



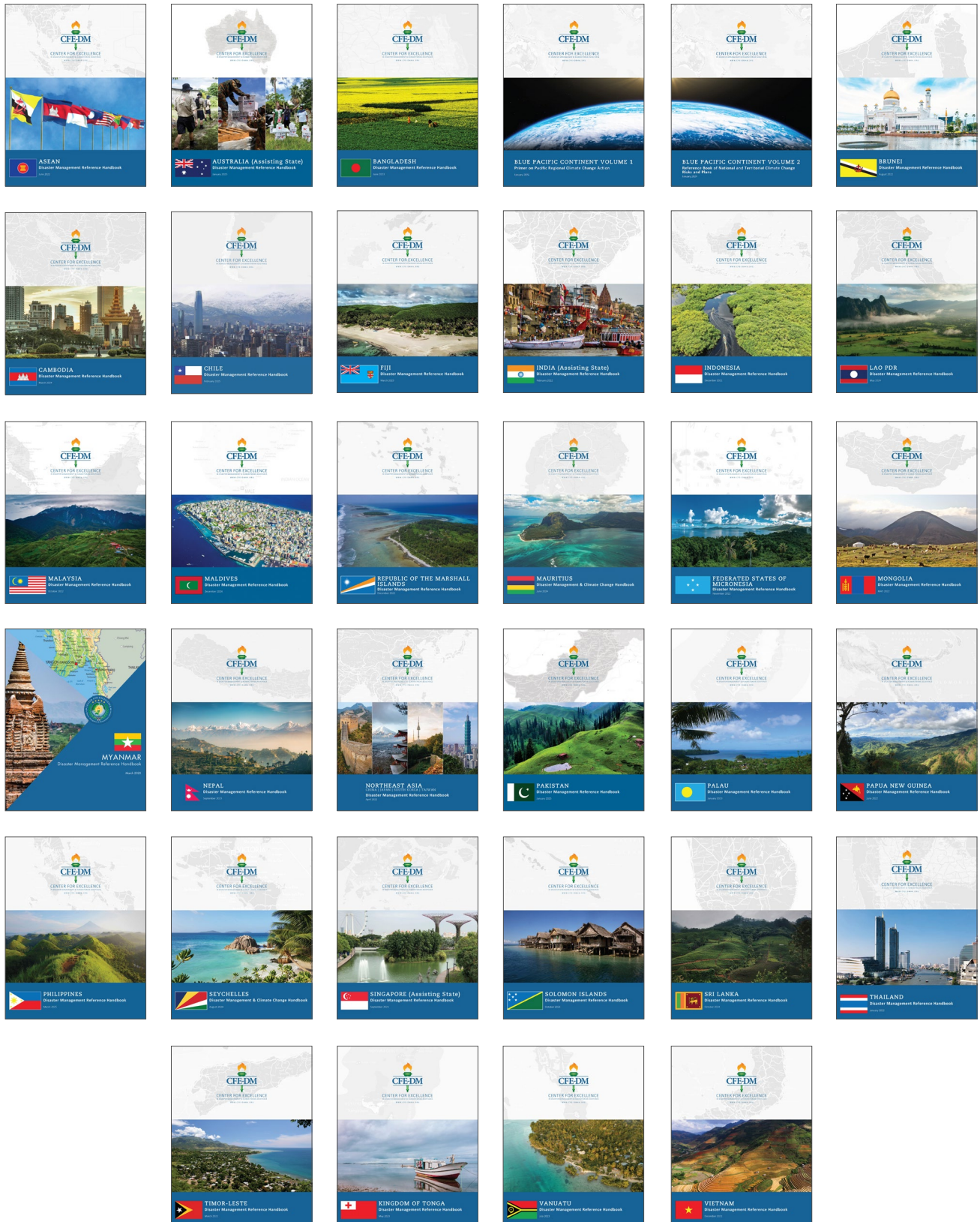
PHILIPPINES

Disaster Management Reference Handbook

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Disaster Management Reference Handbook Series

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Front Cover

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Letter from the Director

The Philippines consistently ranks as one of the world's countries most exposed to all types of hazards – storms, volcanoes, epidemics, industrial accidents, etc. While it cannot entirely insulate itself from these hazards, the country – through contributions from its government and people – is assiduously working to reduce its vulnerability and increase its ability to cope, thereby reducing the potential for hazard events to become disasters.

Since the 2010 launch of reforms within the national legal and institutional framework for disaster risk reduction and management, Filipino government, military, civil society, academe, and community members have contributed to funding, planning, and resilience-building projects. The changes can be seen in how the country responds and rebounds after major storms. After Super Typhoon Haiyan (Yolanda) struck in November 2013, huge swaths of the country were affected, and 6,000 people were dead. Tens of thousands of Philippines military and civilian responders came to the aid of their compatriots. Twenty-one other national militaries assisted in various ways even as the international humanitarian community swung into action. Fast forward to the autumn of 2024 when a series of six tropical cyclones affected 15 million Filipinos over the course of three weeks. Although the high winds and heavy rains caused significant damage, pre-emptive evacuations, prepositioned supplies, and well-practiced and -trained citizens and first responders helped keep the death toll below 200. Moreover, the government executed most of the response with the support of its strong network of local, regional, and international humanitarian partners and made only specific requests for assistance from partner governments or militaries.

The Center for Excellence in Disaster Management and Humanitarian Assistance (CFE-DM), under the United States (U.S.) Department of Defense (DoD) Indo-Pacific Command (INDOPACOM), is proud to have a front-row seat to the Philippines' program of advancing disaster management. Along with other U.S. DoD entities, we train, study, and sometimes execute operations hand-in-hand with our partners in the Armed Forces of the Philippines (AFP), agencies of the Philippines Office of Civil Defense (OCD), and even local disaster offices. A shining example of this partnership is CFE-DM's work with the AFP's Command and General Staff College, where we equip current and future leaders with the knowledge and skills to navigate the complexities of disaster response. Together, we conduct innovative training, like the 2024 Cagayan Disaster Response Workshop, blending civilian and military expertise to save lives and reduce suffering. Across all of our collaboration with the Philippines, we further the overall mission of fostering a free and open Indo-Pacific.

This updated Philippines Disaster Management Reference Handbook offers baseline information on the country's disaster management capability alongside background on demographics, hazards, infrastructure, laws and guidelines, risks and vulnerabilities, and other subject areas that underpin constructive disaster risk reduction. This resource is crafted to support personnel planning for or executing a disaster response operation or exercise in the Philippines alongside the country's own responders.



Sincerely,

Joseph D. Martin, SES
Director

About the Center for Excellence in Disaster Management & Humanitarian Assistance

Overview

The Center for Excellence in Disaster Management and Humanitarian Assistance (CFE-DM) is a United States (U.S.) Department of Defense (DoD) organization comprised of nearly 30 subject matter experts that provide academic research, civil-military coordination training, and operational insights to support decision making before, during, and after crises. The Center is designed to bridge understanding between humanitarians, civilian, and military responders. CFE-DM partners with a diverse group of governmental and nongovernmental actors, as well as academic institutions to increase collaborations and capabilities in humanitarian assistance and disaster response. While maintaining a global mandate, the Indo-Pacific region is our priority of effort and collaboration is the cornerstone of our operational practice. The Center is a direct reporting unit to U.S. Indo-Pacific Command (USINDOPACOM) and is located on Ford Island, Joint Base Pearl Harbor-Hickam, Hawaii.

Vision

Joint Forces, Allies, and Partners are fully prepared to respond to crises across the spectrum of operating environments in the Indo-Pacific.

Mission

CFE-DM builds crisis response capacity in US, Allies and Partner militaries across the Indo-Pacific to save lives before, during, and after emergencies.

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EXECUTIVE SUMMARY

The Philippines is commonly characterized as the country facing the highest disaster risk in the world. In the 2024 World Risk Report, the country ranks 1st (at greatest risk) among 193 countries, and it is particularly susceptible to experiencing multiple, overlapping crises.¹ The Philippine archipelago is situated along the Pacific Ring of Fire and sits squarely within the Pacific Typhoon Belt, and it is, therefore, exposed to earthquakes, volcanic eruptions, and tropical cyclones, which often result in flooding and landslides.

The Philippines' National Disaster Risk Reduction and Management Council was mandated the year following Typhoon Ketsana (local name, Ondoy), which struck in 2009 and was the deadliest typhoon to impact the densely-populated national capital area in decades. At least 464 people were killed, and more than half of those killed were in Metro Manila. That event marked a turning point and spurred disaster management reform action at the highest level. Lawmakers passed the Philippine Disaster Risk Reduction and Management Act of 2010 (Republic Act 10121), which set the foundation for the current disaster management structure, starting at the top with the National Disaster Risk Reduction and Management Council and corresponding structures at regional, municipal, and local levels.² The devastation of Typhoon Haiyan (Super Typhoon Yolanda) in 2013 drove the Philippines to further develop its disaster management structures and resources by improving communication and institutionalizing roles and responsibilities for national and international actors.³

The Philippines is hit with an average of 19-20 typhoons per year, and typhoon intensity is being exacerbated by climate change. In October and November 2024, the Philippines was impacted by a record-breaking six tropical cyclones in 23 days, with the clustering of so many typhoons

in a short time fueled by hydrometeorological conditions that are now almost twice as likely due to climate change.⁴ In 2020, the Philippines had been hit with three typhoons in less than three weeks in October and November; they included Typhoon Goni (Super Typhoon Rolly), which was the strongest typhoon on record that year. That clustering of typhoons in 2020 had also been considered notable at the time. Because of these and other experiences, the Philippines has amassed a significant amount of knowledge and capacity for handling natural disasters, yet national resources continue to be strained by accelerating climate risks.

Socio-economic development is also negatively impacted by extreme climate hazards. While the Philippines exhibits impressive economic growth as the second fastest-growing economy in Southeast Asia as of January 2025,⁵ the multiple intense typhoons that impacted the country in 2024 were assessed to have contributed to missed economic targets.⁶ Disasters have cost the Philippines an estimated US\$23 billion in damage since 1990. By 2030, climate-related disasters are projected to cost the country over 7% of its gross domestic product (GDP).⁷ One researcher noted, "Communities are having to dig deeper and deeper into their pockets to recover from disasters that keep sending them back to square one."⁸

The Philippines has been approaching disaster risk management as a whole-of-government and whole-of-society endeavor. It is increasingly trying to emphasize a proactive framework that holistically and substantively addresses risk reduction, prevention, and mitigation along with response and recovery. The country has an incredible amount of capacity and disaster management experience, all of which and more will be needed to face future challenges including escalating extreme weather events.

COUNTRY OVERVIEW

The Republic of the Philippines is an archipelagic country in southeast Asia. Its people and geography are highly diverse, and it has a lively and globalized economy.

History

Human activity in the Philippines dates back at least 47,000 years, with evidence suggesting early humans may have been present as far back as 709,000 years ago.⁹ The islands' societies were later shaped by migration from the Malay Peninsula. Between 100 and 1000 CE, Malay arrivals established the dominant ethnic and linguistic groups. During this period, Chinese traders also visited, and migrants from Brunei introduced Islam to the islands of Mindanao and Sulu.

Although Ferdinand Magellan's 1519-1522 expedition reached the islands that would become the Philippines in 1521, the country gained its name after explorer Ruy López de Villalobos visited in 1543 and named the islands after King Philip II of Spain.¹⁰ In 1546, King Philip II sent a fleet led by Miguel López de Legazpi to colonize the islands and spread Catholicism. By 1565, Legazpi, appointed as the first Governor-General, declared Manila the capital after subduing various areas by force. Spanish rule began to weaken in the late 19th century as nationalists, many of whom had studied in Europe, emerged to lead the resistance. Dr. José Rizal, a reformist, founded the Liga Filipina in 1892 but was arrested and executed in 1896. Following his arrest, activists formed the Katipunan, a revolutionary group focused on expelling the Spanish. The Philippine Revolution began in 1896 after the Spanish uncovered the group's plans and locals responded with armed resistance.¹¹

In April 1898, the Spanish-American War erupted, and it would encompass the Philippines, which was still a Spanish colony. Hostilities ended in August 1898 with a U.S. victory and Spain ceding the Philippines to the United

States. Meanwhile, Filipino revolutionaries had established the Revolutionary Government in June 1898 and later the First Philippine Republic in 1899 under the Malolos Constitution. However, the Philippine-American War broke out in February 1899. The war would end in 1902 with the U.S. colonizing the islands. The Philippines became a self-governing commonwealth in 1935 but fell under Japanese occupation during World War II. U.S. and Filipino forces fought to regain control during 1944 and 1945. Finally, on 4 July 1946, the Philippines gained full independence, and Manuel Roxas of the Nationalist Party became the first president of the Republic of the Philippines.¹²

In 1965, Ferdinand Marcos was elected president under the slogan, "this nation can be great again." By 1970, widespread protests erupted in Manila over poverty, inflation, corruption, and poor public funding. In 1972, citing threats from leftist student groups and the communist New People's Army (NPA), Marcos declared martial law, which allowed him to extend his rule beyond the constitutional limit of two terms and protect his business interests. During this period, the press was censored, curfews were imposed, international travel was restricted, and tens of thousands of opponents were jailed, exiled, or killed. Although martial law was lifted in 1981, Marcos' regime would hold on until 1986, when it was driven out by the People Power movement, which rose in Manila after the assassination of popular opposition leader Ninoy Aquino. Millions marched against the Marcos regime, and Marcos called a snap election on 7 February 1986. He claimed victory over Ninoy's widow, Corazon Aquino, but widespread electoral fraud allegations, supported by international observers, cast doubt on the results.¹³ Protests peaked on 26 February 1986, and the U.S. counseled President Marcos to resign. He and his wife boarded a U.S. plane to Hawaii to live in exile.

Corazon Aquino came to power after Marcos' flight, but her presidency faced several coup attempts. In 1992, Fidel Ramos became president, and he would earn credit for restoring international confidence in the Philippine economy. That same year, the U.S. closed its last military bases in the country. In 1998, Joseph Estrada, a former film actor, was elected president, but corruption allegations led to his resignation in January 2001 during the second People Power movement. Vice president Gloria Macapagal-Arroyo succeeded him and won re-election in 2004. Despite corruption allegations, her administration presided over consistent economic growth and avoided contraction during the 2008 global financial crisis. Benigno "Noynoy" Aquino III, son of Corazon Aquino, became president in 2010. His administration focused on economic growth and challenged territorial claims of the People's Republic of China (PRC) in the South China Sea; it won a landmark case in a tribunal at the Permanent Court of Arbitration in The Hague in 2016. Aquino was succeeded in 2016 by Rodrigo Duterte, who promised to end corruption and crime. His controversial war on drugs resulted in more than 12,000 deaths and drew widespread international criticism for extrajudicial killings.¹⁴ Also in 2016, the Philippines faced ongoing insurgencies from Islamic militant groups such as Abu Sayyaf and the Maute Group, and the government dealt with Islamic State (ISIS)-affiliated militants in Marawi City, in Mindanao. The Marawi siege (May to October 2017) was a brutal conflict that displaced thousands of residents and resulted in over 1,000 casualties.¹⁵ Duterte also faced challenges from other armed groups, including the communist NPA and Moro separatist movements in the south. In 2019, peace talks with the NPA were broken off¹⁶ but were slated to restart in 2023 with hopes of ending the 50-year insurgency;¹⁷ they have yet to gain traction as of the time of publication of this handbook. Meanwhile, efforts to resolve issues related to the Moro insurgency continued; they resulted in the establishment of the Bangsamoro Autonomous Region in Muslim Mindanao

(BARMM) in 2019.¹⁸

In 2020, the Coronavirus Disease 2019 (COVID-19) pandemic severely impacted the Philippines. The country struggled to balance public health measures with the economic needs of its people. The Duterte administration faced criticism for policies, which included reliance on harsh lockdowns and delays in vaccinations. Meanwhile, the Philippine government pushed for economic recovery, though the pandemic deepened social and economic inequalities.¹⁹ In 2022, Ferdinand "Bongbong" Marcos Jr., son of the late dictator Ferdinand Marcos, was elected president. His presidency faces numerous challenges, including pandemic recovery, economic rebuilding, and ongoing tensions in the South China Sea.

Culture and Demographics

In the 2020 Census, the Philippines' population topped 109 million, marking an increase of 8 million people since 2015, with an annual growth rate of 1.63%. The fastest growth was recorded in BARMM at 3.62%, while Region IV-A (CALABARZON) had the largest population at 16.2 million, followed by the National Capital Region (NCR) at 13.5 million, and Region III (Central Luzon) at 12.4 million.

The population was comprised of 50.6% males and 49.4% females, yielding a sex ratio of 103 males per 100 females. Children under 15 years of age accounted for 30.7% of the population, while the working-age group (15-64 years) comprised 63.9%, and those 65 and older made up 5.4%. The median age of the population rose to 25.3 years, reflecting a steady increase over the past three decades. These figures indicate a slight aging trend compared to previous census periods.²⁰

The Philippines has experienced strong colonial influences, first from Spain for over 300 years and then from the United States for half a century. These influences are evident in Filipino language, religion, cuisine, and the arts. Spain's impact is especially notable in folk music,

dance, and the Catholic faith, which dominates the culture. Immigration has further enriched Filipino culture, particularly with the influence of Chinese and Japanese communities. Filipino martial arts, mahjong, and various cuisines trace their roots to these groups.²¹

At the heart of Filipino society is the extended family, a strong network that includes not just immediate relatives but also godparents and distant cousins. Family gatherings are central to holidays and significant life events, such as baptisms, weddings, and confirmations.²²

The national flag of the Philippines symbolizes the country's rich history. The blue, red, and white colors reflect the influence of the United States, while the sun's eight rays represent the provinces that initiated the Philippine Revolution. The three stars on the flag symbolize the major islands of Luzon, Visayas, and Mindanao. The white triangle recalls the emblem of the Katipunan, the revolutionary society that fought for Philippine independence.²³

Ethnic Makeup

The ethnic composition of the population of the Philippines is Tagalog 26%, Bisaya/Binisaya 14.3%, Ilocano 8%, Cebuano 8%, Illonggo 7.9%, Bikol/Bicol 6.5%, Waray 3.8%, Kapampangan 3%, Maguindanao 1.9%, Pangasinan 1.9%, other local ethnicities 18.5%, and foreign ethnicities 0.2%.²⁴ The majority of Filipinos are ethnically related to Malaysians and Indonesians, with substantial Chinese heritage mixed in, as well as some lingering colonial Spanish and U.S. heritage.

In addition to the major ethnic groups, there are approximately 100 cultural minority groups, which can be broadly categorized into Negrito, Igorot, and Manobo.

- **Negritos**, the indigenous inhabitants, include some 25 groups living across Luzon, Palawan, Panay, Negros, Cebu, and Mindanao. They follow animistic religions, which attribute spiritual significance to natural elements and objects, and often incorporate Catholic influences. Their population has dwindled due to encroachment,

deforestation, and disease.

- **Igorots** are mountain-dwelling tribes from northern Luzon's Cordillera region. They include the Apayao, Kalinga, Ifugao, Benguet, Bontoc, and Tingguian, many of whom are known for rice-terrace farming.
- **Manobos** are the indigenous groups of Mindanao. They include the Badjao, Maguindanao, Maranao, Tausag, and Samal, many of whom practice Islam. Non-Muslim Manobos include the Bukidnon, Bagobo, Mandaya, and Mansaka.²⁵

Key Population Centers

The Philippines' population is dispersed across 7,641 islands, organized into three main divisions: Luzon, Visayas, and Mindanao. The overall population density of the Philippines in 2020 was 363 people per square kilometer (km²; 940 people per square mile [mi²]), an 8% increase from 2015. The NCR remained the most densely populated, with 21,765 people per km² (56,371 people per mi²) in 2020 – nearly 60 times the national average. This NCR population density represents an increase of 4.7% from 2015.²⁶

The capital, Manila, is home to an estimated 1.6 million people, approximately one-eighth of the national population. The broader Metro Manila region is comprised of 16 cities and one municipality. Together, they house approximately 14.9 million people.²⁷ Photo 1 shows a densely-populated area of Manila.²⁸



Photo 1: Densely-Populated Neighborhood of Manila

Language

The national language of the Philippines is Filipino, which is structurally based on Tagalog.²⁹ The country has two official languages, Filipino and English, both mandated in the 1987 constitution as official languages of instruction and communication.³⁰ English is widely spoken throughout the country to the extent that the Philippines is considered one of the biggest English-speaking countries worldwide. Most people possess at least some degree of English fluency.³¹

Before Spanish colonization, the Philippines had various indigenous writing systems. The most prominent was Baybayin, which was used widely across the islands. Baybayin, which comes from the Tagalog word baybay, meaning “to spell,” was used for personal correspondence, government record-keeping, and trade. It was also used in religious rituals. In addition to Baybayin, other regional scripts were used; a notable example was in Mindoro and Palawan, where the Hanunóo-Mangyan and Tagbanua peoples maintained their own written systems.³²

The Philippines is one of the most linguistically diverse countries in the world. There are approximately 80 major language groups and more than 500 dialects spoken.³³ Ten languages account for over 90% of what Filipino people speak at home. These are Tagalog, Bisaya, Cebuano, Ilocano, Hiligaynon Ilonggo, Bikol (or Bicol), Waray, Maguindanao, Kapampangan, and Pangasinan, most of which are indigenous languages belonging to the Austronesian language family.³⁴

Religion

According to the 2020 Census of Population and Housing, the top three religious affiliations are Roman Catholic (78.8%), Islam (6.4%), and Iglesia ni Cristo (6.4%), which is a homegrown, independent, non-trinitarian Christian church. Other religious affiliations include Seventh Day Adventist and Aglipay (0.8% each), Iglesia Filipina Independiente (0.6%), Bible Baptist Church (0.5%), and United Church of Christ in the Philippines, Jehovah’s Witness, and Church of Christ (0.4% each).³⁵ The Constitution formalizes

the separation of church and state, although the majority religion, Catholicism, has influence over politics at the national and local levels.³⁶ The Islamic population in the Philippines is largely concentrated in the southwestern region, with 4.49 million Muslims (90.9% of the national total) residing in the BARMM.³⁷

Vulnerable Groups

Vulnerability encompasses the unique characteristics and circumstances that heighten exposure to hazards and that make individuals, communities, systems, or assets more susceptible to their impacts. In the Philippines, addressing vulnerability is integral to all phases of the disaster management cycle – i.e., mitigation, preparedness, response, and recovery – and is a key component of disaster risk reduction (DRR) efforts. Vulnerability assessments identify populations at high disaster risk due to factors like climate and environmental threats, inadequate services, or weakened social networks.³⁸ The following is not an exhaustive list of vulnerable groups in the Philippines but provides considerations for heightened social vulnerability, particularly to disaster risks. Vulnerabilities often intersect, creating compounded risks for individuals and communities. For example, environmental hazards may coincide with inadequate infrastructure or limited access to essential services, intensifying disaster impacts. Addressing these overlapping vulnerabilities requires a multi-layered approach, emphasizing local, national, and international efforts.³⁹

Displaced People

A displaced person is someone forced to leave their home due to conflict, natural disasters, development projects, or other crises. Displacement can be temporary, long-term, or even permanent, depending on the circumstances and available resources for recovery. Displaced individuals often face heightened vulnerabilities, including challenges securing safe and durable housing, accessing basic services like education and healthcare, and finding income-generating opportunities. These

hardships are compounded when displacement occurs in areas with limited infrastructure or livelihood resources as this lack prolongs the cycle of instability and vulnerability.

