second challenge resides in the need to develop the expertise and capability necessary to execute the institutional and technical implementation of the DRRM and Climate Change laws.

Core Indicator 2: *Dedicated and adequate resources are available to implement disaster risk reduction plans and activities at all administrative levels*

Level of Progress Achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description: A specific budget for disaster risk reduction and management is allocated by RA 10121 for an amount equivalent to USD \$111 Million to the National Disaster Risk Reduction and Management Fund. Thirty percent of the designated funding is utilized for the Quick Response Fund in the amount of around USD \$22 Million. The Strategic Framework on Climate Change and development financing funds also

provide other avenues for providing money for disaster risk reduction activities.

Discussion on Context and Constraints: By law, the Office of Civil Defense should have USD \$22.8 Million allocated into the revolving fund however this is not included under the General Appropriations Act for 2011. While funds are allocated to mandated agencies, a tracking mechanism is needed to document investments in disaster risk reduction by the associate government agency.

Core Indicator 3: *Community participation and decentralization is ensured through the delegation of authority and resources to local levels*

Level of Progress Achieved: 3

Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description: Local government units (LGUs) are mandated under RA 10121 to take actions on several different tasks related to disaster risk reduction and managements. One task calls for the local government to set aside at a minimum 5 percent of the estimate revenue from regular sources into the Local Disaster Risk Reduction and Management Fund. The fund supports activities such as pre-disaster preparedness programs including training, purchasing live-saving equipment, supplies and medicines, for post-disaster activities, and payment of premiums on calamity insurance. A second task requires the establishment of DRRM offices, and at the time of the report, 45 of 80 provinces had DRRM units/offices and 23 of 80 provinces had permanent staff. A third task directs the LGUs to prepare the annual plan and budget with proposed programming for the Local DRRM Fund together with other dedicated disaster risk reduction and management resources and budget. Thus, the LGUs have the legal and institutional capacities as provided by the Local Government Act of 1991. The local government units are also instructed under the Climate Change Act 2009 to develop Local Climate Change Action Plans.

Discussion on Context and Constraints: Local good governance can be enhanced further as implementation of DRR activities is highly influenced by local political agendas and interests. Monitoring and evaluation of progress at the local level similar to the systems in place for national and provincial/regional levels would encourage better practices. Knowledge management at the

local levels (cities, barangays, and communities) is needed and can be addressed if information/knowledge is cascaded to these levels from countries sharing sound practices.

Core Indicator 4: *A national multi-sector platform for disaster risk reduction is functioning*

Level of Progress Achieved: 4

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

Description: The DRRM Act provides for multi-sectoral representation in disaster risk reduction endeavors. The National Disaster Risk Reduction and Management Council and Local DRRMC membership includes four representatives from the Civil Society Organizations (CSOs) and one from the Private Sector. The Office of Civil Defense has memorandum of agreements with partner CSOs. National multi-stakeholders have contributed to the implementation of laws and regulations and the Strategic National Action Plan. The same whole of government and whole of society approach will be utilized for the formulation of the DRRM Strategic Framework and Action Plan.

Discussion on Context and Constraints: The NDRRMC constituted by RA 10121 is the national platform for DRR for the country, and has the opportunity to energize and effectively carry out the responsibilities in coordination with the change in government. The DRRM Act also provided for a technical management group with member agencies to coordinate and meet to manage and sustain national efforts on disaster risk reduction and management.

Education and Training

Education Programs

Prior to RA No. 10121, 2010, disaster risk reduction education and programs existed through the departments. The Department of Interior and Local Government published the Integrating Disaster Risk Management in Local Governance: A Facilitator's Guide and a Sourcebook for Barangay Disaster Risk Management Training Workshop handbook in 2007. The handbook detailed step by step, how to facilitate workshops and training modules on disaster risk management. The

book provided Local Government Units with the means to move forward the agenda to reduce risks at the community or local levels. Four main modules covered 1) introduction to disaster risk management, 2) barangay governance and disaster risk management, 3) barangay risk assessment, and 4) barangay risk reduction planning. The project was sponsored by the DILG together with various nongovernmental organizations and depicts the importance and level of involvement of the barangay or local communities in disaster risk reduction management.¹²¹

The Government of the Philippines instituted disaster risk reduction education into school curricula, Sangguniang Kabataan (SK-youth council), and the public sector through the RA No. 10121. Agencies involved in integrating disaster risk reduction into education at the secondary and tertiary levels are the Department of Education (DepED), Commission on Higher Education (CHED), Technical Education and Skills Development Authority (TESDA), Office of Civil Defense, National Youth Commission (NYC), Department of Science and Technology (DOST), Department of Environment and Natural Resources (DENR), Department of Interior and Local Government, Bureau of Fire Protection (DILG-BFP), Department of Health (DOH), Department of Social Welfare and Development, and other relevant organizations. The disaster risk reduction education is incorporated into the National Service Training Program (NSTP) and all forms of education for private and public, formal/informal, technical-vocational, indigenous learning, and out of school youth courses. The community and in particular, the youth are encouraged to participate in disaster risk reduction and management activities by the NDRRMC, RDRRMCs, LDRRMCs, LDRRMOs, BDRRMCs, and SK councils. Community and youth are asked to join and organize quick response groups especially in identified disaster-prone areas, and disaster risk reduction and management programs which are components of the SK programs and projects. RA No. 10121 accounts for the mandatory training of public sector employees in emergency response and preparedness.¹²²

The National Disaster Risk Reduction and Management Plan 2011-2028 promotes education through various mechanisms as institutionalized by RA No. 10121. In particular, Thematic Area 2: Disaster Preparedness strives to establish and strengthen community capacities to prepare, confront, and recover from the impacts of

disasters. Indicators for Thematic Area 2 focus on the number of Information, Education and Communication (IEC) materials developed, the number of IEC campaigns conducted, and the target population that was reached. The effectiveness of training programs to enhance community capabilities will be measured by the number of communities trained on disaster preparedness and response, number of teams receiving specialized response training, number of disaster risk reduction and management senior level staff trained, number of disaster risk reduction and management training institutions established at the various levels, and number of disaster risk reduction and management and climate change adaptation materials developed.¹²³

Training

Community Training

The Office of Civil Defense actively coordinates disaster risk reduction training in the communities throughout the nation. In June 2012, a total of 940 community-based volunteers completed Disaster Risk Reduction and Management training designed to equip the local communities with capable and competent personnel to respond to emergencies. The training efforts had intensified after Tropical Storm Sendong and the 6.9 magnitude earthquake in Negros. Municipalities of Borbon, Sogod, Carmen, Catmon, and Moalboal participated in the activities. The program was supported by the Emergency Response Unit Foundation, Department of Environment and Natural Resources, Mines and Geosciences Bureau, Bureau of Fire Protection, Philippine Coast Guard, Philippine National Police and Philippine Atmospheric Geophysical and Astronomical Services Administration.¹²⁴

The NDRRMC's disaster preparedness program trains students to prepare for earthquakes by conducting earthquake drills in schools. The OCD personnel briefs students on the actions to take in the event of an earthquake and conducts the drills seen in schools such Zamboanga in April 2012. These drills are supported by the Regional Disaster Risk Reduction and Management Council members.¹²⁵



Posted on June 14, 2012 by Philippine OCD Admin

Training for Responders

The NDRRMC proactively schedules training for the disaster responders through the Office of Civil Defense. Of note, are the training activities that were organized to focus on disaster capabilities related to command and control and coordination during an emergency and search and rescue for disaster victims.

Training and the Incident Command System

The NDRRMC through the Office of Civil Defense led the implementation of the ASEAN-US Cooperation on Disaster Management with the focus on Incident Command System (ICS) Capability Building. Partner agencies include the Department of Local Government - Bureau of Fire Protection (DILG-BFP), Department of Health, Department of Social Welfare and Development (DSWD), Philippine National Police (PNP), Armed Forces of the Philippines (AFP), Philippine Red Cross (PRC), Metro Manila Development Authority (MMDA), Fire National Training Institute (FNTI), Subic Bay Metropolitan Authority (SBMA), the City Government of Olongapo, Davao City Rescue 911 and Amity Public Safety Academy (APSA). ICS training was deployed in two main phases.

Phase 1 (2003-2005) – Introduced ICS to selected NDRRMC Member Agencies; initiatives to the Philippine Disaster Management System context and ICS course material adaptation; Training of Trainers on ICS and Pilot Testing of adapted course materials

Phase 2 (2009-July 2012) – ICS Inception Workshop; ICS Instructor Development through

the conduct of six (6) ICS Courses, namely: 5-day ICS Basic/Intermediate Course, Integrated Planning Course, Administration and Finance Section Chief Course, Operations Section Chief Course, Logistics Section Chief Course, and Incident Commander Course

Initially, thirty-two (32) participants from the partner agencies successfully completed the scheduled courses and are certified as the ICS National Cadre of Instructors by the NDRRMC-OCD and United States Department of Agriculture – Forest Service (USDA-FS). The cadres became the core of the NDRRMC Incident Management Team (NIMT) and are mobilized by the National Council to assist in on-scene disaster response and management in affected areas of the country.¹²⁶

Search and Rescue Training

In 2013, the OCD Training Division sponsored Search and Rescue training in partnership with RedR Australia. RedR Australia obtained funding from the Australian Agency for International Development (as of October 2013 integrated into Department of Foreign Affairs and Trade). The Train the Trainers event was initiated under the NDRRMC Technical Assistance Project on Capacity Building for Disaster Response.¹²⁷

Disaster Management Communications

Early Warning

The National Disaster Risk Reduction and Management Plan assigns the responsibility of improving the monitoring, forecasting, and early warning systems to the Department of Science and Technology. The Philippine Atmospheric, Geophysical, and Astronomical Services Administration (PAGASA) is the agency under DOST, which is mandated by Presidential Decrees No. 78 and 1149 to “provide protection against natural calamities and utilize scientific knowledge as an effective instrument to insure the safety, well-being and economic security of all the people, and for the promotion of national progress.” The main PAGASA office located in Manila gathers data and generates decisions based on the information. PAGASA’s website at <http://www.pagasa.dost.gov.ph/> posts extensive information on weather advisories/warnings, hydrological information/

warnings, climate advisories, and astronomical updates. The Flood Forecasting and Warning System (FFWS) for dams and river basins are accessible with detailed geographical explanations of the areas and weather descriptions of driest and wettest time frames with probability of flooding. Weather, climate, tropical cyclone, and rainfall data and updates are easily obtained from the website.¹²⁸

Local Flood Early Warning Systems (LFEWS) and Community Based Flood Warning System (CBFWS) methodologies have been funded by various organizations to help the Philippines improve the early warning system process. The local/community approach is consistent with the approach to engage the most fundamental government level to reach the population. These alternative methods are simpler to operate and less expensive than the technically demanding, highly automated, expensive warning systems traditionally utilized by PAGASA. Operations centers are locally staffed to man the less sophisticated equipment located in or near the flood-prone area. Volunteer local observers also help to gather data in addition to the automated gauges.¹²⁹

The Department of Science and Technology reported in February 2014, that a new early warning system has been developed. The system will alert residents of tropical cyclones 48 hours in advance and has storm surge and flood indicators.

Storm surge warnings: Storm surge warnings have three indicators designated Storm Surge Advisories (SSA).

- SSA No. 1 for storm surges up to two meters in height
- SSA No. 2 for up to five meters in height
- SSA No. 3 for higher than 5 meters in height

Flood warnings: Flood warnings have a similar three tier system

- Flood Warning No. 1 for rainfall up to 129 millimeters in the next 24 hours
- Flood Warning No. 2 for up to 190 millimeters in the next 24 hours
- Flood Warning No. 3 for up to 240 millimeters in the next 24 hours

The team that developed the early warning system also provided recommendations to minimize disaster risks which included enforcing of “no-build” zones in coastal areas, improving

the resilience of residential and commercial structures, and building natural and man-made barriers to reduce the impact of storm surges.¹³⁰

The DOST provides Public Storm Warnings information to prepare the public on the time frame to expect the storm, meteorological conditions for wind and rain, impact of wind to the environment and structures, and precautionary actions to take to prepare for the weather conditions.

Public Storm Warnings: Posted in the Official Gazette 2014¹³¹

- A. Public Storm Warning Signal No. 1: Weather Disturbance is expected in 36 hours
 1. Meteorological Conditions:
 - A tropical cyclone will affect an area.
 - Winds of 30-60 kph are expected.
 - Intermittent rains may be expected in at least 36 hours. (When the tropical cyclone develops very close to an area, a shorter lead time of the occurrence of the winds will be specified in the warning bulletin.)
 2. Impact of the Winds:
 - Twigs and branches of small trees may be broken.
 - Some banana plants may be tilted or uprooted.
 - Some houses of very light materials may be partially unroofed.
 - Only very light or no damage may be sustained by areas affected.
 - Rice crops in flowering stage may suffer significant damage.
 3. Precautionary Measures:
 - When the tropical cyclone intensifies and moves closer, this warning signal number may be upgraded.
 - The waves on coastal waters may gradually develop and swell.
 - The people are advised to listen to the latest severe weather bulletin issued by PAGASA every six hours.
 - Business may be carried out as usual except when floods occur.

- Disaster preparedness units are activated to alert status.
- B. Public Storm Warning Signal No. 2: Weather Disturbance is expected in 24 hours
1. Meteorological Conditions:
 - A tropical cyclone will affect an area.
 - Winds of greater than 60 kph and up to 100 kph may be expected in at least 24 hours.
 2. Impact of the Winds:
 - Some coconut trees may tilt; some of them may break.
 - Few big trees may be uprooted.
 - Many banana plants may be downed.
 - Rice and corn crops may be affected.
 - A large number of houses made of light materials may be unroofed.
 - Old galvanized iron roofing may be peeled off.
 - In general, the winds may bring light to moderate damage to the exposed communities.
 3. Precautionary Measures:
 - The sea and coastal waters are dangerous to small seacraft.
 - Special attention should be given to the latest position, direction and movement speed, and intensity of the storm as it moves toward an area.
 - The public especially people traveling by sea and air are cautioned.
 - Outdoor activities of children should be postponed.
 - Secure properties before the signal are upgraded.
 - Disaster preparedness agencies/ organizations are in action to alert their communities.
- C. Public Storm Warning Signal No. 3: Weather Disturbance is expected in 18 hours
1. Meteorological Conditions:
 - A tropical cyclone will affect an area.
 - Winds of greater than 100 kph up to 185 kph may be expected in at least 18 hours.
 2. Impact of the Winds:
 - Many coconut trees may be broken or destroyed.
 - Almost all banana plants may be downed and a large number of trees may be uprooted.
 - Rice and corn crops may suffer heavy losses.
 - Majority of light material houses may be unroofed or destroyed. There may be considerable damage to structures of light to medium construction.
 - There may be widespread disruption of electrical power and communication services.
 - In general, moderate to heavy damage may be experienced, particularly in the agricultural and industrial sectors.
 3. Precautionary Measures:
 - The weather condition is dangerous to the communities affected.
 - The sea and coastal waters will be very dangerous to all sea crafts.
 - Travel is very risky especially by air and sea.
 - People are advised to seek shelter in strong buildings, evacuate low-lying areas, and stay away from the coasts and riverbanks.
 - Watch out for the passage of the eye of the typhoon indicated by a sudden occurrence of fair weather immediately after very bad weather, with very strong winds coming generally from the north.
 - When the eye of the typhoon hits the community, do not venture away from the safe shelter because after one to two hours, the worst weather will resume, with the very strong winds coming from the south.
 - Classes in all levels should be suspended and children should stay in the safety of strong buildings.
 - Disaster preparedness and response agencies/organizations are in action with appropriate response to emergency.

D. Public Storm Warning Signal No. 4: Weather Disturbance is expected in 12 hours

1. Meteorological Conditions:

- A very intense typhoon will affect the area.
- Very strong winds of more than 185 kph may be expected in at least 12 hours

2. Impact of the Winds:

- Coconut plantations may suffer extensive damage.
- Many large trees may be uprooted.
- Rice and corn plantation may suffer severe losses.
- Most residential and institutional buildings of mixed construction may be severely damaged.
- Electrical power distribution and communication services may be severely disrupted.
- Damage to affected communities can be very heavy.

3. Precautionary Measures:

- The situation is potentially very destructive to the community.
- All travels and outdoor activities should be cancelled.
- Evacuation to safer shelters should have been completed.
- The area is very likely to be hit directly by the eye of the typhoon.
- As the eye of the typhoon approaches, the weather will worsen continuously, with winds increasing to its strongest coming generally from the north.
- A sudden improvement of the weather with light winds will be experienced, which means the area is under the eye of the typhoon.
- Depending on the eye's diameter and movement speed, this improved weather may last for an hour or two.
- As the eye moves out of the area,

weather conditions will worsen, with strong winds generally coming from the south.

- The disaster coordinating councils concerned and other disaster response organizations are now fully responding to emergencies.

Communications Process

Disaster Messaging¹³²

The DOST scientific agencies PAGASA and Philippine Institute of Volcanology and Seismology (PHIVOLCS) provide disaster-related information to the NDRRMC and OCD for dissemination. The NDRRMC and OCD receive the disaster data which is approved for distribution by the Executive Director of the NDRRMC. The official information/advisories are circulated through the media for initial release to the public, while information is disseminated through the administrative levels of government. The advisories are provided to the regional offices of the Office of Civil Defense and to the regional disaster management council. The regional organizations transmit the information to the provincial, city and municipal levels until the barangay is notified. The Philippine Information Agency will transmit text information through the regional offices to the citizens.

While the government has a multi-layered approach to disseminate disaster information, the residents receiving the information do not necessarily heed the government. In the case of Typhoon Pablo, Dec. 2012, PAGASA communicated warnings up to one week in advance of the event however the residents of Compostela Valley, Mindanao took the warnings lightly. The last typhoon to have impacted the area was over a hundred years ago, therefore there was no experience to draw upon to understand the gravity of the situation. While this was a unique case, it highlighted the need to educate the public on hazards and the associated preparations, and mitigating actions that can be taken to minimize the effects of a disaster.

Randy David, a professor of sociology from the University of the Philippines, in his article dated December 8, 2012 stated:

To believe that it is sufficient to centralize the issuance of warnings and relevant information in the NDRRMC using radio, television, and the new social media is to assume that the message and its implications for action are uniformly understood. We should know by now that information from agencies like Phivolcs, Pagasa, and the NDRRMC is inescapably filtered by people’s own experiential horizons.

State-run media¹³³:

The Philippine media environment is dominated by commercial or privately-owned organizations which commit to free press and social responsibility, while depending on advertising to remain in business. Government owned media and the private media affably co-exist together. The major state-run organizations include:

<p>People’s Television Network Inc. (PTNI)</p>	<p>Functions of the PTNI are:</p> <ul style="list-style-type: none"> • To serve as an effective medium for national unity and political stability by reaching as much of the Filipino population as possible through the effective use of modern broadcasting technology. • To serve as a vehicle for bringing the government closer to the people in order to enhance their awareness of the programs, policies and directions of the government. • To ensure that the programs broadcast by the network maintain a high general standard in all aspects and, particularly, in respect to their content, quality, and proper balance of educational, news, public affairs, entertainment, and sports programs. • To serve as an effective outlet for alternative programming.
<p>Philippine Broadcasting System (PBS)</p>	<ul style="list-style-type: none"> • PBS Network consists of 33 radio stations nationwide — four in Metro Manila, 13 in Luzon, five in the Visayas, and 11 in Mindanao. Of these stations, two are 50 kws, one 25 kw, twenty-four 10 kws and six 1 kw.
<p>Philippines News Agency (PNA)</p>	<ul style="list-style-type: none"> • PNA provides ready access to government news and information to its local and international media subscribers. • PNA has 18 provincial bureaus all over the country that are interlinked via satellite and Internet to the main office at the Media Center in Quezon City. Areas that the Agency operates in are Cagayan, Benguet, Leyte, Albay, Palawan, Cebu, Iloilo, Davao del Sur, Zamboanga, Maguindanao, and South Cotabato. • The Agency operates 24 hours a day, seven days a week.
<p>Philippine Information Agency (PIA)</p>	<ul style="list-style-type: none"> • PIA has a mandate to either initiate development information programs or provide technical assistance to various government agencies in their public information projects. • PIA services include communication training, infrastructure development, creative services, and communication research. It has broadcast and film divisions capable of producing radio, TV and cinema plugs. The PIA serves as the advertising and public relations arm of the government. • The Agency has 16 regional offices in various provincial capitals nationwide. It also operates 29 information centers and extension offices throughout the country. • At the community level, the PIA supports the operation of the Community Development Information Centers (CDICs). These are under the operational control of and are funded by local government units in cities and towns.

Military Role in Disaster Relief

The Department of National Defense (DND) performs key roles in disaster management in the Philippines as legally documented in Presidential Decrees, Republic Acts and Memorandum of Understandings. Since 1978, the Secretary of the DND has been designated as the chair of the National Council. On the local/community level, the highest ranking officer of the Armed Forces of Philippines is a member of each of the LDRRMCs at each location.¹³⁴ The LDRRMCs perform the important functions of integrating disaster risk reduction and climate change adaptation into the local development plans and programs. The Memorandum of Understanding

on the International Humanitarian Assistance Network of 2007 had assigned the DND major responsibilities to facilitate international assistance. The MOU signed with the Departments of Health, Transportation and Communication, Justice, and Finance designed specific roles for each department. The DND performs rapid needs and damage assessments which form the basis of requesting international assistance, facilitate entry of international teams through Immigration and Customs, accredit the disaster relief teams and provide logistical support to allow for operations and air transport to disaster areas.¹³⁵

Some of the major roles of the military services include¹³⁶:

Philippine Army	Engineering Brigades of the Philippine Army coordinate with the Department of Public Works and Highways to support the restoration of destroyed public works infrastructure such as flood control, waterworks, roads, bridges, power facilities and other public structures and utilities.
Philippine Air Force	The Philippine Air Force coordinates with the Department of Transportation and Communications Air Transport Office and carries out the following responsibilities: <ol style="list-style-type: none"> 1. Aerial search and rescue operations 2. Directs immediate repair of damaged airports, runways, and facilities 3. Attends to inter-agency contingency planning and execution of plans for air crashes outside of airport facilities 4. Prepares daily outlooks with the Philippine Atmospheric and Geophysical and Astronomical Services Administration
Philippine Navy	The Philippine Navy collaborates with the Philippine Coast Guard (under Department of Transportation and Communication) to conduct rescue and emergency operations. The Navy assists in transporting relief goods and personnel via sea lanes.

The general statistics of the military indicate forces numbered at 125,000 and 131,000 reservists. Military expenditures of USD \$2,609 Million or 1.08 percent of GDP in 2012 have been recorded.¹³⁷ The responsibilities of the Armed Forces encompass Prevention and Mitigation, Preparedness, Response, and Rehabilitation and Recovery which is consistent with the National Disaster Risk Reduction and Management Plan, 2011-2028.¹³⁸

The Philippine military actively responds to disasters as seen in the catastrophic impact of Typhoon Haiyan (Yolanda) where the Philippine military responded with 25,526 personnel. Military efforts involved the use of 47 sea vessels, 46 aircrafts, and 570 mobility vehicles. Issues and challenges faced and identified by the military included:¹³⁹

Disaster Management Processes:

- Command and control not immediately established in response to typhoon

Capabilities:

- Need for additional strategic lift capability
- Need for Incident Command System and other related training

Information:

- Lack of situational awareness with limited initial rapid damage and needs assessment
- Need to enhance public information dissemination on disaster events

Resources:

- Lack of HA/DR resources
- Need to maximize reservists involvement
- Lack of a facility for the Multinational Coordination Center (MNCC) at the strategic and operational level
- Lack of an emergency communications system
- Lack of long range public address systems and portable address devices
- Lack of disaster response equipment down to battalion-level

The Armed Forces Philippines (AFP) identified Typhoon Haiyan (Yolanda) lessons learned specific to the military response which captured overarching points to address in preparation for future disaster events.