In 2023, the Philippines recorded nearly 2.6 million disaster-related displacements in a reflection of the country's vulnerability to natural hazards. Cyclones accounted for 1.1 million of these displacements, while floods displaced an additional 1 million individuals. Geophysical events, including a 7.4-magnitude earthquake and its aftershocks off Mindanao's coast, led to 462,000 displacements. Conflict and violence in Mindanao caused 160,000 people to flee their homes, the highest conflict-driven displacement figures since 2019. These displacements were largely due to clashes between non-state armed groups and government forces from March to May 2023.⁴⁰

To address these and other ongoing challenges, the Philippine government introduced the 2023–2028 Philippine Development Plan (PDP), which emphasizes long-term solutions for internally displaced persons (IDP). The plan includes measures to improve housing affordability, establish a dynamic registry for IDPs, and enhance early warning systems to allow communities to prepare and evacuate, if necessary, thus minimizing loss of life and property. By focusing on DRR and long-term stability, the PDP aims to reduce future displacement and foster recovery for affected communities.⁴¹

Informal Settlements

Metro Manila's rapid urbanization, fueled by rural-to-urban migration and economic growth, has made it one of the most densely populated areas in the Philippines and Southeast Asia. As migrants arrive seeking better opportunities, the city has struggled to provide sufficient affordable housing and infrastructure, and the results have included widespread homelessness and construction of informal settlements.⁴²

Approximately 4.5 million people across the country live in such conditions, with 3 million concentrated in Metro Manila. These

settlements, often located in hazardous areas like waterways or under bridges, expose residents to severe health risks, flooding, and landslides during extreme weather events.⁴³

In 2023, the Department of Human Settlements and Urban Development launched the Pambansang Pabahay para sa Pilipino program to address the Philippines' housing crisis.⁴⁴ This initiative aims to construct 6.15 million affordable housing units within six years and seeks to benefit approximately 30 million Filipinos. These homes are designed to provide safe, sustainable, and long-term solutions for the significant housing backlog.⁴⁵

Complementing this effort is the Manila Bay Rehabilitation Program, which began in 2019. This initiative targets the restoration of Manila Bay through environmental clean-up and the dismantling of illegal structures along waterways.⁴⁶ A major component involves relocating over 200,000 families from informal settlements to safer areas. While the program seeks to improve water quality and reduce disaster risks, it has proven contentious among affected residents due to concerns over job availability and the adequacy of resettlement sites. These efforts collectively highlight the balance needed between urban development and addressing human welfare.⁴⁷

Women

Women and girls face heightened vulnerabilities during disasters due to structural gender inequalities that affect preparedness, evacuation, response, and recovery. Societal roles and cultural norms often assign women caregiving responsibilities, which can hinder their ability to evacuate safely, while post-disaster conditions often expose them to gender-based violence and reduced access to reproductive healthcare. Addressing these issues through inclusive disaster planning not only builds resilience but also dismantles stereotypes about women's roles in disaster management.

Typhoon Haiyan (Super Typhoon Yolanda) in 2013 highlighted the unique vulnerabilities of women during disasters. Over 230,000 pregnant

women were affected by the storm; in the aftermath, nearly 900 births were registered daily, and 130 of these newborns or their mothers faced life-threatening complications. Many women experienced limited access to essential reproductive health services and increased exposure to gender-based violence.⁴⁸ This case underscores the need for gender-specific measures in disaster shelters – e.g., lactation rooms, child-friendly spaces, and access to healthcare for pregnant and nursing mothers.⁴⁹

The Philippines has made progress through initiatives like the Republic Act No. 9710, referred to as the Magna Carta of Women, which ensures gender-responsive DRR policies and programs.⁵⁰ International efforts, such as the United Nations (UN) Anticipatory Action program, provide proactive support to vulnerable communities by offering cash assistance and resources to help women prepare their homes, protect their livelihoods, and cover essential needs during evacuations, thus reducing risks before disasters strike.⁵¹ However, challenges like gender stereotypes and limited gender-disaggregated data covering women's vulnerability in disasters remain, and they require continued efforts to empower women as agents of change.⁵²

Children

The Philippine Statistical Authority reported in 2018 that over 30 million children in the country are at risk from disasters.⁵³ Additionally, children are disproportionately impacted by the effects of climate change, and estimates indicate that Filipino children who were born in 2020 will live through 4.9 times more scorching heatwaves, 2.3 times more floods, 1.2 times more droughts, and 1.5 times more crop failures than their grandparents or people born in 1960. In the face of disaster, these vulnerabilities manifest in various aspects of children's lives, such as nutrition, education, safety, and psychosocial health.

As an illustration of the ways in which vulnerabilities and exposure can combine to impact children, in February 2024, heavy rains,

flooding, and a 5.2-magnitude earthquake in Mindanao displaced over 100,000 families. Approximately 269,000 children were among the 1.2 million people impacted after critical infrastructure such as schools and communication networks were damaged. Save the Children Philippines was able to respond within 72 hours from the onset of disaster and provided hygiene kits and essential supplies to assist affected families in this economically disadvantaged region.⁵⁴

Stakeholders such as the Philippine Government, the International Federation of Red Cross and Red Crescent Societies (IFRC), Save the Children Philippines, and other non-governmental organizations (NGO) are actively working to address the vulnerabilities of children. Initiatives involve a multifaceted approach that includes disaster risk education, strengthened governance and policy, youth advocacy, and investing in DRR, such as child-friendly spaces in shelters and rapid assessments post-disaster.⁵⁵

People Living in Poverty

Impoverished communities are disproportionately vulnerable to disasters due, frequently, to residence in marginal areas, which have higher rates of exposure to hazards alongside limited access to resources to develop resilience to disaster impacts. Moreover, people living in poverty are frequently excluded from disaster management (DM) planning, and their concerns and knowledge are absent from many response plans. Low-income families and individuals may reside in floodplains or areas prone to landslides, where affordable housing options are concentrated, and they often lack access to insurance or social protection systems. Disasters also disrupt livelihoods, displace families, and create food and health insecurities, thereby perpetuating cycles of poverty and slowing efforts toward economic recovery and resilience.⁵⁶

In the Philippines, these challenges are magnified by frequent natural disasters, weak governance, inadequate natural resource management, armed conflict in the case of

Mindanao, and development deficits such as inadequate education and health services. However, significant progress has been made in recent years, as the poverty incidence has dropped from 18.1% in 2021 to 15.5% in 2023, a reduction in the number of impoverished Filipinos of 2.45 million. While this decrease marks progress toward the government's goal of single-digit poverty levels by 2028, the impacts of recurrent disasters highlight the need for robust DRR strategies to prevent people falling back into poverty.⁵⁷

People Living with Disabilities

People living with disabilities (PWD) represent approximately 1.3 billion people globally, or one in six individuals. Disabilities vary widely and include physical, sensory, intellectual, and psychosocial impairments, each presenting unique challenges during disasters.⁵⁸ For example, inaccessible infrastructure and communication barriers hinder PWDs from preparing for, evacuating during, and recovering after disasters. Systemic issues, such as poverty and discrimination, further compound their vulnerability. Consequently, PWDs are disproportionately likely to face harm or death during emergencies, underscoring the urgent need for inclusive disaster preparedness and response efforts.⁵⁹

In the Philippines, 8.68% of the population over 5 years of age – some 8.47 million people – are reported to live with at least one functional difficulty, with disability rates increasing with age. Among children, the prevalence of disability varies from 1.1% in the 5-9-year-old cohort to 1.7% in the 15-19-year-old cohort. In addition, 55.6% of the population living with disabilities are female.⁶⁰ Frameworks like the Sendai Framework call for disaggregated data collection by sex, age, and disability, to understand how different communities are affected by disasters.

Economics

The Philippines' economy has demonstrated resilience and growth in recent years. It is

characterized by strong consumer demand, a vibrant labor market, urbanization, and a large, youthful consumer base and labor force.⁶¹ Despite pandemic-related setbacks, the country is recovering, achieving a real GDP growth rate of 5.8% in the first three quarters of 2024.⁶² The Philippines has remained a “lower-middle-income” economy since 1989 when the World Bank first developed its country classification by income; some projections see it reaching “upper-middle-income” status during the 2020s.⁶³

Economic activity in the Philippines has been supported by sector-specific growth, with transportation and storage leading at 13% growth year-on-year, followed by construction and financial services, each achieving 9% year-on-year growth in 2023. These sectors highlight the economy's diversification and recovery momentum. Inflation, however, continues to pose a significant challenge, as it ended 2023 at 6%, above the government's 2-4% target. Projections for 2024 were more optimistic, with rates expected to have decreased to 3.2-3.6% as economic conditions stabilized.⁶⁴

As of November 2024, the Philippines' labor force included 51.2 million individuals aged 15 years and older, with a labor force participation rate of 64.6%. The employment rate was 96.8%, while the unemployment rate stood at 3.2%. Most employed individuals worked in the services sector (62.1%), followed by agriculture (20.0%) and industry (17.9%).⁶⁵ As of 2023, male labor force participation was 73.1%, significantly higher than the 47.2% participation rate for females. Female labor force participation has remained relatively stable since 1990.⁶⁶

Another critical pillar of the Philippines' economy is remittances from Overseas Filipino Workers (OFW). In 2023, these remittances comprised nearly 9% of GDP, reaching an all-time high of US\$39 billion.⁶⁷ The government actively supports OFWs through legislation and programs in a reflection of a decades-long reliance on exporting excess labor both to earn government revenues and to bolster household incomes. OFWs work across various fields, predominantly in services and skilled trades.⁶⁸

While most OFWs work in Asia, including Saudia Arabia, United Arab Emirates, Hong Kong, Kuwait, Singapore, and Qatar,⁶⁹ the majority of remittances in 2023 were sent from the United States (35% or US\$13.71 billion).⁷⁰

The Philippines has seen a gradual economic shift from agriculture and industry to a service-based economy, with agriculture's GDP contribution dropping from roughly 25% in 1980 to just 9.3% in 2024.⁷¹ Meanwhile, the services sector now accounts for over 62% of GDP and has largely been propelled by the rise of business process outsourcing.⁷² The sector's success stems from a workforce proficient in necessary languages and familiar with Western business culture, both of which make the Philippines a top destination for customer service operations.

Globalization and technological progress accelerated this shift, but premature deindustrialization has presented challenges. The manufacturing sector, once vital for technological innovation and stable economic growth, now struggles to maintain competitiveness.⁷³ This stagnation limits opportunities for job creation and hinders economic resilience. Additionally, low productivity in agriculture has exacerbated rural poverty and increased vulnerability to disasters, emphasizing the need for strategic policy interventions to balance service sector dominance and foster sustainable growth in other key sectors.⁷⁴

Government

The Republic of the Philippines is a presidential republic, wherein the president is both head of state and head of government. The government is comprised of three separate yet interdependent branches – the legislative branch (the law-making body), the executive branch (the law-enforcing body), and the judicial branch (the law-interpreting body). Executive power is exercised by the government under the leadership of the president.⁷⁵ The Cabinet is appointed by the president with the consent of the Commission of Appointments, an independent body of 25 Congressional members, appointed by the president. The Senate

president serves as the ex officio chairman of the Commission of Appointments. The president and vice-president are directly elected on separate ballots by simple majority popular vote for a single 6-year term. President Ferdinand “BongBong” Marcos, Jr. and Vice President Sara Duterte were elected in 2022.⁷⁶

The Legislature is comprised of a bicameral Congress (Kongreso), which consists of the Senate (Senado) and House of Representatives (Kapulungan Ng Mga Kinatawan). The Senate has 24 seats, with senators directly elected in multi-member constituencies by majority vote and serving 6-year terms with half of the membership elected every three years. A senator is allowed only two consecutive terms. The House of Representatives contains 297 seats, with members serving 3-year terms. Out of the 297 seats, 238 representatives are directly elected in single-member constituencies by simple majority vote, and 59 members represent minorities directly elected by party-list proportional representation vote.

The highest court is the Supreme Court, which consists of a chief justice and 14 associate justices. The Judicial and Bar Council is a constitutionally created 6-member body that recommends Supreme Court nominees. Justices are appointed by the president on the recommendation of the Council and serve until age 70. Lower courts in the judicial system include the Court of Appeals, Sandiganbayan (special court for corruption cases of government officials), Court of Tax Appeals, and regional, metropolitan, and municipal trial courts. There are also five sharia district courts, all in BARMM, and they oversee three dozen sharia circuit courts, where Muslims can file certain cases, often pertaining to family law. Decisions of sharia district courts can be appealed to the Supreme Court.⁷⁷

The current constitution was enacted in February 1987 and has not been amended since. There have been several previous constitutions, going back to 1899. Philippine citizenship is granted by descent only, with at least one parent required to be a citizen of the Philippines.⁷⁸

In the Philippines, disaster risk reduction and management (DRRM) is decentralized, with responsibilities distributed across various local government units to enhance community resilience and responsiveness. This structure is established under the Philippine Disaster Risk Reduction and Management Act of 2010. This multi-tiered DRRM structure starts with the National DRRM Council (NDRRMC) and enables a coordinated and comprehensive approach to disaster management across the Philippines by fostering resilience from the national level down to individual communities.

- **Provincial Level** – Each province is required to establish a Provincial Disaster Risk Reduction and Management Council (PDRRMC). The PDRRMC is chaired by the provincial governor and is responsible for implementing and reviewing the local DRRM plans, integrating DRR and climate change adaptation (CCA) into local development plans, recommending necessary evacuations, and convening the council as needed. Additionally, a Provincial Disaster Risk Reduction and Management Office (PDRRMO) is established to design, program, and coordinate DRRM activities consistent with national plans.⁷⁹
- **Municipal and City Levels** – Similarly, municipalities and cities are mandated to form their own Disaster Risk Reduction and Management Councils (MDRRMC and CDRRMC, respectively), chaired by the municipal mayor or city mayor. These councils perform functions akin to the provincial councils but are tailored to the specific needs and contexts of their localities. They are supported by Municipal or City Disaster Risk Reduction and Management Offices (MDRRMO/CDRRMO), which are tasked with the design, coordination, and implementation of DRRM programs at the municipal or city level.⁸⁰
- **Barangay Level** – At the grassroots level, each barangay – the smallest administrative division in the Philippines – establishes a Barangay Disaster Risk Reduction and

Management Committee (BDRRMC). The BDRRMC is responsible for setting up community-based early warning systems, organizing and training local emergency response teams, and implementing disaster preparedness programs. This localized approach ensures that DRR measures are directly responsive to the unique vulnerabilities and capacities of the community.⁸¹

Environment

The Philippines, an archipelagic state, features diverse geography with mountain ranges, fertile plains, and extensive coastlines that sustain its rich biodiversity and vital agricultural industries. However, environmental challenges such as deforestation, air and water pollution, and marine plastic waste threaten natural resources, public health, and livelihoods, with effects extending beyond national boundaries to the greater Pacific region.

Geography

Located in Southeast Asia, the Philippines is an archipelago of 7,641 islands covering approximately 300,000 km² (115,830 mi²). The islands extend in a roughly triangular shape and are grouped into three major regions: Luzon in the north, Visayas in the center, and Mindanao in the south.⁸² The country features an extensive coastline of 36,289 km (22,548 mi) and maritime zones extending up to 200 nautical miles from the coast. It is bounded by the Philippine Sea to the east, Celebes Sea to the south, Sulu Sea to the southwest, and the South China Sea to the west and north.⁸³

The Philippines is marked by diverse topographical features, including tall mountain ranges, fertile plains, and extensive river systems and lakes. The most prominent mountain range is the Cordillera Central, which runs north-south in Luzon and reaches elevations averaging 1,798 meters (m; 5,900 feet [ft]). The Philippine archipelago contains about 50 volcanoes, with 24 active volcanoes. Mount Apo, an active volcano in Mindanao, is the tallest

peak, standing at 2,954 m (9,692 ft) above sea level. The volcanic Malayan range rises above 1,524 m (5,000 ft) along Luzon's western coast. The fertile soils from volcanic activity sustain lush vegetation, contributing to the country's agricultural productivity across Luzon, Visayas, and Mindanao. Key rivers include the Cagayan, the longest in Luzon, and the Mindanao River in the south. In Manila, the Pasig River, once vital for interisland trade, is now navigable only by small craft due to heavy pollution.⁸⁴

Borders

The Philippines shares no land borders with other countries. However, the country is a party to disputes over maritime zones in the South China Sea, where Malaysia and the PRC also have claims and have opposed the Philippines' Maritime Zones Act and Archipelagic Sea Lanes Act, which aim to reinforce territorial claims.⁸⁵ Figure 1 shows the overlapping territorial claims in the South China Sea.⁸⁶ In 2016, an arbitral tribunal ruled in favor of the Philippines in its South China Sea dispute. It rejected the PRC's "nine-dash line" and related activities as inconsistent with international law. Beijing dismissed the decision as invalid, highlighting tensions over maritime rights and the broader significance of upholding international legal frameworks.⁸⁷ In 2024, the Philippines, seeking to extend its jurisdiction, advanced its maritime claim to the UN Commission on the Limits of the Continental Shelf. Under Article 76 of the UN Convention on the Law of the Sea (UNCLOS), under which coastal states like the Philippines can establish the outer limits of their continental shelf.⁸⁸

Climate

The Philippines has a tropical maritime climate characterized by high temperatures, humidity, and abundant rainfall. Seasons include a rainy period from June to November and a dry season from December to May, further divided into cool (December–February) and hot (March–May) phases.⁸⁹ Annual

temperatures average 26.6°C (80°F), with minimal spatial variation except in higher altitudes like Baguio. Rainfall varies widely under the influence of monsoons and topography, with some areas receiving over 4,000 millimeters (mm; 157 inches [in]) annually.⁹⁰ Typhoons frequently impact the archipelago, and they are most common from June to December. Climate variability, including El Niño events, has intensified extreme weather patterns in recent years.⁹¹ Figure 2 shows the monthly climatology averages for temperature and precipitation in the Philippines from 1991 to 2023.⁹²

Environmental Challenges

The Philippines faces significant environmental challenges that threaten livelihoods, health, and ecosystems. These environmental issues have largely emerged from frequent natural disasters, ineffective management, and lapses in environmental law that protect natural resources.⁹³ Pollution from rapid urbanization and mining activities significantly degrades air quality in the Philippines. Urban centers such as Metro Manila



Figure 1: Overlapping Territorial Claims in the South China Sea

experience high levels of particulate matter, surpassing global health standards and affecting public health.⁹⁴ At the same time, deforestation has caused the country’s forest cover to shrink by more than half since the mid-20th century. Logging, mining, and farming are the primary drivers of this decline, leaving less than one-fourth of the Philippines’ total land area forested and compromising critical ecosystems.⁹⁵

Deforestation in the Philippines removes critical forest cover that stabilizes soil and absorbs rainfall, increasing the likelihood of landslides during heavy rain events. The loss of trees also disrupts the natural water cycle by reducing the ability of the land to retain moisture and replenish groundwater supplies,

which contributes to water scarcity. As a result, the combined effects of deforestation not only degrade the environment but also threaten communities with dangerous landslides and limited access to clean water, especially during dry seasons or droughts.

Marine plastic pollution is particularly severe, with 20% of the country’s 2.7 million tons of annual plastic waste entering the ocean, where it endangers marine biodiversity and impacts fisheries that sustain many communities. Coastal erosion and polluted waterways exacerbate these issues, with consequences extending to the greater Pacific region through oceanic pollution and declining biodiversity.⁹⁶

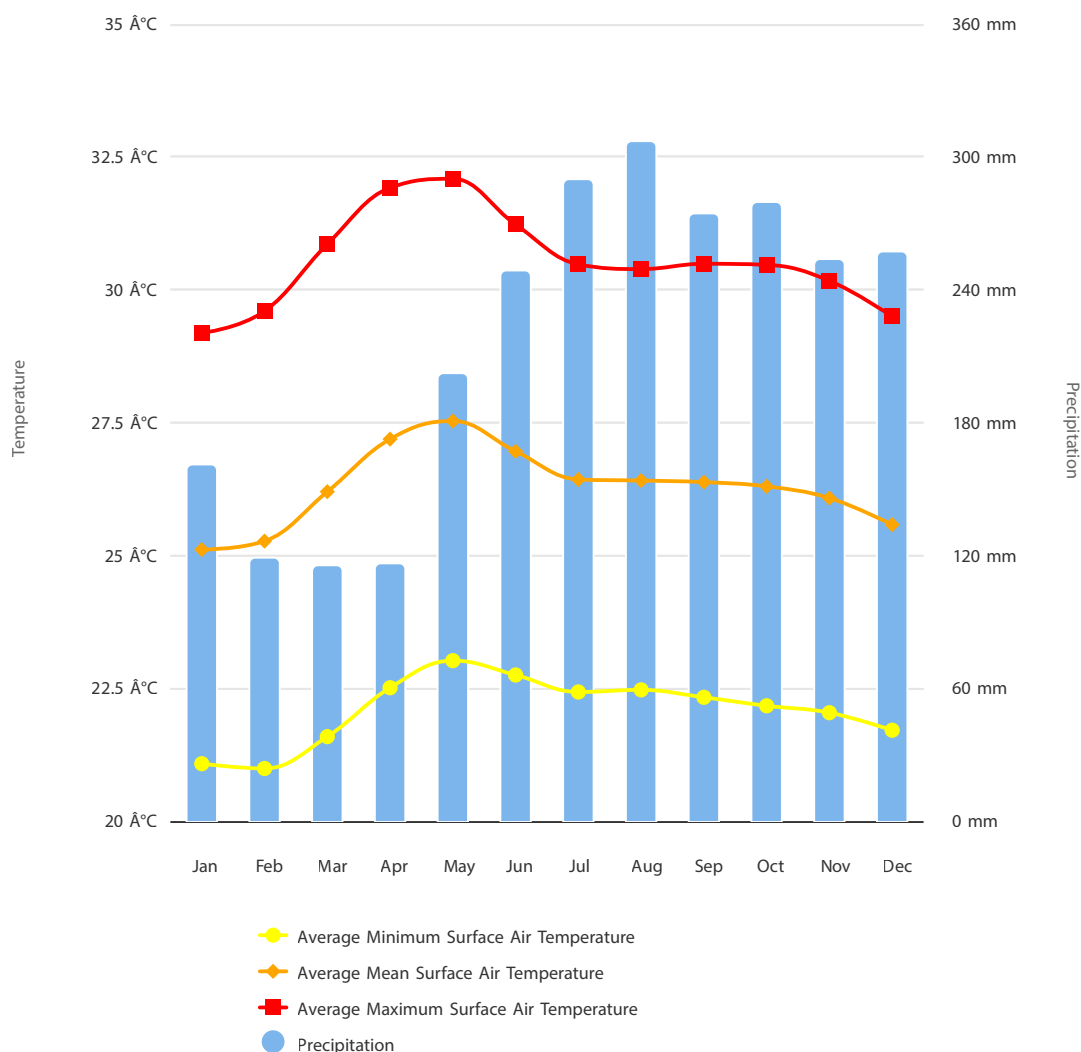


Figure 2: Monthly Average Temperatures and Precipitation, Philippines (1991-2023)

DISASTER OVERVIEW

The Philippines is highly prone to disasters triggered by natural hazards. Up to 60% of its land area and 74% of its population are estimated to be exposed to numerous hazards, including floods, tropical cyclones, droughts, earthquakes, tsunamis, and landslides.⁹⁷ The archipelago straddles the typhoon belt – an area in the western Pacific Ocean where nearly one-third of the world's tropical cyclones form and which has some of the most intense storms globally. Thus, the Philippines commonly experiences tropical cyclones, which are locally referred to as typhoons and receive a separate name from the international naming convention. The Philippines is also located on the Ring of Fire, or Circum-Pacific Belt, which is a 40,000-km (24,900-mi) path around the rim of the Pacific Ocean floor that comprises the boundaries of several tectonic plates – including the large Pacific plate and smaller Juan de Fuca, Cocos, Nazca, and Philippine plates. Due to the movement of these tectonic plates, 90% of the earth's earthquakes occur along this path, and 75% percent of the earth's volcanoes are located along the Ring of Fire.⁹⁸

Climate Change

The Philippines' National Security Policy 2023–2028 states, “Climate change and extreme weather patterns are cascading threats to 60 percent of the country's population...Despite contributing only 0.4 percent to the world's total greenhouse gas (GHG) emission, the country loses 1.0 percent of the average annual GDP or an estimated US\$3.5 billion a year due to losses and damages resulting from climate change and extreme weather patterns.”⁹⁹ Climate change is already impacting the Philippines, and these impacts result in increased disaster risk and exacerbated poverty risk. Climate change is also threatening agricultural productivity due to increased flooding as well as the increased likelihood of droughts. Since the mid-20th century, the average annual mean temperature

increased by approximately 0.6°C (1.08°F) and the Philippines has seen a significant increase in the number of hot days and warm nights – trends seen across the entire Pacific region. Although projections of the influence of climate change on precipitation vary widely, 15 of 16 climate models assessed by the World Bank Group and Asian Development Bank project some increase in precipitation. Parts of the Philippines are also experiencing an above-average rate of sea level rise, which is projected by 2070–2100 to expose up to 1 million people to flooding from rising seas.¹⁰⁰

The Philippines faces some of the highest disaster risk levels in the world, particularly due to exposure to tropical cyclones, flooding, and landslides. Climate change is already intensifying risk and is projected to further exacerbate it in the future. The number of tropical cyclones making landfall in the country in any one year is steadily increasing, with tropical cyclones appearing to also have greater intensity than in the past. The year 2020 saw 22 tropical cyclones enter the Philippines area of responsibility; eight of them made landfall and displaced more than 3 million people.¹⁰¹ In 2024, over the course of just 23 days in October and November, the Philippines faced six tropical cyclones, several of which struck Luzon, as Figure 3 depicts in an image by World Weather Attribution.¹⁰² According to an academic study published on 12 December 2024, rising temperatures have doubled the likelihood for the hydrometeorological conditions that fuel deadly typhoons.¹⁰³ “For six storms to impact the northern Philippines in such a short period is extremely unusual,” the study stated. It was the first time since records began in 1951 that four named storms had existed simultaneously in the Pacific basin in November, according to the Japan Meteorological Agency.¹⁰⁴ The six storms in October and November 2024 killed more than 170 people, displaced 1.4 million people, and caused economic losses exceeding

The Philippines was hit by five typhoons and a tropical storm within a month



Figure 3: Climate Change Fuels Six Storms Impacting Philippines in 2024

US\$500 million. The conditions that led to these successive typhoons have become approximately 70% more likely because global temperatures had risen by 1.3°C (2.3°F), according to researchers.¹⁰⁵ Models using worst-case emissions scenarios project that the number of people exposed to tropical cyclones in the Philippines will increase from 75.5 million in 2000 to 99.1 million by 2050.¹⁰⁶

Though scientists are cautious about attributing an individual weather event to climate change, the consensus is that warmer oceans are intensifying rainfall and wind speeds around the globe. As climate change continues to drive these changes, increased wave heights during storm surges are expected to impact the Philippines, which is already one of the world's most vulnerable countries to the impact of storm surge. Metro Manila is considered the most vulnerable city in the world, and it is particularly prone to flooding due to its having been built on low-lying swampy areas, dense population, destruction of mangroves, under-planned urban construction, garbage management, and high rates of precipitation.¹⁰⁷ One study suggests that 3.4 million more people in Manila will be exposed to storm surge as a result of a 10% increase in surge height. An estimated 80,000–230,000 more people in each of the

cities of Taguig, Caloocan, Davao, Malabon, Butuan, and Iloilo would also be exposed.¹⁰⁸

Based on the UN Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report Leading Consensus model and a worst-case emissions scenario, approximately 5.7 million people in the Philippines are projected to be directly exposed to sea level rise by 2050, compared to a baseline or starting point of the year 2000 when none were considered directly exposed to sea level rise. The number of Filipinos exposed to extreme heat, defined as an area exposed to 30 or more days

with the maximum temperature above 35°C (95°F) for the year, is projected to increase to 26.3 million people by 2050, compared to none exposed to extreme heat in 2000. The number of residents exposed to extreme precipitation, defined as an area exposed to 30 or more days where daily precipitation exceeds 20 mm (0.8 in), is anticipated to dramatically increase from 7.2 million people in 2000 to 75.8 million people in 2050.¹⁰⁹

The preparation, response, and recovery phases of the DM cycle are increasingly being performed simultaneously, complicating recovery.¹¹⁰ “As we focus on recovery, we’re also preparing for another storm that may come our way,” said President Marcos while visiting Cagayan residents affected by Typhoon Yinxing (Marce) in November 2024, ahead of Typhoon Toraji (Nika) landfall. The influence of climate change on typhoons has been increasingly evident for the Philippines, which, in December 2020 also experienced several typhoons in quick succession. After those storms, Donna Lagdameo, the Red Cross Red Crescent Climate Centre Asia Pacific focal point and senior policy adviser, similarly rebutted the sequential concept of DM phases, saying, “No, it all happens at the same time.”¹¹¹ In 2024, Afrhill Rances,

the Philippines' representative with the IFRC, stated, "We used to have what we called a hazard calendar - now it is just basically the whole year around."¹¹²

Some modeling estimates anticipate that climate change could increase the Philippines' emergency response costs from typhoons by over 50% for severe events.¹¹³

Hazards

Key natural hazards in the Philippines include storms and tropical cyclones, floods, earthquakes, and volcanoes.

Figure 4 highlights the tracks of destructive tropical cyclones, historical strong earthquakes, earthquake faults, tectonic collision zones, and active volcanoes; it includes notable events that have occurred since 1948, as published by the UN Office for the Coordination of Humanitarian Affairs (OCHA) in January 2017.¹¹⁴

Figure 5 shows the Philippines' average annual occurrence of natural hazards over four decades, as sourced from the World Bank.¹¹⁵ The most frequently occurring natural hazard event was storm at an average of 276 occurrences per year, followed by flood at 136 per year, landslide at 29 per year, earthquake at 28 per year, volcanic activity at 19 per year, epidemic at 18 per year, drought at 8 per year, dry mass movement at 2 per year, and wildfire at 1 per year.

Cyclone (Typhoon)

The Philippines experiences frequent tropical cyclones - typhoons, tropical storms, and tropical depressions – and they receive a separate, local name from the international naming convention. Historically, an average of 20 tropical cyclones per year enter the Philippines' area of responsibility, and 8-9 make landfall annually. Typhoon season has typically peaked in the period July-October, when nearly 70% of all typhoons develop, according to the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA).¹¹⁶

Earthquake

The Philippines has a very high exposure to

earthquake hazards because the islands span multiple tectonic plate boundaries. Strong destructive earthquakes are a serious risk, and low-level seismic activity is common throughout most of the country. One estimate is that the Philippines experiences some 3.2 earthquakes per day. Earthquake impacts can vary depending upon soil conditions in an area. Liquefaction is a significant concern in central Luzon, including in Metro Manila, where infrastructure would be highly vulnerable during a massive earthquake. The Philippines has increased preparation and planning activities for a large earthquake to hit the Manila area. Fruits of this work include the Metro Manila Earthquake Contingency Plan¹¹⁷ and the Harmonized National Contingency Plan for the Magnitude 7.2 Earthquake.¹¹⁸ The Philippine Institute of Volcanology and Seismology (PHIVOLCS) operates 108 seismic monitoring stations across the country. Earthquake data is sent from the stations to the PHIVOLCS Data Receiving Center to determine magnitude, depth, epicenter, and other quake parameters.¹¹⁹

Figure 6 shows the distribution of earthquakes that ranged between 4- and 8-magnitude in the Philippines from 1975 to 2019.¹²⁰

Flood

The Philippines is at high risk of feeling the impacts of coastal and river floods in both urban and rural areas. The country's exposure to coastal flooding rates 8.9 out of 10, where 10 represents the greatest exposure. Its exposure to river flooding rates 6.7 out of 10, according to one 2025 risk analysis.¹²¹ Flood risk is increased by tropical cyclones, monsoon rains, or a combination of both, especially during the typhoon or rainy season. Increasing urbanization raises the flood risk during times of high precipitation as drainage channels may be insufficient or blocked. Due to its location in a river delta next to the ocean, Metro Manila repeatedly endures flooding during the rainy season. Government data indicate that some 80% of Manila residents live in flood zones, while analysis by national media outlet Rappler found

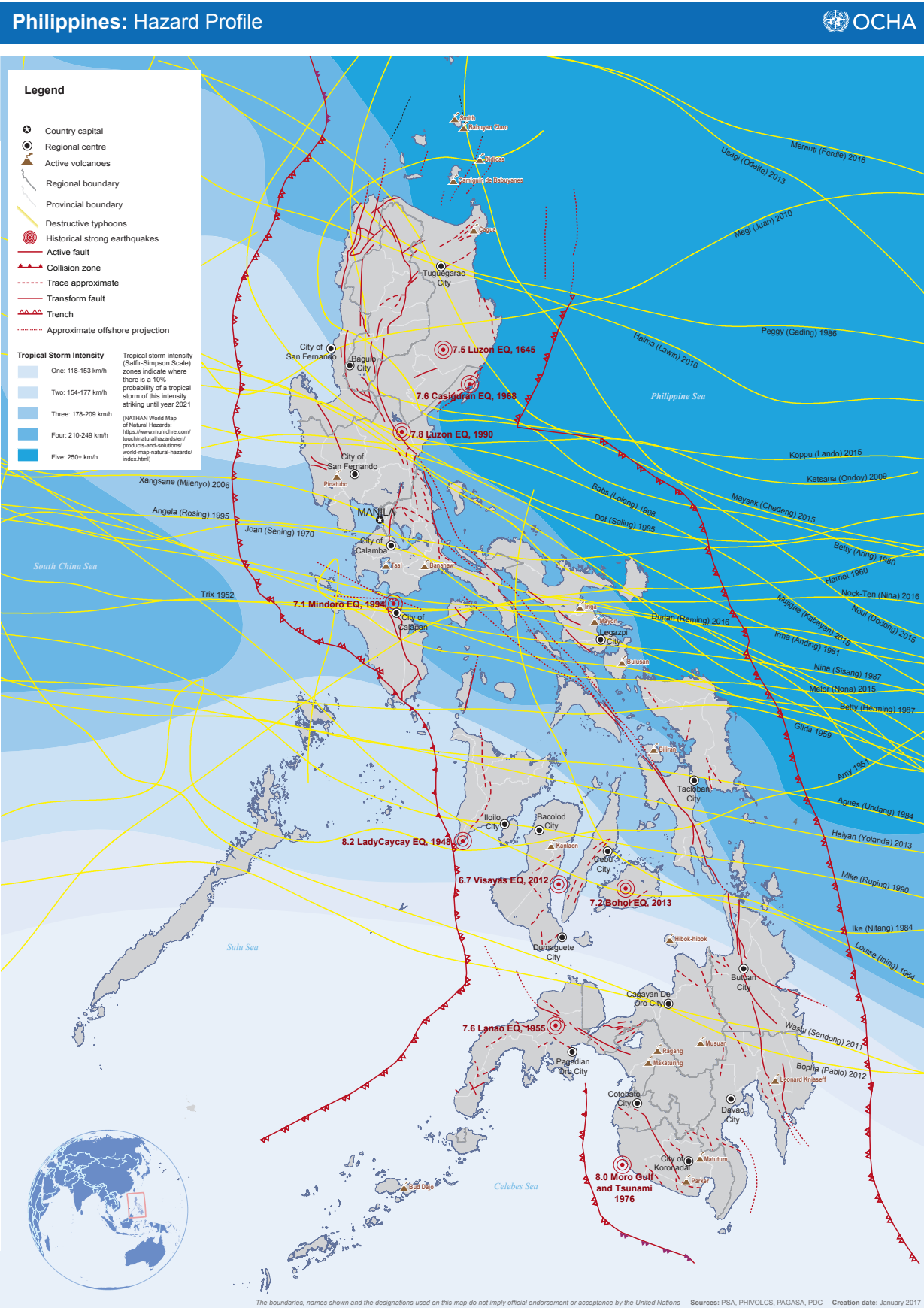


Figure 4: Philippines Hazard Map

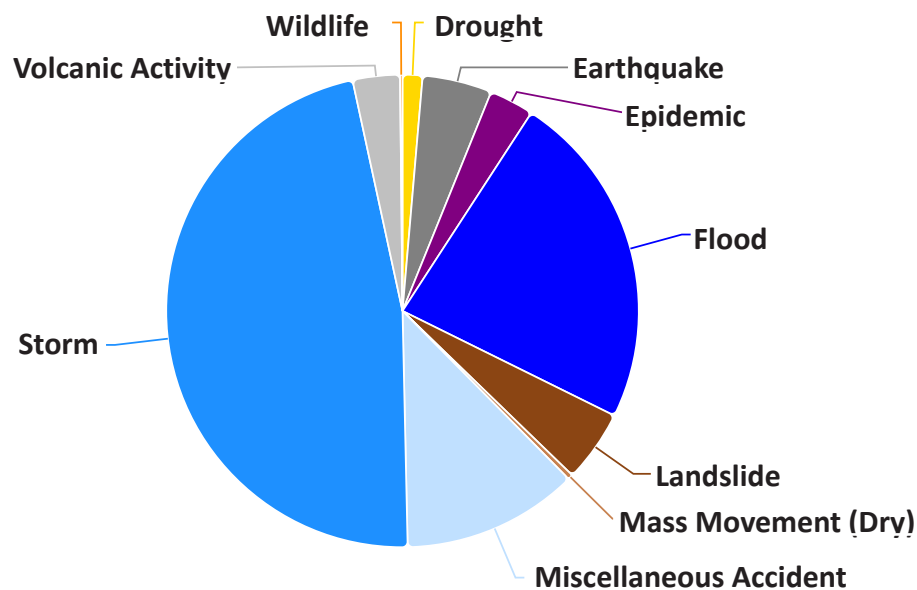


Figure 5: Philippines Average Annual Natural Hazard Occurrence (1980-2020)

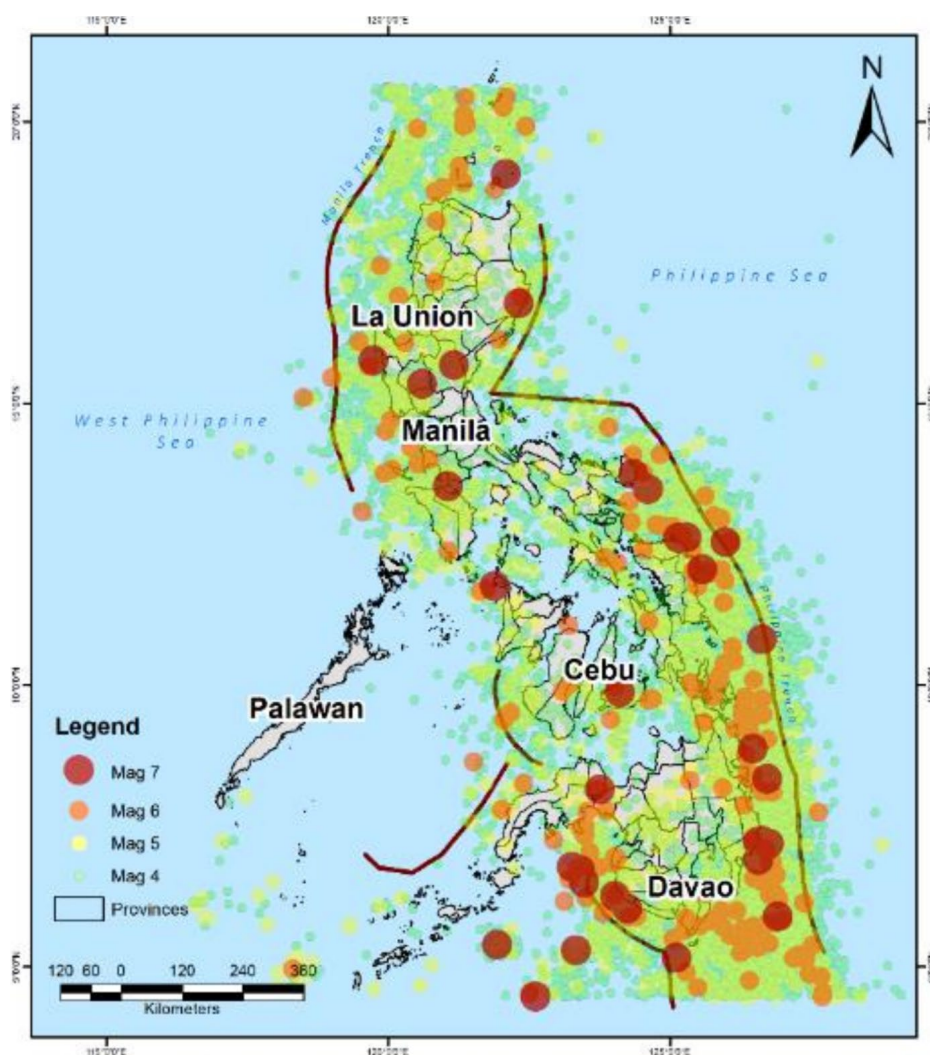


Figure 6: Earthquakes between 4 and 8 Magnitude (1975-2019)

that 20% of Metro Manila's land area comprises high-risk flood zones.¹²² Sea level rise along the country's coastlines contributes to the risk of flooding. During the La Niña phase of the El Niño-Southern Oscillation, the Philippines may experience a higher chance of above normal rainfall, increasing flood risk.

Landslide

Landslides constitute a significant hazard and are usually triggered by other events including heavy rainfall, earthquakes, and volcanic eruptions. Landslides are most common in steep, hilly, mountainous and inland regions. A particularly devastating landslide occurred in February 2006 in Southern Leyte.¹²³ In this event, rains triggered a massive landslide from Mt. Canabag, and the village of Guinsaugon, including its elementary school that was in session, was buried. More than 1,000 people were killed, and 19,000 people were displaced.¹²⁴

Tsunami

Tsunamis are relatively rare in the Philippines but can be devastating. Due to the archipelago's nature and large populations in coastal areas, the Philippines is highly exposed to tsunamis.¹²⁵ Tsunamis are triggered by large earthquakes, and the Philippines' tsunami exposure originates in a number of nearby off-shore faults as well as other faults throughout the region. Major tsunamis that affected the Philippines include a November 1994 tsunami that was triggered by a 7.1-magnitude quake in Mindoro and killed at least 38 people, as well as an August 1976 tsunami that was triggered by an 8.1-magnitude quake and left over 8,000 people dead.¹²⁶

Volcano

Volcanic activity is common in the Philippines. PHIVOLCS classifies 24 active volcanoes, defined as having erupted within the last 600 years, at least 27 potentially active volcanoes, described as morphologically young-looking but with no historical or analytical records of eruption, and dozens more inactive volcanoes, described as having no recorded

eruptions and an intensively eroded physical form.¹²⁷ Volcanic hazards include lava flows, ashfall, explosions, lahar (mud) flows, landslides, and volcanic gas emissions. Mayon, Taal, and Pinatubo, all on Luzon, have been among the most destructive volcanoes in recent decades; they have collectively killed thousands of people and displaced tens of thousands.

History of Natural Disasters

The following is a list of natural disasters in the Philippines in the last five years.

Kanlaon Volcano – December 2024

On 9 December 2024, Kanlaon Volcano on Negros Island erupted, prompting authorities to raise the alert level due to magmatic unrest and the threat of further explosive eruptions. The eruption produced an ash plume 3,000 m (9,842 ft) high, accompanied by continuous sulfur dioxide emissions and volcanic earthquakes. Approximately 44,000 residents were affected, with 18,000 displaced and over 15,300 seeking shelter in evacuation centers. A 6-km (3.7-mi) danger zone was established, and evacuations were advised. The Philippine government and disaster agencies provided US\$500,000 in relief aid while continuing to monitor the situation and prepare for additional evacuations.¹²⁸

Tropical Cyclones – 2024

After four years of below-average typhoon activity in the Pacific region, the 2024 Pacific typhoon season brought a series of destructive storms to the Philippines. Between 24 October and 18 November, six tropical cyclones, ranging from severe tropical storms to super typhoons, traversed the northern Philippines, where they affected over 15 million people across 17 regions. The storms caused significant displacement in hard-hit areas such as Bicol, Cagayan Valley, Central Luzon, and Ilocos, with total damage to agriculture, housing, and infrastructure exceeding PHP 21 billion (US\$367 million). Early preparedness measures, including pre-

emptive evacuations and the prepositioning of family food packs, helped minimize casualties, with 174 deaths reported.¹²⁹

Note: The storms' international names are provided first, followed by the local Philippines name (in parentheses), and date of landfall. The listing of typhoons in late 2024 is presented in chronological order to help clarify subsequent or combined impacts.