1. Preparedness for typhoons at Yolanda magnitude
 - a. Need to elevate preparedness for a worst case scenario such as super Typhoon Yolanda
 - b. Ground preparations were insufficient for the magnitude of Typhoon Yolanda with strong storm surges which swept away evacuation centers
2. Multilevel response should be seamless
 - a. Local to national level responsibility handover
 - b. Responder assistance should be sent from

outside of the region

- c. Leadership dealt with overwhelming circumstances
3. High Expectations from Military Support
 - a. There was an over dependence on the military's strained assets and resources
 - b. Responsibility should be equally shared with other civilian organizations
 - c. There was a limited mechanism between the AFP and RDRRMC for the logistics operation for immediate supply replenishment during the response
4. Overwhelming International Support
 - a. Early response from the international community occurred after the expedient disaster declaration by the government
 - b. 57 countries and 29 multinational military organizations participated in HA/DR operations
5. Effectiveness of the MNCC
 - a. The MNCC facilitated coordination with foreign military forces to support HA/DR missions
 - b. For Typhoon Yolanda, it was the first time the AFP had an operational MNCC
6. Training Readiness
 - a. AFP has limited training on inter-agency HA/DR operations
 - b. There is limited unit training on HA/DR operations
 - c. HA/DR operations are dependent on using appropriate equipment
7. Facilities and Logistics
 - a. The AFP has available facilities for coordination and HA/DR to include command and control and storage of equipment and goods
 - b. AFP lacks the Deployable Joint Command and Control (DJC2) facility that could utilized for HA/DR operations
 - c. Command and control, and interagency/multinational coordination were drastically impacted by the disaster event
 - d. There was minimal logistics preparation and no pre-positioning of additional supplies/equipment in anticipation of the typhoon which led to shortfalls

Foreign Military Assistance

International Military Support

The Philippine Government is generally amenable to accepting disaster assistance from the international military community to respond to the frequent and severe disasters experienced by the country. In Typhoon Haiyan (Yolanda), the Philippine Government accepted military assistance from countries and organizations such as Australia, Japan, NATO, South Korea, and the United Kingdom. The supporting militaries contributed the use of military ships, transport planes, and helicopters. The international military personnel delivered disaster relief and aided in the distribution of drinking water, food and medical supplies. China sent the naval hospital ship, the Peace Ark to assist the Philippines.¹⁴⁰

U.S. Military Support

The U.S. military provides extensive disaster assistance to the Philippine Government in response to the harsh disaster events experienced by the country. Typhoon Bopha (Pablo) and Typhoon Haiyan (Yolanda) are two of the more recent examples. In response to Typhoon Bopha (Pablo), the III Marine Expeditionary Force (MEF) forward command was stood up only 4 days after the typhoon impacted the Philippines on December 4, 2012. The 3rd Marine Expeditionary Brigade had been in Manila conducting future bilateral training exercises planning with the Armed Forces of the Philippines, and was therefore able to respond rapidly. Aircraft stationed in Japan were transported to the Philippines to transport relief supplies to include food, generators, water purification units, and tents. The III MEF personnel coordinated with the Armed Forces of the Philippines, Pacific Air Forces, OFDA, Joint-U.S. Military Assistance Group-Philippines, and Joint Special Operations Task Force-Philippines to prioritize and synchronize humanitarian and relief efforts in the bilateral coordination center.¹⁴¹

The U.S. and Philippines have a long history together under their Mutual Defense Treaty (1951). The two countries have a visiting forces agreement and a bilateral Humanitarian Assistance and Disaster Relief (HA/DR) Concept of Operations (CONOPS) 2009 which is currently undergoing revisions.¹⁴² The U.S. military provided major disaster assistance in the devastating aftermath of Typhoon Haiyan (Yolanda). The advance warning of the storm and presence of visiting or stationed

naval, air and Marine Corps assets in mainland Japan and the island of Okinawa facilitated a rapid initial response to the typhoon. Joint Task Force (JTF) 505 was created to conduct the initial relief operations named Operation Damayan. The USS George Washington naval task force and elements of the 31st Marine Expeditionary Unit (MEU) were the primary components of the JTF. Almost a 1,000 military personnel deployed directly to the disaster area, served on ships, or supported from bases around the world.

U.S. military air support involved reconnaissance of affected areas, transporting aid workers into the disaster zones, and evacuation of the typhoon victims to different locations in the country. The U.S. military delivered assistance on ground with the deployment of Marines to assist with road clearance and distribution of humanitarian assistance. An estimated 90 percent of relief supplies were transported by trucks after land routes were improved. The Marines concentrated efforts in two main areas of Guiuan, Eastern Samar, the supply transport hub and Tacloban in the Leyte Gulf Area.

By December 1, 2013, the U.S. DOD transitioned its relief efforts to the Philippine Government and ended support by the JTF 505. Peak efforts by the U.S. military have been reported to include 13,400+ military personnel, 66 aircraft, and 12 naval vessels. U.S. military personnel evacuated over 21,000 people and conveyed more than 2,495 tons of relief supplies. Operation Damayan completed over 1,300 flights to approximately 450 sites in the Philippines.

The success of the U.S. military disaster assistance in the Philippines has been attributed to the strong collaborative bi-lateral relationship between the U.S. and Philippine Governments. The U.S. and Philippine militaries are involved in regular joint exercises and ongoing missions. Two major programs are the Balikatan (Shoulder to Shoulder) exercises and the U.S. Joint Special Operations Task Force-Philippines (JSOTF-P) counterterrorism assistance which contain considerable humanitarian assistance components. The Cooperation Afloat Readiness and Training (CARAT) naval activity and the Amphibious Landing Exercise (PHIBLEX) are other annual joint exercises which promote joint coordination.¹⁴³

Foreign Assistance and International Partners

The Philippine Government supports the International Disaster Response Law (IDRL) created in 2001, and collaborates with the Philippines Red Cross (PRC) and International Federation of Red Cross and Red Crescent Societies (IFRC) in associated activities.¹⁴⁴ RA 10121 details the mechanism for International Humanitarian Assistance in the law. The importation and donating of food, clothing, medicine, and equipment for relief and recovery is protected. The Act addresses prohibited acts related to the misuse, resale, seizure, misdirection and unauthorized possession of relief and recovery supplies.¹⁴⁵

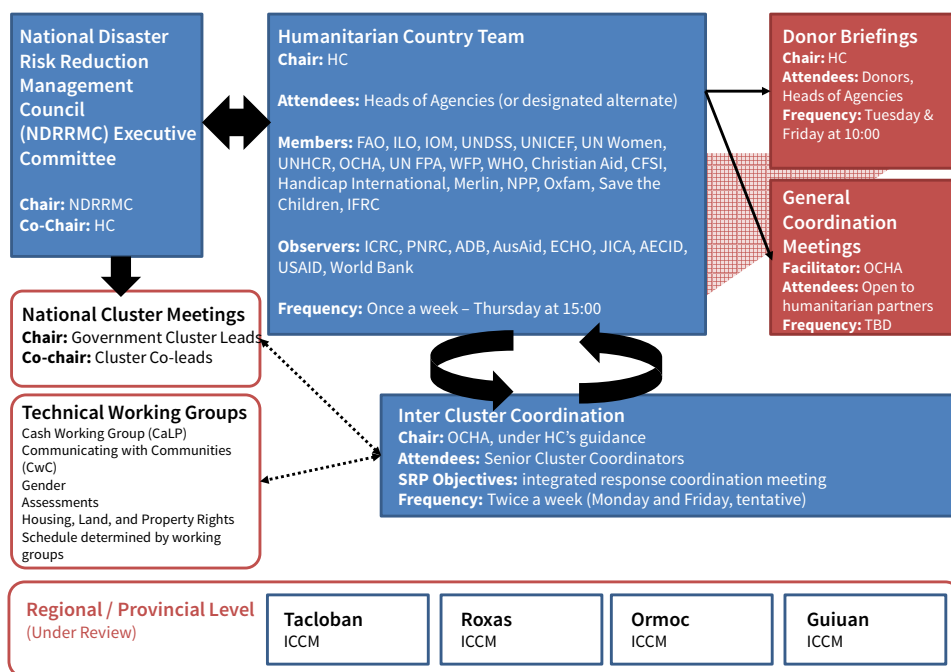
The Philippines Department of Foreign Affairs, PRC, and IFRC convened a national workshop in Manila in June 2012, to focus on improving the legal preparedness for international disaster cooperation in the country. The workshop familiarized the participants on the international disaster response laws, rules, and principles, and studied the roles and responsibilities of the various government departments in managing international assistance.¹⁴⁶

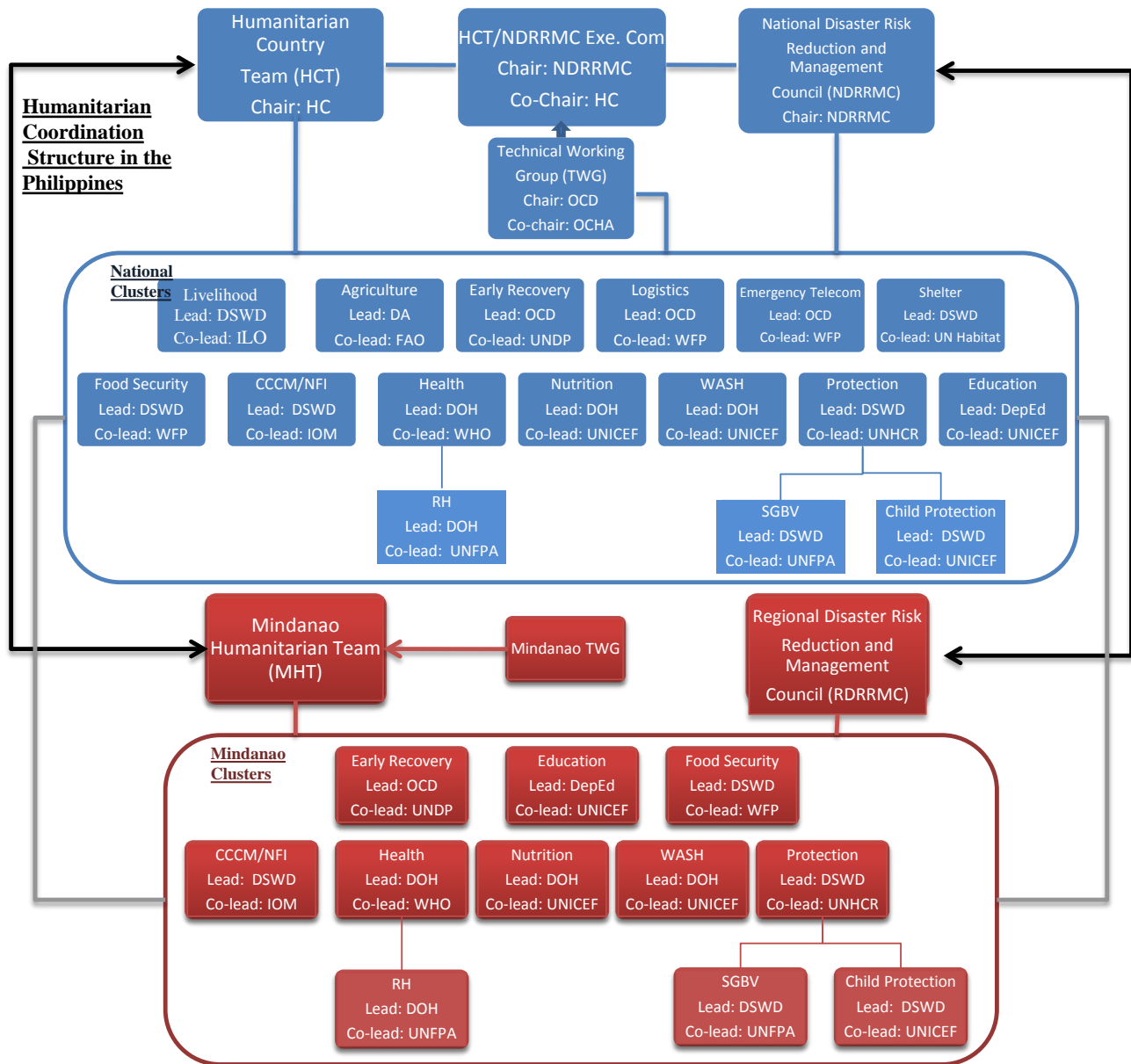
The Philippine Government is a member of the ASEAN Agreement on Disaster Management and Emergency Response (AADMER) which has been instituted since July 2005. The AADMER aims to provide effective mechanisms to reduce

disaster losses in lives and in the social, economic, and environmental assets of the Parties and to jointly respond to disasters with regional and international cooperation. In response to Typhoon Haiyan (Yolanda), ASEAN support arrived through the deployment of staff from the ASEAN Coordinating Centre for Humanitarian Assistance on disaster management (AHA Centre) and through contributions of relief supplies, cash and medical personnel from all of the ASEAN member states. Contributions were handled either through the AHA Centre or through bilateral initiatives. The earliest deployed ASEAN support included one AHA Centre staff member prior to the typhoon's landfall to provide an emergency satellite communications system to the Office of Civil Defense, two ASEAN Emergency Response Assessment Team members (ERAT), and one AADMER Partnership Group member. AHA Centre personnel worked in the aftermath of the typhoon with the Philippine Government to facilitate and deliver relief assistance from the ASEAN member states.¹⁴⁷

NDCC Memos of 2007 and 2008 institutionalize the cluster approach in the Philippine disaster management system at the national, regional, and provincial levels. The NDRRMC Memo No.5 of 2011 creates the NDRRMC and Humanitarian Country Team Technical Working Group. Refer to diagram which depicts the Philippines government and United Nations cluster coordination structure.¹⁴⁸

Philippines Humanitarian Coordination Architecture





Humanitarian Coordination Structure in the Philippines

The government is receptive to receiving humanitarian assistance from the international community in response to major disasters. In response to the catastrophic Typhoon Haiyan (Yolanda), the Philippine government requested assistance from the United Nations in the form of the United Nations Disaster Assistance and Coordination (UNDAC) and U.N. Office for the Coordination of Humanitarian Affairs (UNOCHA). A Strategic Response Plan (SRP) was designed by the U.N. Humanitarian Country Team (HCT) in conjunction with 14 U.N. organizations and 39 non-governmental and international organizations to support the government's activities related to immediate humanitarian needs, the reconstruction plan, and identified assessment gaps. The SRP spans 171 municipalities in 14 provinces and 4 regions where an estimated 14 million people have been affected by the typhoon. Response organizations have included international organizations, nongovernmental organizations (NGOS), Private Voluntary Organizations (PVOs), and bilateral and multilateral donors. Over 66 countries or agencies contributed or pledged assistance to the Philippines for Typhoon Haiyan (Yolanda) in the amount of USD \$662 Million.¹⁴⁹

Foreign Assistance Logistics

Humanitarian Transportation - Air

Republic Act No. 9497 from 2007, created the Civil Aviation Authority of the Philippines (CAAP) under the administrative authority of the Department of Transportation and Communications. The CAAP abides by the Annexes of the Chicago Convention. The Civil Aviation Authority has jurisdiction over the restructuring of the civil aviation system, the promotion, development and regulation of the technical, operational, safety and aviation functions as deemed by RA No. 9497. The general policies of the Authority include:

- Development and utilization of the air potential of the Philippines
- Development of an air transportation system properly adapted to the present and future of foreign and domestic commerce of the Philippines

- Regulation of air transportation which supports sound economic condition and improves the relations between air carriers;
- Ensures the safety, quality, reliability, and affordability of air transport services for the public
- Development of a viable and globally competitive Philippine aviation industry¹⁵⁰

Foreign aircraft can operate in the Philippines by abiding by the international and national laws and agreements required by Government of Philippines.

- On March 1, 1947, the Government of Philippines agreed to the terms in the Convention on International Civil Aviation (1944) which includes articles related to health measures for aircraft.¹⁵¹
- On March 1, 2013, the ICAO officially lifted the aviation safety concerns that had been reported on a previous inspection. The Civil Aviation Authority of the Philippines had taken the necessary steps to alleviate the aviation safety issues.¹⁵²

Guidelines and processes for emergency situations

- In May 2009, the Government of Philippines signed the ASEAN Multilateral Agreement on Air Services which assists in granting approval for overflight and landing permission for recognized ASEAN air services.¹⁵³

Driving License¹⁵⁴:

Foreign Driver's License in the Philippines

- A valid foreign driver's license maybe used up to 90 days from arrival in country.
- If the individual will need to use the license for longer than 90 days, the valid foreign driver's license can be converted into a Philippines driver's license without taking any practical or written exams.
- If the foreign driver's license is expired then practical and written exams are required in obtaining a Philippines driver's license.

Converting a Foreign Driver's License to a Philippines Driver's license

- A valid foreign driver's license can be converted into a Philippines driver's license within 90 days upon arrival in country.
- An expired foreign driver's license can be converted into a Philippines driver's license following the same process outlined below however written and practical tests are required.
- If the foreign driver's license is not written in English, the license should be accompanied by an official English translation issued by the local Embassy of the issuing country.
- The following documents are required according to Memorandum Circular No. 495-2004:
 - The original and machine copy of a valid passport showing the latest date of arrival in the Philippines for the foreign applicant or
 - The original and machine copy of valid visa or Alien Certificate of Registration (ACR) if the foreign applicant temporarily resides in the Philippines.
 - An original copy of a Medical Certificate issued by a Land Transportation Office accredited or government physician.
 - Original copy of a drug test result issued by the Department of Health Accredited Drug Testing Center.
 - Fees for Non-professional license is USD \$8.00.

Customs

The Government is able to simplify and expedite clearance of relief goods and aid equipment as demonstrated in Typhoon Haiyan (Yolanda). The Government mandated Customs Memorandum Order 8-2013, which created One-Stop Shops (OSS) to process and release foreign donated relief goods and equipment quickly and efficiently. The OSS were staffed 24/7 and located at entry points of Tacloban, Cebu and Ninoy Aquino International Airport (NAIA)). Shippers of relief goods from abroad and the consignees/

recipients in the Philippines would consign the shipment to the Department of Social Welfare and Development (DSWD) or to any charitable organization accredited by DSWD and label Typhoon Yolanda. Properly consigned shipments received exemption from import duties.

Documentary requirements for application and exemption from duties and/or taxes were clearly detailed dependent on the entity and associated requirements.

1. Foreign Embassies, United Nations Organizations, International Organizations (Food and Agriculture Organization, International Monetary Fund, World Bank, World Health Organization, etc.) would be exempt from duties and taxes with 1) Recommendation from the Department of Foreign Affairs (DFA) and 2) Shipment documents – Bill of Lading (B/L), Air Waybill (AWB), packing list, and invoice.
2. Philippines Red Cross (PRC) would be exempt from duties and taxes with 1) Letter of request from PRC National Headquarters and 2) Shipment documents – Bill of Lading (B/L), Air Waybill (AWB), packing list, and invoice.
3. Relief organizations accredited by the DSWD would be exempt from duties only and subject to payment of VAT with 1) Recommendation from DSWD, 2) Deed of Donation (authenticated) and 3) Shipment documents – Bill of Lading (B/L), Air Waybill (AWB), packing list, and invoice.
4. Non-profit charitable and/or religious institutions, and government and private hospitals registered with the Department of Health would be exempt from duties only and subject to payment of VAT with 1) Recommendation from the National Economic and Development Authority (NEDA), 2) Deed of Donation (authenticated) and 3) Shipment documents – Bill of Lading (B/L), Air Waybill (AWB), packing list, and invoice.



PHILIPPINES

Infrastructure

Philippines Disaster Management Reference Handbook | 2015

Infrastructure

Transportation in the Philippines remains weak due to the country’s mountainous landscape and dispersed islands. In 2013, the aftermath of Typhoon Haiyan (Yolanda) emphasized the weak and fragile infrastructure in the Philippines. The disaster emphasized the need to invest more to build key infrastructure assets such as roads, ports, and power lines. The Philippines has the lowest percentage of paved roads when compared with its neighbors. It also has low scores in other areas such as fixed phone lines, households with power and electricity lost in transmission.¹⁵⁵ The government recently announced plans to spend USD \$9.1 billion on public works starting in 2014 and is expected to rise to USD \$18.9 billion by 2016. The government approved nine projects worth USD \$1.4 billion which include: a USD \$425 million dam and water tunnel which will supply 600 million liters of water a day to the capital by 2020, and USD \$325 million for the operation and maintenance of Manila’s electric train systems.¹⁵⁶

The Department of Transportation and Communications (DOTC) is the primary policy, planning, programming, coordinating, implementing and administrative body of

the executive branch of the government for the promotion, development and regulation of a dependable and coordinated network of transportation and communication systems.¹⁵⁷ The Office for Transportation Security (OTS) is the single authority responsible for the security of the transportation systems of the country for the following: Civil Aviation, Sea Transport and Maritime Infrastructure, Land Transportation, and Rail System and Infrastructure.¹⁵⁸

Airports

There are 12 international airports in the Philippines and over 20 domestic airports scattered throughout the country. The Civil Aviation Authority (CAA), under the DOTC is responsible for implementing policies on civil aviation to assure safe, economic and efficient air travel. Airports which are owned by the Philippine government are distinguished into three classes: international airports, principal airports, and community airports.¹⁵⁹

International Airports – Airports capable of handling international flights. Airports in this category include airports that currently have or have previously served international destinations.

City	Province	Airport Name	Classification	Runway ¹⁶⁰
Silay	Negro Occidental	Bacolod-Silay International Airport	International	6,400ft
Angeles	Pampanga	Clark International Airport		10,400ft
Davao City	Davao del Sur	Davao International Airport		8,200ft
General Santos	South Cotabato	General Santos International Airport		5,500ft
Cabutuan	Iloilo	Iloilo International Airport		6,800ft
Kalibo	Aklan	Kalibo International Airport		6,000ft
Laoag	Ilocos Norte	Laoag International Airport		7,900ft
Lapu-Lapu	Cebu	Mactan-Cebu International Airport		10,800ft
Paranaque/ Pasay	Metro Manila	Ninoy Aquino (Manila) International Airport		12,200ft
Puerto Princesa	Palawan	Puerto Princesa International Airport		8,500ft
Morong	Bataan	Subic Bay International Airport		9,000ft
Zamboanga City	Zamboanga del Sur	Zamboanga International Airport		8,500ft

Principal Airports – Airports which only serve domestic locations. There are two types:

Class 1 – Airports capable of serving jet aircraft with a capacity of at least 100 seats.

Class 2 – Airports capable of serving propeller aircrafts with a capacity of at least 19 seats.

City	Province	Airport Name	Classification	Runway ¹⁶¹
Dipolog	Zamboanga del Norte	Dipolog Airport	Principal – Class 1	6,100ft
Sibulan	Negros Oriental	Sibulan Airport		6,100ft
Laguindingan	Misamis Oriental	Laguindingan Airport		6,890ft
Legazpi	Albay	Legazpi Airport		6,800ft
Pili	Camarines Sur	Naga (Pili) Airport		4,600ft
Pagadian	Zamboanga del Sur	Pagadian Airport		5,500ft
Roxas	Capiz	Roxas Airport		6,200ft
San Jose	Occidental Mindoro	San Jose Airport		6,000ft
Tacloban	Leyte	Tacloban Airport		7,000ft
Tagbilaran	Bohol	Tagbilaran Airport		4,100ft
Tugeugarao	Cagayan	Tuguegarao Airport		5,900ft
Virac	Catanduanes	Virac Airport	5,100ft	
Basco	Batanes	Basco Airport	Principal – Class 2	4,100ft
Bongao	Tawi-Tawi	Tawi-Tawi Airport		5,200ft
Coron	Palawan	Busuanga-Coron Airport		3,900ft
Calbayog	Samar	Calbayog Airport		4,800ft
Mambajao	Camiguin	Camiguin Airport		4,200ft
Catarman	Nothern Samar	Catarman National Airport		4,400ft
Malay (Boracay)	Aklan	Caticlan Airport		2,600ft
Jolo	Sulu	Jolo Airport		4,900ft
Gasan	Marinduque	Marinduque Airport		4,500ft
Masbate City	Masbate	Masbate Airport		3,900ft
Alcantara	Romblon	Tugdan Airport		3,900ft
Del Carmen	Surigao del Norte	Sayak Airport	3,200ft	
Surigao	Surigao del Norte	Surigao Airport	5,000ft	

Community Airports – Airports which are used primarily for general aviation.

City	Province	Airport Name	Classification	Runway ¹⁶²
Santa Fe	Cebu	Bantayan Airport	Community	2,953ft
Cauayan	Isabela	Cauayan Airport		5,700ft
Itbayat	Batanes	Itbayat Airport		2,628ft
Ozamiz	Misamis Occidental	Labo Airport		4,200ft
Palanan	Isabela	Palanan Airport		3,200ft
San Fernando	La Union	San Fernando Airport		3,900ft
Vigan	Ilocos Sur	Mindoro Airport		3,400ft

Manila Ninoy Aquino International Airport (NAIA) is one of two international airports serving the metro Manila area and is the main gateway to the country. The airport is located roughly 4 miles south of Manila. This is the main airport serving the city along with Clark International Airport, which mainly handles budget airline carriers. In 2012, passenger volume at NAIA was 32.1 million and ranked 34th busiest airport in the world.¹⁶³ The Manila International Airport Authority (MIAA) is responsible for the management of NAIA. Under Executive Order No. 903, MIAA is mandated to: upgrade and provide safe, efficient and reliable airport facilities; encourage and promote international and domestic air traffic; and perform other functions provided by the law while maintaining financial viability.¹⁶⁴

Mactan-Cebu International Airport is located in Lapu-Lapu City in the Central Visayas region and is the second busiest airport in the country. The airport is an international gateway to the country's economic prosperity due to its ideal location. Mactan-Cebu International Airport Authority (MCIAA) was established under Republic Act 6958. The main purpose of MCIAA is to undertake the economical, efficient and effective control, management and supervision of the airport.¹⁶⁵ Davao International Airport, also known as Francisco Bangoy International Airport is the busiest airport on the island of Mindanao. Its modern airport facilities can handle approximately 2 million passengers and roughly 84,000 metric tons of cargo annually. The airport is equipped with the latest navigational, security, and baggage handling equipment.

Iloilo International Airport serves the province of Iloilo located in the western Visayas region. The airport is situated on the Tomas Confesor Highway, a major highway which passes through

the island and makes the airport accessible from all parts of Iloilo. The airport consists of administrative and maintenance buildings, waste-sorting facilities, water treatment facilities, power generation station, cargo terminal and a main passenger terminal.

AIRPORTS OF THE PHILIPPINES

UNDER CAAP CLASSIFICATION

- ★ International airport
- Principal airport - Class 1
- Principal airport - Class 2
- Community airport

UNCLASSIFIED

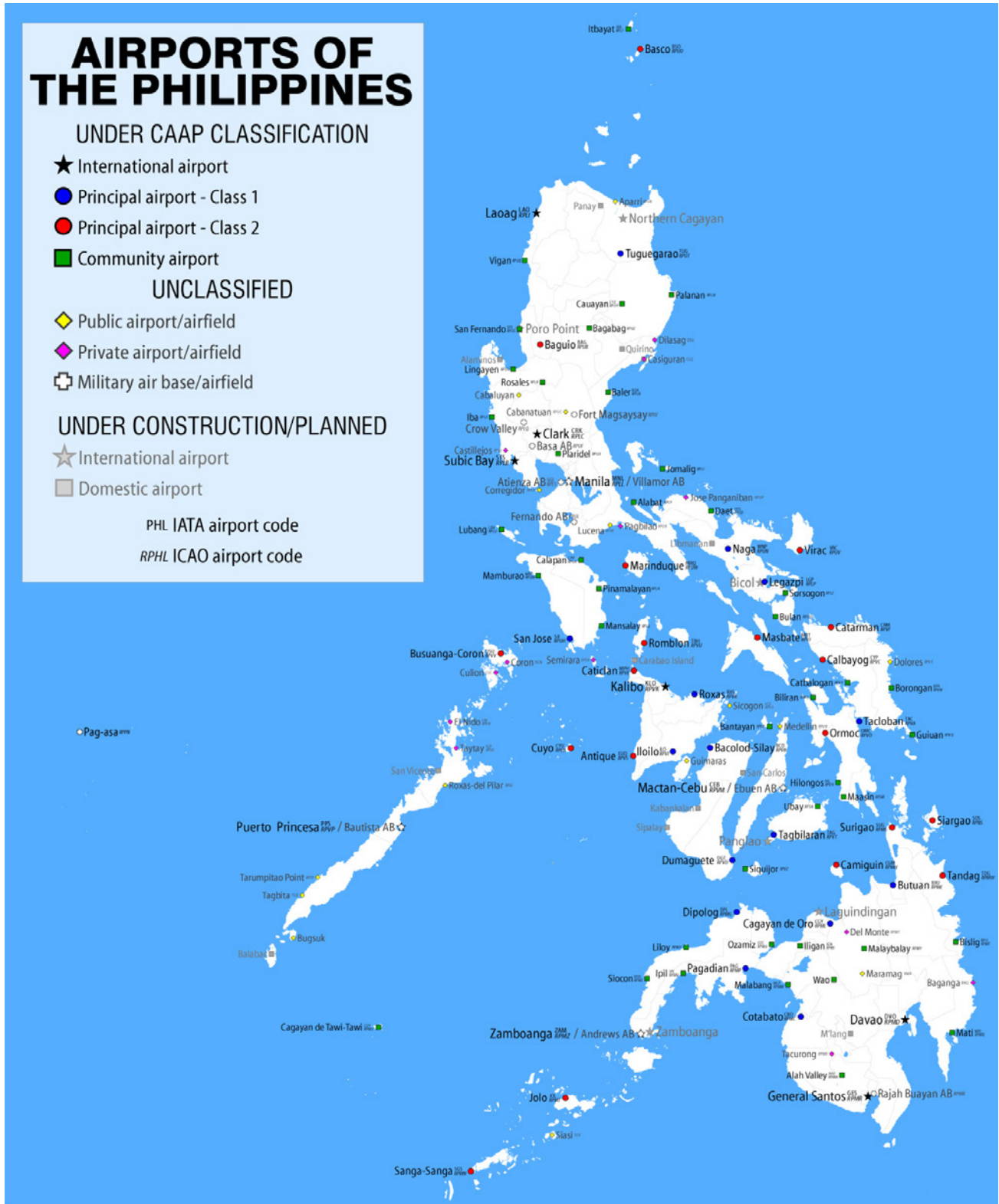
- ◆ Public airport/airfield
- ◆ Private airport/airfield
- ⊕ Military air base/airfield

UNDER CONSTRUCTION/PLANNED

- ★ International airport
- Domestic airport

PHL IATA airport code

RPHL ICAO airport code



Seaports

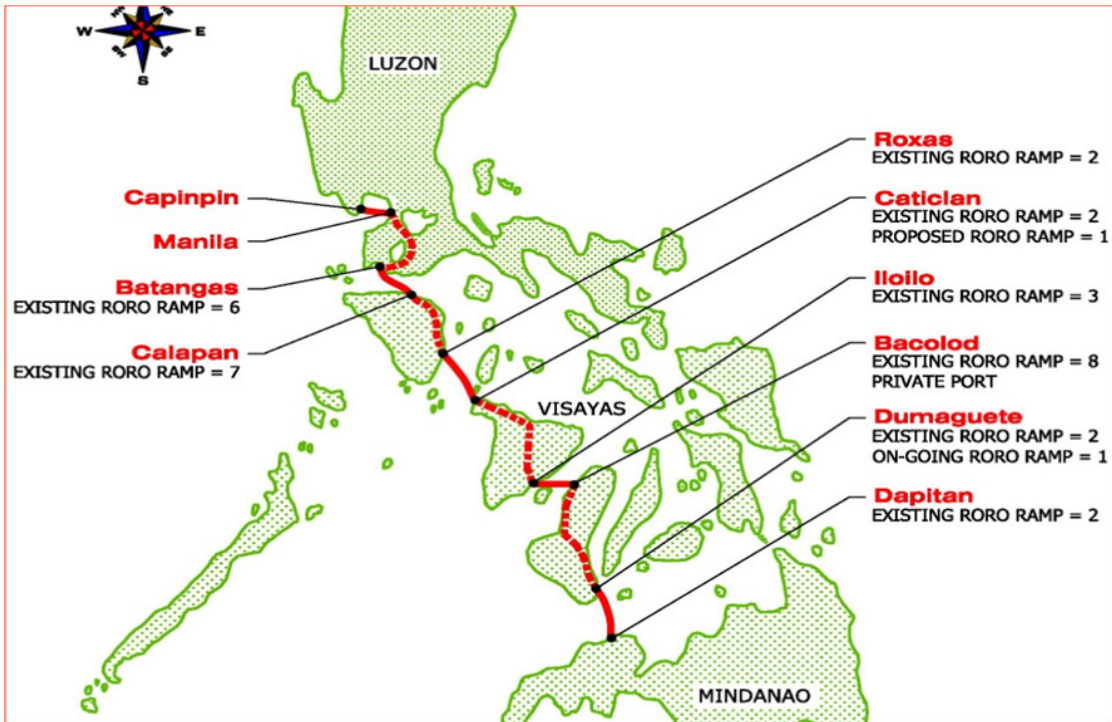
The Philippines depends on seaports to move domestic and international commerce. The Philippines ranks 120 out of 144 countries in the quality of port infrastructure, the lowest among the ASEAN-6 countries (Singapore, Thailand, Malaysia, Indonesia and Vietnam).¹⁶⁶ The Philippine Coast Guard (PCG) is tasked with enforcing all laws within Philippine waters, conducting maritime security operations, and safeguarding life and property at sea. The Port of Manila is the Philippines largest seaport and international shipping gateway to the country. The Philippines Ports Authority (PPA) is under the DOTC is responsible for financing, management and operations of public ports throughout the country, except for the port of Cebu which is under the Cebu Ports Authority (CPA).¹⁶⁷ The CPA manages all ports located in Cebu province.

Ferry services are an important mode of transportation for the Philippines since it is an

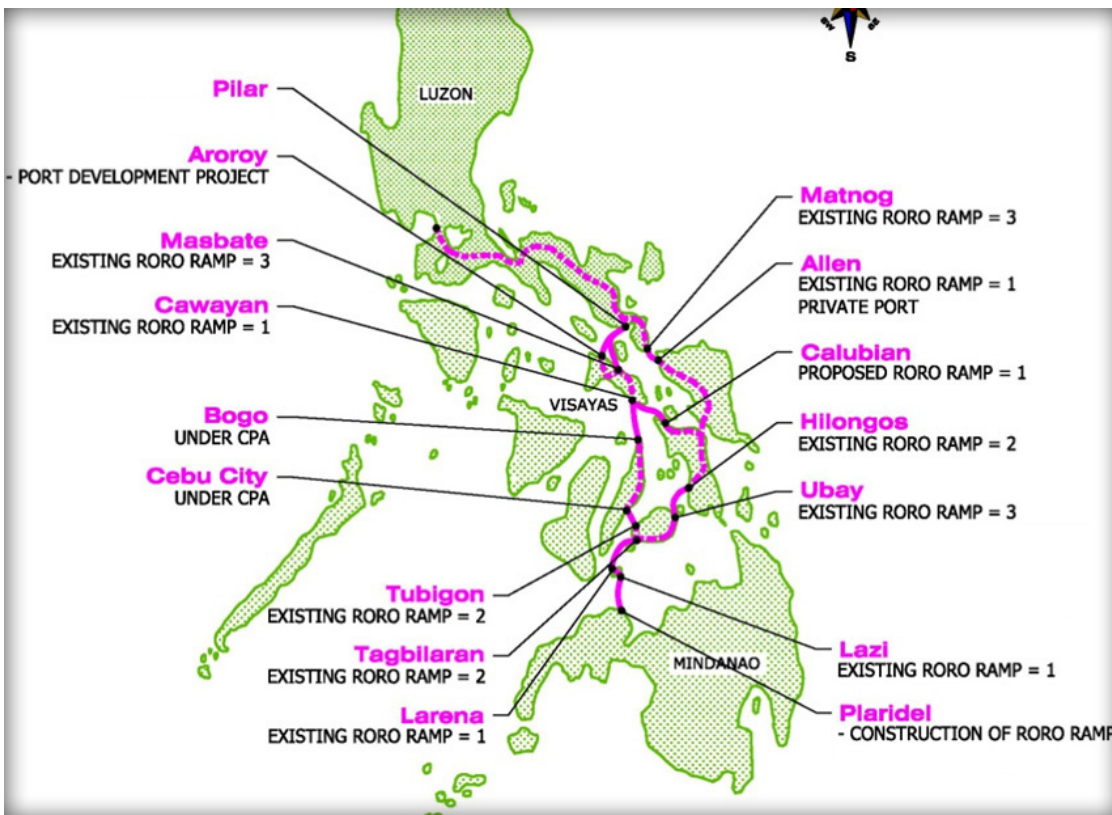
island nation. The Pasig River Ferry Service services the Metro Manila area, and is the only water-based transportation that has traveled the Pasig River. The Metropolitan Manila Development Authority (MMDA) in coordination with the Pasig River Rehabilitation Commission and Department of Transportation, reopened the ferry service along the Pasig River in 2014 after suspending services in 2011. This transportation route is intended to ease traffic congestion on roads in the city.

The Strong Republic Nautical Highway (SRNH) is a combined network of highway and vehicular ferry routes which make up the backbone of the national vehicle transport system when it is combined with other road and ferry routes. It uses an integrated system of roll-on/roll-off vessels to transport people and cargo.¹⁶⁸ This 919 kilometer highway opened in 2003, covers 17 provinces and cities. The highway reduces travel time as much as 17 hours, increases accessibility to tourist destinations, and minimizes the handling expenses of goods.¹⁶⁹

Port	Description
Port of Manila	One of busiest container ports
Port of Subic	Former US Navy base; major cruise and transshipment hub
Port of Batangas	Philippines largest oil port and major roll-on/roll-off terminal
Port of Matnog	Busiest passenger ferry terminal
Port of Davao	Mindanao's main gateway
Port of Cebu	Busiest seaport in the Philippines in terms of annual passengers



Source: Philippine Ports Authority. Western Nautical Highway



Source: Philippine Ports Authority. West-Central Nautical Highway.

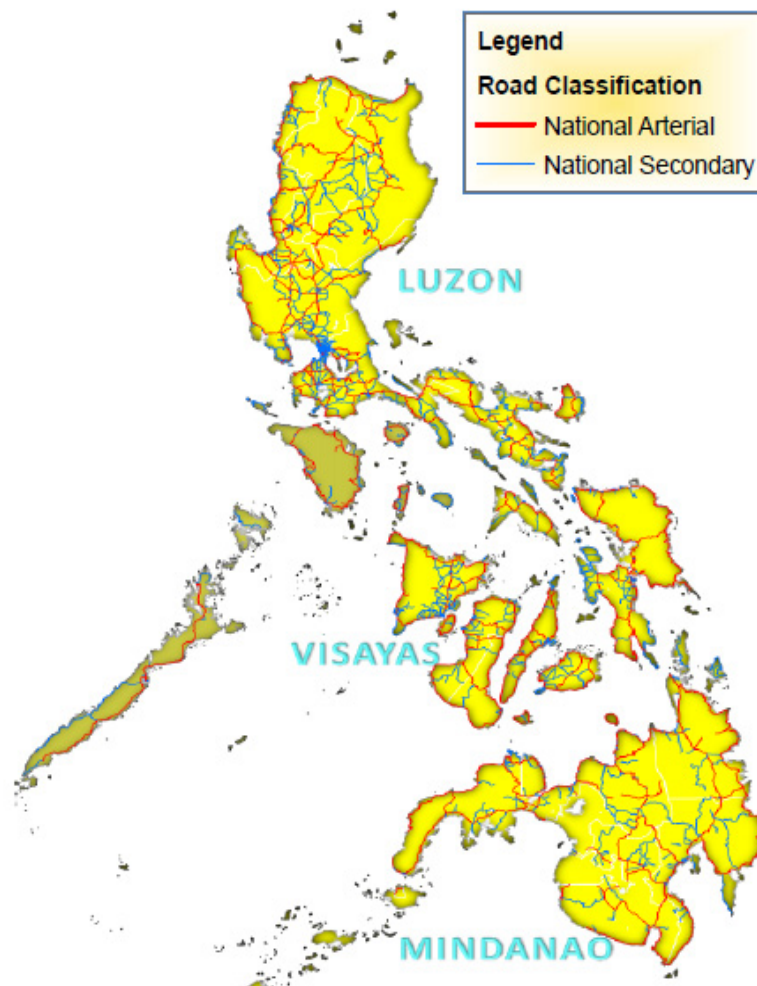
Land Routes

Roads

The Philippines has 215,088 kilometers of road length and of that, only 57,834 kilometers are paved.¹⁷⁰ Road classification is based primarily on administrative responsibilities. One of the most popular modes of public transportation in the country are Jeepneys, which have become a universal symbol of the Philippine culture. Jeepneys were originally made from U.S. military jeeps leftover from World War II.¹⁷¹



Types of Roads	Description
National Roads	Primary Arterial <ul style="list-style-type: none"> • Connects major cities Secondary Arterial <ul style="list-style-type: none"> • Connects cities to primary arterial roads, except metropolitan areas • Connects major ports and ferry terminals to primary arterial roads • Connects major airports to primary arterial roads • Connects tourist service centers to primary arterial roads or other secondary arterial roads • Connects provincial capitals within the same region • Connects major national government infrastructure to primary arterial roads or other secondary arterial roads
Provincial Roads (Local Roads)	<ul style="list-style-type: none"> • Connect cities and municipalities without traversing national roads • Connect national roads to barangays through rural areas • Connect to major provincial government infrastructure
Municipal and City Roads (Local Roads)	<ul style="list-style-type: none"> • Roads within the poblacion (city area) • Roads that connect to provincial and national roads • Roads which provide inter-barangay connections to major municipal and city infrastructure without traversing provincial roads
Barangay Roads (Local Roads)	<ul style="list-style-type: none"> • Other public roads within the barangay and not covered in the above definitions
Expressways	<ul style="list-style-type: none"> • Highways with limited access, normally with interchanges; may include facilities for levying tolls for passage in an open or closed system
Toll Roads	<ul style="list-style-type: none"> • Roads where a toll for passage is levied in an open or closed system



Highways in the Philippines are broken into six classifications: the Maharlika Highway, Controlled-access Highway, Regional Highways, Provincial Highways, Manila Arterial Road System and the Secondary City and municipal avenues and roads. The Maharlika Highway, also known as the Pan-Pacific Highway (Asian Highway 26) is a network of roads, bridges, and ferry services which connect the islands of Luzon, Samar, Leyte,

and Mindanao. The 3,517 km stretch of highway starts in Laoag City and ends at Zamboanaga del Sur.¹⁷² The Epifanio de los Santos Avenue (EDSA) is one of the well-known highways in the Philippines which serve the national capital region. The country has seven controlled-access highways which are all located on Luzon Island:

Highway	Location
North Luzon Expressway	National Capital Region
South Luzon Expressway	Calabarzon and National Capital Region
Metro Manila Skyway	Metro Manila
Subic-Clark-Tarlac Expressway	Region 3
Southern Tagalog Arterial Road	Batangas
Manila-Cavite Expressway	National Capital Region and Calabarzon
Bataan Provincial Expressway	Bataan Province

Bridges

Cities and towns in the Philippines are mainly connected by bridges and a few islands are connected by bridges as well. Below are some of the well-known bridges in the country:¹⁷³

Bridge	Length	Description
Metro Manila Skyway	17km	Longest bridge in the Philippines; Elevated highway crossing over much of the South Luzon Expressway
Candaba Viaduct	5km	Second longest bridge in country; Passes over the Candana Swamps in North Luzon Expressway
San Juanico Bridge	2.16km	Longest bridge in country which spans a body of water; Connects the islands of Samar and Leyte
Asingan-Sta Maria Bridge	1.4km	Connects Asingan and Sta; Fourth largest bridge in country
Patapat Viaduct	1.3km	Elevated 31 meters above sea level; Connects the Maharlika Highway in Laoag, Ilocos Norte to Cagayan Valley Region
Marcelo Fernan Bridge	1.2km	Located in Metro Cebu; Connects islands of Cebu and Mactan
Mactan-Mandaue Bridge	846m	Connects the islands of Cebu and Mactan across the Mactan Channel

Railways

Three railway networks provide rail transportation in the Philippines: 1) Manila Light Rail Transit System, 2) Manila Metro Rail Transit System, and 3) the Philippine National Railways (PNR). All three of these systems only provide service to Metro Manila and parts of Luzon. The Manila Light Rail Transit System, known as LRT is a rapid transit system serving Metro Manila. The system serves over two million people a day along its 20 mile elevated route and 31 stations.¹⁷⁴ The LRT is operated by the government-owned Light Rail Transit Authority (LRTA) which falls under the DOTC. The Manila Metro Rail Transit System is Metro Manila's third rapid transit line and is located on Epifanio de los Santos Avenue (EDSA), which is one of Metro Manila's main roads. The system has a total of 13 stations stretching just around 10 miles and is operated by the Metro Rail Transit Corporation (MRTC), a private company which operates in partnership with the DOTC. The Philippine National Railways (PNR) is government-owned and operates using a single track which runs 659 miles long with 136 stations.¹⁷⁵

Schools

In 2013, Typhoon Haiyan (Yolanda) destroyed

roughly 4,000 schools prompting the Philippine President to issue instructions for school infrastructure standards to improve the safety of schools from disasters. In 2014, the Philippines committed to be a role model for the Worldwide Initiative for Safe Schools launched by the UN Office for Disaster Risk Reduction. The Philippine Department of Education agreed to implement this safe school initiative. The initiative will improve disaster-resiliency of the schools to withstand typhoons, earthquakes and other natural hazards.¹⁷⁶

Communications

Modern telecommunications and information technology infrastructure are a vital part to the Philippines whose islands are mainly connected through land lines, mobile phones, internet, and various cable and satellite technology. There are four companies in the country which provide mobile and landline telephone service along with internet. The Philippines has one of the highest usage rates in the world of text messaging which has evolved into a cultural trait.¹⁷⁷ Digital fiber is used to connect the Philippines to areas around the globe.¹⁷⁸

The National Telecommunications Commission (NTC) is tasked to maintain and improve a regulatory environment which

contributes to the development and delivery of an affordable, viable, reliable and accessible telecommunications infrastructure.¹⁷⁹ The Information and Communications Technology Office, under the Department of Science and Technology (DOST) ensures that Information and Communication Technology (ICT) access, and internet opportunities are available for the Philippines is made possible by the development of an effective, sustainable and strategic ICT infrastructures. They are tasked as the lead implementing government agency in all ICT related efforts.¹⁸⁰

After Typhoon Haiyan (Yolanda), electricity generation and transmission facilities along with cell phone towers were destroyed or inoperable. This left many Filipinos, who are considered one of the top cell phone and text messaging users in the world, without any communication. First responders had to rely on traditional radio communication to relay information.¹⁸¹ Since cell towers and electricity were destroyed, President Aquino instructed all local governments to obtain radio capability as the first responders responsible for coordinating relief and recovery efforts through their local disaster councils.¹⁸²

Utilities

The Philippines has moved forward with advancing some development within the country, but they are facing certain obstacles. The challenge of improving environmental performance, keeping costs down, and maintaining a reliable system is hindering growth.

Power

The Philippines is one of the poorest countries but has one of the highest domestic electricity rates in Asia which places a strain on the economy. The country has invested in hydroelectric and wind power, but most of their power comes from imported coal which makes it expensive. Typhoon Haiyan (Yolanda) placed great stress on the Philippines power grid causing damages to energy facilities in the affected areas.¹⁸³ Roughly 16 million of the population has no access to electricity. The urban electrification rate is 94 percent and the rural electrification rate is at 73 percent.¹⁸⁴ The Department of Energy (DOE) is committed to bringing electricity access up to 90 percent by 2017, which will require 3.4 new million household connections.¹⁸⁵

The National Grid Cooperation of the

Philippines (NGCP) is responsible for the delivery of safe and reliable electricity throughout the country. NGCP brings power produced by power plants to distribution utilities. As systems operator of the Philippine national grid, the cooperation balances the supply and demand of electricity to efficiently serve their customers (power generators, private distribution utilities, electric cooperatives, government-owned utilities, eco-zones, industries, directly connected companies). NGCP also builds transmission lines which will pass through and interconnect, the country's major islands resulting in every household having electricity.¹⁸⁶ The National Power Corporation (NPC) is responsible for the constructions, operations, and maintenance of facilities for the production of electricity.¹⁸⁷

The Philippine power sector has faced some hurdles over the years due to lack of modern electricity connections for millions of households, shortage of generation capacity in some areas, and high electricity costs as mentioned earlier. The country does have long-term advantages with its robust renewable energy.¹⁸⁸ The Renewable Energy Act of 2008 was written to accelerate the exploration and development of renewable energy resources, achieve energy self-reliance, reduce the country's dependence on fossil fuels, and minimize the country's exposure to price fluctuations in international markets.¹⁸⁹ The Energy Regulatory Commission (ERC) approved disbursement and collection guidelines for the Feed-in-Tariff (FIT) system. FIT offers a cost-based compensation to renewable energy players. These guidelines will boost the building of more solar, wind, biomass, and run-of-river hydropower plants. Additional renewable energy will help with energy rates and create rural jobs.¹⁹⁰

The Department of Energy (DOE) launched The Philippine Energy Plan 2012-2030, which provides the roadmap for future demand and capacity addition plans. According to the plan, the current installed capacity in country of 16,250MW is expected to rise to 25,800MW by 2030.¹⁹¹ In 2013, the DOE approved various renewable energy developers to generate 633.5 megawatts (MW) of electricity. The majority of the projects are wind (339.5MW) and solar (80MW). These renewable energy projects fulfill the Renewable Energy Act. By 2030, the DOE is aiming to increase renewable energy generation to around 15,304MW from the existing 5,400MW.¹⁹²

The Bataan Nuclear Power Plant (BNPP) is located at Napot Point in Bataan. The plant is the only commercial nuclear power station built

with the Association of Southeast Asian Nations (ASEAN) countries. The BNPP was built at 18 meters above sea level to protect against tidal waves and tsunamis. It was designed to withstand the highest earthquake on Luzon Island at ground acceleration of 8 on the Richter scale. The National Power Corporation was instructed by law to preserve and maintain the nuclear plant. The BNPP was ready for operation at the beginning of 1986, but the switch was never turned on due to the ousting of President Ferdinand Marcos, the main backer of the plant. New President, Corazon Aquino decided to put nuclear energy plans on hold. In 2011, BNPP was opened up as a tourist attraction as a way to teach people about nuclear power, and whether or not the plant should be put into operation.¹⁹³ In 2014, the Department of Energy (DOE) was looking into the option of utilizing the plant as a way to boost the Philippines sources of energy due to rising electricity prices.¹⁹⁴

Hydro-Power (Dams)

The government’s goal is to become a hundred percent powered by renewables in a decade. Hydroelectric power is the most attractive renewable energy investment in the country as of 2014, and eight new mini hydro projects are underway. The Philippines is one of the world’s leaders when it comes to renewable energy as a third of its primary energy source comes from renewables.