- ***Tropical Cyclone Gaemi (Carina) – 22 July 2024*** – Heavy rains from the Southwest Monsoon, intensified by Tropical Cyclone Gaemi (Carina), caused severe flooding and damage across the Philippines, particularly in Northern and Central Luzon and Metro Manila. The Marikina River rose to dangerous levels and prompted widespread evacuations. Over 4.8 million people were affected, with 273,757 displaced, 39 fatalities reported, and significant infrastructure and agricultural damage estimated at US\$82.8 million. More than 1,200 homes were damaged or destroyed, and 108,000 people sought refuge in 557 evacuation centers. The Philippine Government and disaster agencies coordinated relief efforts, distributing over US\$5.44 million in aid and initiating recovery actions as over 100 areas declared states of calamity.¹³⁰
- ***Typhoon Yagi (Enteng) – 2 September 2024*** – In September 2024, Severe Tropical Storm Yagi (Enteng) became the most powerful storm to hit the South China Sea in 30 years and the largest typhoon in Asia in 2024. Yagi made landfall in Luzon, Philippines, on 2 September, and it brought heavy rainfall that caused flooding and landslides that displaced nearly 50,000 people and affected almost 800,000 families across 2,821 barangays. The storm claimed 21 lives, left 26 people missing, and injured 22 people. Over 71,600 residents were evacuated. Regional impacts were widespread, with Vietnam suffering the most severe devastation and further effects in Thailand, PRC, Laos, and Myanmar.¹³¹
- ***Tropical Cyclone Krathon (Julian) – 29-30 September 2024*** – Typhoon Krathon (Julian) brought heavy rains, strong winds, and storm surges as it passed near northern Luzon from 29 to 30 September. It caused flooding, and its winds also caused damage. The typhoon displaced over 5,400 people, with 2,176 seeking shelter in evacuation centers, and more than 149,000 residents were impacted. There were eight reported injuries, and one person remained missing. Food supply insecurity and infrastructure damage added to the challenges faced by affected communities.¹³² In response, U.S. Marines, in coordination with the United States Agency for International Development (USAID), delivered nearly 43,500 kilograms (kg; 96,000 pounds) of relief supplies to remote Batan Island. The mission concluded on 10 October after six days of foreign disaster relief operations.¹³³
- ***Severe Tropical Storm Trami (Kristine) – 22 October 2024*** – The storm made landfall in Cagayan Valley's Isabela province. In its morning situational report on 4 November, the NDRRMC disclosed that 6,717,755 individuals were affected by the inclement weather or flooding brought about by the tropical storm. Among those affected, 561,687 people stayed at evacuation centers, while 418,668 took shelter elsewhere.¹³⁴
- ***Super Typhoon Kong-Rey (Leon) – 27 October 2024*** – Super Typhoon Kong-Rey (Leon) entered the Philippine Area of Responsibility on 26 October 2024. It brought typhoon-force winds, heavy rains, flooding, and landslides to northern Luzon and its remote islands before exiting on 1 November. The combined impacts of Kong-Rey, Trami, and Krathon caused severe agricultural losses, with 111,898 hectares (432 mi²) of crops affected, while transportation and communication networks sustained significant damage. Additionally, water contamination emerged as a critical concern, particularly in Camarines Sur, where some sources tested positive for E. coli, underscoring the urgent need for water testing and clean water supplies.¹³⁵

- ***Tropical Cyclone Yinxing (Marce) – 7 November 2024*** – On 7 November, Typhoon Yinxing (Marce) made landfall in northern Luzon with maximum winds of 233 km per hour (kph; 145 miles per hour [mph]). It was the third cyclone to strike the region in three weeks. The typhoon caused widespread damage, flooding villages, toppling trees and electricity poles, and damaging houses and buildings in Cagayan province, where more than 40,000 residents were evacuated to safer ground. In total, Yinxing affected 387,000 people, displaced 265 individuals, and damaged over 29,000 homes. It had prompted the issuance of Tropical Cyclone Warning Signal #4 across parts of Cagayan, the Babuyan Islands, Apayao, and Ilocos Norte.¹³⁶
- ***Tropical Cyclone Toraji (Nika) – 11 November 2024*** – On 11 November, Typhoon Toraji (Nika) made landfall in Dilasag, Aurora, with maximum winds of 145 kph (90 mph). It brought intense rainfall, storm surges, and damaging winds to northern Luzon. The storm flooded 25 villages across six towns, rendered 22 bridges impassable, and caused power outages in 13 towns and Tuguegarao City.¹³⁷ Authorities evacuated vulnerable populations and conducted precautionary dam water releases.¹³⁸
- ***Typhoon Usagi (Ofel)– 14 November 2024*** – Typhoon Usagi (Ofel) made landfall in Cagayan as a super typhoon, the fifth powerful storm to hit the Philippines in three weeks. It caused significant damage in the northeastern rice-growing region of Cagayan, where it prompted evacuations from coastal areas.¹³⁹ Usagi's intensity peaked at 241 kph (160 mph) on 13 November, and the storm continued north toward Taiwan.¹⁴⁰
- ***Tropical Cyclone Man-yi (Pepito) – 16 November 2024*** – Tropical Cyclone Man-yi (Pepito) made landfall as a typhoon on 16 November. It caused widespread damage in the Philippines, particularly in Catanduanes and Aurora Province. With maximum wind speeds of 259 kph (160 mph), it displaced

over 685,000 people and affected more than 1.1 million across six regions. The storm caused seven deaths and 30 injuries. Over 719,000 people were evacuated, and the combined impact of Man-yi and previous cyclones (Toraji and Usagi) led to significant agricultural losses, totaling US\$13.4 million.¹⁴¹ Roberto Monterola, operations chief of the Catanduanes Civil Defence Office, noted, “We do not have enough evacuation centres, so some of them will be sheltering with neighbours who own houses made of stronger materials.”¹⁴²

Photo 2 dates to 11 November 2024; it depicts four tropical systems, all of which struck the Philippines in succession. From left to right: Tropical Storm Yinxing (Marce), Severe Tropical Storm Toraji (Nika), Tropical Storm Usagi (Ofel), and Tropical Storm Man-yi (Pepito).¹⁴³

Floods and Landslides – January-February 2024

From 28 January to 2 February 2024, heavy rains caused by the Northeast Monsoon and the trough of a low-pressure area triggered massive flooding and landslides across Davao and Caraga regions in the southern Philippines. As of 6 February, nearly 1.1 million people were affected, with 18 reported dead and 11 missing. In addition, a landslide in Maco Municipality on 6 February resulted in at least seven deaths, 48 missing persons, and 31 injuries. It displaced 750 families and damaged 62 homes. On 10 February, two earthquakes of 5.8 and 5.4 magnitude hit northern Mindanao, where search and rescue efforts in the landslide-hit village of Masara were halted. That slide had already claimed 54 lives and left 63 people missing. By 19 February, over 1.5 million individuals across five regions and 13 provinces had been impacted, with over 210,000 displaced. The region saw 49 landslides and damage to 25,010 hectares (97 mi²) of crops, affecting 19,071 farmers. The government, supported by regional offices, led response efforts, including providing essential relief supplies.¹⁴⁴

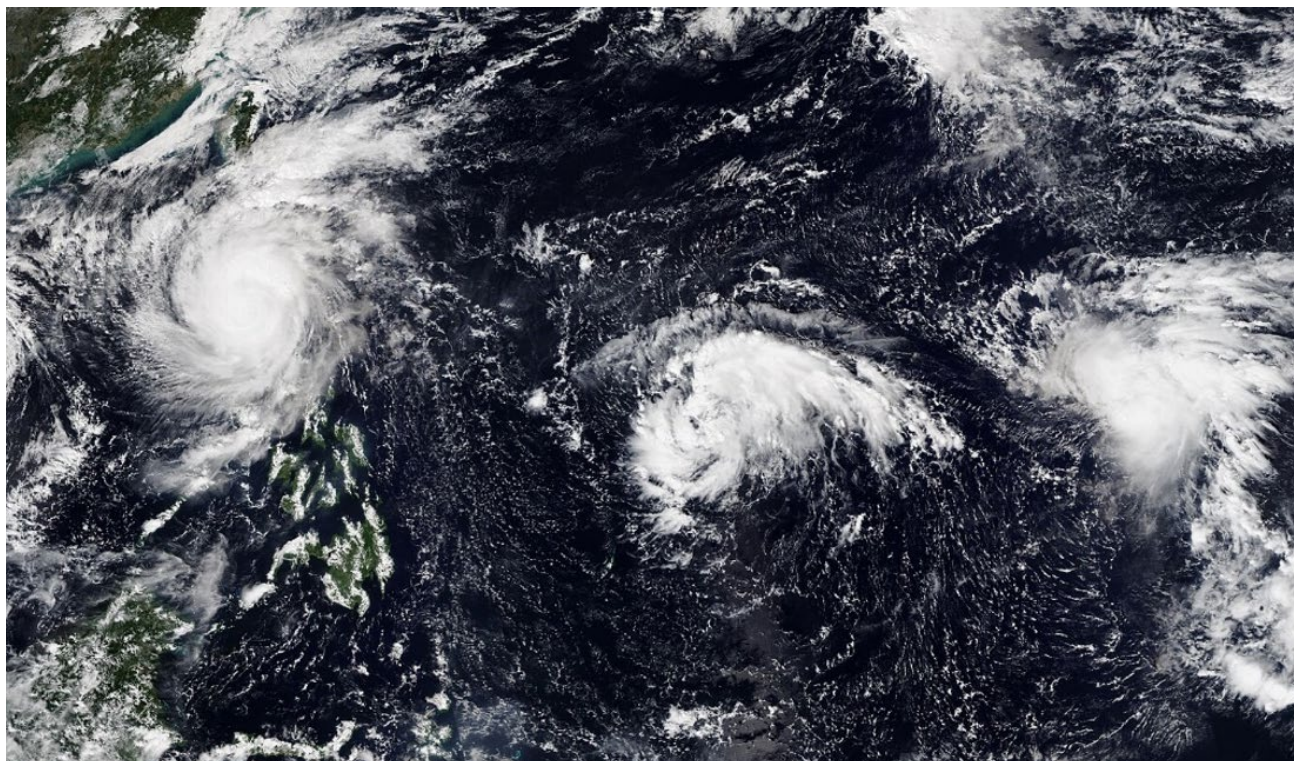


Photo 2: Four Tropical Cyclones Active on 11 November 2025

Earthquake – December 2023

On 2 December 2023, a 7.4-magnitude earthquake, triggered by movement in the Philippine Trench, struck off the coast of Hinatuan, Surigao del Sur. The earthquake sparked a tsunami alert and the evacuation of over 26,000 people from the coastal areas in Surigao del Sur and Davao Oriental, but the alert was later lifted on 3 December. As of 5 December, the earthquake had caused three deaths and 48 injuries and had affected more than 528,000 people. The initial earthquake was followed by over 660 aftershocks, ranging in magnitude from 1.4 to 6.5.¹⁴⁵

Typhoon Doksuri (Egay) – July 2023

Typhoon Doksuri (Egay) struck the Philippines on 25-26 July. It brought heavy rains, winds of 140 kph (87 mph) near the center, and gusts of up to 170 kph (106 mph). The storm caused at least 25 fatalities and 52 injuries, and it displaced nearly 313,000 individuals. Overall, the storm affected approximately 2.4 million people. The typhoon triggered floods in parts of Central Luzon and led to the suspension of land and sea travel in Region 5, the Bicol Region.¹⁴⁶

Mayon Volcano – June 2023

In early June 2023, the alert level for Mayon Volcano in the Bicol Region was raised from Level 2 to Level 3, signaling an increased risk of a hazardous eruption. As magma reached the crater, a slow effusion of lava and steam plumes were observed, and volcanic earthquakes were recorded. By mid-June, nearly 39,000 people had been affected, with more than 19,000 displaced and sheltered in 26 evacuation centers. As volcanic activity continued, local authorities extended the danger zone to 7 km (4.3 mi), and evacuation efforts intensified.¹⁴⁷

Tropical Storm Nalgae (Paeng) – October 2022

Severe Tropical Storm Nalgae (Paeng) made landfall in Catanduanes on 29 October 2022. It impacted all 17 regions of the country. The storm brought heavy rains and strong winds, and these elements led to landslides and over 550 flooding incidents. At least 863,000 people sought shelter in 2,801 evacuation centers or with relatives. Nalgae caused significant devastation, resulting in 154 fatalities, 35 missing people, and 128 injuries, with Mindanao being the hardest-hit region. Over 1 million people were displaced,

and more than 4 million individuals were affected by the storm's widespread impacts.¹⁴⁸

Typhoon Noru (Karding) – September 2022

Tropical Cyclone Noru (Karding) rapidly intensified into a super typhoon on 25 September 2022, and it made landfall in the Philippines with destructive winds and torrential rains. It caused significant damage, particularly in Quezon and Aurora provinces, as well as parts of Bulacan and Pampanga. More than 2,400 families were pre-emptively evacuated, and 34 evacuation centers were set up. By 27 September, 60,817 people had been affected, with 51,811 displaced. The storm led to widespread flooding and wind damage, with over 20,600 homes affected, including 2,500 destroyed. By 29 September, the number of affected people had risen to over 714,200, with 22,800 displaced, primarily in Region 3, Central Luzon. The casualty count reached 12 dead, including five emergency responders. Agricultural losses were severe, with approximately 170,700 hectares (660 mi²) of crops damaged, resulting in an estimated US\$52.8 million in losses.¹⁴⁹

Earthquake – July 2022

A 7.0-magnitude earthquake struck the mountainous province of Abra on 27 July 2022. It caused widespread destruction as it triggered landslides, the collapse of buildings, and significant damage to infrastructure in affected areas such as Abra, Ilocos Sur, Benguet, and Kalinga. The earthquake was followed by more than 2,000 aftershocks, causing further damage and displacing tens of thousands. By 8 August, the number of affected individuals had risen to over 502,000, with nearly 54,000 displaced. Thousands of houses, public facilities, and schools were damaged, and the region continued to face challenges from ongoing aftershocks and difficult access to remote areas.¹⁵⁰

Tropical Storm Megi (Agaton) – April 2022

Tropical Storm Megi (Agaton) hit the Philippines in April 2022, and it caused widespread flooding and landslides, particularly

in Eastern Visayas. The storm resulted in at least 212 deaths and displaced over 346,000 individuals. Damage to infrastructure was severe, with thousands of homes, roads, and bridges destroyed. Agriculture also suffered significant losses, with an estimated US\$62 million in crop damage. Relief efforts focused on providing food, water, and psychosocial support, with many people still in evacuation centers months later.¹⁵¹

Tropical Storm Kompasu (Maring) - October 2021

On 11 October 2021, Tropical Storm Kompasu (Maring) made landfall over Cagayan Province in the north of the country. The tropical storm, coming with the southwest monsoon, brought flooding, landslides, and overflowing rivers in several Northern Luzon provinces, where it affected at least 7,000 people and prompted rescue operations. An estimated 1,900 residents were rescued and taken to evacuation centers by local authorities with the support of the uniformed services. There were reportedly nine fatalities.¹⁵²

Floods and Landslides - July 2021

Heavy monsoon rains driven by moisture from Typhoon In-fa (Fabian), caused flooding and landslides in areas of Luzon, and floodwaters inundated more than 170 villages in Central Luzon and the NCR. At least three people died, five people were injured, and 450 houses were damaged.¹⁵³ According to the Department of Social Welfare and Development's Disaster Response Operations Monitoring and Information Centre (DSWD-DROMIC), more than 570,240 people were affected and 42,111 of these were displaced. Floods damaged at least 293 houses, with 69 destroyed.¹⁵⁴

Landslides and floods affected additional parts of the Philippines from 28 July to 1 August 2021, after heavy rains hit Ilocos, Central Luzon, Eastern Visayas, Zamboanga Peninsula, Mimaropa, Cordillera Administrative Region, and the NCR. According to the Association of Southeast Asian Nations (ASEAN) Coordinating Centre for Humanitarian Assistance on disaster

management (AHA Centre), one person was missing, 40,783 people were displaced, and more than 613,000 were affected. Nearly 300 houses were damaged, along with 12 roads and a bridge.¹⁵⁵

Taal Volcano - July 2021

On 1 July 2021, the Taal Volcano in Luzon's Batangas province had a phreatomagmatic eruption (one that results when magma comes into contact with water) that generated a plume 1 km (0.62 mi) high, leading to Alert Level 3 for magmatic unrest. On 2 July, 3,523 families (14,495 individuals) were evacuated from Agoncillo and Laurel municipalities. Hundreds of volcanic earthquakes followed over several weeks. A total of 4,153 families or 14,766 people were displaced in CALABARZON. The majority stayed with friends or relatives, but about one-fourth took temporary shelter in 23 evacuation centers. As of 24 July, the Taal Volcano was labeled with Alert Level 2 (decreased unrest), which means sudden steam-or gas-driven explosions, volcanic earthquakes, minor ash fall, and expulsions of volcanic gas can still occur and threaten surrounding areas. An estimated 6,165 families or 22,228 people were affected by the volcanic eruption across 148 barangays in the CALABARZON region.¹⁵⁶ This eruption occurred a year and a half after the previous eruption in January 2020.

Typhoon Surigae (Bising) – April 2021

Tropical Cyclone Surigae (Bising) brushed by the Philippines after becoming the strongest tropical cyclone on record for the month of April and one of only 20 in the world to have reached wind speeds of 306 kph (190 mph) or greater.¹⁵⁷ It formed on 12 April 2021, reached peak strength on 17 April, and fully dissipated on 2 May. While it did not pass directly over the Philippines, it came close enough to the eastern coast to have a significant impact. The typhoon killed at least four people, injured 13 people, and affected an estimated 98,546 families (401,867 persons) across the regions of Cagayan Valley, Bicol, Eastern Visayas, and Caraga Regions.¹⁵⁸

Typhoon Vamco (Ulysses) - November 2020

Tropical Cyclone Vamco (Ulysses) struck the main island of Luzon on 11-12 November 2020. It resulted in at least 67 deaths and 21 injuries. A reported 324,363 individuals were displaced in 2,980 evacuation centers, and over 1 million people were affected in total. Affected areas include the provinces of Pampanga, Bulacan, Nueva Ecija, Cagayan, Isabela, Marikina City, Rizal, Laguna, Aurora, and Quezon provinces.¹⁵⁹

Typhoon Goni (Rolly)- November 2020

Tropical Cyclone Goni (Rolly) made landfall in the Philippines on 1 November 2020 with maximum sustained winds of 225 kph (140 mph). Bicol bore the brunt of the storm, though the regions of Cagayan Valley, Central Luzon, Metro Manila, CALABARZON, Mimaropa, and Easter Visayas were also significantly affected.¹⁶⁰ At least 20 people died and 74 were injured. An estimated 41,200 houses were destroyed while another 141,100 were damaged, and 67 health facilities and thousands of schools also sustained structural damage.¹⁶¹

Typhoon Molave (Quinta) - October 2020

Tropical Cyclone Molave (Quinta) made landfall over southern Luzon near Legazpi City on 25 October 2020 before moving over Vietnam. In the Philippines, it led to at least 16 deaths and 77,000 people being evacuated. More than 242,000 people were affected in Central Luzon, CALABARZON, Mimaropa, Bicol, Western Visayas, Central Visayas.¹⁶²

Typhoon Vongfong (Ambo) - May 2020

Typhoon Vongfong (Ambo) made landfall on 14 May 2020 as a Category 3 typhoon in San Policarpo, Eastern Samar, and it moved northwest the following day towards mainland Luzon. It made landfalls in Northern Samar, Masbate, and Quezon.¹⁶³ At least 141,450 families (or 583,783 persons) were affected in 560 barangays in Ilocos, Cagayan Valley, Central Luzon, Eastern Visayas, and the Cordillera regions, with at least 973 families (or 3,455 persons) taking temporary shelter in 66 evacuation centers.¹⁶⁴

Taal Volcano - January 2020

On 12 January 2020, PHIVOLCS recorded increased volcanic activities generating an eruption plume 1 km (0.62 mi) high. Volcanic tremors and earthquakes were felt on Volcano Island and in the barangays of Agoncillo, Batangas province, and residents from at least three municipalities in Batangas were evacuated.¹⁶⁵ The government proclaimed Alert Level 3, and, within several hours, raised it to Alert Level 4 (hazardous eruption imminent). Volcanic activity progressed into a magmatic eruption on 13 January.¹⁶⁶ The following months brought steam-laden plumes and hundreds of volcanic earthquakes. By 12 March, at least 846,000 people were affected in Batangas, Quezon, Laguna, and Cavite, and 235,000 people had been temporarily displaced.¹⁶⁷

Typhoon Phanfone (Ursula) - December 2019

Typhoon Phanfone (Ursula) made landfall on 24 December 2019, in Salcedo, Eastern Samar. It brought heavy rainfall and rough waters to southern Luzon and the Visayas.¹⁶⁸ By 2 January 2020, the government had reported 50 dead, 362 people injured, and more than 2 million people affected in the regions of Mimaropa, and Western, Central, and Eastern Visayas.¹⁶⁹

Earthquakes – October-December 2019

On 15 December 2019 at 2:11 p.m. local time, a 6.9-magnitude earthquake struck Matanao municipality in Davao del Sur, Mindanao. It was the fourth quake above magnitude 6.0 in two months to hit this part of Mindanao. Similar earthquakes in October partially or totally damaged over 47,600 houses.¹⁷⁰ The previous quakes included a 6.4-magnitude earthquake on 16 October in North Cotabato province and a 6.6-magnitude temblor on 29 October in Cotabato Province.¹⁷¹ By the end of the month, a reported 394,355 people were affected by the earthquakes in 218 barangays in the regions of Davao and Soccsksargen in Mindanao. More than 140,000 people were displaced, out of which 40,424 temporarily sheltered in 102 evacuation centers and the remainder stayed with relatives, friends, or in open spaces.¹⁷² In total, 13 people

were killed and over 200 people were injured by collapsing structures, falling debris, cardiac arrest, and other earthquake-related traumas.¹⁷³

Typhoon Kammuri (Tisoy) - December 2019

Tropical Cyclone Kammuri (Tisoy) made landfall on 3 December 2019 over the north-east Mindoro Island, close to Naujan City.¹⁷⁴ At least 13 people died, and nearly 2 million people were affected across almost 4,200 barangays in the regions of Central Luzon, CALABARZON, Mimaropa, Bicol, Eastern Visayas, and Caraga.¹⁷⁵

Earthquakes - July 2019

On 27 July 2019, a series of earthquakes struck the island of Batanes, the northernmost province in the Philippines. The temblors included a 5.4-magnitude quake at 4:16 a.m. local time, a 5.9-magnitude quake at 7:37 a.m., and a 5.8-magnitude quake at 9:24 a.m. As of 5 August, nine people were confirmed dead, 2,982 people had been affected, and hundreds of houses were damaged by the earthquake events in five barangays in Itbayat, Batanes.¹⁷⁶

List of other natural disasters in the Philippines between 2014 and 2019:

- Floods and Landslides - June 2019
- Drought - 2019-2020
- Tropical Depression Amang - January 2019
- Tropical Depression Usman - December 2018
- Typhoon Mangkhut (Ompong) - September 2018
- Floods and Landslides - June 2018
- Mayon Volcano Eruption - January 2018
- Tropical Cyclone Tembin (Vinta) - December 2017
- Tropical Storm Kai-Tak (Urduja) - December 2017
- Earthquakes - July 2017
- Earthquakes - February 2017
- Floods and Landslides - January 2017
- Typhoon Nock-ten (Nina) - December 2016
- Typhoon Haima (Super Typhoon Lawin) - October 2016
- Typhoon Sarika (Karen) - October 2016
- Floods and Landslides - August 2016
- Tropical Depression Twenty-Nine -

December 2015

- Typhoon Melor (Nona) - December 2015
- Typhoon Koppu (Lando) - October 2015
- Drought - 2015-2017
- Floods and Landslides - June 2015
- Typhoon Maysak (Julian) - March 2015
- Tropical Storm Jangmi (Seniang) - December 2014
- Typhoon Hagupit (Ruby) - December 2014
- Tropical Storm Fung-Wong (Mario) - September 2014
- Typhoon Rammasun (Glenda) - July 2014
- Floods and Landslides - June 2014
- Floods and Landslides - January 2014

Country Risk

Risk calculation takes into account exposure to hazards, vulnerability, and coping capacity. Addressing all of these elements is important in reducing and mitigating disaster risk. Various indices emphasize structural or institutional risk while others emphasize hazards or losses (human and economic). Regardless of emphasis, disaster risk calculations use some form of the equation:

$$\text{Disaster Risk} = (\text{Hazard} \times \text{Vulnerability}) / \text{Capacity}^{177}$$

Taken from the UN Office for Disaster Risk Reduction (UNDRR) glossary, definitions will help clarify this formula:

- **Capacity** - The combination of strengths, attributes, and resources available within an organization, community, or society to manage and reduce disaster risks and strengthen resilience.
- **Disaster risk** - The potential loss of life, injury, or destroyed or damaged assets, which could occur to a system, society, or a community in a specific period of time, determined probabilistically as a function of hazard, exposure, vulnerability, and capacity.
- **Hazard** - A process, phenomenon, or human activity that may cause loss of life, injury, or other health impacts, property damage, social and economic disruption, or environmental degradation.
- **Vulnerability** - The conditions determined by physical, social, economic, and environmental factors or processes, which increase the susceptibility of an individual, a community, assets, or systems to the impacts of hazards.¹⁷⁸

In general, the goal of indexing risk is to inform decision makers and DRR and CCA practitioners of the level of risk to and underlying capacity of the target community. The various risk calculation models support proactive crisis management frameworks and are helpful for prioritizing allocation of resources and for coordinating actions focused on anticipating, mitigating, and preparing for humanitarian emergencies.