The Department of Energy (DOE) reported that hydropower has a total capacity of 5,468 megawatts (MW) with 2,950MW currently in the pipeline. Geothermal and hydropower each account for 14 percent of the Philippines total energy, other sources like wind, solar and biomass are underdeveloped. By 2030, the country’s goal is aiming for all renewable energy programs to have a capacity of 15,304MW.¹⁹⁵

Water and Sanitation

Water resources in the Philippines are under extreme pressure due to rapid population growth, increasing demand for food production, urbanization, pollution, extreme and inefficient use of water, and climate change. To ensure adequate water in the future, the country will need to protect its water sources by improving catchment areas and watershed protection. A small number of households are connected to a sewage network, and the majority of households with toilets are connected to septic tanks which are poorly designed and managed. The lack of

management of solid waste and sanitation is a big challenge because it leads to contamination and pollution of surface and ground water sources. Some issues include:¹⁹⁶

1. Lack of policies and effective governance and regulation
2. Low levels of awareness and political will for improving sanitation
3. Inadequate funds for financing infrastructure
4. Lack of sanitation capacity

The National Economic and Development Authority (NEDA) is the key agency for policy formation and planning in the water supply sector. Services for Metro Manila and its adjacent provinces are provided by the Metropolitan Waterworks and Sewage System (MWSS) and two private companies. The Manila Water Company, Inc. (MWCI) is responsible for Manila’s east zone and Maynilad Water Services, Inc. (MWSI) serves Manila’s west zone. Local government units (LGUs) are responsible for providing basic services, including water supply to areas outside Metro Manila. Around 1,000 LGU-run water utilities operate in urban and rural developments throughout the Philippines. Water in rural areas is supplied by LGUs and small community-based organizations including cooperatives. There have not been many projects in rural areas aiming to improve access to water supply services, mainly because of cost.¹⁹⁷

	Urban Population	Rural Population
Use of Drinking Water Sources – Improved (percentage of population)	93%	92%
Use of Sanitation Facilities – Improved (percentage of population)	79%	69%

The Clean Water Act of 2004 requires LGUs and water districts to create septage (liquid

and solid material pumped from a septic tank) management systems to areas without sewage systems. Many LGUs and water districts do not have the capacity, knowledge or funds to take any action since the act was passed.¹⁹⁸ LGUs monitor sanitation programs which are executed through provincial, city, or municipal health offices along with barangay health offices. Roughly 40 percent of barangays have health stations which are manned by at least five workers. Open defecation is still practiced in many areas, especially highly populated ones because toilets are not available in most poor households. This leads to polluted waterways and the spread of diseases. Only a few cities beyond Metro Manila have sewerage systems which serve less than 5 percent of the service area population.¹⁹⁹

Systemic Factors

Urban cities in the Philippines are exposed to many risks other than disasters and structures

could be out of compliance with building codes. Newer urban building construction is undertaken with natural disasters in mind. Rural houses mainly consist of nipa huts that are easily damaged but are inexpensive and easy to replace. Most urban buildings are built using steel and concrete to resist natural disasters such as earthquakes and typhoons. Over a million homes were destroyed by Typhoon Haiyan (Yolanda) in 2013, according to the local disaster management bureau in the Philippines. The majority of the citizens live in makeshift structures in slum areas, so the need for disaster resilient homes is much needed. The majority of homes are built with windows made from cheap glass which cannot withstand strong winds. People have been killed because corrugated iron sheets from the homes fly around when there are strong winds. The Philippine government has geohazard maps, but developers and local governments hardly refer to them prior to development projects.²⁰⁰



Source: Actionaid. A poster used with local women on how to build better houses.



PHILIPPINES

Health

Philippines Disaster Management Reference Handbook | 2015

Health

Overview

Health in the Philippines can be summarized in three words according to the World Health Organization (WHO): stagnation, inequality, and opportunity. All health indicators have only shown small improvements over the past ten years. The country undergoes a “triple burden” of disease: high incidences of all main communicable diseases, increasing level of non-communicable disease, and high prevalence of all risk factors.²⁰¹

The National Objectives for Health (2011-2016) is a key document which sets all the health program goals, strategies, performance indicators and targets, which lead the health sector towards achieving its primary goal of *Kalusugan Pangkalahatan* (KP), or universal health care. The overall goal is to achieve the health system goals of financial risk protection, better health outcomes and a responsive health system which include three strategic emphases:²⁰²

1. Financial risk protection through expansion of National Health Insurance Program
2. Improves access to quality hospitals and healthcare facilities
3. Attainment of health-related to MDG through additional effort and resources in localities with high concentration of families who are unable to receive critical public health services

Structure

The Department of Health (DOH) is the primary health agency in the Philippines and is led by the Secretary of Health. The DOH is responsible for ensuring access to basic public health services to all Filipinos through the provision of quality health care and regulation of providers of health goods and services. The department develops health policies and programs, regulations, performance monitoring and standards for public and private health sectors along with provision of specialized and tertiary care.²⁰³ The DOH encourages provinces and their component municipalities and cities to plan and develop a five year Province-wide Investment Plan for Health

(PIPH). As of 2010, 80 provinces and 8 cities have completed their PIPHs, including their annual operational plans (AOPs).²⁰⁴

The Department of Health is comprised of eight bureaus:²⁰⁵

1. Bureau of Health Devices and Technology
2. Bureau of Health Facilities and Services
3. Bureau of International Health Cooperation
4. Bureau of Local Health Development
5. Bureau of Quarantine and International Health Surveillance
6. Food and Drug Administration
7. Health Human Resources Development Bureau
8. Health Policy Development and Planning Bureau

The DOH has 17 central offices, 16 centers for health and development located in various regions, 70 retained hospitals, and 4 affiliated agencies.²⁰⁶ The DOH Centres for Health and Development (CHDs) are the implementing agencies in provinces, cities and municipalities, and connect national programs to local government units (LGUs). At the regional level, CHD's serve as DOH offices and they assist the LGUs in the development of ordinances and localization of national policies, provide guidelines on the implementation of national programs, monitor program implementation and develop a support system for the delivery of services by LGUs.²⁰⁷ Provincial and district hospitals fall under the responsibility of the provincial governments and Rural Health Units (RHUs) and Barangay Health Stations (BHS) are overseen by the municipal government units.²⁰⁸

Health System

The Philippine health sector is a public-private mixed system, with the private sector dominating the market. The public sector plays a key role in the provision, financing and regulation of health services.²⁰⁹ In the public health sector, the DOH provides tertiary services, rehabilitative services and specialized healthcare. The LGUs provide health promotion, disease prevention, primary, secondary, and long-term care. Primary healthcare is provided at the barangay health stations, health centers, and hospitals.²¹⁰

Traditional, complementary and alternative

medicines are used throughout the Philippines for many years. Many forms of these medicines were introduced from other cultures, such as: Chinese traditional medicine, acupuncture, herbal medicines, chiropractic, homeopathy and Ayurveda. The World Health Organization conducted a study in 2010, which estimated 70 percent of the population used traditional and complementary medicines. Traditional medicine is practiced by private practitioners or healers in homes and barangay health stations. These services are easily accessible and affordable, mainly in remote areas. The DOH has a Traditional Medicine unit at the Philippine Institute for Traditional and Alternative Health Care (PITACH) which supports the integration of traditional medicine into the national healthcare system.²¹¹

Public Healthcare

Public services are mainly used by the poor, including communities in isolated and deprived areas. Public healthcare is mainly provided by LGUs with the technical aid of the national government through the DOH. Provincial governments manage secondary and tertiary level facilities and the national government oversees a number of tertiary level facilities.²¹²

Personal care and public health services are provided by the public healthcare sector. Services are the joint responsibility of the national government and the municipal and barangay levels. The government manages essential programs like maternal and child health, family planning, TB, malaria, neglected tropical diseases, HIV/AIDS control and promotion of healthy lifestyles. The municipal and barangay staff and facilities implement these programs with operational input from the national level.²¹³

Private Healthcare

The private health sector plays a crucial role in the hospital system and accounts for roughly 50 percent of the total number of hospitals. Private hospitals cater to the upper socio-economic population and those covered by health insurance. Roughly half of the population will access private hospitals for their health needs.²¹⁴ Private services are used by roughly 30 percent of the population because they can afford the fee-for-service payments. The private health sector is comprised of mostly large health corporations and smaller providers at freestanding clinics, private clinics in hospitals and group practices.

Private health clinics, diagnostic/imaging centers, and laboratories operate mainly in larger cities.²¹⁵ Private healthcare services are seen as better quality, but also more expensive. Traditional healthcare services are an inexpensive and easily accessible private source of healthcare in urban and rural areas, but mainly rural.²¹⁶

Legal

The government of the Philippines has written key laws and policies to define the legal environment and oversee the operations of the health sector.

National Objectives for Health (2011-2016): These objectives set all the health program goals, strategies, performance indicators and targets that can lead the health sector to achieve *Kalusugan Pangkalahatan* by 2016.²¹⁷

Republic Act 6111, Philippine Medical Care Act: It established the Philippine Medical Care Plan and the Philippine Medical Care Commission (PMCC).²¹⁸

National Health Insurance Act 2013: Allows the government to pay for enrollment of poor in PhilHealth and allow point of care enrollment and other provisions that will expand universal health coverage and care and reduce financial risks to patients.²¹⁹

Local Government Code of 1991: Delegates health services to local government units which include the provision; management and maintenance of health services at different levels do LGUs.²²⁰

Generics Act (RA 6675): This act is written to promote, require and ensure the production of an adequate supply, distribution, use and acceptance of drugs and medicines identified by their generic names.²²¹

Cheaper Medicines Act (RA 9502): This act is intended to reduce the cost of medicines, especially those commonly bought by the poor. Another goal is to require and ensure the production of an adequate supply, distribution, use and acceptance of drugs and medicines identified by their generic names which are priced lower than patented drugs.²²²

Food and Drug Administration Act of 2009: Strengthens the regulatory capacity of the DOH to ensure the qualities of medicines and other health products.²²³

Sin Tax Act 2012: Taxation on tobacco and alcohol has risen significantly, generating proceeds that will be spent on enrolling the poorer half of the population.

Responsible Parenthood and Reproductive Health (RH) Law 2012: Allow sex education in schools, allows government to procure contraceptives for the poor.

Other laws and policies:

- Organ Donation Act (1991)
- Pharmacy Act
- Traditional and Alternative Medicine Act (1997)

- Tobacco Regulation Act (2003)
- Universally Accessible Cheaper and Quality Medicines Act (2008)

Hospitals

Healthcare facilities in the Philippines are comprised of government hospitals, private hospitals and primary healthcare facilities. Hospitals are classified as public or private based on ownership, roughly 40 percent are public.²²⁴ Military hospitals in the Philippines primarily serve military and civilian personnel which includes their immediate dependents. In the Philippines, there is roughly 1800 hospitals, of which 721 are public hospitals and 70 are DOH hospitals. In 2010, there were 98,155 hospital beds and of those 50 percent were in government hospitals. In 2012, the DOH created a classification system of hospitals and other health facilities with guidelines for the services and capacity.

Hospitals	
General Hospital	Provide services for all kind of illnesses, diseases, injuries or deformities. Contains emergency and outpatient services, primary care services, family medicine, pediatrics, internal medicine, surgery, laboratory and pharmacy
Level 1 General Hospital	Include: isolation facilities, maternity, dental clinics, first level x-ray, secondary clinical laboratory with consulting pathologist, blood station and pharmacy
Level 2 General Hospital	Include: level 1 services and departmentalized clinical services, respiratory units, ICU, NICU, high risk pregnancy unit, tertiary clinical laboratory and second level x-ray
Level 3 General Hospital	Include: level 2 services and teaching/training, physical medicine and rehabilitation, ambulatory surgery, dialysis, tertiary laboratory, blood bank and third level x-ray
DOH Hospital – Specialty Hospitals and Other DOH Hospitals	A tertiary hospital which specializes in the treatment of patients suffering from a particular condition requiring a range of treatment

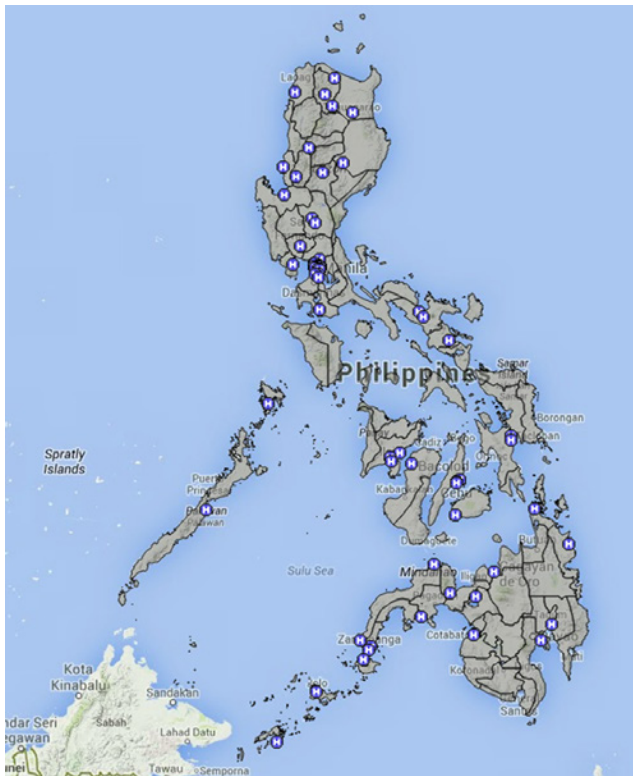
Other Health Facilities	
Category A: Primary Care Facility	First contact facility offering basic services including emergency and normal delivery services. Includes: in-patient short-stay facilities, medical out-patients, overseas workers and seafarers and dental clinics
Category B: Custodial Care Facility	Provides long-term care for those with chronic or mental illness, substance/drug abuse treatment and rehabilitation, sanatorium/leprosarium and nursing home facilities
Category C: Diagnostic/Therapeutic Facility	Laboratory facilities, radiology including x-ray and nuclear medicine facilities
Category D: Specialized Outpatient Facility	Dialysis, ambulatory surgery, in-vitro fertilization, stem cell services, oncology and chemotherapy, radiation oncology and physical medicine



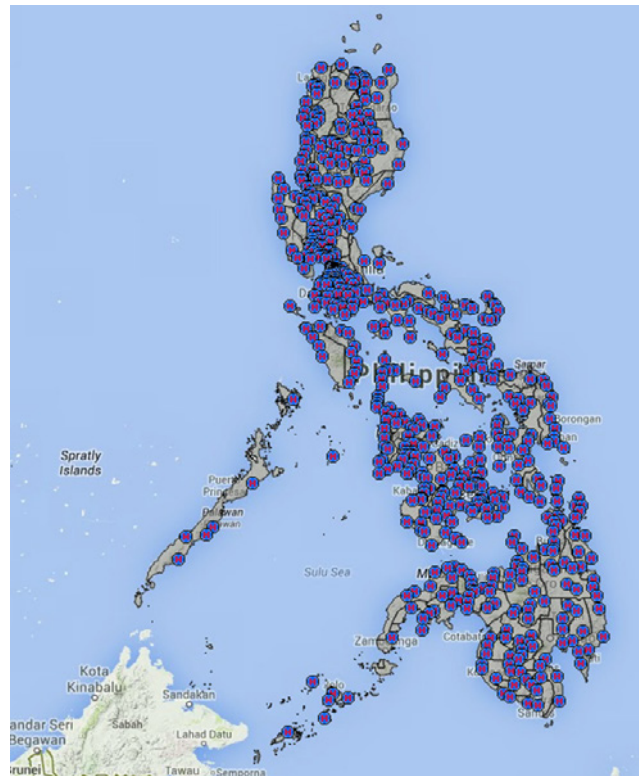
Private Hospitals



Military Hospitals



Department of Health Retained Hospitals



LGU Hospitals

Laboratories

The Research Institute of Tropical Medicine (RITM) is home to the National Influenza Center (NIC) and is also the national reference laboratory for infectious disease for the Philippines. It has one Biosafety Laboratory 3 (BSL-3). All specimens are sent to RITM from public, private and military hospitals where they conduct real-time Polymerase Chain Reaction (PCR) testing. RITM only conducts laboratory surveillance. There are an estimated five sub-national laboratories in the country and all labs have the PCR capability.

Health Access

Healthcare coverage in the Philippines is still considered inadequate when it comes to the number of people covered, benefits promised to each group, and the quality of such services. The National Health Insurance Program (NHIP) is the largest insurance program in terms of number of coverage and benefit payments. The NHIP which is provided by Philippine Health Insurance Cooperation (PhilHealth) is a mandatory government health insurance program with the goal of providing universal health coverage and ensures affordable, acceptable, available, accessible, and quality healthcare services for all

citizens. The goal of NHIP is to provide essential health insurance coverage for all and allow citizens to gain financial access to health services. There are five types of NHIP members which are tied to five different Phil health programs:²²⁵

1. Employed Sector Program: Compulsory coverage of all employees in government and private sector
2. Individually Paying Program: Voluntary coverage of the self-employed and others not covered by the rest of the programs
3. Sponsored Program: Covers the extremely poor
4. Overseas Filipino Workers
5. Lifetime Member Program: Free for members that have already completed their 120 monthly contributions

Universal Healthcare (UHC), also called Kalusugan Pangkalahatan (KP) is the provision to every Filipino of the highest possible quality of healthcare that is accessible, efficient, equitably distributed, adequately funded, fairly financed, and appropriately used by an informed and empowered public. It is the government's mandate to ensure every Filipino receives affordable and quality health benefits.²²⁶

Challenges in the Healthcare System

The Philippines faces many gaps and challenges within its healthcare system, below are a few:²²⁷

- Difficulty in synchronizing public health in a developed and fragmented health system
- Bringing care to geographically isolated conflict and disadvantaged areas
- Implementation of rapid health insurance coverage to about 40 million Filipinos through national subsidy (50 percent of population)
- Reform governance of public hospitals
- Improve timeliness and accuracy of national data gathering
- Resistance to Public Private Partnerships
- Frequent natural and man-made disasters

Human resources are one of the main drivers of the healthcare system and are vital for the efficiency and operation of the public health system. The Philippines has a large amount of health personnel, however they are not evenly distributed across the country. Most health professionals are concentrated in urban areas such as Metro Manila. In President Aquino's 2013 State of the Nation Address (SONA), he addressed the lack of health personnel and adequate facilities, and the barriers for the poor to receive access to healthcare. According to the 2012 WHO Health Service Delivery Profile, only 4 of the country's 17 regions meet the acceptable hospital bed population ratio. Registered Nurses for Health Enhancement and Local Service (RN Heals) is a training program which sends nurses to unserved and underserved areas of the country. The program addresses the lack of public health personnel at the local level. The President says the system will address two issues: 1. Thousands of nurses and midwives have jobs and an opportunity to gain valuable work experience and 2. Millions of people now have increased access to healthcare. Some argue this will not solve any problems since it is only a temporary solution.²²⁸

Outbreaks

Communicable Diseases

The Philippines is still seeing outbreaks of emerging infectious diseases, including epidemic-

prone communicable diseases like dengue, cholera, typhoid and leptospirosis. Dengue is a serious public health issue because it is placing a significant weight on hospitals and other health care services. The most common disease outbreaks are food-borne diseases such as cholera, salmonellosis and shigellosis.²²⁹ The top leading causes of death or illness in the Philippines is attributed to infectious diseases. Illness related to the respiratory system such as respiratory infection, pneumonia and bronchitis are the top three leading causes of illness. HIV/AIDS prevalence has remained low, but high risk behaviors are increasing and could lead to high incidence over time. Endemic diseases such as malaria, schistosomiasis and filariasis are still prevalent in many regions.²³⁰

Top Ten Causes of Morbidity in the Philippines, 2010²³¹

1	Acute Respiratory Infection	1,095,328
2	ALRTI and Pneumonia	557,786
3	Bronchitis/ Bronchiolitis	346,627
4	Hypertension	333,497
5	Acute Watery Diarrhea	322,799
6	Influenza	271,011
7	Urinary Tract Infection	82,867
8	TB Respiratory	73,614
9	Accidents	50,004
10	Injuries	35,396

Non-Communicable Diseases

Non-communicable diseases (NCDs) are rapidly increasing in the Philippines. According to the World Health Organization, NCDs are the top killers in the Philippines. In 2008, 57 percent of deaths were a result of mainly cardiovascular disease, cancer, diabetes, and chronic respiratory disease. A large portion of Filipino adults are exposed to the ongoing risks of tobacco and alcohol use, unhealthy diets and lack of physical activity making millions of Filipinos vulnerable for developing NCD's.²³² Vulnerability factors linked to lifestyle-related disease are now prevalent in the country. Roughly 5 percent of

the population is considered obese, 10 percent have hypercholesterolemia and 24 percent are considered hypertensive. Tobacco used is considered one of the commonly shared risk factors of NCDs. Smoking is a strong risk factor for chronic pulmonary disease and asthma.²³³

Training for Health Professionals

In the Philippines, medical education is mainly offered by accredited and government recognized medical schools throughout the country. Candidates for medical school must first pass the National Medical Admission Test (NMAT) which is a national entrance exam for all medical schools in the Philippines.²³⁴ The nursing profession in the Philippines is highly respected and it is also seen as a way out of poverty. In recent years however, there are fewer jobs leaving many unemployed. Many Filipinos would accept nursing jobs around the world due to their reliability and high level of English. In 2012, there were an estimated 200,000 registered nurses in the Philippines unemployed along with 80,000 students graduating from nursing school. The Commission on Higher Education writes strict rules for nursing schools and monitors it closely. Government ministers are advising potential nursing students to think about other degrees such as medical technology and pharmacy.²³⁵

Many specialty hospitals in the Philippines provide post-graduate, training seminars and symposiums for physicians, nurses and other medical personnel. After Typhoon Haiyan (Yolanda) in 2013, Filipino health professionals learned how to teach others how to provide psychological first aid to support typhoon survivors. The Department of Health and the WHO gathered 25 professionals from government, professional associations, universities and community agencies to learn about psychological first aid. The one-day workshop used a train-the-trainer approach to teach psychologists, physicians and psychiatrists ways to teach others in their communities to perform this first aid to other survivors.²³⁶



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Conclusion

Conclusion

The CFE-DMHA Philippines Country Book revealed a number of significant findings in the Philippines' disaster management systems, authorities, capabilities, and vulnerabilities. These findings have been outlined in each of the sections of the report, but a summarization of key findings is captured here in the conclusion for quick reference. This country reference book is an important step in developing a common understanding of the disaster management context in the Philippines and to identify the Philippines' strengths and vulnerabilities for future disaster responses and capability-building engagements.

Finding #1:

The Philippines is vulnerable to the impacts of climate change and has already experienced noticeable adverse effects in the recent years in the form of increased severity of typhoons and disasters

Disaster risk is on the rise in the Philippines and one key driver of that is climate change. Climate change is likely to increase the intensity of typhoons not only in the Philippines but also in the region. The country is more vulnerable to climate change impacts as an archipelago and due to the country's geographic location. Weather patterns could become unpredictable and typhoons could be stronger, more frequent, and more devastating. Climate change will also affect ecosystems and drive many wildlife species to extinction. In response to this, the government enacted the Climate Change Act to provide the policy framework to systematically address the growing threats on community life and its impact on the environment.

Climate change will worsen the country's water problems. These changes in the water supply and quality due to climate changes are expected to affect food and human security along with the economy, as water control and adaptive measures are not robust enough to handle the impacts of climate change. Food production will be adversely affected during certain periods of the year and securing supplies will become vital.

Finding #2:

Problems and strain on the infrastructure throughout the Philippines is delaying the country's economic growth

The Philippines is one of the fastest growing economies in Asia in the past few years. Infrastructure problems are starting to hamper the Philippines from reaching the next level economically and improving its manufacturing. Infrastructure issues exceeded corruption as the leading economic obstacle according to the World Economic Forum. Manila is inundated by power failures, water shortages, out-of-date telecommunications system, deteriorating roads, and a below average airport. Many other areas of the country experience infrastructure issues such as regular blackouts. Inequitable access to basic infrastructure services has become a barrier for poverty reduction and to general growth because it limits opportunities for economic and social advancement. President Aquino has acknowledged the need for investment in infrastructure many times and noted that government spending for infrastructure has increased.

Finding #3:

Growing and sustaining the disaster risk reduction process throughout the levels of government to reach the people is an ongoing challenge due to the large population

The most significant evolution of the Philippine government in disaster management has been the transformation from a reactive disaster management approach to a disaster risk reduction strategic approach with the institution of RA No. 10121. Disaster risk reduction institutionally involves all levels of government however the local administrative government levels bear the burden of implementing disaster risk reduction and management activities. The Local Disaster Risk Reduction and Management Office and the Barangay Disaster Risk Reduction and Management Committees conduct key responsibilities, and locally uphold the national guidelines for the 100 million people in the

country. Within this context, it is understandable that the government faces the ongoing challenge of growing and developing disaster risk reduction programs and educating the public. As recently as 2012, senior officials reported the lack of response from people in harm's way from Typhoon Bopha (Pablo) even though warnings were issued at least a week in advance. While this might be an extreme example, it illustrates the requirement for consistent growth and development of the educational and training programs for the Philippines. The military lessons learned from Typhoon Haiyan (Yolanda) re-emphasized the importance of public information dissemination. From another aspect, training and preparedness for severe disasters, coordination between the government levels, the ability to receive international assistance and proper equipping of responders were mentioned by the armed forces as some of the overarching areas to improve.



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Appendices

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Appendices

Disaster Statistics²³⁷

Table 1: Statistical Disaster Information for The Philippines from 2005 to 2014

Disaster type	Occurrence	Deaths	Total affected	Total damage (USD\$ x 1,000)
Earthquake	6	344	3,575,801	\$63,963
Epidemic	5	823	134,692	-
Flood	66	798	17,897,196	\$32,000
Storm	80	16154	67,603,426	\$13,596,408
Volcano	6	-	153,114	-
Total	163	18,119	83,364,229	\$13,629,371

Disaster Management Laws and Guidelines

Presidential Decree 1566

Established the National Disaster Coordinating Council (NDCC) in 1978 as the highest policy making body and principal disaster management organization in the country. The law founded Disaster Coordinating Councils (DCCs) at the regional, provincial, city, municipal, and barangay levels.

Republic Act No. 10121

Titled the Philippine Disaster Risk Reduction and Management Act of 2010, on July 27, 2009. RA 10121 is written to strengthen the disaster risk reduction and management system, provide for the national disaster risk reduction and management framework, and institutionalize the national disaster risk reduction and management plan and appropriate funds.

Executive Order Number 888

Adopted The Strengthening Disaster Risk Reduction in the Philippines: Strategic National Action Plan (SNAP) 2009-2019 and institutionalized disaster risk reduction.

National Disaster Risk Reduction and Management Framework

The framework is considered an essential part of the development process and a key component to ensure the country's sustainable development. The framework reinforces the paradigm shift in approach from disaster response to disaster risk reduction (DRR) and disaster risk management principles.

National Disaster Risk Reduction and Management Plan 2011-2028

Required by RA No. 10121 from 2010, this provides the legal framework for the policies, plans, and programs to manage disasters.

Department of Defense DMHA Engagements in the Past Five Years (FY 2009-2013)

The following list contains US DoD engagements related to disaster management that involved the Philippines from 2009 to 2013.

Note: The integrity of the lists is based on accuracy of data entered into TSCMIS.

FY 13

#	Date	Name	Sponsoring Agency/ POC	Location
1	4/3/13- 4/17/13	BALIKATAN	USPACOM / USARPAC/ CFE /PACFLT/ MARFORPAC	Manila, Philippines
2	7/8/13- 7/19/13	MTWS – PHILIPPINES 13	MARFORPAC /	Manila, Philippines
3	1/1/13 – 8/1/13	Cagayan de Oro Disaster Coordination Center	30NCR LNO to JUSMAG-Philippines - 30th Naval Construction Regiment	Butuan, Legaspi,
4	8/7/13- 8/17/13 4/1/13- 4/20/13	AFP-GUNG SPP 13 ENCAP SMEE 2	Guam NG State Partnership Program Coordinator - PACOM	Philippines
5	5/25/13- 5/31/13	Makani Pahili	Guam National Guard and Hawaii National Guard	Honolulu
6	7/17/13- 7/21/14	AFP-GUNG Senior Officer Exchange	Guam National Guard	Philippines
7	9/17/13- 9/20/13	JSOTF-P TF Mindanao SMEE SEP2013	Civil Affairs NCO - D Co 97TH CIVIL AFFAIRS BN	Philippines
8	11/8-12/1	Super Typhoon Haiyan/Yolanda OPERATION DAMAYAN	USPACOM	Philippines

FY 12

#	Date	Name	Sponsoring Agency/ POC	Location
1	4/1/12- 4/5/12	AFP-GUAG Senior Officer Exchange	Guam National Guard	Barrigada, Guam
2	10/1/2011- 09/30/2012	Provincial Disaster Coordination Center Project	JSOTF-P Engineer - PACOM	Barangay Poblacion
3	?	PH-US CCMO OPG (2013)	Operations NCOIC – USA CA	Philippines
4	2/20/12 – 2/28/12	Baseline Assessment - PHL Marine Corps	USMC Security Cooperation and Education Training Center (SCETC) Pacific Operations Team - MARFORPAC	Philippines
5	4/13/12- 4/28/12	BALIKATAN 12	USPACOM/ MARFORPAC/ USARPAC	Manila, Fort Magsaysay, Philippines
6	7/13/12- 7/28/12	MTWS – Philippines 12	MARFORPAC/ III MEF	Zamboanga City, Philippines

FY 11

#	Date	Name	Sponsoring Agency/ POC	Location
1	10/1/10- 10/15/10	MTWS-Philippines ICW PHIBLEX	USPACOM / MARFORPAC	Clark Field, Philippine
2	10/15/10- 10/31/10	PHIBLEX EX 11	USPACOM MARFORPAC/31 st MEU	Fort Magsaysay, Philippines
3	1/15/11- 5/5/11	BALIKATAN - 2011	USARPAC	Manila, Philippines
4	3/1/11- 4/14/11	Balikatan 11 JCMOTF Excess Property	USPACOM Civ-Mil Operations	Tarlac City and San Antonio
5	6/14/11- 6/24/11	MTWS – Philippines 11-1	MARFORPAC/III MEF	Zamboanga City, Philippines

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FY 10

#	Date	Name	Sponsoring Agency/ POC	Location
1	10/19/10 – 10/30/10	Philippine Super Typhoon MEGI	USPACOM	Philippines
2	9/1/10 – 9/30/10	COE CMCoord - Bilat RP	CFE-DMHA	Manila
3	4/1/10- 4/30/10	BALIKATAN 10	USPACOM / MARFORPAC is executive agent	Fort Magsaysay, Philippines
4	6/15/10- 8/15/10	MTWS – Philippines 10	MARFORPAC	Manila, Philippines
5	5/1/10- 5/31/10	CARAT 2010 PHIL	USPACOM PACFLT	Manila, Philippines
6	3/8/10- 3/19/10	BALIKATAN/SAGIP 2010	USPACOM – JOINT EXERCISE. Joint Special Operations Task Force Philippines, PACAF (MEDICAL ENGAGEMENT)	Manila, Philippines
7	7/26/10- 7/30/10	CWSCAPEX TTX/ FTX	USPACOM / PACFLT	Puerta Princesa, Philippines


FY 09







#	Date	Name	Sponsoring Agency/POC	Location
1	10/01/08-10/30/08	TALON VISION (HCA)	MARFORPAC G5	Tarlac, Philippines
2	10/15/08-10/31/08	PHIBLEX 09-1	MARFORPAC G5 / 31 st MEU, LHD 2 ESSEX	Fort Magsaysay, Philippines
3	4/1/09-4/30/09	BALAKATAN 09	USPACOM/MARFORPAC	Fort Magsaysay, Philippines
4	4/01/09-4/30/09	BALAKATAN (HCA) - 09	MARFORPAC G5	Sigay, Ilocos Sur, Philippines
5	6/15/09-6/27/09	MTWS Philippines 09	USPACOM/MARFORPAC	Manila, Philippines
6	9/8/09-9/9/09	AFP Reserve Week MEDCAP/DENCAP SMEE	Guam National Guard	Montalban, Rizal, Philippines
7	11/19/08-12/13/08	RED HORSE ENCAP	PACAF and GUANG	Clark Field, Pampanga, Philippines
8	5/4/09-5/8/09	ASEAN REGIONAL FORUM VOLUNTARY DEMONSTRATION OF RESPONSE - ARF VDR* (is a civilian-led, military supported demonstration designed to display ARF nations' capabilities).	USARPAC	Manila, Philippines
9	3/16/09-3/25/09	Philippine MEDRETE	USARPAC	Taytay, Palawan, Philippines

* This first-ever field exercise for ARF serves as a concrete contribution to building capacity for transnational security cooperation in areas like humanitarian assistance and disaster relief. Over 20 countries from the Asia-Pacific region will participate in the ARF-VDR activity with 12 countries contributing assets, personnel, and capabilities. U.S. delegates will include U.S. Ambassador for ASEAN Scot Marciel as well as Lieutenant General Keith J. Stalder, Commander of U.S. Marine Corps Forces Pacific.



Disaster Management Partners in the Philippines

The following contact list is included with the intent to provide planners and deploying personnel initial contacts for disaster management-related organizations in the Philippines. Out of consideration for privacy concerns, this list does not contain individual contact information but instead has email addresses and telephone numbers for offices.

Organization	Office	Email	Phone	Description	Logo
Adventist Development and Relief Agency	Country Office	adraph@adra.ph	63 46 414 2464	ADRA concentrates its efforts in community-based development activities and disaster preparedness, while also cooperating with other governmental and non-governmental agencies and organizations in fulfilling this goal. Community-based development includes a wide range of activities leading to improved health, economic and social well-being, and self-reliance. Disaster preparedness activities include advocacy and training of local partners in disaster prevention, mitigation, and preparedness, as well as direct interventions in disaster rescue, relief, and rehabilitation. ADRA serves the entire Philippine archipelago and maintains a National Office in Silang, Cavite, and some 40 km south of Metro Manila. ²³⁸	
Asia Development Bank	Country Office		63 2 632 4444	The ADB Philippine office was established to facilitate and monitor the impact of ADB's development agenda. Recently, ADB approved \$500 million for Emergency Assistance for Relief and Recovery from Typhoon Yolanda. ADB also assisted the government in the preparation of the Reconstruction Assistance on Yolanda. ²³⁹	
Australian Aid	Development Cooperation Branch, Australian Embassy Manila	infophilippines@dfat.gov.au		AusAID primarily focuses on sustainable economic development, effective governance, and humanitarian aid and disaster response in the Philippines. ²⁴⁰	
Australian Direct Aid Program	Australian High Commission	national@phildhrra.net	63 2 7578 262	DAP is a flexible small grants program with the aim to advance developmental objectives and addresses humanitarian hardships. ²⁴¹ In the Philippines, grants are mainly for community health, education, small infrastructure, rural development and human rights training. National office is in Luzon, with satellite offices in Visayas and Mindanao. ²⁴²	

Center for Disaster Preparedness		cdp@info.com.ph, cdp.phil@gmail.com	63 2 361 2191	The Center for Disaster Preparedness (CDP) is a regional resource center based in the Philippines that endeavors to promote Community Based Disaster Risk Management (CBDRM), facilitate interactive learning and discourse on disaster risk management, and advocate for policies and programs that protect the environment and mitigate disaster risk through its various programs and services in training, consultancies, interactive fora, research and publication, networking and advocacy, through developmental and participatory principles and methodologies.	
Corporate Network for Disaster Response		secretariat@cndr.org.ph	63 2 687 9228	CNDR advocates for business continuity planning and risk management in the corporate community in the Philippines. It also participates in emergency response. ²⁴³	
Food and Agriculture Organization	Representative Office	FAO-PH@fao.org	63 2 9010100	FAO has been collaborating with the Philippines since its foundation in 1945. The Philippines was one of the 34 founding member nations of FAO and a Representation was established in 1978. With the key commitment to the eradication of hunger and poverty, this collaboration is focused on Agriculture, Forestry, Fisheries, Nutrition and Rural development. ²⁴⁴	
German Development Cooperation	Country Office	giz-philippinen@giz.de	63 2 651 5100	GIZ concentrates on the areas of peace and security, the environment, rural development and climate change in the Philippines. The main geographical focus is on the Caraga region on the island of Mindanao in the southern Philippines and the Visayas archipelago. ²⁴⁵	
Global Facility for Disaster Reduction and Recovery				Priorities for future GFDRR engagement continue to be: (i) reinforcing institutional capacity for DRM; (ii) improving legal and institutional frameworks for disaster risk reduction; (iii) mainstreaming DRM in development planning and operations related to infrastructure, health, education, urban development, community-driven development, rural, climate and gender; and (iv) developing risk financing mechanisms at the national and local government levels. ²⁴⁶	
International Federation of Red Cross	Philippine Red Cross	prc@redcross.org.ph	63 2 527 0000	The Philippine Red Cross provides six major services: Blood Services, Disaster Management Services, Safety Services, Health Services, Social Services, Red Cross Youth and Volunteer Services. ²⁴⁷	

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International Labour Organization	Country Office	manila@ilo.org	63 2 580 9900	In 1948, two years after gaining its independence, the Philippines joined the ILO. Since joining, the Philippines have been one of the ILO's most active members, giving strong support to policies and programs. The Philippines, through government, employers and workers partnership, was the first country in Asia to participate in a pilot program on decent work. ²⁴⁸	
International Monetary Fund	Resident Representative	RR-PHL@imf.org	63 2 708 7484	The Philippines joined the IMF in 1945. In 2013, the IMF's involvement is mostly in a consultative capacity. ²⁴⁹	
International Organization for Migration	Country Office	iomphilippines@iom.int	63 2 230 1999	IOM established its presence in the Philippines in 1975. IOM provides support in the areas of finance, human resources management, information technology, staff security, project tracking, and health claims processing, among others. ²⁵⁰	
Japan International Cooperation Agency	Country Office	pp_oso_rep@jica.go.jp	63 2 889 7119	JICA in the Philippines provides cooperation in economic growth, poverty reduction, disaster mitigation, other development issues such as health and governance, and in promoting peace and development in conflict-affected Mindanao. ²⁵¹	
Joint United Nations Programme on HIV/AIDS	Program Office	info@unaids.org.ph	63 2 901 0412	National HIV prevalence remains low in the Philippines through support from the Global Fund to Fight AIDS. ²⁵²	
Korea International Cooperation Agency	Country Office		63 2 403 9780	KOICA's focus areas in the Philippines are: Education, Governance, Industry Energy, Environment and Others. ²⁵³	
Office for the Coordination of Humanitarian Affairs	Country Office	ocha-roap@un.org	63 2 843 9553	OCHA grew into a full country office in the Philippines in 2011. They support ongoing operations and respond to emerging needs – especially related to natural disasters. ²⁵⁴	
Save the Children	Country Office	DonorServices.PH@savethechildren.org	63 2 853 0215	Save the Children has worked in the Philippines since 1981 and quickly delivers humanitarian relief after the nation's frequent typhoons and other disasters. Their work is focused on: education, child protection, child rights governance, health and nutrition, livelihoods and humanitarian. ²⁵⁵	

The Asia Foundation	Country Office	tafphil@asiafound.org	63 2 851 1466	The Asia Foundation's programs in the Philippines promote better governance to support economic growth, strengthen the rule of law, and foster peace and development in Mindanao. Building on its wide network of partners, the Foundation is helping government, local nongovernmental organizations, and the private sector to strengthen democratic institutions and create sustainable economic growth. ²⁵⁶	
United Nations Children's Fund	Country Office	manila@unicef.org	63 2 901 0100	UNICEF opened their office in 1948. Focus areas in the Philippines are education, health and nutrition, disaster risk reduction and emergencies, HIV and AIDS prevention, child protection, communication, and local policy and institutional development. ²⁵⁷	
United Nations Development Programme	Country Office	registry.ph@undp.org	63 2 901 0100	UNDP's work fosters human development for peace and prosperity. Working with central and local Governments as well as civil society, and building on global best practices; UNDP strengthens capacities of women, men and institutions to empower them to achieve the Millennium Development Goals (MDGs) and the objectives of the Philippine Development Plan. ²⁵⁸	
United Nations High Commissioner for Refugees	Country Office	phima@unhcr.org	63 02 8172398	UNHCR has been operating in the Philippines for over 30 years. For many years, its presence was limited to Manila with a focus on asylum seekers, refugees, broader asylum-migration issues and statelessness. In May 2010, with a renewed dialogue between the government and armed groups, UNHCR established its presence in Mindanao to addresses issues on internal displacement. ²⁵⁹	
United Nations Office for Disaster Risk Reduction			66 022882894	No country office exists, covered by the UNISDR Asia and Pacific office in Bangkok.	
United Nations Population Fund	Country Office	phl.co@unfpa.org	63 2 901 0318	In the Philippines, UNFPA's overall goal is to empower and improve the lives of underserved populations, especially women and young people including adolescents, enabled by an understanding of population dynamics, human rights and gender equality, and driven by the needs of Filipinos and tailored to the Philippine context. ²⁶⁰	

APPENDICES

United States Agency for International Development	Country Office	infoph@usaid.gov	63 2 301 6000	USAID's programs focus on accelerating and sustaining economic growth through U.S.- Philippines Partnership for Growth activities; fostering peace and stability in six conflict-affected areas of Mindanao; enhancing the country's environmental resilience through programs that mitigate the impact of natural disasters and improve environmental and natural resource management; improving the quality of education; and increasing access to quality health services. ²⁶¹	
The World Bank	Country Office	comphilippines@worldbank.org	63 2 465 2500	The World Bank in the Philippines is focusing on long-term strategic and structural development challenges as it strives to transition to an upper middle income country. ²⁶²	
World Food Programme	Country Office	wfp.philippines@wfp.org	63 2 750 2561	WFP Philippines supports national and local government efforts to effectively and efficiently prepare for and respond to natural disasters -- as well as the impacts of climate change -- by implementing various projects in selected highly disaster-prone provinces. WFP also addresses the food security needs of vulnerable people in conflict-affected areas. ²⁶³	
World Health Organization	Country Representative	who@phl.wpro.who.int	63 2 528 9763	WHO and the Philippine government have been working together to improve the health of people. The Country Cooperation Strategy provides an in-depth analysis of the key challenges and key strengths, and takes into account the objectives of the MOH while detailing how WHO will support the national health development strategies. ²⁶⁴	
World Vision	Country Office	wvphilippines@wvi.org	632 374 7618	World Vision provides emergency assistance to children and families affected by natural disasters and civil conflicts, work with communities to develop long-term solutions to alleviate poverty and advocates for justice on behalf of the poor. ²⁶⁵	

Force Protection/Pre-Deployment information

The following information is provided for pre-deployment planning and preparations. Visit www.travel.state.gov prior to deployments for further up-to-date information.

Passport/Visa

You must have a passport valid for at least six months beyond the date of your intended arrival in the Philippines. An entry/exit visa is not required if you are visiting for fewer than 30 days and if you have a return ticket to the United States or an onward ticket to another country. If you plan to stay longer than 30 days, you must apply for an extension at the Philippine Bureau of Immigration and Deportation's main office at Magallanes Drive, Intramuros, Manila, or at any of its provincial offices. If you know you will stay in the Philippines for more than 30 days, you can obtain a fifty-nine (59) day visa at the Philippine embassy or consulate closest to you before traveling to the Philippines. Once in the Philippines, you can apply for a twenty-nine day extension. For the most up-to-date visa information, visit <http://www.philippineembassy-usa.org/philippines-dc/consular-services-dc/>.

Emergency Contact Information

For U.S. Citizens, contact the U.S. Embassy in Manila:

1201 Roxas Boulevard
Manila 1000, Ermita, Manila, Philippines
Switch Board: 02 301 2000
E-Mail address: manila.usembassy.gov
Tel. No. : (632) 301-2000 extension 2555, 2246
Fax : (632) 301-2017

Currency Information

The currency in the Philippines is the Peso.

Additional Information

Before visiting the Philippines, the CDC advises travelers get the following vaccinations:

- Standard routine vaccinations (all travelers)
- Hepatitis A (most travelers)
- Typhoid (most travelers)
- Hepatitis B (some travelers)

- Rabies (some travelers)
- Japanese Encephalitis (some travelers)
- Malaria (some travelers)
- Yellow Fever (some travelers)

Philippines: +63 (2) (Manila)

Philippines Time Zone is UTC/GMT +8 hours

Philippines Characteristics

Country Name: Conventional long form: Republic of the Philippines

Conventional short form: Philippines

Government: The Philippine government is a republic. Independence from Spain was proclaimed on 12 June 1898. Independence from the United States was declared on 4 July 1946. The current Chief of State is President Benigno Aquino (since 30 June 2010); Vice President Jejomar Binay (since 30 June 2010); note - president is both chief of state and head of government.

Language: Filipino (official; based on Tagalog) and English (official); eight major dialects - Tagalog, Cebuano, Ilocano, Hiligaynon or Ilonggo, Bicol, Waray, Pampango, and Pangasinan

Geography: The Philippine archipelago consists of 7,107 islands located in Southeastern Asia, between the Philippine Sea and the South China Sea. The nation is slightly larger than Arizona and totals about 300,000 sq km. The climate is tropical marine; the monsoon season in the northeast lasts from November to April and from May to October in the southwest. The Capital of the Philippines is Manila.

Natural hazards strike the Philippines regularly. The archipelago is usually affected by 15 and struck by five to six cyclonic storms per year, and is also prone to landslides, active volcanoes; destructive earthquakes, and tsunamis. In addition, the nation faces many environmental issues, which include: uncontrolled deforestation especially in watershed areas; soil erosion; air and water pollution in major urban centers; coral reef degradation; and increasing pollution of coastal mangrove swamps that are important fish breeding grounds

People: There are nearly 100 million people living in the Philippines. The Filipino nationality consists of several ethnic groups, which include:

Tagalog 28.1%, Cebuano 13.1%, Ilocano 9%, Bisaya/Binisaya 7.6%, Hiligaynon Ilonggo 7.5%, Bikol 6%, Waray 3.4%, other 25.3% (2000). While roughly 80% of the population is Roman Catholic, there are several other prominent religions throughout the region. They are as follows: Muslim 5%, Evangelical 2.8%, Iglesia ni Kristo 2.3%, Aglipayan 2%, other Christian 4.5%, other 1.8%, unspecified 0.6%, none 0.1% (2000 census)

Military Branches: The Armed Forces of the Philippines (AFP) consists of the following branches: Army, Navy (includes Marine Corps) and Air Force (2010). The Philippine Coast Guard is attached to the Department of Transportation and Communications.

Risks and Vulnerabilities

- The Department of State warns U.S. citizens of the risks of travel to the Philippines, in particular to the Sulu Archipelago, the island of Mindanao, and in the southern Sulu Sea area. U.S. citizens should continue to defer non-essential travel to the Sulu Archipelago, due to the high threat of kidnapping of international travelers and violence linked to insurgency and terrorism there.
- Over the past nine months, there have been kidnappings and attempted kidnappings of foreigners in the Eastern Sabah province of Malaysia and in the southern Sulu Sea area by terrorist or insurgent groups based in the Sulu Archipelago of the Philippines. U.S. citizens should exercise extreme caution if considering travel in the southern Sulu Sea region between Balabac Island and Palawan, in the Philippines; Sabah, Malaysia; and east to Zamboanga City, Mindanao, in the Philippines.
- U.S. citizens should continue to exercise extreme caution if traveling to the island of Mindanao in the southern Philippines. In 2013, separatist and terrorist groups increased the tempo and scale of their activities and confrontations with Philippine security forces, with increased bombings, attacks on civilians and political leaders, and battles with security forces. In September 2013, elements of the Moro National Liberation Front (MNLF) occupied portions of the city of Zamboanga and engaged in a lengthy battle with security forces which reduced

large parts of the city to rubble. The Bangsamoro Islamic Freedom Fighters (BIFF) remain active in the Cotabato City area, and in the Maguindanao, North Cotabato, and Sultan Kudarat provinces, where the government maintains a state of emergency and a greater police presence.

- Crime is a concern in Manila. As a rule of thumb, U.S. citizens should exercise good judgment and remain aware of their surroundings. Reports of confidence games (con games), pick pocketing, Internet scams, and credit/ATM card fraud are common. U.S. citizens should be wary of unknown individuals who attempt to befriend them, especially just after their arrival in the country.

Health Information

Medicines/Items:

- Have enough to prescription medication to last during the trip. Keep them in their original prescription bottles and always in carry-on luggage.
- Medicine for diarrhea, usually over-the-counter.
- Iodine tablets and portable water filters to purify water if bottled water is not available.
- Antibacterial hand wipes or alcohol-based hand sanitizer containing at least 60% alcohol.
- To prevent insect/mosquito bites, bring:
 - Lightweight long-sleeved shirts, long pants, and a hat to wear outside, whenever possible.
 - Flying-insect spray to help clear rooms of mosquitoes.

During the Trip:

Many diseases, like malaria and dengue, are spread through insect bites. One of the best protections is to prevent insect bites by:

- Using insect repellent (bug spray) with 30%-50% DEET. Picaridin, available in 7% and 15% concentrations, needs more frequent application.
- Wearing long-sleeved shirts, long pants, and a hat outdoors.
- Remaining indoors in a screened or air-

conditioned area during the peak biting period for malaria (dusk and dawn).

Food and Water:

Diseases from food and water are the leading cause of illness in travelers. Follow these tips for safe eating and drinking:

- Wash hands often with soap and water, especially before eating. If soap and water are not available, use an alcohol-based hand gel (with at least 60% alcohol).
- Drink only bottled or boiled water, or carbonated (bubbly) drinks in cans or bottles. Avoid tap water, fountain drinks, and ice cubes. If this is not possible, learn how to make water safer to drink.
- Do not eat food purchased from street vendors.
- Make sure food is fully cooked.
- Avoid dairy products, unless they have been pasteurized.
- Check bottles for cracked seals.

Traveling with Medications

When medications are necessary for travel, it is important to remember the following:

- **Original containers:** All medications should be carried in their original containers with clear labels, so the contents are easily identified. Although many travelers like placing medications into small containers or packing them in the daily-dose containers, officials at ports of entry may require proper identification of medications.
- **Prescriptions:** Travelers should carry copies of all prescriptions, including their generic names.
- **Physician notes:** For controlled substances and injectable medications, travelers are advised to carry a note from the prescribing physician on letterhead stationery.
- **Restricted medications:** Travelers should be aware that certain medications are not permitted in certain countries. If there is a question about these restrictions, particularly with controlled substances, travelers are recommended to contact the embassy or consulate of the destination country.