INFORM Risk Profile

INFORM is a collaboration of the Inter-Agency Standing Committee (IASC) Reference Group on Risk, Early Warning, and Preparedness with the European Commission. It is a multi-stakeholder forum for developing shared, quantitative analysis relevant to humanitarian crises and disasters. The Joint Research Center of the European Commission is the scientific lead. There are three operational dashboards – i.e., INFORM Risk, INFORM Severity, and INFORM Climate Change.

- **INFORM Risk** is an open-source risk assessment for humanitarian crises and disasters. It can support decisions about prevention, preparedness, and response.
- **INFORM Severity** is a way to measure and compare the severity of humanitarian crises and disasters globally. It can help develop a shared understanding of crisis severity and ensure all those affected get the help they need.
- **INFORM Climate Change** is an upgraded INFORM Risk Index that includes climate and socio-economic projections with results intended to inform policy choices across climate mitigation, climate adaptation, DRR, sustainable development, and humanitarian assistance.¹⁷⁹

The **INFORM Risk** Index measures the risk of humanitarian crises and disasters in 191 countries. The INFORM model is based on the standard dimensions of risk: Hazards and Exposure, Vulnerability, and Lack of Coping Capacity. The first dimension measures the natural and anthropogenic hazards that pose the risk. The second and third dimensions cover population factors that can mitigate against or exacerbate the risk. The Vulnerability dimension considers the strength of individuals and households relative to a crisis while the Lack of Coping Capacity dimension considers factors of institutional strength.¹⁸⁰

The INFORM model is split into different levels to provide a quick overview of the underlying factors leading to humanitarian risk. INFORM gives each country a risk score of 1-10 (1 being the least risk and 10 the greatest risk) for each of the dimensions, categories, and components of risk, as well as an overall risk score.¹⁸¹ The higher the score the more at-risk a country is. In the 2025 INFORM Risk Index, the Philippines had an overall risk score of 5.4/10, which INFORM categorizes as the “High” risk class and lands the Philippines as the 35th most at-risk country in the Index. The Hazards and Exposure dimension score takes into account a combination of both natural and anthropogenic hazards, and the Philippines rated 8.4/10, which saw it ranked 7th of 191 countries. The Vulnerability dimension score was 4.7/10 for a rank of 62nd of 191, and the Lack of Coping Capacity dimension score was 4.1/10 for a rank of 100th of 191 countries. Within the Hazards and Exposure dimension, the greatest threat was physical exposure to earthquake at 9.7/10, followed closely by physical exposure to tsunami at 9.4/10, physical exposure to tropical cyclone at 9.2/10, and physical exposure to coastal flood at 8.9/10. Within the Vulnerability dimension, the most vulnerable group

was uprooted people at 5.9/10, and the highest socio-economic vulnerability was inequality at 4.6/10, followed very closely by development and deprivation at 4.5/10. Within the Lack of Coping Capacity dimension, the greatest institutional risk was governance at 5.8/10, and the greatest infrastructure risk was access to health care at 5.6/10. Figure 7 graphically depicts the main 2025 INFORM Risk Index dashboard for the Philippines.¹⁸²

Based on 2022 baseline assessments and projections of climate change influences on major hazards, the **INFORM Climate Change** tool suggests that the impact of climate change will lead to an increase in the Philippines’ overall INFORM Risk Index score from a baseline of 5.3/10 in 2022 to 5.4/10 in 2050 under a high-emissions climate change scenario. When the climate change tool applies additional indicators to the Hazard and Exposure category, the projected changes include that the risk of exposure to flood will increase by 1.1, exposure to coastal flooding will increase by 0.8, exposure to drought will decrease by 0.5, and exposure to epidemic (malaria and dengue) will increase by 0.9, all applying to the same 1-to-10 scale used by the INFORM Risk Index.¹⁸³ The index projects a country’s potential situation out to the years 2050 and 2080, based on an examination of the country’s potential experience and

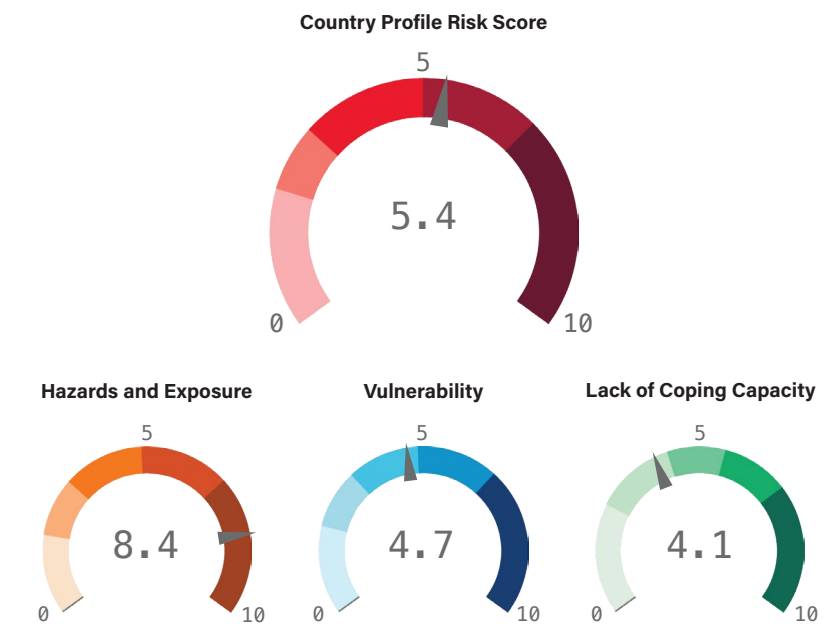


Figure 7: INFORM Risk Index, Philippines (2025)

various possible emissions and socio-economic scenarios.¹⁸⁴

The **INFORM Severity Index** measures the severity of humanitarian crises against a common scale at the global level. The concept is based on three dimensions: impact of the crisis, conditions of people affected, and complexity of the crisis. The model is divided into levels to give insight into each of the dimensions. The primary INFORM Severity score is formulated by asking which of the world's humanitarian crises have the highest severity and what is the level of severity to allow responders and analysts to compare among crises. The answers to these questions are aggregated from many categories and components, each reflecting a different dimension of the phenomenon, and their values answer which underlying factors determine the severity of a crisis. If data is continuously collected, the time series will show when an event met the criteria of a crisis, how the crisis evolved, and when it phased out.

INFORM Severity adopted the following definitions:

- Humanitarian crisis - An event or series of events that causes harm to the physical, mental, social, and economic well-being of a large group of people, exceeds their ability to cope using their own resources, and how complex it is to fill such gaps by the humanitarian responders.
- Severity of humanitarian crisis - An extent of outcomes, in terms of distribution of people affected by the severity of conditions they confront within the crisis, generated by the impact of a crisis and worsened by how complex it is to deliver humanitarian response in the operational environment.
- Measure of crisis severity – A summary of a range of quantitative information about the severity of a humanitarian crisis and a presentation of it in a numerical and/or categorical scale to be easily used in decision making.

Therefore, INFORM Severity envisages three

dimensions of crisis severity:

- Impact of the crisis - The scope of its geographical and human effects
- Conditions of people affected - Information about the distribution of people affected by the severity of condition
- Complexity of the crisis - Factors that affect mitigation or resolution¹⁸⁵

Three humanitarian crises in the Philippines were included and measured in the December 2024 INFORM Severity Index. All scores were on a scale of 1-5, wherein 1 is the least severe and 5 is the most severe. The Mindanao conflict was given an INFORM Severity rating of 2.0/5, classified in the “Low” Severity Category, and its severity trend was deemed “Decreasing” over the course of the three months preceding the index measurement. Severe Tropical Storm Trami (Kristine), which made landfall on 23 October 2024 in Isabella on the northern part of Luzon Island, was given an INFORM Severity rating of 2.7/5 and classified in the “Medium” Severity Category. Four tropical cyclones that successively struck northern Luzon, all in November 2024 – Tropical Cyclone Toraji (Nika), Tropical Cyclone Usagi (Super Typhoon Ofel), Tropical Cyclone Man-yi (Super Typhoon Pepito), and Tropical Cyclone Yinxing (Marce) – were collectively given an INFORM Severity rating of 2.8/5 and classified in the “Medium” Severity Category.¹⁸⁶ The humanitarian crises resulting from the typhoons were not issued a severity trend as the storms had all made landfall within the three months before the index measurement. The Philippines, as a country responding to multiple humanitarian crises, was given an overall INFORM Severity Index country score of 2.9/5, classified in the “Medium” Severity Category, and the severity trend was rated as “Increasing” for the overall country for the last three months before the index measurement. The country’s “Increasing” severity trend is likely due to the unprecedented arrival of five tropical cyclones within about a month’s time. Note, the index did not include the impacts of a sixth storm, Typhoon Kong-rey (locally known as Super

Typhoon Leon), which did not make landfall in the Philippines but did pass through the area in late October 2024.

World Risk Report

The World Risk Report by Bündnis Entwicklung Hilft strives to raise awareness of disaster risk among the global public and political decision-makers and to provide practitioners with data to promote faster orientation to complex situations – i.e., societies experiencing disasters. This effort stems from the perception that disaster risks are not solely determined by the occurrence, intensity, or duration of extreme events. Social factors, political conditions, and economic structures play an important role in turning these events into crises. Thus, this index is based on the assumption that every society can take precautions – e.g., effective disaster preparedness and management – to reduce the impact of extreme events and lower the risk of disasters.

The World Risk Report calculates the level of risk a country faces based on a formula of exposure to hazards and vulnerability. It provides an assessment of the risk that countries will confront disasters but does not indicate probabilities for the emergence of disasters, nor does it forecast the timing of future disasters. This index uses 100 indicators that include risk, hazard exposure, vulnerability, and coping capacity (as defined above), and adds two others:

- Susceptibility - The disposition to suffer damage in the event of extreme natural events. Susceptibility relates to structural characteristics and frameworks of societies.
- Adaptation - A long-term process that also includes structural changes and comprises

measures and strategies that address and try to deal with future negative impacts of natural hazards and climate change. Analogous to “lack of coping capacity,” the lack of adaptive capacities is included in the Index.

In the 2024 World Risk Report, the Philippines ranked 1st among 193 countries wherein the lower the rank, the greater risk the country faces. Thus, the Philippines was ranked as the highest-risk country globally. The Philippines’ total Index score was 46.91 (on a scale of 0-100 wherein the lower the number the less risk a country faces), putting it in the “Very High” risk class, the highest of five risk classifications. The Philippines’ component scores were:

- Exposure: 39.99 (Very High)
- Vulnerability: 55.03 (Very High)
- Susceptibility: 51.16 (Very High)
- Lack of Coping Capacity: 58.07 (Very High)
- Lack of Adaptive Capacity: 56.10 (High)

The 2024 edition of the World Risk Report had the focus of multiple, overlapping crises, and especially highlighted the Philippines, “which was hit by 22 tropical cyclones during the COVID-19 pandemic, including Typhoon Goni.” Locally known as Super Typhoon Rolly, Typhoon Goni made landfall over the Philippines in November 2020 as the strongest tropical cyclone observed worldwide that year. The 2024 report also noted ways in which disasters can be linked to a higher risk of conflict and observed that “pro-government militias in the Philippines see significant membership increases after disasters.”¹⁸⁷

ORGANIZATIONAL STRUCTURE FOR DISASTER MANAGEMENT

The National Disaster Risk Reduction and Management Council (NDRRMC) is the primary body responsible for coordinating disaster preparedness, response, prevention and mitigation, and rehabilitation and recovery at the national level in the Philippines. Situated under the Department of National Defense (DND), NDRRMC's implementing arm is the Office of Civil Defense (OCD), which also falls under the DND. NDRRMC is chaired by the DND Secretary and has four vice chairs from different agencies with each vice chair covering a different phase of the disaster management cycle. The NDRRMC's 45 member agencies are largely comprised of government agencies but also include civil society and private sector organizations, reflecting a whole-of-society approach. Legislative bills have proposed the creation of a Department of Disaster Resilience to replace the NDRRMC, but the legislation has not passed into law as of the date of this book's publication. Much of the implementation of DRRM is decentralized throughout the country and, accordingly, the NDRRMC coordinates with the relevant Disaster Risk Reduction and Management Councils (DRRMC) at regional, provincial, city, municipal, and barangay levels.

Lead Government Agencies in Disaster Response

The NDRRMC has the primary objective of safeguarding the welfare of the people of the Philippines during disasters and emergencies. The NDRRMC is the country's highest policy-making platform for DRRM and advises the President of the Philippines on the status of disaster prevention and mitigation, disaster preparedness, disaster response, and disaster recovery and rehabilitation efforts. The NDRRMC was restructured from its predecessor

agency in 2010 by the Philippine DRRM Act. To perform and complete its duties, the NDRRMC utilizes and facilitates the services of the OCD, which serves as the NDRRMC's executive arm and secretariat.¹⁸⁸

NDRRMC key functions include:

- Planning and leading DRRM activities nationwide
- Coordinating government and non-governmental entities, including the private sector and civil society, in all phases of disaster management
- Continuous monitoring of disaster situations to enable the council to implement timely and effective responses
- Raising public awareness and understanding of disaster risks and preparedness
- Facilitating international cooperation by representing the Philippines in international fora and initiatives related to disaster management

The NDRRMC has 45 member agencies. Table 1 describes the NDRRMC Chairperson's and Vice Chairpersons' roles and responsibilities. The other member agencies of the NDRRMC are the:

- Department of Health (DOH) Secretary
- Department of Environment and Natural Resources (DENR) Secretary
- Department of Agriculture (DA) Secretary
- Department of Education (DepEd) Secretary
- Department of Energy (DOE) Secretary
- Department of Finance (DOF) Secretary
- Department of Trade and Industry (DTI) Secretary
- Department of Transportation (DOTr) Secretary
- Department of Budget and Management (DBM) Secretary
- Department of Information and Communication Technology (DICT) Secretary

Chairperson	Roles and Responsibilities
Vice Chairperson, Disaster Preparedness	Secretary, DND - DND leads overall disaster response operations through the OCD.
Vice Chairperson, Disaster Response	Secretary, Department of the Interior and Local Government (DILG) – DILG ensures that local governments' plans are consistent with NDRRMC guidelines.
Vice Chairperson, Disaster Prevention and Mitigation	Secretary, DSWD - DSWD is responsible for providing essential aid, including food and shelter, to affected communities.
Vice Chairperson, Disaster Rehabilitation and Re-cover	Secretary, National Economic and Development Authority (NEDA) – NEDA provides policy directions on post-disaster rehabilitation efforts and strives to ensure sustain-able development in line with the national long-term vision.

Table 1: Disaster Management Council Chair and Vice-Chair Roles and Responsibilities

- Department of Public Works and Highways (DPWH) Secretary
 - Department of Foreign Affairs (DFA) Secretary
 - Department of Justice (DOJ) Secretary
 - Department of Labor and Employment (DOLE) Secretary
 - Department of Tourism (DOT) Secretary
 - The Executive Secretary, Office of the President of the Philippines
 - Office of the Presidential Adviser on Peace, Reconciliation and Unity (OPAPRU) Secretary
 - Commission on Higher Education (CHED) Chairman
 - Armed Forces of the Philippines (AFP) Chief of Staff
 - Philippine National Police (PNP) Chief
 - Secretary of the Presidential Communications Office (formerly the Press Secretary)
 - Philippine National Red Cross Secretary General
 - National Anti-Poverty Commission – Victims of Disasters and Calamities Sector (NAPC-VDC) Commissioner
 - Philippine Commission on Women (PCW) Chairperson
 - Housing and Urban Development Coordinating Council (HUDCC) Chairperson
 - Climate Change Commission (CCC), Executive Director of the Climate Change Office
 - Government Service Insurance System (GSIS) President
 - Social Security System (SSS) President
 - Philippine Health Insurance Corporation (PhilHealth) President
 - Union of Local Authorities of the Philippines (ULAP) President
 - League of Provinces of the Philippines (LPP) President
 - League of Cities of the Philippines (LCP) President
 - League of Municipalities of the Philippines (LMP) President
 - League of Barangays of the Philippines (LMB, Liga ng mga Barangay sa Pilipinas) President
 - Civil society organizations (CSO), four representatives
 - Private sector, one representative
 - OCD Administrator¹⁸⁹
- The NDRRMC member agencies are visually represented organogram-style in Figure 8, as sourced from the OCD.¹⁹⁰
- The OCD serves as the implementing arm, or executive arm, and as the secretariat of the NDRRMC. The OCD was established in 1972. The OCD has the primary mission of administering a comprehensive national civil defense and DRRM program by providing leadership in the continuous development of strategic and systematic approaches and measures to reduce the vulnerabilities and risks to hazards and manage the consequences of disasters.¹⁹¹ Figure 9 shows the organizational structure of the OCD.¹⁹²
- The OCD is responsible for ensuring the implementation and monitoring of the National Disaster Risk Reduction and Management Plan (NDRRMP), including by conducting periodic assessment and monitoring of NDRRMC and Regional Disaster Risk Reduction Management



Figure 8: Philippines Disaster Management Council Member Agencies

Councils (RDRRMC) member agencies. The OCD is also responsible for ascertaining that the physical framework and social, economic and environmental plans of communities, cities, municipalities, and provinces are consistent with the NDRRMP, and that all DRR programs, projects, and activities requiring regional and international support are in accordance with national policies and aligned with international agreements. At the regional and local levels, the OCD reviews and evaluates the Local DRRM Plans (LDRRMP) to facilitate the

integration of DRR measures into the local Comprehensive Development Plan (CDP) and the Comprehensive Land Use Plan (CLUP).¹⁹³

The OCD's mandate includes, but is not limited to:

- Advise the NDRRMC on DRRM
- Formulate and implement the NDRRMP and ensure that the physical framework and social, economic, and environmental plans of communities, cities, municipalities, and provinces are consistent with the plan
- Identify, assess, and prioritize hazards and