Acronyms and Abbreviations

Acronym	Definition
AADMER	Agreement On Disaster Management and Emergency Response
ABC	Association of Barangay Captains
ACR	Alien Certificate of Registration
AFP	Armed Forces of the Philippines
APSA	Amity Public Safety Academy
ARMM	Autonomous Region In Muslim Mindanao
ASEAN	Association of Southeast Asian Nations
AWB	Air Waybill
B/L	Bill of Lading
BDRRMC	Barangay Disaster Risk Reduction and Management Committee
BFP	Bureau of Fire Protection
BHS	Barangay Health Stations
BIFF	Bangsamoro Islamic Freedom Fighters
BNPP	Bataan Nuclear Power Plant
CAA	Civil Aviation Authority
CAAP	Civil Aviation Authority of the Philippines
CARAT	Cooperation Afloat Readiness and Training
CBDRM	Community Based Disaster Risk Management
CBFWS	Community Based Flood Warning System
CCA	Climate Change Adaptation
CCA	Common Country Assessments
CCC	Climate Change Commission
CDP	Center For Disaster Preparedness
CDP	Comprehensive Development Plan
CHED	Commission on Higher Education
CLUP	Comprehensive Land-Use Plan
CONOPS	Concept of Operations
CPA	Cebu Ports Authority
CPI	Corruption Perception Index
CPP-ML	Communist Party of the Philippines, Marxist-Leninist
DA	Department of Agriculture
DANA	Damage and Needs Assessments
DBM	Department of Budget and Management
DENR	Department of Environment and Natural Resources
DFA	Department of Foreign Affairs

Acronym	Definition
DILG	Department of the Interior and Local Government
DILG-BFP	Department of the Interior and Local Government, Bureau of Fire Protection
DJC2	Deployable Joint Command and Control
DND	Department of National Defense
DOE	Department of Energy
DOF	Department of Finance
DOH	Department of Health
DOJ	Department of Justice
DOLE	Department of Labor and Employment
DOST	Department of Science and Technology
DOT	Department of Tourism
DOTC	Department of Transportation and Communications
DPWH	Department of Public Works and Highways
DRR	Disaster Risk Reduction
DRRM	Disaster Risk Reduction and Management
DRRMO	Disaster Risk Reduction and Management Office
DSWD	Department of Social Welfare and Development
DTI	Department of Trade and Industry
EAS	East Asia Summit
EDSA	Epifanio De Los Santos Avenue
EEZ	Exclusive Economic Zone
EO	Executive Order
ERAT	Emergency Response Assessment Team
ERC	Energy Regulatory Commission
FFWS	Flood Forecasting and Warning System
FIT	Feed-In-Tariff
FNTI	Fire National Training Institute
GDP	Gross Domestic Product
GII	Gender Inequality Index
GSIS	Government Service Insurance System
HA/DR	Humanitarian Assistance and Disaster Relief
HCA	Humanitarian Civic Assistance
HCT	Humanitarian Country Team
HDI	Human Development Index
HFA	Hyogo Framework For Action

APPENDICES

Acronym	Definition
HUDCC	Housing and Urban Development Coordinating Council
ICS	Incident Command System
ICT	Information and Communication Technology
IDRL	International Disaster Response Law
IEC	Information, Education and Communication
IFRC	Cross and Red Crescent Societies
JI	Jemaah Islamiah
JSOTF-P	Joint Special Operations Task Force-Philippines
JTF	Joint Task Force
JTWC	Joint Typhoon Warning Center
KP	Kalusugan Pangkalahatan
LCP	League of Cities of the Philippines
LDRRMF	Local Disaster Risk Reduction and Management Fund
LDRRMO	Local Disaster Risk Reduction and Management Office
LFEWS	Local Flood Early Warning Systems
LMB	Liga Ng Mga Barangay
LMP	League of Municipalities of the Philippines
LPP	League of Provinces of the Philippines
LRTA	Light Rail Transit Authority
MCIAA	Mactan-Cebu International Airport Authority
MDG	Millenium Development Goal
MEF	Marine Expeditionary Force
MEU	Marine Expeditionary Unit
MIAA	Manila International Airport Authority
MILF	Moro Islamic Liberation Front
MMDA	Metropolitan Manila Development Authority
MNCC	Multinational Coordination Center
MNLF	Moro National Liberation Front
MRTC	Metro Rail Transit Corporation
MW	Megawatts
MWCI	Manila Water Company, Inc.
MWSI	Maynilad Water Services, Inc.
MWSS	Metropolitan Waterworks and Sewage System
NAIA	Ninoy Aquino International Airport
NAPC-VDC	National Anti-Poverty Commission-Victims of Disasters and Calamities Sector

Acronym	Definition
NCCAP	National Climate Change Action Plan
NCDA	National Civil Defense Administration
NCDPP	National Calamities and Disaster Preparedness Plan
NCR	National Capital Region
NDCC	National Disaster Coordinating Council
NDRRMC	National Disaster Risk Reduction and Management Council
NDRRMF	National Disaster Risk Reduction and Management Framework
NDRRMOC	National Disaster Risk Reduction and Management Operations Center
NDRRMP	National Disaster Risk Reduction and Management Plan
NEC	National Emergency Commission
NEDA	National Economic and Development Authority
NFEP	National Filariasis Elimination Program
NGCP	Cooperation of the Philippines
NGO	Nongovernmental Organizations
NHA	National Housing Authority
NHIP	National Health Insurance Program
NIC	National Influenza Center
NIMT	NDRRMC Incident Management Team
NMAT	National Medical Admission Test
NPA	New People's Army
NPC	National Power Corporation
NSTP	National Service Training Program
NTC	National Telecommunications Commission
NTD	Neglected Tropical Diseases
NYC	National Youth Commission
OCD	Office of Civil Defense
OPAPP	Office of the Presidential Advisor On the Peace Process
OSS	One-Stop Shops
OTS	Office For Transportation Security
PAGASA	Philippine Atmospheric, Geophysical, and Astronomical Services Administration
PBS	Philippine Broadcasting System
PCG	Philippine Coast Guard
PCR	Polymerase Chain Reaction
PDP	Philippine Development Plan
PHIBLEX	Amphibious Landing Exercise

APPENDICES

Acronym	Definition
PHIVOLCS	Philippine Institute of Volcanology and Seismology
PHP	Philippine Pesos
PIA	Philippine Information Agency
PIPH	Plan For Health
PITACH	Philippine Institute For Traditional and Alternative Health Care
PMCC	Philippine Medical Care Commission
PNA	Philippines News Agency
PNP	Philippine National Police
PNR	Philippine National Railways
PNRC	Philippine National Red Cross
PPA	Philippines Ports Authority
PPP	Purchasing Power Parity
PRC	Philippine Red Cross
PTNI	People's Television Network Inc.
RA	Republic Act
RDRRMOC	Regional Disaster Risk Reduction and Management Operations Center
RH	Reproductive Health
RITM	Research Institute of Tropical Medicine
SBMA	Subic Bay Metropolitan Authority
SCETC	Security Cooperation and Education Training Center
SCS	South China Sea
SNAP	Strategic National Action Plan
SONA	State of the Nation Address
SRNH	Strong Republic Nautical Highway
SRP	Strategic Response Plan
SSA	Storm Surge Advisories
SSS	Social Security System
STH	Soil Transmitted Helminthiasis
TESDA	Technical Education and Skills Development Authority
UHC	Universal Healthcare
ULAP	Authorities of the Philippines
UN	United Nations
UNDAC	United Nations Disaster Assistance and Coordination
UNDP	United Nations Development Programme
UNHCR	United Nations High Commission For Refugees
UNISDR	United Nations International Strategy On Disaster Reduction

Acronym	Definition
UNOCHA	For the Coordination of Humanitarian Affairs
USDA-FS	Department of Agriculture – Forest Service
USG	United States Government
VSAT	Very Small Aperture Terminal
WHO	World Health Organization
WRM	Water Resources Management
WTO	World Trade Organizations
WWF	World Wildlife Foundation

HFA Country Progress Report

The Hyogo Framework for Action (HFA) was adopted as a guideline to reduce vulnerabilities to natural hazards. The HFA assists the efforts of these countries to become more resilient to, and manage better the hazards that threaten their development. Below is a summarization of the 2009-2011 interim results of the HFA for the Philippines. The full report is available at http://www.preventionweb.net/files/18619_phl_NationalHFAProgress_2009-11.pdf.



United Nations
International Strategy for Disaster Reduction

Philippines Summary of the Hyogo Framework for Action (2009– 2011): Building the Resilience of Nations and Communities to Disasters (Hyogo Framework)



Expected Outcome

The substantial reduction of disaster losses, in lives and in the social, economic and environmental assets of communities and countries

The Philippines' challenges in implementing the HFA are:

- Coordination mechanisms between the primary institutions responsible for climate change and DRR, i.e. CCC and NDRRMC, are lacking
- Institutional and technical implementation of DRR laws at various levels from the local to the national need capacity development
- Knowledge management at the local level (cities, municipalities, barangays, and communities) is very much needed.
- Implementation of DRR activities is still highly influenced by local political agenda and interests
- Sharing disaster and risk information is a huge challenge
- There is also a need to forge linkages between the academe, which is doing their own basic and applied research on hazards, vulnerabilities and risk assessments, and the government
- Risk transfer schemes such as insurance have a very low penetration rate

Strategic Goals

The integration of disaster risk reduction into sustainable development policies and planning

Development and strengthening of institutions, mechanisms and capacities to build resilience to hazards

The systematic incorporation of risk reduction approaches into the implementation of emergency preparedness, response and recovery programs

Philippines Priorities for Action

1. Ensure that DRR is a national and a local priority with a strong institutional basis for implementation

2. Identify, assess and monitor disaster risks and enhance early warning

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

4. Reduce the underlying risk factors

5. Strengthen disaster preparedness for effective response at all levels

To address these priorities the Philippines is taking the following action:

- Existing policies, plans, and projects are now being reviewed to ensure alignment with the National DRRM framework and action plan
- Currently formulating a new MTPDP (2010-2016) and DRM and climate change are considered cross cutting issues
- Integrating DRRM concerns into local development plans

- The Hazards Mapping project is now on its last year of implementation
- Volcano and earthquake monitoring systems are coming online
- Plans exist to establish a national disaster loss database for assessing and analyzing risks

- School curriculums are integrating DRR across the nation, including in rural areas
- Academic institutions are disseminating their research to the practitioner level, but recommendations still need to be implemented
- Government agencies undertake their respective disaster awareness programs nationwide

- Land use policies that consider inherent disaster risk levels for appropriate development
- New regulatory framework promotes insurance and insurance like products for vulnerable groups to protect against and provide relief from disaster
- Building back better approaches have been widely discussed

- Annual National Disaster Consciousness Month is observed with simultaneous nationwide earthquake drills as well as search and rescue exercises
- The DRRM Act will further energize the Operations Center of the NDRRMC
- Trainings on damage and loss assessment and on post disaster needs assessment have been undertaken

Philippines lessons learned in implementing the HFA:

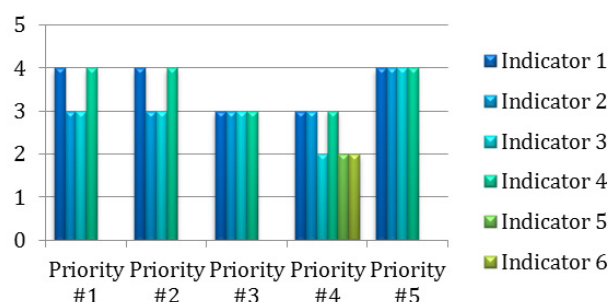
Major success factors driving progress of the implementation of the HFA in the Philippines include: Multi-hazard integrated approach to disaster risk reduction; capacities for risk reduction and recovery identified and strengthened; and engagement at all levels of society

Summarization of the Philippines National Progress Report on the Implementation of Hyogo Framework for Action (2009-2011) - Interim

The Hyogo Framework for Action (HFA) was adopted as a guideline to reduce vulnerabilities to natural hazards. The HFA assists the efforts of these countries to become more resilient to, and manage better the hazards that threaten their development. Below is a summarization of the 2009-2011 interim results of the HFA for the Philippines. The full report is available at http://www.preventionweb.net/files/18619_phl_NationalHFAprogrss_2009-11.pdf.

Overall, the level of HFA progress reported for the Philippines either matched or rested slightly below the regional averages for Asia-Pacific. The Philippines generally scored at the regional average on making disaster risk reduction a policy priority, education, and public awareness. The area where the Philippines scored above the regional average was preparedness of effective response. The area where the Philippines scored below the regional average was integrating DRR in post disaster recovery and rehabilitation processes.

Level of Progress* Achieved for HFA Priorities



Future Outlook Area 1: *Integration of disaster risk considerations into sustainable development policies, planning and programming at all levels.*

Challenges:	Implementation and enforcement of a new law that aims to strengthen the disaster risk reduction and management system through the provision of a National Disaster Risk Reduction and Management Framework (NDRRM Framework) and institutionalizing the National Disaster Risk Reduction and Management Plan (NDRRM Plan).
Future Outlook Priorities:	The strengthening of capacities of local governments should be the next immediate step in order to put all these policies and plans into practice.

Future Outlook Area 2: *Development and strengthening of institutions, mechanisms, and capacities at all levels to build resilience to hazards.*

Challenges:	Knowledge management capacity needs to be built.
Future Outlook Priorities:	More effective coordination of efforts and collaboration among civil society, private sector and government should result in tangible reduction of vulnerability of all sectors of society.

Future Outlook Area 3: *Incorporation of risk reduction approaches in the preparedness, response, and recovery programs during the reconstruction of affected communities.*

Challenges:	Risk transfer mechanisms and options could be appropriate given the country's risk profile and financing needs.
Future Outlook Priorities:	Government is also now looking at disaster risk financing as a potential mechanism to proactively lessen the potential economic and financial impacts of disasters in the country.

Philippines National Progress Report on the Implementation of Hyogo Framework for Action (2009-2011) - Interim

Many countries around the world are committed to taking action to reduce disaster risk. The Hyogo Framework for Action (HFA) was adopted as a guideline to reduce vulnerabilities to natural hazards. The HFA assists the efforts of these countries to become more resilient to, and manage better the hazards that threaten their development. Below are the 2009-2011 interim results of the HFA for the Philippines:

Priority for Action #1: Making disaster risk reduction a policy priority, institutional strengthening			
Core Indicator	Indicator Description	Level of Progress Achieved*	Regional Average Score
1	National policy and legal framework for disaster risk reduction exists with decentralized responsibilities and capacities at all levels.	4	3.48
2	Dedicated and adequate resources are available to implement disaster risk reduction plans and activities at all administrative levels	3	3.03
3	Community participation and decentralization is ensured through the delegation of authority and resources to local levels	3	3.11
4	A national multi sectoral platform for disaster risk reduction is functioning.	4	3.11
Priority for Action #2: Risk assessment and early warning systems			
1	National and local risk assessments based on hazard data and vulnerability information are available and include risk assessments for key sectors.	4	3.14
2	Systems are in place to monitor, archive and disseminate data on key hazards and vulnerabilities.	3	3.07
3	Early warning systems are in place for all major hazards, with outreach to communities.	3	3.29
4	National and local risk assessments take account of regional / trans-boundary risks, with a view to regional cooperation on risk reduction.	4	3.29
Priority for Action #3: Education, information and public awareness			
1	Relevant information on disasters is available and accessible at all levels, to all stakeholders (through networks, development of information sharing systems, etc).	3	3.03
2	School curricula, education material and relevant trainings include disaster risk reduction and recovery concepts and practices.	3	3.03
3	Research methods and tools for multi-risk assessments and cost benefit analysis are developed and strengthened.	3	2.55

4	Countrywide public awareness strategy exists to stimulate a culture of disaster resilience, with outreach to urban and rural communities.	3	3.44
Priority for Action #4: Reducing underlying risk factors			
1	Disaster risk reduction is an integral objective of environment related policies and plans, including for land use natural resource management and adaptation to climate change.	3	3.14
2	Social development policies and plans are being implemented to reduce the vulnerability of populations most at risk.	3	2.74
3	Economic and productive sectorial policies and plans have been implemented to reduce the vulnerability of economic activities.	2	2.88
4	Planning and management of human settlements incorporate disaster risk reduction elements, including enforcement of building codes.	3	2.84
5	Disaster risk reduction measures are integrated into post disaster recovery and rehabilitation processes.	2	3.0
6	Procedures are in place to assess the disaster risk impacts of major development projects, especially infrastructure.	2	2.73
Priority for Action #5: Preparedness for effective response			
1	Strong policy, technical and institutional capacities and mechanisms for disaster risk management, with a disaster risk reduction perspective are in place.	4	3.29
2	Disaster preparedness plans and contingency plans are in place at all administrative levels, and regular training drills and rehearsals are held to test and develop disaster response programs.	4	3.42
3	Financial reserves and contingency mechanisms are in place to support effective response and recovery when required.	4	3.33
4	Procedures are in place to exchange relevant information during hazard events and disasters, and to undertake post-event reviews.	4	3.34

***Level of Progress:**

- 1 – Minor progress with few signs of forward action in plans or policy
- 2 – Some progress, but without systematic policy and/ or institutional commitment
- 3 – Institutional commitment attained, but achievements are neither comprehensive nor substantial
- 4 – Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities
- 5 – Comprehensive achievement with sustained commitment and capacities at all levels

Country Profile

Sourced directly from: Central Intelligence Agency World Factbook.²⁶⁶

Introduction: Philippines

Background:

The Philippine Islands became a Spanish colony during the 16th century; they were ceded to the US in 1898 following the Spanish-American War. In 1935 the Philippines became a self-governing commonwealth. Manuel QUEZON was elected president and was tasked with preparing the country for independence after a 10-year transition. In 1942 the islands fell under Japanese occupation during World War II, and US forces and Filipinos fought together during 1944-45 to regain control. On 4 July 1946 the Republic of the Philippines attained its independence. A 20-year rule by Ferdinand MARCOS ended in 1986, when a “people power” movement in Manila (“EDSA 1”) forced him into exile and installed Corazon AQUINO as president. Her presidency was hampered by several coup attempts that prevented a return to full political stability and economic development. Fidel RAMOS was elected president in 1992. His administration was marked by increased stability and by progress on economic reforms. In 1992, the US closed its last military bases on the islands. Joseph ESTRADA was elected president in 1998. He was succeeded by his vice-president, Gloria MACAPAGAL-ARROYO, in January 2001 after ESTRADA’s stormy impeachment trial on corruption charges broke down and another “people power” movement (“EDSA 2”) demanded his resignation. MACAPAGAL-ARROYO was elected to a six-year term as president in May 2004. Her presidency was marred by several corruption allegations but the Philippine economy was one of the few to avoid contraction following the 2008 global financial crisis, expanding each year of her administration. Benigno AQUINO III was elected to a six-year term as president in May 2010. The Philippine Government faces threats from several groups, some of which are on the US Government’s Foreign Terrorist Organization list. Manila has waged a decades-long struggle against ethnic Moro insurgencies in the southern Philippines, which has led to a peace accord with the Moro National Liberation Front and ongoing peace talks with the Moro Islamic Liberation Front. The

decades-long Maoist-inspired New People’s Army insurgency also operates through much of the country. The Philippines faces increased tension with China over disputed territorial and maritime claims in the South China Sea.

Geography: Philippines

Location:

Southeastern Asia, archipelago between the Philippine Sea and the South China Sea, east of Vietnam

Geographic coordinates:

13 00 N, 122 00 E

Map references:

Southeast Asia

Area:

Total: 300,000 sq km
Country comparison to the world: 73
Land: 298,170 sq km
Water: 1,830 sq km

Land boundaries:

Total: 0 km

Coastline:

36,289 km

Maritime claims:

Territorial sea: irregular polygon extending up to 100 nm from coastline as defined by 1898 treaty; since late 1970s has also claimed polygonal-shaped area in South China Sea up to 285 nm in breadth

Exclusive economic zone: 200 nm

Continental shelf: to depth of exploitation

Climate:

Tropical monsoon; northeast monsoon (December to March); southwest monsoon (June to October)

Terrain:

Mostly mountains with narrow to extensive

coastal lowlands

Elevation extremes:

Lowest point: Philippine Sea 0 m

Highest point: Mount Apo 2,954 m

Natural resources:

Timber, petroleum, nickel, cobalt, silver, gold, salt, copper

Land use:

Arable land: 18%

Permanent crops: 17.33%

Other: 64.67% (2011)

Irrigated land:

18,790 sq km (2006)

Total renewable water resources:

479 cu km (2011)

Freshwater withdrawal (domestic/ industrial/agricultural):

Total: 81.56 cu km/yr (8%/10%/82%)

Per capita: 859.9 cu m/yr (2009)

Natural hazards:

Astride typhoon belt, usually affected by 15 and struck by five to six cyclonic storms each year; landslides; active volcanoes; destructive earthquakes; tsunamis

Volcanism: significant volcanic activity; Taal (elev. 311 m), which has shown recent unrest and may erupt in the near future, has been deemed a Decade Volcano by the International Association of Volcanology and Chemistry of the Earth's Interior, worthy of study due to its explosive history and close proximity to human populations; Mayon (elev. 2,462 m), the country's most active volcano, erupted in 2009 forcing over 33,000 to be evacuated; other historically active volcanoes include Biliran, Babuyan Claro, Bulusan, Camiguin, Camiguin de Babuyanes, Didicas, Iraya, Jolo, Kanlaon, Makaturing, Musuan, Parker, Pinatubo and Ragang

Environment - current issues:

Uncontrolled deforestation especially in watershed areas; soil erosion; air and water pollution in major urban centers; coral reef degradation; increasing pollution of coastal mangrove swamps that are important fish breeding grounds

Environment - international agreements:

Party to: Biodiversity, Climate Change, Climate Change-Kyoto Protocol, Desertification, Endangered Species, Hazardous Wastes, Law of the Sea, Marine Dumping, Ozone Layer Protection, Ship Pollution, Tropical Timber 83, Tropical Timber 94, Wetlands, Whaling

Signed, but not ratified: Air Pollution-Persistent Organic Pollutants

Geography - note:

The Philippine archipelago is made up of 7,107 islands; favorably located in relation to many of Southeast Asia's main water bodies: the South China Sea, Philippine Sea, Sulu Sea, Celebes Sea, and Luzon Strait

People and Society: Philippines

Nationality:

Noun: Filipino(s)

Adjective: Philippine

Ethnic groups:

Tagalog 28.1%, Cebuano 13.1%, Ilocano 9%, Bisaya/Binisaya 7.6%, Hiligaynon Ilonggo 7.5%, Bikol 6%, Waray 3.4%, other 25.3% (2000 census)

Languages:

Filipino (official; based on Tagalog) and English (official); eight major dialects - Tagalog, Cebuano, Ilocano, Hiligaynon or Ilonggo, Bicol, Waray, Pampango, and Pangasinan

Religions:

Catholic 82.9% (Roman Catholic 80.9%, Aglipayan 2%), Muslim 5%, Evangelical 2.8%, Iglesia ni Kristo 2.3%, other Christian 4.5%, other 1.8%, unspecified 0.6%, none 0.1% (2000 census)

Population:

107,668,231 (July 2014 est.)
Country comparison to the world: 13

Age structure:

0-14 years:
33.7% (male 18,493,668/female 17,753,359)

15-24 years:
19% (male 10,416,358/female 10,044,724)

25-54 years:
37% (male 20,031,638/female 19,796,545)

55-64 years:
5.8% (male 2,882,719/female 3,372,485)

65 years and over:
4.4% (male 2,103,596/female 2,773,139) (2014 est.)

Dependency ratios:

Total dependency ratio: 60.7 %
Youth dependency ratio: 54.3 %
Elderly dependency ratio: 6.4 %
Potential support ratio: 15.6 (2014 est.)

Median age:

Total: 23.5 years
Male: 23 years
Female: 24 years (2014 est.)

Population growth rate:

1.81% (2014 est.)
Country comparison to the world: 67

Birth rate:

24.24 births/1,000 population (2014 est.)
Country comparison to the world: 61

Death rate:

64.92 deaths/1,000 population (2014 est.)
Country comparison to the world: 192

Net migration rate:

-1.23 migrant(s)/1,000 population (2014 est.)
Country comparison to the world: 155

Urbanization:

Urban population:
48.8% of total population (2011)

Rate of urbanization:
2.16% annual rate of change (2010-15 est.)

Major urban areas - population:

MANILA (capital) 11.862 million; Davao 1.565 million; Cebu City 855,000; Zamboanga 884,000 (2011)

Sex ratio:

At birth: 1.05 male(s)/female

0-14 years:
1.04 male(s)/female

15-24 years:
1.04 male(s)/female

25-54 years:
1.01 male(s)/female

55-64 years:
1 male(s)/female

65 years and over:
0.76 male(s)/female

Total population: 1 male(s)/female (2014 est.)

Maternal mortality rate:

99 deaths/100,000 live births (2010)
Country comparison to the world: 74

Infant mortality rate:

Total: 17.64 deaths/1,000 live births
Country comparison to the world: 99
Male: 19.98 deaths/1,000 live births
Female: 15.17 deaths/1,000 live births (2014 est.)

Life expectancy at birth:

Total population: 72.48 years
Country comparison to the world: 134
Male: 69.52 years
Female: 75.59 years (2014 est.)

Total fertility rate:

3.06 children born/woman (2014 est.)
Country comparison to the world: 53

Contraceptive prevalence rate:

48.9% (2011)

Health expenditures:

4.1% of GDP (2011)

Country comparison to the world: 177

Physicians density:

1.15 physicians/1,000 population (2004)

Hospital bed density:

1 bed/1,000 population (2011)

Drinking water source:

Improved:

Urban: 92.5% of population

Rural: 91.2% of population

Total: 91.8% of population

Unimproved:

Urban: 7.5% of population

Rural: 8.8% of population

Total: 8.2% of population (2012 est.)

Sanitation facility access:

Improved:

Urban: 79.4% of population

Rural: 69.4% of population

Total: 74.3% of population

Unimproved:

Urban: 20.6% of population

Rural: 30.6% of population

Total: 25.7% of population (2012 est.)

HIV/AIDS - adult prevalence rate:

0.1% (2012)

Country comparison to the world: 167

HIV/AIDS - people living with HIV/AIDS:

14,800 (2012)

Country comparison to the world: 91

HIV/AIDS - deaths:

300 (2012)

Country comparison to the world: 106

Obesity - adult prevalence rate:

6.3% (2008)

Country comparison to the world: 148

Children under the age of 5 years underweight:

20.2% (2011)

Country comparison to the world: 31

Education expenditures:

2.7% of GDP (2009)

Country comparison to the world: 149

Literacy:

Definition: age 15 and over can read and write

Total population: 95.4%

Male: 95%

Female: 95.8% (2008 est.)