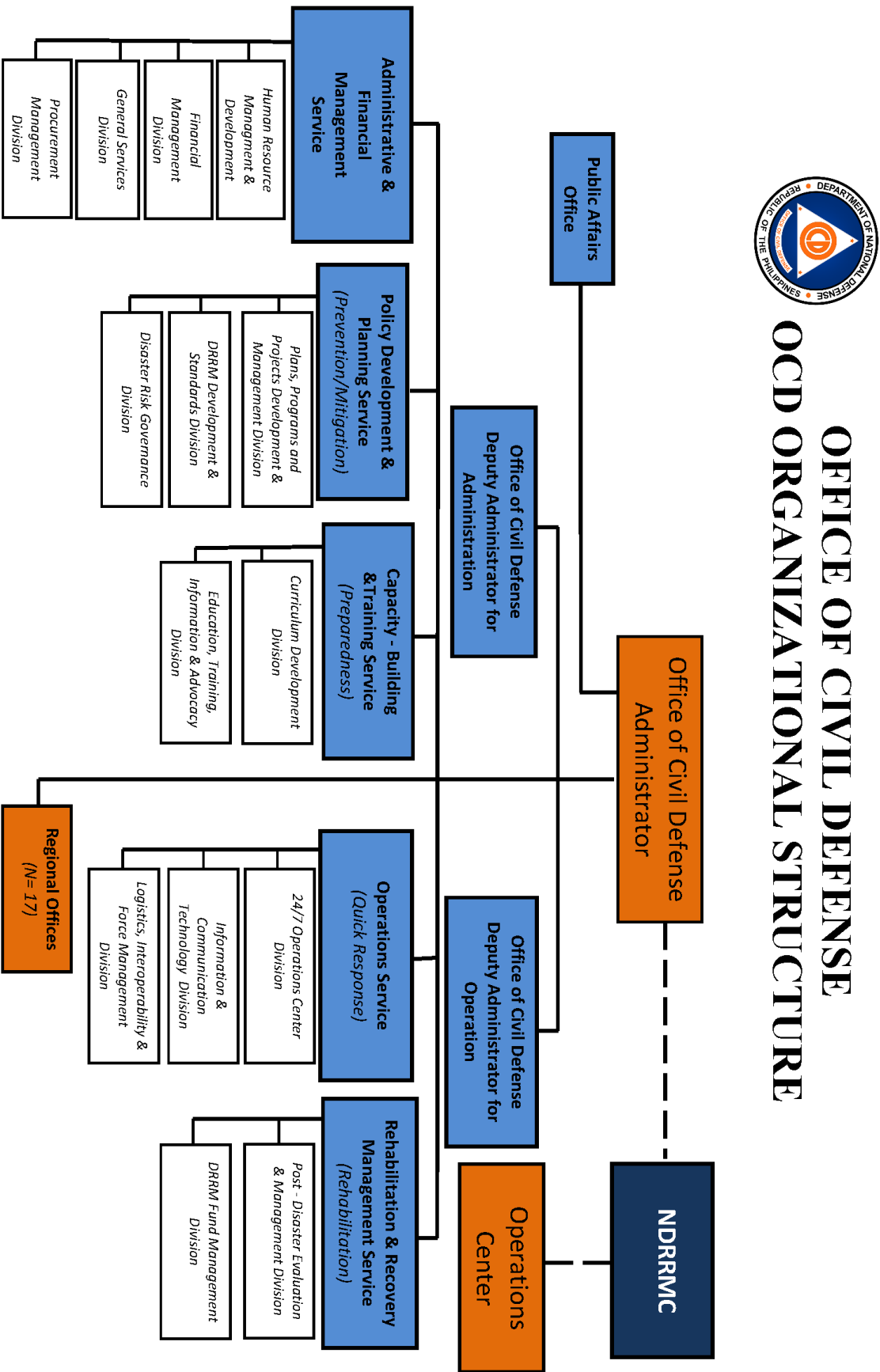


Figure 9: Office of Civil Defense Organizational Structure

- risks in consultation with key stakeholders
- Develop and ensure the implementation of national standards in carrying out DRR programs, including preparedness, mitigation, prevention, response, and rehabilitation works, from data collection and analysis through planning, implementation, monitoring, and evaluation
- Review and evaluate the LDRRMPs to facilitate the integration of DRR measures into the local CDP and CLUP
- Ensure that the Local Government Units (LGU), through the Local Disaster Risk Reduction and Management Offices (LDRRMO), are properly informed and adhere to the national standards and programs
- Formulate standard operating procedures for deployment of rapid assessment teams, information sharing among different government agencies, and coordination before and after disasters at all levels
- Establish standard operating procedures on the communication system among provincial, city, municipal, and barangay DRRM councils, for purposes of warning and alerting them and for gathering information on disaster areas before, during, and after disasters
- Establish DRRM Training Institutes to train public and private individuals, conduct research to upgrade knowledge and document best practices on DRRM, and conduct awareness and education programs for elected officials and LDRRMC members
- Ensure that all DRR programs, projects, and activities requiring regional and international support shall be in accordance with duly established national policies and aligned with international agreements
- Ensure that government agencies and LGUs take appropriate measures in DRRM
- Create an enabling environment for substantial and sustainable participation of CSOs, private groups, volunteers, and communities
- Conduct early recovery and post-disaster needs assessment, institutionalizing gender analysis as part of it
- Prepare the criteria and procedures for the enlistment of accredited community disaster volunteers
- Provide advice and technical assistance and assist in mobilizing necessary resources to increase the overall capacity of LGUs, specifically in low-income and high-risk areas
- Establish the National Disaster Risk Reduction and Management Operations Center (NDRRMOC), operated and staffed on a 24-hour basis¹⁹⁴

The NDRRMOC, formerly known as the National Disaster Coordinating Council Operations Center, is located at Camp General Emilio Aguinaldo. It is operated and maintained by OCD personnel on a 24-hour basis during normal situations, in coordination with respective operations centers of NDRRMC member agencies and RDRRMCs. The NDRRMOC serves as the nerve center for alert and monitoring, multi-agency and multi-level operational coordination, response and resource mobilization, and information management. It utilizes support systems such as the early warning and emergency broadcast system, geographic information systems and other space-based technologies, the incident command system, rapid damage assessment and needs analysis, emergency logistics management, public-private partnerships for emergency response, and humanitarian assistance coordination mechanisms. During emergency situations, the NDRRMOC is complemented by Detailed Duty Officers from NDRRMC member agencies during emergency situations. In ongoing emergencies or potential emergency situations, an operations center becomes an emergency operations center (EOC), with its functions including coordination of requirements for ongoing operations, mobilization of resources, and management of information.¹⁹⁵

Disaster Relief and Emergency Response

Since 2017, a potential Department of Disaster Resilience (DDR) has been proposed in draft law and debated in the Philippine Congress. If approved, the DDR would replace the existing NDRRMC and would have responsibility across DRR, preparedness and response, and recovery. According to Albay Representative Joey Salceda, one of the authors of a bill to this purpose, one weakness is that the NDRRMC is not a focused agency with capacity to implement programs, activities, and projects, including pre-disaster activities. The proposed DDR aims to deliver a more comprehensive mandate that covers preparation and permanent resilience in addition to disaster response with Cabinet-level leadership. Senate Bill 188 to create the DDR¹⁹⁶ has been pending in committee since 2022.¹⁹⁷ As of November 2024, the House of Representatives approved an unnumbered substitute bill to create the DDR, but it still needs the support of the DND.¹⁹⁸

The Philippines was one of the first governments to adopt a national cluster system of humanitarian coordination based on the global UN Cluster System used for international disaster response. The national cluster system was first activated in 2013 following Typhoon Haiyan and further updated in 2018 to include the 11 current clusters. Figure 10 shows each cluster's lead Philippine Government agency and international partner supporting agency.¹⁹⁹ The response clusters are activated by request from RDRRMCs through the OCD regional offices to the NDRRMC, or within 12 hours of the disaster event if no reports or communication comes from the affected RDRRMC. Regional and provincial cluster focal points are appointed from the respective lead government agencies.

RDRRMCs are responsible for ensuring disaster-sensitive regional development plans, and they convene the different regional line agencies and concerned institutions and authorities in case of emergencies. Whenever necessary, RDRRMCs establish Regional Disaster

Risk Reduction and Management Operations Centers (RDRRMOC). RDRRMC chairpersons are OCD civil defense officers who are or may be designated as Regional Directors of the OCD, and Vice Chairpersons are the Regional Directors of the DSWD, DILG, DOST, and NEDA, in a reflection of the Chair and Vice Chair structure of the NDRRMC. An exception is the BARMM, where the Regional Governor serves as the RDRRMC Chairperson. The existing regional offices of the OCD serve as RDRRMCs' Secretariats. The RDRRMCs are composed of the executives of regional offices and field stations at the regional level of the government agencies. RDRRMCs coordinate, integrate, supervise, and evaluate the activities of the LDRRMC, usually at the barangay level.

LGUs are considered to be on the frontlines of and first responders to every disaster event. They take the lead in preparing for, responding to, and recovering from the effects of any disaster.²⁰⁰ LGUs are classified into four main levels – provinces, cities, municipalities, and barangays. LGUs are constitutionally established political subdivisions vested with governmental powers to manage their local affairs.²⁰¹ At the provincial, city, and municipal levels are the PDRRMC, MDRRMC, and CDRRMC. At the level of barangay, or neighborhood or village, is the BDRRMC, which is the LDRRMC for doctrinal and policy purposes.

The LDRRMCs function at the barangay (neighborhood or village) level and are usually comprised of the existing Barangay Development Councils. The LDRRMCs approve, monitor, and evaluate the implementation of LDRRMPs and regularly review and test their plans. The local councils ensure the integration of DRR and CCA into local development plans, programs, and budgets as a strategy in sustainable development and poverty reduction, and they recommend the implementation of forced or preemptive evacuation of local residents, if necessary. The LDRRMCs include, but are not limited to, representation from:

- Local Chief Executives (elected officers of the LGUs)

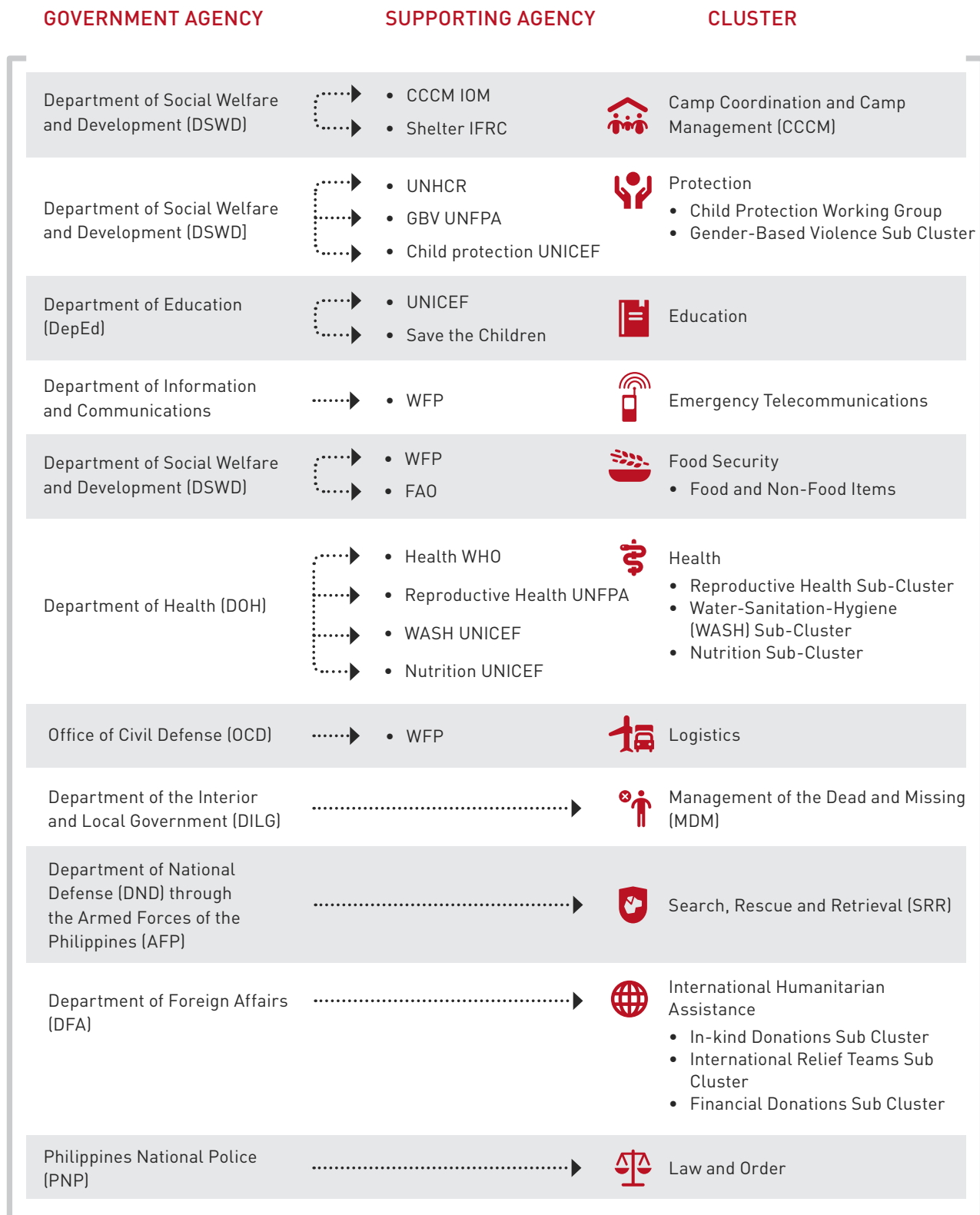


Figure 10: Philippines National Cluster System

- Local Planning and Development Officer
- Head of the LDRRMO
- Head of the Local Social Welfare and Development Office
- Head of the Local Health Office
- Head of the Local Agriculture Office
- Head of the Gender and Development Office
- Head of the Local Engineering Office
- Head of the Local Veterinary Office
- Head of the Local Budget Office
- Division Head/Superintendent of Schools of the DepEd
- Highest-ranking officer of the AFP assigned in the area
- Provincial Director/City/Municipal Chief of the PNP
- Provincial Director/City/ Municipal Fire Marshall of the Bureau of Fire Protection
- President of the Association of Barangay Captains
- Philippine National Red Cross (Philippine Red Cross)
- Four accredited CSOs
- Private sector (one representative)²⁰²

Armed Forces Role in Disaster Relief

The military plays a significant first-responder role in large emergencies and disasters in the Philippines.²⁰³ This role is outlined in disaster laws and policies, disaster coordination structures that delineate AFP's role, and in military doctrine. At the national level, the Secretary of the DND heads the NDRRMC as Chairperson, and the AFP Chief of Staff is also an NDRRMC member. The DND oversees the OCD, which serves as the implementing arm of the NDRRMC. The OCD Administrator is the NDRRMC Executive Director with the same duties and privileges as a department undersecretary, and the OCD serves as the NDRRMC Secretariat. At the local level, the highest-ranking officer of the AFP assigned in the area is a member of the LDRRMC.²⁰⁴

The AFP closely coordinates with

the OCD in the utilization of military assets or provision of necessary assistance, which may include the deployment of Search, Rescue and Retrieval (SRR) teams, transportation assistance, or availability of aircraft for Rapid Damage Assessment and Needs Analysis (RDANA) and Post-Disaster Needs Assessment (PDNA). As the Secretariat of the NDRRMC, the OCD coordinates AFP's provision of the most urgent assistance.

AFP is made up of three branches (Army, Navy, and Air Force) and is organized along six unified (geographical) commands that employ the forces, as depicted in Figure 11.²⁰⁵ Humanitarian assistance and disaster relief (HADR) is among the three specified internal defense missions under DND's strategy. This mission area covers the before-during-after disaster phases. It includes providing support to civilian agencies in the conduct of pre-disaster warnings, search and rescue operations, and relief operations. AFP, as first responders, together with the OCD, cooperate for an efficient and effective execution of disaster response plans and programs.

AFP roles in disaster response include establishing area commands for directing field operations that will engage in SRR, relief, rehabilitation, and recovery. AFP and the DND

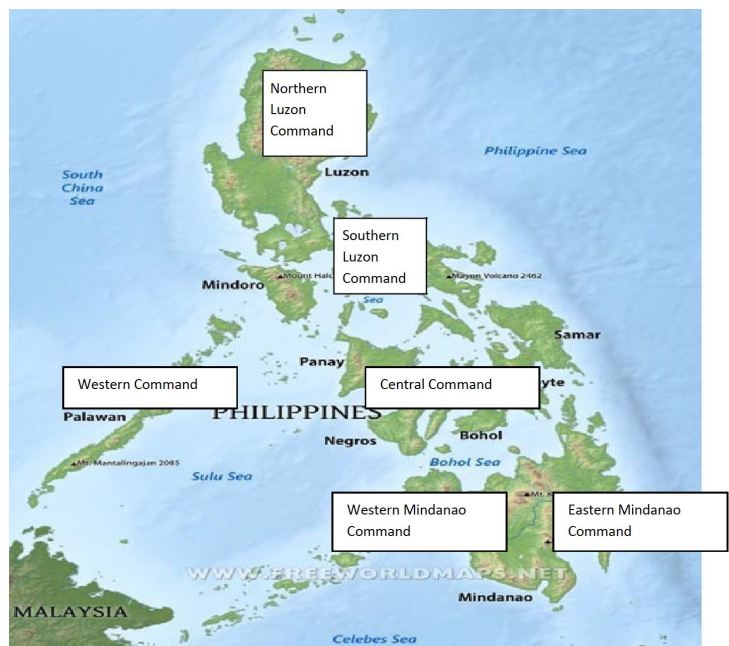


Figure 11: Unified Commands of the Armed Forces

lead the SRR cluster in the national cluster system for humanitarian coordination. The SRR cluster is a national mechanism that coordinates and deploys all available search and rescue teams from the government, civil society, private sector, and international community.

While the national cluster system was modeled on the global UN cluster system, it also includes clusters with no counterpart in the global cluster system, such as the SRR cluster headed by AFP. The AFP also provides logistics and communications support to other government cluster agencies, as well as support to the Law and Order Cluster and Health Cluster.²⁰⁶

Following the devastating experience of Typhoon Haiyan (Yolanda) in 2013, the AFP introduced operational mechanisms to facilitate coordination. The AFP Multinational Coordinating Centre (MNCC) and the Civil-Military Coordinating Centre (CMCC) were set up to coordinate foreign militaries and international responders when the Philippine Government, through the President, called for international assistance.²⁰⁷ The CMCC, established in 2018, is the national coordination mechanism for facilitating civil-military coordination in emergency situations that require AFP support. The CMCC has been activated in numerous disasters, such as Typhoon Rai (Super Typhoon Odette) in December 2021, to coordinate AFP's efforts with those of government agencies, NGOs, and international humanitarian organizations.²⁰⁸ When the Philippines chooses to receive international disaster assistance that includes foreign military assets, the MNCC provides common situational awareness between the AFP and assisting foreign militaries, facilitates information sharing, and ensures the efficient use of military support locations, capabilities, and coordination. When the MNCC is activated, it is usually co-located with the NDRRMOC and the CMCC. The MNCC may be organized into functional cells that focus on functions such as information sharing, requests for assistance, operations, planning, humanitarian civil-military coordination, and media. The

MNCC works to prioritize and coordinate foreign military assistance, support efficient use of airspace, develop criteria to transition away from military support, coordinate support for needs assessments with the NDRRMC and other agencies, and liaise with lead civilian agencies and other organizations.²⁰⁹

One important operational reform of the AFP in the aftermath of Typhoon Haiyan (Yolanda) was the activation of one battalion each for the Army, Air Force, and Navy that was fully equipped and dedicated for HADR missions. The AFP considers itself to be the country's most robust first responder, due to its manpower, logistical equipment, and countrywide deployment that facilitates the AFP's availability to respond to domestic disasters.²¹⁰ Additionally, "reserve force development will be pursued as multipliers to the armed forces' internal security, HADR operations."²¹¹

Enhanced Defense Cooperation Agreement (EDCA)

The Philippines has up to nine EDCA base locations, which are jointly agreed upon by the Philippines and the U.S. and where U.S. funding helps develop the location's infrastructure. The Philippines has sovereignty and control over EDCA sites and Philippine leadership provides final approval. Developing the EDCA bases enables the Philippines and the U.S. to build lasting security infrastructure to promote long-term modernization, build a credible mutual defense posture, and enhance the strength of the alliance.²¹² The EDCA sites also boost HADR capabilities, providing a range of locations to support airlift and refueling when AFP or U.S. aircraft are involved in a disaster response, and several EDCA sites even have HADR warehouses among their facilities.

The five EDCA base locations in operation since 2014 are:

- Fort Magsaysay in Nueva Ecija (Luzon)
- Basa Air Base in Pampanga (Luzon)
- Antonio Bautista Air Base in Palawan
- Mactan-Benito Abuen Air Base in Cebu

- Lumbia Air Base in Cagayan de Oro (Mindanao)²¹³

The four new EDCA sites announced in 2023 are:

- Naval Base Camilo Osias in Santa Ana, Cagayan (Luzon)
- Camp Melchor Dela Cruz in Gamu, Isabela (Luzon)
- Balabac Island in Palawan
- Lal-lo Airport in Cagayan (Luzon)²¹⁴

The enhanced cooperation under the EDCA aims to strengthen interoperability, including through infrastructure improvements; enhanced joint use of facilities; advancement of additional maritime security, maritime domain awareness, and HADR capabilities; and rotational U.S. access to agreed locations.²¹⁵ The AFP has underscored the critical role of the EDCA sites in some disaster responses, particularly joint relief operations conducted by the AFP with counterparts from the U.S. in typhoon-hit areas, such as Batanes, which was impacted by Tropical Cyclone Krathon (Julian) in late September 2024. Colonel Xerxes Trinidad, chief of the AFP public affairs office, said that the EDCA sites improve the capability of the military to respond swiftly by providing strategic access to facilities and resources in times of calamities.²¹⁶

Disaster Management Partners

In major natural disasters, particularly ones with the potential to overwhelm national capacity, the Philippines may accept international offers of assistance to meet gaps in capacity or resources. International development partners with a presence on the ground will often shift their programming toward emergency response during humanitarian crises if their resources fit the needs. The United Nations Country Team (UNCT) in the Philippines is comprised of 26 UN agencies, funds, offices, and programs,²¹⁷ led by the UN Philippines Resident and Humanitarian Coordinator. The UNCT, together with NGOs and components of the International Red Cross and Red Crescent Movement,

comprise the Humanitarian Country Team, which coordinates national and international humanitarian assistance. Among the UNCT members, UN Children's Fund (UNICEF), International Organization for Migration (IOM), World Food Programme (WFP), Food and Agriculture Organization (FAO), and UN Population Fund (UNFPA) often adapt their programming after disasters to respond alongside NGOs. For example, in November 2024, after five tropical cyclones struck Luzon Island in less than a month, those five UN agencies, funds, and programs collectively received US\$3.5 million from the UN Central Emergency Response Fund (CERF) to respond to immediate humanitarian needs. As a member of the UNCT, UN OCHA has a dedicated country office in the Philippines.²¹⁸

As a member of ASEAN, the Philippines sometimes receives disaster relief support from the AHA Centre; this support may include the release of relief items stockpiled at the Disaster Emergency Logistics System for ASEAN (DELSA) Satellite Warehouse in Camp Aguinaldo, Quezon City. For example, in November 2020, DELSA supplies were mobilized following multiple tropical cyclones. More recently, in late October 2024, ASEAN partners provided critical bilateral support in response to Severe Tropical Storm Trami (Kristine)/Kong Rey (Leon). Official requests for logistics support were made to Indonesia, Singapore, Brunei, and Malaysia to augment the Government of the Philippines' air assets for immediate logistical needs in the Bicol Region. Of note, USAID humanitarian relief commodities pre-positioned with the OCD at the EDCA site in Fort Magsaysay were airlifted to Bicol via a Singapore Air Force C-130 from Villamor Air Base in Manila. Upon arrival in Legazpi, Filipino and Singaporean soldiers worked together to unload supplies, including 1,500 kitchen sets and 1,500 tarps, to expedite assistance to the most affected communities.²¹⁹

For the Philippines, the OCD is the national focal point for the ASEAN Agreement on Disaster Management and Emergency Response

(AADMER). The Philippines supports ASEAN's central role as the region's premier multilateral organization, and the AFP and DND actively participate in ASEAN's various defense and security platforms.

The International Red Cross and Red Crescent Movement

International Committee of the Red Cross (ICRC)

The ICRC is an independent humanitarian organization, founded in 1863, with the primary objective of ensuring protection and assistance for victims of armed conflict. Headquartered in Geneva, Switzerland, it bases its activities on the provisions of International Humanitarian Law (IHL), and is neutral in politics, religion, and ideology. The ICRC assists with the protection of civilian victims of armed conflict and internal strife and their direct results; within these roles, it may take any humanitarian initiative as a neutral and independent intermediary.²²⁰

The ICRC has been working in the Philippines since World War II, with a permanent presence established in 1982. It often works in partnership with the Philippine Red Cross. The ICRC promotes awareness of and respect for IHL by reminding all parties to a conflict of their obligations under these rules. It works with the authorities to integrate IHL into domestic law and into military systems and processes in order to enhance their compliance with international legal standards. The ICRC also provides relief to people who have been displaced by or lost their livelihoods to conflict. The results of the ICRC's work in the Philippines in the first half of 2024 included 910 residents of Bukidnon and Maguindanao del Sur trained on sustainable farming and receiving seeds and tools; 40 medics of arms bearers in Iligan City, Maguindanao, and North Cotabato trained in basic trauma first aid and protection of health care; 75 family members of 50 individuals detained in relation to conflict participating in family visits; 190 AFP personnel attended eight IHL events; and 3,650 internally displaced residents of Marawi City benefitted from the repair of the water supply system at the

Sagonsongan transitional shelter.²²¹

International Federation of Red Cross and Red Crescent Societies

The IFRC is a humanitarian organization that provides assistance and promotes humanitarian activities carried out by the National Societies, with a view to preventing and alleviating human suffering. IFRC was founded in 1919 and includes 191 National Societies. The IFRC carries out relief operations to assist victims of disasters and combines this with development work to strengthen the capacities of its member National Societies.²²² The IFRC provides funding support and coordinates additional support from other National Red Cross and Red Crescent Societies to the Philippine Red Cross. The multi-year focus outlined in the 2025-2026 IFRC network country plan for the Philippines included:

- Emergency response – cyclones
- Longer term needs – CCA, anticipatory action in DM, health care, water, sanitation and hygiene (WASH), migration
- Capacity development – branch development, financial sustainability

Anticipated funding requirements for 2025 was approximately US\$57.7 million, the majority of which would be provided by the Philippine Red Cross.²²³

Philippine Red Cross (PRC)

The PRC was officially inaugurated in 1947 but has roots going back to 1899, and it was a chapter of the American National Red Cross until Philippine independence in 1946. In 2009, Republic Act No. 10072 confirmed the PRC as a “voluntary, independent, and autonomous non-governmental society auxiliary to the authorities of the Republic of the Philippines in the humanitarian field,” and affirmed the country’s “conformity with the Geneva Conventions of 1949 and their additional protocols, and the Statutes of the International Red Cross and Red Crescent Movement.”²²⁴ As of June 2024, the PRC had 102 branches, 1,923 staff, and 125,000 volunteers. In 2024, it received bilateral support from the American Red Cross, Canadian Red

Cross Society, Finnish Red Cross, German Red Cross, Netherlands Red Cross, and Spanish Red Cross.²²⁵ PRC headquarters is located in Mandaluyong City in the NCR (Metro Manila).

PRC's work encompasses the following services:

- The **Operations Center** is a state-of-the-art, 24-hour-a-day/7-day-a-week facility that serves as the nerve center of the organization, providing command, control, and information delivery in a timely and consistent manner. Its main functions are to manage data and information from all PRC chapters nationwide, monitor incidents through various platforms, mobilize volunteers and staff during incidents, record all reports received from volunteers and staff, monitor progress of all PRC responses to incidents, take charge of dispatching all PRC assets, and handle calls from the PRC 143 Hotline.
- **Disaster Management Services (DMS)**, one of the PRC's major services, is primarily tasked to deliver humanitarian assistance. It works through its wide network of trained staff and volunteers to respond during emergency and disaster situations, help communities recover from disaster impacts, and help build the capacity of communities to minimize risks in future disasters.
- The **Emergency Response Unit** is a 24-hour-a-day/7-days-a-week response team dedicated to providing assistance in search and rescue, firefighting, medical, and trauma incidents under DMS.
- The **National Blood Service** works to deliver a safe, quality blood supply to those in need through its 88 facilities nationwide. The PRC is the leading provider of blood and blood products in the country, accounting for almost 50% of the nation's blood supply.
- **Health Services** ensures timely response to public health emergencies and the delivery of essential health care services in times of disasters. It also supports the expansion of primary health care coverage with its community-based health programs. Health professionals such as nurses, midwives, and doctors are trained on disaster nursing, emergency field hospital operations, and WASH, and they are mobilized to do health assessments and deliver essential health services, and health education campaigns. PRC Health Services programs include Health in Disaster and Emergency and Primary Health Care.
- **Safety Services** is tasked with a nationwide educational campaign to ensure the health and safety of the Filipino people. It is one of the leading providers of first aid training in the world and offers programs that are aligned with international standards. Services and trainings include ambulance services, standard and occupational first aid and basic life support including cardiopulmonary resuscitation with automated external defibrillator, emergency first aid, junior first aid, and water services programs.
- **Welfare Services** addresses the well-being of the most vulnerable through the following programs and services: Psychosocial Support Program; Restoring Family Links through Tracing (locating displaced and missing persons after a disaster), Family Visit Program (allowing people detained in relation to conflict to remain in contact with family), and Emergency Leave Assistance (verifying illness and death reports to facilitate emergency leave grants to Filipino-U.S. servicemen and women); Military Welfare Service for the AFP; Livelihood Program (immediate intervention and cash grants for people who lost livelihoods); Welfare Programs for Vulnerable Groups, including overseas Filipino workers, persons with disabilities, and women and elderly persons in difficult situations; Hot Meals (emergency mass feeding); and other programs.
- **The WASH Office** aims to promote hygiene and improve access to water and sanitation facilities. It is in charge of developing, implementing, and responding in a timely manner to priorities and needs, especially during emergency situations.

- **The IHL Office** is responsible for the dissemination of the basics of IHL, advocacy for domestic legislation and measures to implement provisions of the Geneva Conventions and related laws, and advocacy, promotion, and dissemination of the seven fundamental principles of the International Red Cross and Red Crescent Movement (humanity, impartiality, neutrality, independence, voluntary service, unity, and universality).²²⁶

The PRC fosters community-based volunteering and a culture of self-help, notably through its Red Cross 143 program, where one leader and a minimum of 43 members form part of an active corps of capable and committed individuals who help predict potential risk and plan, prepare, and practice for effective community-based DRR.²²⁷ The PRC also engages young people through its Red Cross Youth program, working with schools to develop lifesaving skills in the Junior First Aid Team.

Photo 3 depicts the PRC deploying a humanitarian caravan to Isabela, Aurora, and Cagayan in November 2024 to boost efforts in providing for the immediate needs of those affected by Tropical Cyclone Yinxing (Marce), and in anticipation of the impacts of Tropical Cyclone Toraji (Nika), Tropical Cyclone Usagi (Ofel), and Tropical Cyclone Man-yi (Pepito).²²⁸

U.S. Government Agencies in the Philippines

There are 28 U.S. Government agencies present in the Philippines. At the national level, the U.S. Embassy in Manila hosts representatives from the Departments of Agriculture, Commerce, Homeland Security, Justice, and Veterans Affairs, among other independent government offices. The Peace Corps is active in the country across education, the environment, youth services, and development. Also within the Embassy is the Joint U.S. Military Assistance Group – Philippines (JUSMAGPHIL), which

is the U.S. Security Assistance Organization in the country. Among the JUSMAGPHIL responsibilities are:

- Joint Combined Bilateral Exercise Programs
- International Military Education and Training
- Coordination of joint U.S. and Philippines military-to-military engagement programs under the Mutual Defense Board²²⁹

Based on the State Department Integrated Country Strategy from 2022, U.S. Government agencies continue to partner with Philippines military, law enforcement, civilian government, and civil society groups to counter violent extremism, corruption, and transnational crime. Moreover, agencies help support bilateral trade and investment, as well as people-to-people contacts in human rights, climate action, culture, and business. One objective of the U.S. Government presence in the Philippines is to enhance disaster preparedness by fostering partnerships that strengthen the resilience of critical infrastructure systems.²³⁰

USAID is a key player in the U.S. relationship with the Philippines, where the agency has worked for more than 60 years. It manages U.S. Government assistance programs focused on accelerating the Philippines' economic growth, making the economy more inclusive and sustainable, fostering peace and stability in six conflict areas in Mindanao, and



Photo 3: Red Cross Caravan to Isabela, Aurora, and Cagayan between Multiple Typhoons

supporting measures to improve the Philippines' environmental resilience. The goals are to support the Philippine Government's efforts to improve governance, expand fiscal space, increase the availability and effectiveness of needed infrastructure, and strengthen human capacity. Moreover, USAID work bolsters local efforts to mitigate the impacts of climate change through improved natural resource management and DRR. In addition to DRR projects that address biodiversity, LGU capacity, and climate change mitigation, USAID provides emergency relief and early recovery and rehabilitation support.²³¹

USAID's Bureau for Humanitarian Assistance (USAID/BHA) is the U.S. Government lead federal coordinator for international disaster response and humanitarian assistance. USAID/BHA requests U.S. DoD support to disaster response operations on an as-needed basis, and only in situations where the U.S. military can provide a unique capability that other first responders, including those of the host nation and international humanitarian partners, have insufficient capacity to provide. Every year, USAID/BHA responds to humanitarian crises - natural disasters, conflicts, and severe food insecurity - in approximately 80 countries and fulfills its mandate of saving lives, alleviating human suffering, and reducing the physical, social, and economic impact of disasters worldwide. USAID/BHA provides funding, supplies, and expertise for the rapid and effective provision of humanitarian aid throughout the world.

USAID/BHA's staff presence globally and at its Washington, D.C., headquarters includes experts in the food security, nutrition, WASH, health, shelter/settlements, logistics, agriculture, economic recovery/livelihoods, livestock, DRR, climate adaptation, and humanitarian protection sectors. USAID/BHA has humanitarian advisors at all DoD combatant commands, Special Operations Command, and key DoD field-forward positions, as well as at the U.S. Mission to the UN in New York, the U.S. Mission to the UN and other International Organizations in

Geneva, the U.S. Mission to the UN Agencies in Rome, the U.S. Mission to the European Union in Brussels, and the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia, U.S. To support disaster response globally, USAID/BHA maintains regional offices in six countries - Costa Rica, Hungary, Kenya, Senegal, South Africa, and Thailand - as well as 14 liaison offices, where regional advisors coordinate with relevant actors across their respective regions and countries. In addition to these offices, full-time USAID/BHA staff are present in 32 other countries. USAID/BHA's vast network of implementing partners includes affected communities, local and national governments, other U.S. Government entities, and international partners, including NGOs, international organizations, the international donor community, and the private sector. Relief supplies are pre-positioned primarily in implementing partners' warehouses, and in five USAID/BHA-managed warehouses around the world to enable a rapid response to any location globally.

As the lead federal coordinator for Foreign Disaster Response (FDR), USAID/BHA's annual budget reflects the U.S. Government's interest in providing needs-based assistance, and it has been as high as US\$11.9 billion annually in recent years for humanitarian assistance activities. All of USAID/BHA's programs and activities are humanitarian assistance, targeting populations most vulnerable to the impacts of shocks of slow or sudden-onset emergencies. USAID/BHA's humanitarian assistance consists of two major conceptual areas, which may frequently be interlinked programmatically and strategically. The first area is humanitarian response pursuant to a Declaration of Humanitarian Need (DHN) issued by the U.S. Ambassador or Chief of Mission in the affected country based on four criteria:

1. There is evidence of significant unmet humanitarian need
2. U.S. Government humanitarian assistance will save lives, reduce human suffering, and mitigate the impact of humanitarian emergencies on the most vulnerable

3. The host country requests or will accept international assistance; and
4. Responding aligns with U.S. Government interests and humanitarian objectives.

This DHN permits USAID/BHA to begin emergency response activities. Humanitarian response is characterized by urgent action, including rapid assessment of needs and provision of funding to partners to meet those needs, logistical support to local and national actors, and, frequently, the deployment of USAID/BHA disaster response experts or teams.

The second conceptual area of USAID/BHA assistance is known as early recovery, risk reduction, and resilience (ER4) activities, which aim to improve the well-being of vulnerable people by strengthening their capacities to manage risk, to anticipate, withstand, recover from, and adapt to shocks and stresses, and to support positive, transformative change. These ER4 activities may be integrated with humanitarian response programming or may be stand-alone activities. ER4 programs and activities are cost-effective, reducing the need for future humanitarian assistance when shocks occur.

Core USAID/BHA Responsibilities During an Emergency Response

- Conducting assessments of humanitarian needs
- Developing U.S. Government response strategy
- Coordinating the operational on-ground response in support of the U.S. Ambassador
- Providing fast and effective funding to established partners (NGOs, international organizations, etc.)
- Leading official reporting on humanitarian issues and U.S. Government response activities
- Requesting support from other U.S. Government agencies as required

When civilian and host nation military response capacity is overwhelmed and the

U.S. military has a unique capability, USAID/BHA may request supplemental FDR support from DoD for a limited period. These requests occur in less than 5% of all official U.S.

Government responses. Interagency requests for DoD support to FDR are transmitted to the Secretary of Defense (SecDef) in an official memorandum (Executive Secretariat Memo), which is required in order to leverage such DoD support. With SecDef approval, DoD components may provide non-reimbursable foreign disaster relief support to USAID using available Overseas Humanitarian, Disaster, and Civic Aid (OHDACA) funds. Coordination between USAID and DoD personnel is facilitated at the tactical, operational, and strategic levels by Humanitarian Assistance Advisors to the Military (HAA/M), who are USAID/BHA personnel trained to liaise with DoD counterparts and bridge gaps between the U.S. military and international humanitarian community. The DoD capabilities most commonly requested by USAID/BHA during a disaster response are logistics and airlift support rather than direct assistance to beneficiaries. USAID uses the Mission Tasking Matrix (MITAM) form as the formal means of tasking for DoD resources at the tactical level. OHDACA steady-state projects are distinct from FDR activities, and their implementation requires coordination with the local or regional USAID mission as well as approval by the relevant U.S. Ambassador and DoD combatant command.

The U.S. Government prioritizes civilian leadership in humanitarian operations in accordance with internationally-recognized humanitarian principles, including both the leadership of our responses and engagement with partner nations. The unique socio-political context of each partner nation is a key consideration for decisionmakers at all levels before, during, and after the use of DoD capabilities in a disaster response scenario.²³²

As the largest humanitarian donor in the Philippines, USAID/BHA supports ER4 programs in coordination with the Philippine

Government, local communities, and NGOs. Among these activities, USAID/BHA partners with the OCD and IOM to preposition emergency relief commodities. With USAID/BHA support, Acción contra el Hambre works with farming and fishing communities in cyclone-prone areas to increase their resilience to natural hazards, diversify livelihood opportunities, and develop and improve infrastructure for WASH. In collaboration with government and civil society, USAID/BHA's partner Save the Children Federation continues to develop a comprehensive emergency preparedness program for children, with a specific focus on protection needs in the event of a disaster. Finally, USAID/BHA supports the Philippines to further develop its preparedness and capacity to deliver timely and effective assistance as climate change exacerbates natural hazards throughout the country.

In the second half of 2024, nine Tropical Cyclones impacted the Philippines and exacted immense human and material costs. Four storms – Yinxing (Marce), Toraji (Nika), Usagi (Ofel), and Man-yi (Pepito) – passed over the country in just one month, November. Amidst these storms, the U.S. Ambassador issued three DHNs between early October and mid-November. In response, USAID/BHA partners IOM and WFP rapidly responded to reinforce the Philippine Government's capacity to assess humanitarian need, efficiently distribute emergency relief commodities, and support emergency shelter requirements. As of early December 2024, USAID/BHA had provided a total of US\$6.5 million in funding to support the immediate needs of affected individuals, including emergency shelter, protection, and WASH support.²³³

U.S. Mission in the Philippines

U.S. Embassy in Manila
1201 Roxas Boulevard
Manila, Philippines 1000
Tel: 63-2-5301-2000

Consular Agency in Cebu
Waterfront Hotel, Lower Ground Floor
Lahug, Cebu City, Philippines
Tel: 63-32-231-1261

Laws, Policies, and Plans on Disaster Management

Throughout the Philippines DM structure, numerous plans and policies have been developed from the national to the local or community level. This section highlights plans, policies, and laws at the national level, as well as select relevant international plans and commitments.

Philippine Disaster Risk Reduction and Management Act of 2010, Republic Act 10121

— Approved on 27 May 2010, the DRRM Act restructured and redefined the current NDRRMC, with a more holistic view of disaster management and risk reduction that goes beyond response by looking at the root causes of disaster risk.²³⁴ The 2010 Act replaced a 1978 presidential decree, which had created the National Disaster Coordinating Council. The 2010 DRRM Act restructured the Council, under which there were 19 member agencies, into the NDRRMC, which has 45 member agencies. While the council chair remained the DND Secretary, the 2010 Act added to the new NDRRMC structure four vice-chairs and mandated the NDRRMOC.²³⁵ The DRRM Act states the need to “adopt a disaster risk reduction and management approach that is holistic, comprehensive, integrated, and proactive in lessening the socio-economic and environmental impacts of disasters including climate change, and promote the involvement and participation of all sectors and all stakeholders concerned, at all levels, especially the local community.”²³⁶ It further shifted toward a whole-of-society approach to disaster management with the inclusion of civil society and the private sector in the NDRRMC.

National Disaster Risk Reduction and Management Plan 2020 - 2030 – The current NDRRMP integrates updates to the NDRRMP for 2011-2028. The update followed a Sunset

Review, as mandated by law, where a series of consultation meetings were conducted at national and local levels with various government agencies and sectors for input on improving DRRM policy. The main output of the Sunset Review included a substitute bill aimed at amending the 2010 DRRM Act as well as policy and operational recommendations to make DRRM more responsive to needs on the ground. Recommendations related to risk assessment; coordination mechanisms; roles and functions of DRRM actors; and information and knowledge management. The updated NDRRMP is geared toward 10 DRRM principles:

1. Align with the sustainable development agenda
2. Anchor on human rights
3. Establish link of DRRM, CCA, and sustainable development
4. Ensure all-hazards approach
5. Safeguard inclusivity as well as whole-of-government and whole-of-society approach
6. Guarantee local expression of risk
7. Promote evidence-based and progressive vulnerability reduction strategies
8. Uphold responsive risk governance with strong political will, commitment, and leadership
9. Promote community-based DRRM and development
10. Foster multi-stakeholder partnerships

The updated NDRRMP is designed to align with a range of national development plans and regional agreements and frameworks, many of which are summarized below.²³⁷

AmBisyon Natin 2040 outlines the long-term vision and aspirations of the Filipino people for themselves and for the country. It is the collective long-term vision for the Filipino people to enjoy a strongly rooted, comfortable, and secure life. Crafting the vision started in 2015 with public and private stakeholder input on addressing DRR and CCA to promote development that is transformative, inclusive, adaptive, and sustainable.²³⁸

The Philippines Development Plan

2023-2028 is a whole-of-society plan to improve health, education, food security, the environment, social protections, the economy, infrastructure, peace and security, justice, and disaster resilience. It supersedes the PDP of 2017-2022 and feeds into AmBisyon Natin 2040. The PDP includes a chapter devoted to “Accelerate Climate Action and Strengthen Disaster Resilience,” which outlines three intended outcomes: 1) Climate and disaster risk resilience of communities and institutions increased, 2) Ecosystem resilience enhanced, and 3) Low carbon economy transition enabled. These intended outcomes to accelerate climate action and strengthen disaster resilience are accompanied by the following mitigation strategies and indicators:

OUTCOME 1: Climate and disaster risk resilience of communities and institutions increased

- Strategies:
 - Strengthen the capacity of LGUs and communities in disaster prevention and preparedness
 - Boost multi-stakeholder partnership in building and translating knowledge to CCA and DRR
 - Align environment, social, and governance measures and investments with local adaptation and risk reduction needs and priorities
- Indicators:
 - Number of deaths attributed to disasters per 100,000 population decreased
 - Number of missing persons attributed to disasters per 100,000 population decreased
 - Number of directly affected persons attributed to disasters per 100,000 population decreased

OUTCOME 2: Ecosystem resilience enhanced

- Strategies:
 - Intensify ecosystem protection, rehabilitation, and management

- Promote and expand natural resource-based industries and enterprises
- Indicators:
 - Forest cover increased, by percentage
 - Employment generated from resource-based enterprises or industries increased

OUTCOME 3: Low carbon economy transition enabled

- Strategies:
 - Implement the Nationally Determined Contribution policies and measures
 - Bolster private sector investments in green development
 - Ensure just transition of workers affected by the structural changes towards a greener, more sustainable, and low carbon economy
- Indicators:
 - Mitigated GHG emissions increased (in metric tons of CO₂-equivalent)
 - Energy
 - Industrial process and product use
 - Waste
 - Transport
- Cross-cutting Strategy:
 - Improve governance and intersectionality of climate change and natural hazard resilience
- Cross-cutting Measures:
 - Improve national and local climate and risk data and information management system
 - Scale up natural capital accounting and valuation of ecosystem services
 - Scale up the mobilization of sustainable finance from public and private sources²³⁹

The National Climate Change Action Plan details the long-term agenda of the country for climate change adaptation and mitigation covering the period 2011-2028. The ultimate goal is to “build the adaptive capacities of women and men in their communities, increase the resilience of vulnerable sectors and natural ecosystems to climate change and optimize mitigation opportunities towards gender-responsive and

rights-based sustainable development.” The Plan’s strategic priorities include: (1) food security; (2) water efficiency; (3) ecosystem and environmental stability; (4) human security; (5) climate-smart industries and services; (6) sustainable energy; and (7) knowledge and capacity development.²⁴⁰ The plan builds upon the National Framework Strategy on Climate Change 2010-2022.