School life expectancy (primary to tertiary education):

Total: 11 years

Male: 11 years

Female: 12 years (2009)

unemployment, youth ages 15-24:

Total: 16.3%

Country comparison to the world: 79

Male: 15.2%

Female: 18.3% (2011)

Government: Philippines

Country name:

Conventional long form:

Republic of the Philippines

Conventional short form:

Philippines

Local long form:

Republika ng Pilipinas

Local short form:

Pilipinas

Government type:

Republic

Capital:

Name: Manila

Geographic coordinates: 14 36 N, 120 58 E

Time difference: UTC+8 (13 hours ahead of Washington, DC, during Standard Time)

Administrative divisions:

80 provinces and 39 chartered cities

Provinces: Abra, Agusan del Norte, Agusan del Sur, Aklan, Albay, Antique, Apayao, Aurora, Basilan, Bataan, Batanes, Batangas, Biliran, Benguet, Bohol, Bukidnon, Bulacan, Cagayan, Camarines Norte, Camarines Sur, Camiguin, Capiz, Catanduanes, Cavite, Cebu, Compostela, Davao del Norte, Davao del Sur, Davao Oriental, Dinagat Islands, Eastern Samar, Guimaras, Ifugao, Ilocos Norte, Ilocos Sur, Iloilo, Isabela, Kalinga, Laguna, Lanao del Norte, Lanao del Sur, La Union, Leyte, Maguindanao, Marinduque, Masbate, Mindoro Occidental, Mindoro Oriental, Misamis Occidental, Misamis Oriental, Mountain Province, Negros Occidental, Negros Oriental, North Cotabato, Northern Samar, Nueva Ecija, Nueva Vizcaya, Palawan, Pampanga, Pangasinan, Quezon, Quirino, Rizal, Romblon, Samar, Sarangani, Siquijor, Sorsogon, South Cotabato, Southern Leyte, Sultan Kudarat, Sulu, Surigao del Norte, Surigao del Sur, Tarlac, Tawi-Tawi, Zambales, Zamboanga del Norte, Zamboanga del Sur, Zamboanga Sibugay

Chartered cities: Angeles, Antipolo, Bacolod, Baguio, Butuan, Cagayan de Oro, Caloocan, Cebu, Cotabato, Dagupan, Davao, General Santos, Iligan, Iloilo, Lapu-Lapu, Las Pinas, Lucena, Makati, Malabon, Mandaluyong, Mandaue, Manila, Marikina, Muntinlupa, Naga, Navotas, Olongapo, Ormoc, Paranaque, Pasay, Pasig, Puerto Princesa, Quezon, San Juan, Santiago, Tacloban, Taguig, Valenzuela, Zamboanga (2012)

Independence:

12 June 1898 (independence proclaimed from Spain); 4 July 1946 (from the US)

National holiday:

Independence Day, 12 June (1898); note - 12 June 1898 was date of declaration of independence from Spain; 4 July 1946 was date of independence from the US

Constitution:

Several previous; latest ratified 2 February 1987, effective 11 February 1987 (2013)

Legal system:

Mixed Legal System Of Civil, Common, Islamic, And Customary Law

International law organization

participation:

Accepts compulsory icj jurisdiction with reservations; accepts icct jurisdiction

Suffrage:

18 years of age; universal

Executive branch:

Chief of state: President Benigno AQUINO (since 30 June 2010); Vice President Jejomar BINAY (since 30 June 2010); note - president is both chief of state and head of government

Head of government: President Benigno AQUINO (since 30 June 2010)

Cabinet: Cabinet appointed by the president with consent of Commission of Appointments

Elections: President and vice president elected on separate tickets by popular vote for a single six-year term; election last held on 10 May 2010 (next to be held in May 2016)

Election results: Benigno AQUINO elected president; percent of vote - Benigno AQUINO 42.1%, Joseph ESTRADA 26.3%, seven others 31.6%; Jejomar BINAY elected vice president; percent of vote Jejomar BINAY 41.6%, Manuel ROXAS 39.6%, six others 18.8%

Legislative branch:

Bicameral Congress or Kongreso consists of the Senate or Senado (24 seats - one-half elected every three years; members elected at large by popular vote to serve six-year terms) and the House of Representatives or Kapulungan Ng Nga Kinatawan (287 seats - 230 members in one tier representing districts and 57 sectoral party-list members in a second tier representing special minorities elected on the basis of one seat for every 2% of the total vote but with each party limited to three seats); a

party represented in one tier may not hold seats in the other tier; all House members are elected by popular vote to serve three-year terms

Note: the constitution limits the House of Representatives to 250 members; the number of members allowed was increased, however, through legislation when in April 2009 the Philippine Supreme Court ruled that additional party members could sit in the House of Representatives if they received the required number of votes

Elections: Senate - elections last held on 13 May 2013 (next to be held in May 2016); House of Representatives - elections last held on 13 May 2013 (next to be held in May 2016)

Election results: Senate - percent of vote by party for 2013 election - UNA 26.94%, NP 15.3%, LP 11.32%, NPC 10.15%, LDP 5.38%, PDP-Laban 4.95%, others 9.72%, independents 16.24%; seats by party after 2013 election - UNA 5, NP 5, LP 4, Lakas 2, NPC 2, LDP 1, PDP-Laban 1, PRP 1, independents 3; House of Representatives - percent of vote by party - LP 38.3%, NPC 17.4%, UNA 11.4%, NUP 8.7%, NP 8.5%, Lakas 5.3%, independents 6.0%, others 4.4%; seats by party - LP 110, NPC 43, NUP 24, NP 17, Lakas 14, UNA 8, independents 6, others 12; party-list 57

Judicial branch:

Highest court(s): Supreme Court (consists of a chief justice and 14 associate justices)

Judge selection and term of office: justices are appointed by the president on the recommendation of the Judicial and Bar Council, a constitutionally-created, 6-member body that recommends Supreme Court nominees; justices serve until age 70

Subordinate courts: Court of Appeals; Sandiganbayan (special court for corruption cases of government officials); Court of Tax Appeals; regional, metropolitan, and municipal trial courts; sharia courts

Political parties and leaders:

Laban ng Demokratikong Pilipino (Struggle of Filipino Democrats) or LDP [Edgardo ANGARA]

Lakas ng EDSA-Christian Muslim Democrats or Lakas-CMD [Manuel “Mar” ROXAS]

Liberal Party or LP [Manuel ROXAS]

Nacionalista Party or NP [Manuel “Manny” VILLAR]

Nationalist People’s Coalition or NPC [Frisco SAN JUAN]

PDP-Laban [Aquilino PIMENTEL]

People’s Reform Party [Miriam Defensor SANTIAGO]

Pwersa ng Masang Pilipino (Force of the Philippine Masses) or PMP [Joseph ESTRADA]

Note: United Nationalist Alliance or [UNA] - PDP-Laban and PMP coalition for the 2013 election

Political pressure groups and leaders:

Black and White Movement [Vicente ROMANO]

Kilosbayan [Jovito SALONGA]

International organization participation:

ADB, APEC, APT, ARF, ASEAN, BIS, CD, CICA (observer), CP, EAS, FAO, G-24, G-77, IAEA, IBRD, ICAO, ICC (national committees), ICRM, IDA, IFAD, IFC, IFRCs, IHO, ILO, IMF, IMO, IMSO, Interpol, IOC, IOM, IPU, ISO, ITSO, ITU, ITUC (NGOs), MIGA, MINUSTAH, NAM, OAS (observer), OPCW, PCA, PIF (partner), UN, UNCTAD, UNDOF, UNESCO, UNHCR, UNIDO, Union Latina, UNISFA, UNMIL, UNMISS, UNMIT, UNMOGIP, UNOCI, UNWTO, UPU, WCO, WFTU (NGOs), WHO, WIPO, WMO, WTO

Diplomatic representation in the US:

Chief of mission: Ambassador Jose L. CUISIA Jr. (since 7 April 2011)

Chancery: 1600 Massachusetts Avenue NW, Washington, DC 20036

Telephone: [1] (202) 467-9300

FAX: [1] (202) 467-9417

Consulate(s) general: Chicago, Honolulu, Los Angeles, New York, San Francisco, Tamuning (Guam)

Diplomatic representation from the US:

Chief of mission: Ambassador Philip S. GOLDBERG (since 21 November 2013)

Embassy: 1201 Roxas Boulevard, Manila 1000

Mailing address: PSC 500, FPO AP 96515-1000

Telephone: [63] (2) 301-2000

Flag description:

Two equal horizontal bands of blue (top) and red; a white equilateral triangle is based on the hoist side; the center of the triangle displays a yellow sun with eight primary rays; each corner of the triangle contains a small, yellow, five-pointed star; blue stands for peace and justice, red symbolizes courage, the white equal-sided triangle represents equality; the rays recall the first eight provinces that sought independence from Spain, while the stars represent the three major geographical divisions of the country: Luzon, Visayas, and Mindanao; the design of the flag dates to 1897

Note: in wartime the flag is flown upside down with the red band at the top

National symbol(s):

Philippine eagle

National anthem:

Name: "Lupang Hinirang" (Chosen Land)

Economy: Philippines

Economy - overview:

The economy has weathered global economic and financial downturns better than its regional peers due to minimal exposure to troubled international securities, lower dependence on exports, relatively resilient domestic consumption, large remittances from four- to five-million overseas Filipino workers, and a rapidly expanding business process outsourcing industry. The current account balance had recorded consecutive surpluses since 2003; international reserves are at record highs; the banking system is stable; and the stock market was Asia's second best-performer in 2012. Efforts to improve tax administration and expenditure management have helped ease the Philippines'

tight fiscal situation and reduce high debt levels. The Philippines has received several credit rating upgrades on its sovereign debt, and has had little difficulty tapping domestic and international markets to finance its deficits. Economic growth in the Philippines averaged 4.5% during the MACAPAGAL-ARROYO administration, but poverty worsened during her term. Growth has accelerated under the AQUINO government, but with limited progress thus far in bringing down unemployment, which hovers around 7%, and improving the quality of jobs. Underemployment is nearly 20% and more than 40% of the employed are estimated to be working in the informal sector. The AQUINO administration has been working to boost the budgets for education, health, cash transfers to the poor, and other social spending programs, and is relying on the private sector to help fund major infrastructure projects under its Public-Private Partnership program. Long term challenges include reforming governance and the judicial system, building infrastructure, improving regulatory predictability, and the ease of doing business, attracting higher levels of local and foreign investments. The Philippine Constitution and the other laws continue to restrict foreign ownership in important activities/sectors (such as land ownership and public utilities).

GDP (purchasing power parity):

\$454.3 billion (2013 est.)

Country comparison to the world: 32

\$425.3 billion (2012 est.)

\$398.2 billion (2011 est.)

Note: data are in 2013 US dollars

GDP (official exchange rate):

\$272.2 billion (2013 est.)

GDP - real growth rate:

6.8% (2013 est.)

Country comparison to the world: 27

6.8% (2012 est.)

3.6% (2011 est.)

GDP - per capita (PPP):

\$4,700 (2013 est.)

Country comparison to the world: 165

\$4,400 (2012 est.)

\$4,200 (2011 est.)

Note: data are in 2013 US dollars

GDP - composition, by end use:

Household consumption: 72.6%

Government consumption: 11.5%

Investment in fixed capital: 20.2%

Investment in inventories: -0.2%

Exports of goods and services: 28.3%

Imports of goods and services: -32.4%

(2013 est.)

GDP - composition, by sector of origin:

Agriculture: 11.2%

Industry: 31.6%

Services: 57% (2013 est.)

Agriculture - products:

Sugarcane, coconuts, rice, corn, bananas, cassava (manioc, tapioca), pineapples, mangoes; pork, eggs, beef; fish

Industries:

Electronics assembly, garments, footwear, pharmaceuticals, chemicals, wood products, food processing, petroleum refining, fishing

Industrial production growth rate:

9% (2013 est.)

Country comparison to the world: 15

Labor force:

41.33 million (2013 est.)

Country comparison to the world: 19

Labor force - by occupation:

Agriculture: 32%

Industry: 15%

Services: 53% (June 2012)

Unemployment rate:

7.4% (2013 est.)

Country comparison to the world: 81

Population below poverty line:

26.5% (2009 est.)

Household income or consumption by percentage share:

Lowest 10%: 2.6%

Highest 10%: 33.6% (2009)

Distribution of family income - GINI index:

44.8 (2010)

Country comparison to the world: 42

46.6 (2003)

Budget:

Revenues: \$38.83 billion

Expenditures: \$43.89 billion (2013 est.)

Taxes and other revenues:

14.3% of GDP (2013 est.)

Country comparison to the world: 196

Budget surplus (+) or deficit (-):

-1.8% of GDP (2013 est.)

Country comparison to the world: 81

Fiscal year:

Calendar year

Inflation rate (consumer prices):

2.8% (2013 est.)

Country comparison to the world: 110

3.2% (2012 est.)

Central bank discount rate:

5.3% (31 December 2013 est.)

Country comparison to the world: 34

7.5% (19 December 2012 est.)

Commercial bank prime lending rate:

9.88% (31 December 2013 est.)

Country comparison to the world: 63

5.6% (31 December 2012 est.)

Stock of narrow money:

\$43.67 billion (31 December 2013 est.)

Country comparison to the world: 50

\$39.01 billion (31 December 2012 est.)

Stock of Broad Money:

\$137.7 billion (31 December 2013 est.)

Country comparison to the world: 49

\$121.6 billion (31 December 2012 est.)

Stock of domestic credit:

\$150.3 billion (31 December 2013 est.)

Country comparison to the world: 47

\$129.4 billion (31 December 2012 est.)

Market value of publicly traded shares:

\$266.3 billion (31 November 2012 est.)

Country comparison to the world: 30

\$198.4 billion (31 December 2011)

Current account balance:

\$7.512 billion (2013 est.)

Country comparison to the world: 25

\$7.126 billion (2012 est.)

Exports:

\$47.45 billion (2013 est.)

Country comparison to the world: 58

\$46.28 billion (2012 est.)

Exports - commodities:

Semiconductors and electronic products, transport equipment, garments, copper products, petroleum products, coconut oil, fruits

Exports - partners:

Japan 19%, US 14.2%, China 11.8%, Singapore 9.3%, Hong Kong 9.2%, South Korea 5.5%, Thailand 4.7% (2012)

Imports:

\$63.91 billion (2013 est.)

Country comparison to the world: 47

\$61.49 billion (2012 est.)

Imports - commodities:

Petroleum, textiles, machinery and transportation equipment, building materials, mineral products, foodstuffs

Imports - partners:

US 11.5%, China 10.8%, Japan 10.4%, South Korea 7.3%, Singapore 7.1%, Thailand 5.6%, Saudi Arabia 5.6%, Indonesia 4.4%, Malaysia 4% (2012)

Debt – external:

\$72.81 billion (31 December 2013 est.)

Country comparison to the world: 61

Exchange rates:

Philippine pesos (PHP) per US dollar -

42.69 (2013 est.)

42.229 (2012 est.)

45.11 (2010 est.)

47.68 (2009)

44.439 (2008)

Energy: Philippines

Electricity - production:

67.45 billion kWh (2011 est.)

Country comparison to the world: 42

Electricity - consumption:

56.84 billion kWh (2010 est.)

Country comparison to the world: 42

Electricity - exports:

0 kWh (2012 est.)

Country comparison to the world: 186

Electricity - imports:

0 kWh (2012 est.)

Country comparison to the world: 190

Electricity - installed generating capacity:

16.36 million kW (2010 est.)

Country comparison to the world: 44

Electricity - from fossil fuels:

66.9% of total installed capacity (2010 est.)

Country comparison to the world: 114

Electricity - from nuclear fuels:

0% of total installed capacity (2011 est.)

Country comparison to the world: 168

Electricity - from hydroelectric plants:

20.8% of total installed capacity (2010 est.)

Country comparison to the world: 89

Electricity - from other renewable sources:

12.3% of total installed capacity (2010 est.)

Country comparison to the world: 22

Crude oil - production:

25,240 bbl/day (2012 est.)

Country comparison to the world: 73

Crude oil - exports:

20,090 bbl/day (2010 est.)

Country comparison to the world: 55

Crude oil - imports:

182,000 bbl/day (2010 est.)

Country comparison to the world: 34

Crude oil - proved reserves:

138.5 million bbl (1 January 2013 est.)

Country comparison to the world: 67

Refined petroleum products - production:

181,300 bbl/day (2010 est.)

Country comparison to the world: 56

Refined petroleum products - consumption:

315,600 bbl/day (2011 est.)

Country comparison to the world: 42

Refined petroleum products - exports:

17,810 bbl/day (2010 est.)

Country comparison to the world: 73

Refined petroleum products - imports:

147,900 bbl/day (2010 est.)

Country comparison to the world: 39

Natural gas - production:

3.91 billion cu m (2012 est.)

Country comparison to the world: 54

Natural gas - consumption:

2.86 billion cu m (2010 est.)

Country comparison to the world: 74

Natural gas - exports:

0 cu m (2012 est.)

Country comparison to the world: 171

Natural gas - imports:

0 cu m (2012 est.)

Country comparison to the world: 120

Natural gas - proved reserves:

98.54 billion cu m (1 January 2013 est.)

Country comparison to the world: 54

Carbon dioxide emissions from consumption of energy:

81.15 million Mt (2011 est.)

Communications: Philippines

Telephones - main lines in use:

3.939 million (2012)

Country comparison to the world: 43

Telephones - mobile cellular:

103 million (2012)

Country comparison to the world: 12

Telephone system:

General assessment: good international radiotelephone and submarine cable services; domestic and interisland service adequate

Domestic: telecommunications infrastructure includes the following platforms: fixed-line, mobile cellular, cable TV, over-the-air TV, radio and Very Small Aperture Terminal (VSAT), fiber-optic cable, and satellite; mobile-cellular communications now dominate the industry

International: country code - 63; a series of submarine cables together provide connectivity to Asia, US, the Middle East, and Europe; multiple international gateways (2011)

Broadcast media:

Multiple national private TV and radio networks; multi-channel satellite and cable TV systems available; more than 350 TV stations - 4 major TV networks operating nationwide with 1 being government-owned; some 1100 cable TV providers and some 1,200 radio stations broadcasting; the Philippines is scheduled to complete the switch from analog to digital broadcasting by the end of 2015 (2012)

Internet country code:

.ph

Internet hosts:

425,812 (2012)

Country comparison to the world: 52

Internet users:

8.278 million (2009)

Country comparison to the world: 34

Transportation: Philippines

Airports:

247 (2013)

Country comparison to the world: 24

Airports - with paved runways:

Total: 89

Over 3,047 m: 4

2,438 to 3,047 m: 8

1,524 to 2,437 m: 33

914 to 1,523 m: 34

Under 914 m: 10 (2013)

Airports - with unpaved runways:

Total: 158

1,524 to 2,437 m: 3

914 to 1,523 m: 56

Under 914 m: 99 (2013)

Heliports:

2 (2013)

Railways:

Total: 995 km

Country comparison to the world: 88

Narrow gauge: 995 km 1.067-m gauge (484 km are in operation) (2010)

Roadways:

Total: 213,151 km

Country comparison to the world: 23

Paved: 54,481 km

Unpaved: 158,670 km (2009)

Waterways:

3,219 km (limited to vessels with draft less than 1.5 m) (2011)

Country comparison to the world: 31

Merchant marine:

Total: 446

Country comparison to the world: 23

By type: bulk carrier 76, cargo 152, carrier 12, chemical tanker 27, container 17, liquefied gas 5, passenger 7, passenger/cargo 65, petroleum tanker 44, refrigerated cargo 20, roll on/roll off 11, vehicle carrier 10

Foreign-owned: 159 (Bermuda 47, China 4, Denmark 2, Germany 2, Greece 5, Japan 77, Malaysia 1, Netherlands 17, Singapore 1, South Korea 1, Taiwan 1, UAE 1)

Registered in other countries: 7 (Cyprus 1, Panama 5, unknown 1) (2010)

Military: Philippines

Military branches:

Armed Forces of the Philippines (AFP): Army, Navy (includes Marine Corps), Air Force (2013)

Military service age and obligation:

17-23 years of age (officers 20-24) for voluntary military service; no conscription; applicants must be single male or female Philippine citizens with either 72 college credit hours (enlisted) or a baccalaureate degree (officers) (2013)

Manpower available for military service:

Males age 16-49: 25,614,135

Females age 16-49: 25,035,061 (2010 est.)

Manpower fit for military service:

Males age 16-49: 20,142,940

Females age 16-49: 21,427,792 (2010 est.)

Manpower reaching militarily significant age annually:

Male: 1,060,319

Female: 1,021,069 (2010 est.)

Military expenditures:

1.19% of GDP (2012)

Country comparison to the world: 86

1.21% of GDP (2011)

1.19% of GDP (2010)

Illicit drugs:

Domestic methamphetamine production has been a growing problem in recent years despite government crackdowns; major consumer of amphetamines; longstanding marijuana producer mainly in rural areas where Manila's control is limited

Transnational Issues: Philippines

Disputes - international:

Philippines claims sovereignty over Scarborough Reef (also claimed by China together with Taiwan) and over certain of the Spratly Islands, known locally as the Kalayaan (Freedom) Islands, also claimed by China, Malaysia, Taiwan, and Vietnam; the 2002 "Declaration on the Conduct of Parties in the South China Sea," has eased tensions in the Spratly Islands but falls short of a legally binding "code of conduct" desired by several of the disputants; in March 2005, the national oil companies of China, the Philippines, and Vietnam signed a joint accord to conduct marine seismic activities in the Spratly Islands; Philippines retains a dormant claim to Malaysia's Sabah State in northern Borneo based on the Sultanate of Sulu's granting the Philippines Government power of attorney to pursue a sovereignty claim on his behalf; maritime delimitation negotiations continue with Palau

Refugees and internally displaced persons:

IDPs: at least 133,000 displaced by conflict and at least 7 million displaced by natural disasters (government troops fighting the Moro Islamic Liberation Front, the Abu Sayyaf Group, and the New People's Army; clan feuds; natural disasters including Typhoon Bopha (Pablo) (December 2012), the Bohol earthquake (October 2013), and Typhoon Haiyan (Yolanda) (November 2013).

Stateless persons: at least 115,772 (2014)

Indices

Health

- In 2000, the World Health Organization ranked the Philippines' health system 60 out of 191.²⁶⁷
- The Philippines' ranking for life expectancy at birth is 118/180.²⁶⁸
- Regarding mortality under the age of five, the Philippines ranks 80th out of 193 countries.²⁶⁹

Government

- According to transparency.org, the Philippines' Corruption Perceptions Index is 94/177.²⁷⁰

Education

- The Philippines has one of the highest literacy rates in the world, 95.6% in 2005-2010.²⁷¹

Other

- According to the World Economic Forum's gender gap index, the Philippines placed 5th out of 136 countries.²⁷²
- According to the Human Development Index, which measures longevity, education, and standard of living, Philippines ranked 114th.²⁷³
- When considering exposure, vulnerability, susceptibility, coping capabilities, and adaptive capabilities, the World Risk Index places Philippines at number 3.²⁷⁴

End Notes

- 1 United Nations. <http://www.un.org.ph/country-profile>
- 2 Philippine population officially hits 100 million. July 27, 2014. <http://www.rappler.com/nation/64465-100-millionth-filipino-born>
- 3 National Commission for Culture and the Arts (Philippines).
- 4 History of the Philippines. <http://www.nationsonline.org/oneworld/History/Philippines-history.htm>
- 5 Philippine National Identity.
- 6 Philippine Islands. http://www.philippine-islands.ph/en/culture_of_the_philippines.html
- 7 Iglesia ni Cristo – Church of Christ, Official Website.
- 8 Philippine Statistics Authority, Total Number of OFWs is estimated at 2.2 million.
- 9 National Statistics Office.
- 10 Transparency International, 2013 Corruption Perceptions Index. <http://cpi.transparency.org/cpi2013/results/>
- 11 Anti-corruption Resource Centre, Overview of Corruption and Anti-Corruption in the Philippines. August 2008.
- 12 <http://www.minorityrights.org/3466/philippines/muslims.html>
- 13 Asian Development Bank, Philippines – Water Supply and Sanitation Sector Assessment, Strategy, and Road Map. January 2013. P 1-2.
- 14 Republic of the Philippines, Philippine Statistics Authority. <http://www.census.gov.ph/content/urban-barangays-philippines-based-2010-cph>
- 15 Index Mundi, Philippines Urbanization.
- 16 The Government of Quezon City, Facts and Figures.
- 17 The City of Manila. <http://manila.gov.ph/>
- 18 Caloocan City Government.
- 19 The City Government of Davao.
- 20 2010 census.
- 21 Cebu City Government. <http://www.cebucity.gov.ph/>
- 22 The Freeman, Vulnerable groups and disasters. November 2013.
- 23 UNDP, Millennium Development Goals, Promote gender equality and empower women.
- 24 UNDP, Millennium Development Goals, Promote gender equality and empower women.
- 25 The Wall Street Journal, Philippine Poverty Rate Improves Little Despite Economic Growth. December 10, 2013.
- 26 UNDP, Millennium Development Goals, Eradicate extreme hunger and poverty.
- 27 UNHCR, 2014 Regional Operations Profile-Southeast Asia.
- 28 The New York Times, Philippines and Rebels Agree on Peace Accord to End Insurgency. January 25, 2014.
- 29 Thomson Reuters Foundation, Philippines-Mindanao Conflict. June 3, 2014.
- 30 Thomson Reuters Foundation, Philippines-Mindanao Conflict. June 3, 2014.
- 31 UNDP, Philippines Human Development Report 2013. <http://hdr.undp.org/sites/default/files/Country-Profiles/PHL.pdf>
- 32 Rural Poverty Portal, Rural Poverty in Philippines.
- 33 The Heritage Foundation, 2014 Index of Economic Freedom.
- 34 The Huffington Post, Philippines Typhoon Response. November 12, 2013.
- 35 The World Bank, Philippines Overview.
- 36 The World Bank, Employment in Agriculture. <http://data.worldbank.org/indicator/SL.AGR.EMPL.ZS>
- 37 <http://www.harbourcentre.com.ph/about%20us.htm>
- 38 The Philippine Star, Phl, Indonesia delineate maritime borders. May 24, 2014.
- 39 The Wall Street Journal, China Rejects Philippine Proposal on South China Sea Disputes. August 9, 2014.
- 40 The Wall Street Journal, Philippines Renews Arbitration Push in South China Seas Dispute. August 9, 2014.

- 41 www.asianinfo.org/asianinfo/philippines/pro-geography.htm
- 42 http://www.census.gov.ph/sites/default/files/2011PY_Physiography%20and%20Related%20Characteristics.pdf
- 43 FAO, Water Profile of the Philippines. April 3, 2008.
- 44 www.asianinfo.org/asianinfo/philippines/pro-geography.htm
- 45 FAO, Water Profile of the Philippines. April 3, 2008.
- 46 www.asianinfo.org/asianinfo/philippines/pro-geography.htm
- 47 The Philippines, Active Volcanoes. <http://www.philippines.hvu.nl/volcanoes1.htm>
- 48 Top Ten Most Active Volcanoes in the Philippines. <http://geology.knoji.com/top-ten-most-active-volcanoes-in-the-philippines/>
- 49 www.asianinfo.org/asianinfo/philippines/pro-geography.htm
- 50 World Wildlife Foundation, Southeastern Asia: Luzon Island in the Philippines.
- 51 Philippine Nature, 5 Longest River in the Philippines.
- 52 Encyclopedia of Earth, Water profile of Philippines. April 3, 2008. <http://www.eoearth.org/view/article/156982/>
- 53 Encyclopedia Britannica, Mindanao River.
- 54 Encyclopedia Britannica, Agusan River.
- 55 ABS CBN News, The Agno River Basin. October 23, 2009.
- 56 www.asianinfo.org/asianinfo/philippines/pro-geography.htm
- 57 FAO, Water Profile of the Philippines. April 3, 2008.
- 58 WWF. <http://wwf.org.ph/wwf3/climate/phils>
- 59 The Washington Post, This map shows why the Philippines is so vulnerable to climate change. November 2013.
- 60 Climate Change and Effects on the Philippines. July 6, 2010. www.gaiadiscovery.com
- 61 The World Bank, Getting a Grip on Climate Change in the Philippines.
- 62 National Climate Change Action Plan 2011-2028.
- 63 <http://news.nationalgeographic.com/news/2013/11/131111-philippines-dangers-haiyan-yolanda-death-toll-rises/>
- 64 <http://www.dw.de/philippines-a-country-prone-to-natural-disasters/a-17217404>
- 65 <http://usatoday30.usatoday.com/news/world/story/2011-09-26/asia-typhoon/50562114/1>
- 66 http://mghcgh.org/assets/ADRA_Rapid_Needs_Assessment_Report-Ilo_Ilo-Northeastern_Panay_23-11-2013%282%29.pdf
- 67 http://www.unisdr.org/files/33988_countryassessmentreportphilippines%5B1%5D.pdf
- 68 http://www.emdat.be/advanced_search/index.html
- 69 <http://www.adrc.asia/countryreport/PHL/2009/PHL2009.pdf>
- 70 <http://www.bbc.com/news/world-asia-22430378>
- 71 http://www.phivolcs.dost.gov.ph/index.php?option=com_content&view=article&id=57:active-volcanoes&catid=55&Itemid=114
- 72 <http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=5&cad=rja&u=act=8&ved=0CDcQFjAE&url=http%3A%2F%2Fwww.pitt.edu%2F~super7%2F49011-50001%2F49511.ppt&ei=ztbeU8uQKsz9oASso4KA&usq=AFQjCNG-N57aHwNZAdn0J34R9QNk7ur-lQ&bvm=bv.72197243,d.cGU>
- 73 http://vm.observatory.ph/images/Geophys_hires/risk_volcanic_eruptions.jpg
- 74 vm.observatory.ph/geophys_maps.html
- 75 <http://202.90.128.66/1976MoroGulfEQ/index-moro.html>
- 76 <http://www.mbc.com.ph/engine/wp-content/uploads/2013/10/Solidum-Update-of-Earthquake-Hazards-and-Risk-Assessment-of-MMla-14Nov2013.pdf>
- 77 <http://www.dw.de/philippines-a-country-prone-to-natural-disasters/a-17217404>
- 78 http://www.phivolcs.dost.gov.ph/images/active.faults/af_trench_with_capitals.pdf
- 79 http://www.emdat.be/advanced_search/index.html

- 80 <http://www.worldbank.org/en/news/feature/2013/09/23/philippines-long-term-vision-to-reduce-flooding-in-metro-manila>
- 81 GMA News, Flood-prone areas to avoid this rainy season, according to the MMDA. July 8, 2014.
- 82 <http://earthweb.ess.washington.edu/tsunami2/deposits/downloads/posters/Besana%20Mapping%20and%20Assessment%20of%20Tsunamis%20Philippines%20Poster.pdf>
- 83 <http://www.dw.de/philippines-a-country-prone-to-natural-disasters/a-17217404>
- 84 http://www.phivolcs.dost.gov.ph/images/EIL/eil_phils.pdf
- 85 <http://www.aipasecretariat.org/wp-content/uploads/2011/07/3.Disaster-Response-Management.pdf>
- 86 http://www.unisdr.org/files/18872_asean.pdf
- 87 UCA News, Philippines braces for worst drought in years. May 8, 2014.
- 88 <http://www.rappler.com/science-nature/environment/60066-el-nino-philippines-plans-provinces-cities>
- 89 http://www.who.int/countryfocus/cooperation_strategy/ccsbrief_phl_en.pdf
- 90 <http://deploymenthealthlibrary.fhp.osd.mil/Product/RetrieveFile?prodId=132>
- 91 http://www.who.int/countryfocus/cooperation_strategy/ccsbrief_phl_en.pdf
- 92 http://www.wpro.who.int/countries/phl/ccs_phl_en.pdf
- 93 http://www.wpro.who.int/philippines/areas/communicable_diseases/mvp/story_ntd/en/index1.html
- 94 http://www.wpro.who.int/philippines/areas/communicable_diseases/mvp/story_ntd/en/
- 95 Institutional Arrangements for Disaster Risk Management in the Philippines, La Liga Policy Institute, September 2009.
- 96 Office of Civil Defense website, <http://ocd.gov.ph/about>.
- 97 Inquirer Headlines/Nation, From NDCC to NDRRMC, October 20, 2010, <http://newsinfo.inquirer.net/inquirerheadlines/nation/view/20101020-298696/From-NDCC-to-NDRRMC>.
- 98 Congress of the Philippines, Republic Act No. 10121, July 27, 2009.
- 99 Congress of the Philippines, Republic Act No. 10121, July 27, 2009.
- 100 Congress of the Philippines, Republic Act No. 10121, July 27, 2009.
- 101 Congress of the Philippines, Republic Act No. 10121, July 27, 2009.
- 102 Marine Air Ground Task Force Tactical Warfare Simulation 13, Role of the Armed Forces in HADR Operations, July 9, 2013 (received through Hawaii National Guard).
- 103 Congress of the Philippines, Republic Act No. 10121, July 27, 2009.
- 104 Congress of the Philippines, Republic Act No. 10121, July 27, 2009.
- 105 Signing Ceremony for the Approval of the National Disaster Risk Reduction and Management Framework, June 16, 2011.
- 106 Asian Development Bank Small Group Workshop, Preparing for Large-Scale Emergencies, Country Perspective: Philippines, July 5-6, 2007.
- 107 Congress of the Philippines, Republic Act No. 10121, July 27, 2009.
- 108 Philippines National Progress Report on the Implementation of the Hyogo Framework for Action 2009-2011, Interim, Office of Civil Defense, National Disaster Risk Reduction and Management Council, March 27, 2011.
- 109 National Disaster Risk Reduction and Management Plan 2011-2028 (obtained through HING SPP Officer).
- 110 Signing Ceremony for the Approval of the National Disaster Risk Reduction and Management Framework, June 16, 2011.
- 111 Office of the President, Executive Order No. 888, Adopting the Strategic National Action Plan (SNAP) on Disaster Risk Reduction (DRR), 2009-2019 and Institutionalizing DRR, June 21, 2010.
- 112 Signing Ceremony for the Approval of the National Disaster Risk Reduction and Management Framework, June 16, 2011.
- 113 Asian Development Bank Small Group Workshop, Preparing for Large-Scale Emergencies, Country Perspective: Philippines, July 5-6, 2007.

- 114 Strategic National Action Plan 2009-2019, National Disaster Coordinating Council.
- 115 Signing Ceremony for the Approval of the National Disaster Risk Reduction and Management Framework, June 16, 2011.
- 116 National Disaster Risk Reduction and Management Plan 2011-2028 (obtained through HING SPP Officer).
- 117 National Disaster Risk Reduction and Management Plan 2011-2028 (obtained through HING SPP Officer).
- 118 National Disaster Risk Reduction and Management Plan 2011-2028 (obtained through HING SPP Officer).
- 119 Philippines National Progress Report on the Implementation of the Hyogo Framework for Action 2009-2011, Interim, Office of Civil Defense, National Disaster Risk Reduction and Management Council, March 27, 2011.
- 120 Official Gazette, NEDA Board Approves Philippine Development Plan 2011-2016, <http://www.gov.ph/2011/03/29/neda-board-approves-philippine-development-plan-2016/>
- 121 Monitoring and Reporting Progress on Community-Based Disaster Risk Reduction in the Philippines, European Commissions, ADPC, UNESCAP, NDCC, April 2008.
- 122 Congress of the Philippines, Republic Act No. 10121, July 27, 2009.
- 123 National Disaster Risk Reduction and Management Plan 2011-2028 (obtained through HING SPP Officer).
- 124 Cebu Volunteers on Disaster Mitigation and Preparedness, June 2012, OCD website, <http://ocd.gov.ph/>.
- 125 Zamboanga Students Prepare for Earthquakes, June 2012, OCD website, <http://ocd.gov.ph/>.
- 126 NDRRMC Memorandum Circular no. 4, March 28, 2012.
- 127 Office of Civil Defense Training, February 2013, <http://ocd.gov>.
- 128 PAGASA website, <http://www.pagasa.dost.gov.ph/>.
- 129 Relief Web, Local Flood Early Warning Systems: Experiences from the Philippines, 2009, <http://reliefweb.int/report/philippines/local-flood-early-warning-systems-experiences-philippines>.
- 130 Asia Pacific Future Gov, The Philippines Government Develops Disaster Early Warning System, February 2014, <http://www.futuregov.asia/articles/2014/feb/06/philippines-government-develops-disaster-early-war/>.
- 131 Official Gazette, The Philippine Public Storm Warnings Signals, 2014, <http://www.gov.ph/crisis-response/the-philippine-public-storm-warning-signals/>.
- 132 Disaster Communication and Information Management of the Philippine Disaster Risk Reduction and Management Council: A Research Proposal, Julian Leonard S. Chuidan and Maria Faina L. Diola, 2013.
- 133 NCCA, Government Media Rewriting Their Image and Role, Ramon R. Tuazon, August 10, 2014, <http://www.ncca.gov.ph/about-culture-and-arts/articles-on-c-n-a/article.php?igm=3&i=219>.
- 134 Congress of the Philippines, Republic Act No. 10121, July 27, 2009.
- 135 Memorandum of Understanding on the International Humanitarian Assistance Network, 2007.
- 136 Philippines, James M. Fortes Jr., Deputy Commissioner, National Telecommunications Commission (NTC).
- 137 International Institute for Strategic Studies, Military Balance, March 2013, 550, <http://www.iiss.org/publications/military-balance/themilitary-balance-2013/>
- 138 Marine Air Ground Task Force Tactical Warfare Simulation 13, Role of the Armed Forces in HADR Operations, July 9, 2013 (received through Hawaii National Guard).
- 139 Typhoon Haiyan (Yolanda), HADR Experience: An AFP Experience, 2014 (obtained from HING).
- 140 Congressional Research Service, Typhoon Haiyan (Yolanda): U.S. and International Response to Philippines Disaster, February 10, 2014.
- 141 U.S. DoD News, Marines Aid Philippine Typhoon Relief Efforts, December 12, 2012, <http://www.defense.gov/>.

- 142 RP-US Military Humanitarian Assistance and Disaster Relief Concept of Operations 2009.
- 143 Congressional Research Service, Typhoon Haiyan (Yolanda): U.S. and International Response to Philippines Disaster, February 10, 2014.
- 144 IFRC, Manila Workshop Plots Course for IDRL Process in the Philippines, August 2012, <http://www.ifrc.org/ar/what-we-do/-----/latest-news/disaster-law-newsletter-august-2012/manila-workshop-plots-course-for-idrl-process-in-the-philippines-58361/>
- 145 Congress of the Philippines, Republic Act No. 10121, July 27, 2009.
- 146 IFRC, Manila Workshop Plots Course for IDRL Process in the Philippines, August 2012, <http://www.ifrc.org/ar/what-we-do/-----/latest-news/disaster-law-newsletter-august-2012/manila-workshop-plots-course-for-idrl-process-in-the-philippines-58361/>
- 147 Penang Monthly, ASEAN's response to Typhoon Haiyan, March 4, 2014, <http://penangmonthly.com/aeans-response-to-typhoon-haiyan/>.
- 148 UNOCHA Brief, Coordination Structures in the Philippines. March 2014
- 149 Congressional Research Service, Typhoon Haiyan (Yolanda): U.S. and International Response to Philippines Disaster, February 10, 2014.
- 150 Congress of the Philippines, Republic Act No. 9497, An Act Creating the Civil Aviation of the Philippines, July 23, 2007.
- 151 Convention on International Civil Aviation Signed at Chicago, December 7, 1944, http://www.icao.int/secretariat/legal/List%20of%20Parties/Chicago_EN.pdf.
- 152 Official Gazette, CAAP: ICAO Lifts Significant Safety Concerns in Philippines, March 5, 2013, <http://www.gov.ph/2013/03/05/caap-icao-lifts-significant-safety-concerns-in-the-philippines/>
- 153 Association of Southeast Asian Nations, <http://www.asean.org/communities/asean-economic-community/item/asean-multilateral-agreement-on-air-services-manila-20-may-2009-2>.
- 154 Foreign Driver's License in Philippines published on November 13, 2012, <http://www.lto.gov.ph/index.php/faqs/driver-s-licensing>.
- 155 The World Post, Philippines Typhoon Response Highlights Weak Infrastructure. November 2013
- 156 The Wall Street Journal, Philippines Bets on Better Infrastructure. June 2014.
- 157 Department of Transportation and Communications. http://www.dotc.gov.ph/index.php?option=com_k2&view=itemlist&layout=category&task=category&id=22&Itemid=99
- 158 http://www.dotc.gov.ph/index.php?option=com_k2&view=item&layout=item&id=47&Itemid=18
- 159 Department of Transportation and Communications. http://www.dotc.gov.ph/index.php?option=com_k2&view=item&layout=item&id=47&Itemid=18
- 160 Airports in Philippines. <http://www.aircraft-charter-world.com/airports/asia/philippines.htm>
- 161 Airports in Philippines. <http://www.aircraft-charter-world.com/airports/asia/philippines.htm>
- 162 Airports in Philippines. <http://www.aircraft-charter-world.com/airports/asia/philippines.htm>
- 163 Manila Airport. <http://www.manila-airport.net/>
- 164 Manila International Airport Authority. http://125.60.203.88/miaa/index.php?option=com_content&view=category&layout=blog&id=27&Itemid=8
- 165 Department of Transportation and Communications, Mactan Cebu International Airport. <http://www.mciaa.gov.ph/Background%20Information.html>
- 166 WEF Global Competitiveness Report.
- 167 Philippine Ports Authority. <http://www.ppa.ph/>
- 168 Asian Development Bank, Bridges across Oceans: Initial Impact Assessment of the Philippines Nautical Highway System and Lessons for Southeast Asia. April 2010.
- 169 <http://www.macapagal.com/gma/init/ro.html>

APPENDICES

- 170 Department of Public Works and Highways. December 2008.
- 171 Reuters, Manila's jeepney pioneer fears the end of the road. November 2007.
- 172 Department of Public Works and Highways, Asian Highway (AH 26).
- 173 Top Eight Longest Bridges in the Philippines. http://www.bukisa.com/articles/465812_top-eight-longest-bridges-in-the-philippines
- 174 Light Rail Transit Authority.
- 175 Philippine National Railways.
- 176 UNISDR, Philippines Leads in UN Disaster-Safe Schools Initiative. March 2014.
- 177 Infoasiad, Telecommunications Overview.
- 178 Joint Foreign Chambers, Arangkada Philippines 2010: A Business Perspective, Infrastructure: Telecommunications and Information Technology. December 2010.
- 179 National Telecommunications Commission.
- 180 Information and Communications Technology Office. <http://www.icto.dost.gov.ph/index.php/ict-infrastructure/ict-infrastructure-overview>
- 181 Rebuilding Communication Infrastructure in the Aftermath of Disaster. March 2014.
- 182 Scientific American, Haiyan-Battered Philippine Cities Struggle to Resurrect Networks. November 2013.
- 183 Eco-Business, Hydro, wind power booms in Philippines in 2014. January 2014.
- 184 The Philippine Star, 16-M Pinoys do not have access to electricity-Study. November 25, 2013.
- 185 ESMAP, Laying the Groundwork for Expanded Renewable Energy and Rural Electrification in the Philippines. April 17, 2013.
- 186 National Grid Cooperation of the Philippines. <http://www.ngcp.ph/corporate.asp>
- 187 KPMG, The Energy Report Philippines. 2013-2014 Edition.
- 188 ESMAP, Laying the Groundwork for Expanded Renewable Energy and Rural Electrification in the Philippines.
- 189 KPMG, The Energy Report Philippines. 2013-2014 Edition.
- 190 The Philippine Star, ERC approves rules on renewable energy. February 10, 2014.
- 191 KPMG, The Energy Report Philippines. 2013-2014 Edition.
- 192 Rappler, DOE to add more renewable energy in grid by 2014. <http://www.rappler.com/nation/45159-doe-renewable-energy-fit>
- 193 BBC, Philippines open Bataan nuclear plant to tourists. July 25, 2011.
- 194 The Philippine Star, DOE takes another look at Bataan nuclear plant. January 2014. <http://www.philstar.com/business/2014/01/09/1276586/doe-takes-another-look-bataan-nuclear-plant>
- 195 Eco-Business, Hydro, wind power booms in Philippines in 2014. January 2014.
- 196 Asian Development Bank, Philippines-Water Supply and Sanitation Sector Assessment, Strategy, and Road Map. January 2013. P 4.
- 197 Asian Development Bank, Philippines-Water Supply and Sanitation Sector Assessment, Strategy, and Road Map. January 2013. P 8.
- 198 Asian Development Bank, Philippines-Water Supply and Sanitation Sector Assessment, Strategy, and Road Map. January 2013. P 15-16.
- 199 Asian Development Bank, Philippines-Water Supply and Sanitation Sector Assessment, Strategy, and Road Map. January 2013. P 15-16.
- 200 Devex, How to build disaster-resilient homes in the Philippines. November 2013.
- 201 World Health Organization, Country Cooperation Strategy.
- 202 WHO and Department of Health Philippines, Health Service Delivery Profile Philippines 2012.
- 203 WHO and Department of Health Philippines, Health Service Delivery Profile Philippines 2012.
- 204 Department of Health Republic of the Philippines, National Objectives for Health 2011-2016.

- 205 Department of Health, Philippines.
- 206 Healthcare in the Philippines, Challenges and Ways Forward. 2013.
- 207 WHO and Department of Health Philippines, Health Service Delivery Profile Philippines 2012.
- 208 Healthcare in the Philippines, Challenges and Ways Forward. 2013.
- 209 World Health Organization, Country Cooperation Strategy.
- 210 WHO and Department of Health Philippines, Health Service Delivery Profile Philippines 2012.
- 211 WHO and Department of Health Philippines, Health Service Delivery Profile Philippines 2012.
- 212 Healthcare in the Philippines, Challenges and Ways Forward. 2013.
- 213 World Health Organization, WHO Country Cooperation Strategy for the Philippines 2011-2016.
- 214 Department of Health Republic of the Philippines, National Objectives for Health 2011-2016.
- 215 Healthcare in the Philippines, Challenges and Ways Forward. 2013.
- 216 World Health Organization, WHO Country Cooperation Strategy for the Philippines 2011-2016.
- 217 World Health Organization, National Objectives for Health 2011-2016.
- 218 GSIS, Republic Act NO. 6111. <http://www.gsis.gov.ph/default.php?id=103>
- 219 Republic of the Philippines, Republic Act No. 10606. <http://www.gov.ph/2013/06/19/republic-act-no-10606/>
- 220 Republic of the Philippines, Republic Act No. 7160. http://www.lawphil.net/statutes/repacts/ra1991/ra_7160_1991.html
- 221 Republic of the Philippines, Republic Act No. 6675. http://www.lawphil.net/statutes/repacts/ra1988/ra_6675_1988.html
- 222 The Philippine Star, Cheaper medicines law hasn't served the poor.
- 223 Department of Health Philippines.
- 224 Department of Health Republic of the Philippines, National Objectives for Health 2011-2016.
- 225 Healthcare in the Philippines, Challenges and Ways Forward. 2013.
- 226 Department of Health, Universal Health Care.
- 227 Secretary of Health, Universal Healthcare Gains and Challenges.
- 228 Rappler, SONA 2013: The state of public healthcare in the Philippines. April 28, 2014.
- 229 World Health Organization, Communicable Diseases. http://www.wpro.who.int/philippines/areas/communicable_diseases/continuation_communicable_diseases/en/
- 230 Department of Health Republic of the Philippines, National Objectives for Health 2011-2016.
- 231 Department of Health, Field Health Services Information System
- 232 World Health Organization, Non Communicable Diseases. http://www.wpro.who.int/philippines/areas/noncommunicable_diseases/en/
- 233 Department of Health Republic of the Philippines, National Objectives for Health 2011-2016.
- 234 Professional Regulation Commission of the Philippines, Medical Education.
- 235 BBC, Nursing dream turns sour in the Philippines. July 4, 2012. <http://www.bbc.com/news/world-asia-18575810>
- 236 WHO, Philippines: Health Professionals learn psychological first aid to support survivors. December 2013.
- 237 EM-DAT, The International Disaster Database
- 238 <http://www.adra.ph/>
- 239 <http://www.adb.org/countries/philippines/main>
- 240 <http://www.philippines.embassy.gov.au/mnla/Ausaid.html>
- 241 http://www.dfat.gov.au/direct_aid_program/
- 242 <http://phildhrra.net/contactus>
- 243 <http://cndr.org.ph/>
- 244 <http://www.fao.org/philippines/fao-in-philippines/our-team/en/>
- 245 <http://www.giz.de/en/worldwide/376.html>

APPENDICES

- 246 http://www.gfdrr.org/sites/gfdrr.org/files/Philippines_Country_Program_Updates_2013.pdf
- 247 <http://www.redcross.org.ph/>
- 248 <http://www.ilo.org/manila/aboutus/lang-en/index.htm>
- 249 <https://www.imf.org/external/country/PHL/index.htm>
- 250 <http://www.iom.int/cms/philippines>
- 251 <http://www.jica.go.jp/philippine/english/>
- 252 <http://www.unaids.org/en/regionscountries/countries/philippines/>
- 253 <http://www.koica.go.kr/english/countries/asia/index.html>
- 254 <http://www.unocha.org/roap/about-us/about-ocha-roap/philippines>
- 255 <http://www.savethechildren.org/site/c.8rKLIXMGIpI4E/b.6150549/k.9681/Philippines.htm>
- 256 <http://asiafoundation.org/country/overview/philippines>
- 257 <http://www.unicef.org/philippines/>
- 258 http://www.ph.undp.org/content/philippines/en/home/operations/about_undp.html
- 259 <http://unhcr.ph/>
- 260 <http://www.unfpa.org.ph/index.php/unfpa-in-the-philippines>
- 261 <http://www.usaid.gov/philippines>
- 262 <http://www.worldbank.org/en/country/philippines>
- 263 <https://www.wfp.org/countries/philippines/overview>
- 264 <http://www.wpro.who.int/philippines/about/en/>
- 265 <http://www.worldvision.org.ph/>
- 266 CIA Factbook, Philippines. <https://www.cia.gov/library/publications/the-world-factbook/geos/rp.html>
- 267 <http://www.who.int/healthinfo/paper30.pdf>
- 268 Philippines-Life expectancy at birth. 2011. <http://countryeconomy.com/demography/life-expectancy>
- 269 UNICEF (2012). “The State of the World’s Children 2012”. New York. <http://www.unicef.org/sowc2012/>. Accessed March 7, 2012.
- 270 Transparency International.
- 271 UNESCO Country Programming Document for the Philippines. 2012-2016.
- 272 World Economic Forum, Gender Gap Index 2013. <http://www.theguardian.com/news/datablog/2013/oct/25/world-gender-gap-index-2013-countries-compare-iceland-uk>
- 273 http://hdr.undp.org/sites/default/files/reports/14/hdr2013_en_complete.pdf
- 274 <http://www.ehs.unu.edu/file/get/10487.pdf>