The Armed Forces Humanitarian Assistance and Disaster Response Plan (OPLAN Tulong – Bayanihan) articulates the AFP’s core functions, operational processes, and systems used in HADR operations. The plan emphasizes the need for strong coordination and collaboration among the AFP, DRRMCs, and the Government in disaster response. The AFP’s role is outlined across the four thematic areas of the disaster management cycle - i.e., disaster prevention and mitigation, preparedness and readiness, response, and rehabilitation and recovery. In addition to disaster response, the AFP also has an outlined role in reducing vulnerability and exposure of communities and building community capacity to reduce risk.²⁴¹

Hazard-Specific Plans

The National Disaster Response Plan (NDRP) for Hydrometeorological Hazards Version 2 is the national government’s strategic action plan to provide response assistance for managing the consequences of hydrometeorological incidents, such as typhoons, and augment the response functions of LGUs.²⁴²

The NDRP for Consequence Management for Terrorism-Related Incidents is the national government’s collaborative and strategic approach to provide a timely, effective, and coordinated response to the human-induced crises of terrorism-related incidents.²⁴³ It provides guidance for all relevant agencies and networks by establishing protocols for activation of the response plan, roles of key players, coordination mechanisms between response clusters, the incident command system, and mechanisms for collaboration with military and international humanitarian groups.²⁴⁴

The NDRP for Earthquake and Tsunami is the national government's strategic action for managing the consequences of earthquake and tsunami hazards. The plan addresses use of available resources from the government, NGOs, private sector, volunteer groups, and other key actors, and it is based on supplementing response actions of various levels of local government.²⁴⁵

Metro Manila Earthquake Contingency Plan: Oplan Metro Yakal Plus, published in 2015, is the Metro Manila DRRMC's response tool based on a 7.2-magnitude earthquake scenario stemming from the West Valley Fault. It aims to institutionalize an effective and efficient system of earthquake disaster preparedness and response of the Metro Manila DRRMC members and partners by defining their roles and responsibilities, guided by sets of actions that shall be carried out prior to and immediately after a strong earthquake.²⁴⁶

Harmonized National Contingency Plan for the Magnitude 7.2 Earthquake, published in 2019, builds on the Oplan Metro Yakal Plus, which only accounts for the response within the affected areas in Metro Manila. The Harmonized Plan also considers response arrangements for potentially earthquake-affected areas in Central Luzon and CALABARZON.²⁴⁷

Regional Frameworks

The Asia Regional Plan for Implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030 is a guide for national implementation of the Sendai Framework by identifying priorities at regional activities to support national and local actions. It seeks to provide a platform to facilitate collaboration among countries in Asia on building resilience by providing a policy direction, a long-term road map, and a two-year action plan. It supports progress toward all targets, particularly enhanced international cooperation, and strengthening transboundary early warning system and the sharing of disaster risk information.²⁴⁸

The AADMER is a legally binding agreement among the ASEAN member states. It was signed in 2005 and ratified in 2009 to provide

effective mechanisms to achieve substantial reduction of disaster losses and to jointly respond to disaster emergencies.²⁴⁹ The AADMER Work Programme 2021-2025 addressed the five priority program areas of risk assessment and monitoring, prevention and mitigation, preparedness and response, resilient recovery, and global leadership.²⁵⁰

The Declaration on Institutionalizing the Resilience of ASEAN and its Communities and Peoples to Disasters and Climate Change outlines the commitments of ASEAN member states to implement post-2015 development frameworks such as the Sendai Framework, Paris Agreement, and Sustainable Development Goals. It emphasizes their pledge as international actors to collaboratively address the interlocking issues of DRR and CCA towards promoting development that is transformative, inclusive, adaptive, and sustainable.²⁵¹

Disaster Management Communications

The information systems the Philippines uses to collect, analyze, and communicate data and warnings regarding hazards and disaster response continue to gain strength under the sustained oversight of the NDRRMC. Following each hazard event, the system incorporates lessons learned into a feedback cycle to enhance mitigation efforts, response strategies, and overall disaster management planning and programming. As an example, after Typhoon Haiyan (Yolanda) killed 6,300 in the Philippines in 2013, significant improvements were made to the national and local early warning systems (EWS), including better forecasting, communication, and evacuation planning. When Typhoon Rai (Odette) struck in 2021, these enhanced systems, along with other disaster preparedness efforts, likely contributed to a significant reduction in loss of life.²⁵² Nationally, the DOST has primary oversight over generation and dissemination of science-led disaster and climate risk information to all levels of government and the public.²⁵³

Early Warning Systems

An EWS relies on a constellation of technical agencies, public institutions, private companies, NGOs, and volunteers working across four elements: 1) risk knowledge; 2) forecasting and warning; 3) dissemination and communication; and 4) preparedness and response.²⁵⁴

According to the 2023 update of the NDRRMP, one of the brightest spots in the Philippines’ progress toward the Sendai Framework targets was expansion of the EWS. In 2019, there were 1,368 LGUs (of more than a potential 43,000 regional, provincial, city, municipal, or barangay LGUs) with operating EWSs.²⁵⁵ While these local EWSs are separate from the national system and operate with DILG leadership,²⁵⁶ there are efforts to increase their integration into the national system to ensure that accurate, relevant, and actionable information reaches each community. Moreover, some LGUs are pushing the limits of what their EWSs can do by exploring how they can be used to understand flood behavior at an earlier stage rather than simply reacting to a flood situation. Nonetheless, the updated NDRRMP targets sustained progress across the whole EWS to ensure that all local and national EWSs are better linked to hazard and risk communication and to recommendations for early, localized action.

In the areas of disaster prevention and mitigation, lead actors are the DOST and its subsidiary agencies –PAGASA, PHIVOLCS, the Advanced Science and Technology Institute (ASTI), and other earth sciences networks and observatories. Within this sphere, DOST and its agencies are seeking to institutionalize timely, responsive, context- and culture-specific EWSs that reach the “last mile” of the community.²⁵⁷ Figure 12 illustrates the national and sub-national players within two aspects of the Philippines’ EWS system – Forecasting and Warning; and Dissemination and Communication.²⁵⁸

The NDRRMC is the main policymaker, and lower-level DRRMCs are key stakeholders in accumulating and managing risk information and knowledge. PAGASA’s and PHIVOLCS’ regional departments are responsible for data collection and risk assessment, while their national offices conduct data processing and analysis. Based on their analyses of a monitored hazard, PAGASA and PHIVOLCS notify the NDRRMC of a potential hazard event, and the OCD and NDRRMC issue warnings that also trigger activation of the EOCs. Through the EOCs, sub-national DRRMCs, and local bureaus, OCD’s warnings reach at-risk populations and stakeholders via various media, including mobile telephones, television, and Google public alerts.

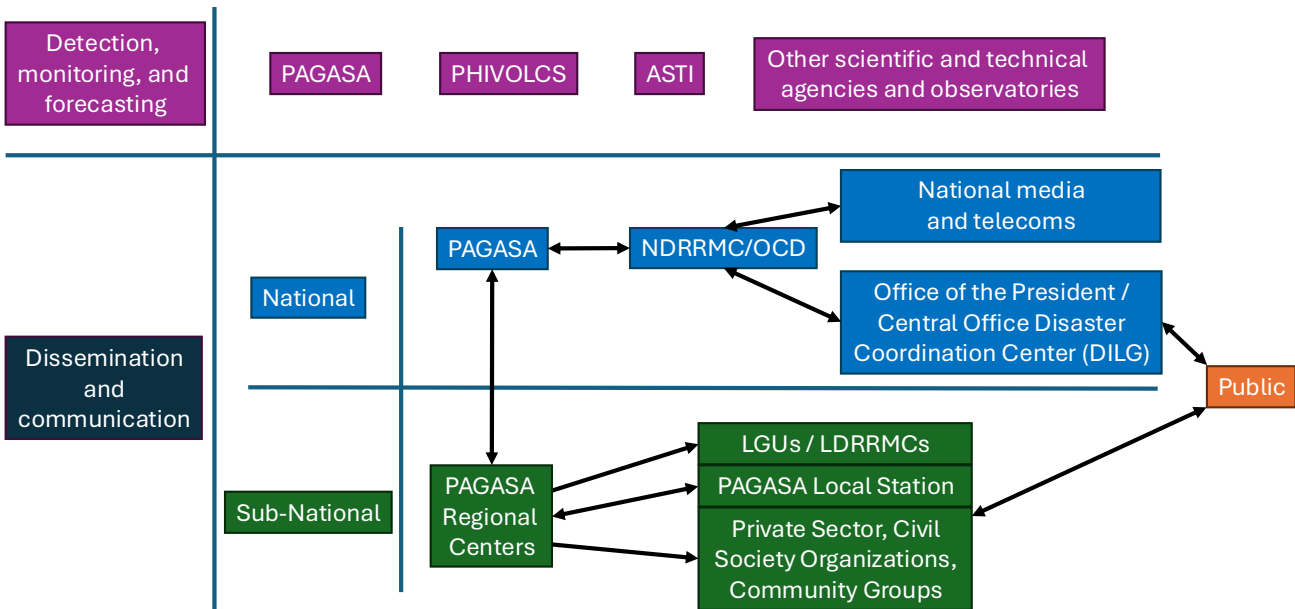


Figure 12: Flow of Data and Information in the Early Warning System

Mobile service providers are legally required to carry mobile disaster alerts. At the local level, LGUs and LDRRMCs issue warnings via more diverse media, including SMS and social media, but also via emergency vehicles with megaphones or community or church bells.²⁵⁹

PAGASA is the national hydrological and meteorological service provider. It has a nationwide network of field weather stations, satellite receiving facilities, wind profilers, automated rain gauges, and automatic weather stations that requires significant resources – human, material, and financial – to operate and maintain. A key challenge is that some parts of the network are remote and in harsh climates and can be difficult to calibrate, maintain, and replace.²⁶⁰ Meanwhile, PAGASA's research provides the government and populace a means to build resilience against sudden- and slow-onset natural calamities by utilizing scientific knowledge to ensure safety, well-being, and economic security.²⁶¹ The key warning systems are linked to weather / tropical cyclones and flooding. They include:

- Weather / Tropical Cyclone
 - Twenty-four-hour public weather forecast issued twice daily and four-day extended weather outlook for selected cities
 - Five-day weather outlook for selected tourist areas
 - Severe weather bulletins: six-hourly Tropical Cyclone Warnings and hourly Tropical Cyclone Updates; Shipping forecasts and Tropical Cyclone Warning for Shipping; Gale Warning; Storm Surge Warning; Rainfall Warning; Thunderstorm Alert
- Flood Forecasting and Warning
 - Basin flood bulletins for telemetered basins and general flood advisories for non-telemetered basins
 - Dam discharge warning information during spilling operations at monitored dams
 - Community-Based Flood Early Warning System
 - Daily hydrological forecasts during non-flood periods²⁶²

Flood EWS – As of December 2023, there are 17 separate flood forecasting and warning systems in flood-prone areas; there are two more under construction.²⁶³ Recent expansion has resulted from a partnership with South Korea, through which PAGASA has collaborated with LGUs to install, manage, operate, and utilize flood EWS components.²⁶⁴ Via an online “Flood” dashboard (<https://www.pagasa.dost.gov.ph/flood>), PAGASA maintains status updates for 18 river basins, four reservoirs, Metro Manila, and various dams throughout the country.

In April 2023, PAGASA launched the first Green Climate Fund project in the country. The “Multi-hazard Impact-based Forecasting and Early Warning System for the Philippines” (MH-IBF-EWS or IBFPh) Project brings together multiple Philippine Government and international partners to develop a nationwide system to communicate to communities “what the weather will do rather than what the weather will be,” and these impact-based forecasts will enable the public to take appropriate actions during the period before a hazard event occurs. As part of reaching this goal, the IBFPh Project outcomes will be increased climate information available for decisionmakers, stronger adaptive capacity, reduced exposure, and stronger institutional and regulatory systems for climate-responsive planning. The Project target area includes vulnerable barangays in Cagayan, Albay, Leyte, and Davao de Oro over the course of 2022-2027.²⁶⁵

Then, in early 2024, PAGASA and the Japan International Cooperation Agency (JICA) launched workshops for LGUs in key areas to bolster EWS and evacuation planning. Under the “Project for Capability Enhancement for High Quality Weather Observation, Forecast, Warning, and Information in the Philippines,” PAGASA and JICA aim to reduce damage from extreme weather through development of additional capacity among Filipino weather specialists by offering them improved satellite and radar observation.²⁶⁶

PHIVOLCS is the service tasked with predicting the occurrence of volcanic eruptions

and earthquakes and assessing geotectonic phenomena, including landslides. It determines the science behind how eruptions and earthquakes occur and the areas likely to be affected. It also conducts the science needed to allow exploitation of the positive aspects of volcanoes and volcanic terrain in furtherance of socio-economic development. Finally, it generates data for forecasting volcanic eruptions and earthquakes and formulates appropriate disaster preparedness plans in order to mitigate these hazards through appropriate detection, forecasting, and warning systems.²⁶⁷

PHIVOLCS has various observatories and monitoring system components:

- Volcano observatories – Bulusan, Hibok-Hibok, Kanlaon, Mayon, Pinatubo, Taal, and Matutum and Parker²⁶⁸
- National Earthquake Monitoring and Information system – 92 seismic sensors and 10 seismic stations countrywide²⁶⁹
- Tsunami Network – access to data from 32 tsunami monitoring stations throughout the archipelago; some are operated by Japan's Science and Technology Research Partnership for Sustainable Development (SATREPS), some are operated by JICA, and others belong to the DOST's Tsunami Early Warning System (TEWS), the last of which publishes up-to-date information at <https://tews.dost.gov.ph/>.²⁷⁰ Additional information comes from the Pacific Tsunami Warning Center (PTWC; Honolulu, Hawaii, U.S.) and Japan's Northwest Pacific Tsunami Advisory Center (NWPTAC).²⁷¹

PHIVOLCS is implementing the Dynaslope project that is designed to develop local EWS for landslides. These EWSs use various sensors to gather data that are then combined with observations and measurements of landslide soil displacement. Using mobile messaging, local committees record the measures and build toward a system that permits local leaders to send alerts for imminent landslides due to either rainfall or seismic activity.²⁷²

DOST's ASTI has some role in researching,

experimenting, and implementing cutting-edge EWSs. Its Deployment of Early Warning System in Disaster-Prone Areas (DEWS) project installed a network of hydrometers and warning stations in areas vulnerable to flooding to collect rain data and build toward a better picture of risk. Although ASTI uses the data for its research programming, it also freely shares the data with PAGASA. Separately, ASTI gathers satellite images from the Philippines Space Agency during and after major events and uses artificial intelligence (AI) analyses of satellite images to rapidly assess the impacts of hazard events; for example, during and after Typhoon Rai (Odette), it was able to estimate wind damage, flooding, and landslides to deliver a post-disaster damage impact assessment to authorities.²⁷³

Separate from DOST, the OCD has partnered with the Pacific Disaster Center (PDC), a U.S. Government-funded office managed by the University of Hawaii, to develop PhilAWARE, a platform for impact-based forecasting. The platform integrates various data sets regarding the physical, environmental, community, and infrastructural aspects of key geographic areas and can estimate the impacts of a hazard event based on the vulnerabilities of a given community. The platform produces infographics and dashboards for OCD staff and other Philippine Government stakeholders to utilize during both DRR activities and a disaster response. These products are accessible to the general public, and the system can send notifications to users who can tailor the hazards and geographic areas for which they want alerts. Among the most recent sources of information to be integrated into PhilAWARE, MapaKalamidad.ph is one way that OCD is working to close the feedback loop between disaster managers and the community.²⁷⁴

MapaKalamidad.ph is a crowd-based, social media-powered platform capable of collecting, organizing, and disseminating real-time disaster information from both formal and informal sources. It was initially developed by Indonesia's Yayasan Peta Bencana and the Urban Risk Lab at Massachusetts Institute of Technology for use in

Indonesia. In 2020, the OCD supported a pilot program to use it in Quezon City, and the success of this project saw the platform go national in 2022. As of 2024, it is a multi-hazard platform that displays a live map of an event based on community and user input. It also uses an AI-enabled chatbot on social media platforms to seek and find disaster-related key words and then solicit real-time updates from social media users posting about or from affected communities.²⁷⁵ The reports solicited from social media are then verified before display in the platform's mobile app.²⁷⁶

Information Sharing

Understanding how to overcome the information challenges that civilian and military agencies experience during a typical disaster response mission is important. Sharing information is critical since no single responding entity, NGO, international governmental organization, assisting country government, or the host government can be the source of all the required information.²⁷⁷ Collaboration, information sharing, and networking have been the backbone of successful disaster response and preparation. Disseminating information not only to those in-country and threatened by disaster, but also to those responding to assist in the emergency has been crucial to timely, efficient, and effective disaster response. There are many resources, stakeholders, and components to consider before, during, and after a natural disaster. This section will discuss country-specific, humanitarian, regional, government, and U.S. DoD information sources.

Philippines Information Sources

National Disaster Risk Reduction and Management Council

The NDRRMC manages information on potential emergencies by using reports from the country's meteorological, seismic, and climate science agencies. The NDRRMC website maintains and updates information on the country's response to ongoing emergencies, including contributions from NGOs and

international partners.

Current data are available via the homepage/dashboard at: <https://ndrrmc.gov.ph/>

NDRRMC Operation Center

Street Address: NDRRMC Building, Camp General Emilio Aguinaldo, Quezon City
Hotlines: 8911-1406; 8912-2665; 8912-5668; 8912-3046; and 8911-5061
Tel - Local: 100
E-mail: ndrrmoc@ocd.gov.ph
Facebook: @NDRRMC
X: @NDRRMC_OpCen

Office of Civil Defense

The OCD has partnered with the PDC to develop PhilAWARE, which conducts impact-based forecasting for specific hazards in specific geographic areas and for infrastructure. Users of PhilAWARE can receive tailored notifications based on hazard type and severity. PhilAWARE is based on the same platform as the PDC's DisasterAWARE (detailed under U.S. Government Information Sources in this section).

The platform is password protected; a login can be requested at: <https://philaware.ndrrmc.gov.ph/philaware/>

Philippine Atmospheric, Geophysical, and Astronomical Services Administration

PAGASA maintains the national network of scientific and technical tools to observe and forecast weather, flooding, and other climactic conditions. Its website provides access to information products and delivers forecasts, warnings, and advisories. PAGASA also uses SMS, fax, telephone, radio, TV, e-mail, social media, and print outlets to disseminate critical information and data.

All current warnings are posted on the homepage at: <http://www.pagasa.dost.gov.ph/>

Street Address: Science Garden Complex, BIR Road, Barangay Central, Quezon City, Metro Manila 1100
Tel: 02-8284-0800

Local Hotlines: Weather – 02-8927-2877, 8927-1335, or 8926-4258; Public Information: 02-8927-9308
E-mail: information@pagasa.dost.gov.ph
Facebook: PAGASA.DOST.GOV.PH
X: @dost_pagasa

Philippine Institute of Volcanology and Seismology

PHIVOLCS provides information and services for warning, disaster preparedness, and mitigation of volcanic eruptions, earthquakes, tsunamis, and related hazards. It maintains up-to-the-minute data on these hazards and publishes that data on its website. PHIVOLCS also leads the multi-agency “Geospatial Information Management and Analysis Project for Hazards and Risk Assessment in the Philippines” – GeoRisk Philippines – which is developing protocols and platforms to share hazards, exposure, and risk information among the public and government agencies. The apps and platforms available as of publication of this handbook include:

- HazardHunterPH – generates initial hazard assessments for selected locations for seismic, volcanic, and hydrometeorological hazards
- GeoAnalyticsPH – generates summaries of hazards and risk assessment and performs analysis and visualization of exposure and elements at risk
- FaultFinder – helps a user determine the location of active faults in an area and to measure the shortest distance between an active fault and a user’s current location (available via the Google Play app store).²⁷⁸

Current bulletins, advisories, and warnings are available on the homepage at: <https://www.phivolcs.dost.gov.ph/>

GeoRisk news and updates are available at: <https://www.georisk.gov.ph>

Street Address: PHIVOLCS Building, C.P Garcia Ave., Diliman, Quezon City, Philippines 1101
Tel: 632-8426-1468

Email: od@phivolcs.dost.gov.ph or phivolcs_mail@phivolcs.dost.gov.ph
Facebook: PHIVOLCS
X: @phivolcs_dost

Seismological Observation & Earthquake Prediction Division

E-mail: soepd@phivolcs.dost.gov.ph

Volcano Monitoring and Eruption Prediction Division

E-mail: vmepd@phivolcs.dost.gov.ph

GeoRiskPH

E-mail: georisk@phivolcs.dost.gov.ph

Disaster Response Operations Monitoring and Information Center

DROMIC is a division of DSWD’s Disaster Response Management Bureau. It consolidates and makes publicly available information related to all phases of disaster responses undertaken by the Department. Among its information collections are various national response plans, annual data on disaster responses, and resources related to DSWD’s Rapid Emergency Telecommunications Team (RETT), which is the rapid deployment team able to address the communications, electronics, and information needs of disaster managers and affected populations.

Information on on-going emergencies and updated alerts are available at: <https://dromic.dswd.gov.ph/>

SMS: text your name and message to 3456

Tel (landline): 63-2932-2573

UHF radio: 440.235 Mhz (RETT Frequency)

E-mail: dromic@dswd.gov.ph

Tel (satellite): +8821664503497

X: @dwsd_dromic

Philippine Red Cross

The PRC responds to disasters across the country. Its website provides access to ongoing appeals, news, and situation reports.

Street Address: 37 EDSA corner Boni Avenue,
Mandaluyong City 1550
Emergency Hotline: 143
Tel: 63-2-8790-2300
Website: <https://redcross.org.ph/>
E-mail: prc@recross.org.ph
Facebook: @phredcross
X: @philredcross
Instagram: @philredcross

Civil Defense and Disaster Management Training Institute (CDTI)

CDTI continues to develop its slate of curricula and training opportunities. It is maintained to maintain specialized training modules to ensure all Philippines stakeholders can share knowledge, train, and develop collective familiarity with response actions.

Email: cdti@ocd.gov.ph

Humanitarian Information Sources

UN OCHA Regional Office for Asia and the Pacific (ROAP)

UN OCHA's ROAP seeks to optimize the speed, volume, and quality of humanitarian assistance and coordinates emergency preparedness and response throughout the region in support of national governments. ROAP covers 41 countries with whom it partners for coordinated and effective international responses to emergency situations. Since 2010, OCHA has maintained a country office in the Philippines where it focuses on both disaster-related emergency relief and conflict-related humanitarian action.²⁷⁹

Website: <https://www.unocha.org/asia-and-pacific>

For OCHA situation reports, click on "Subscribe" button on bottom of page.

Facebook: UNOCHA

X: @unocha

Instagram: @un_ocha

ReliefWeb

ReliefWeb is a service of UN OCHA that consolidates information and analysis from organizations, countries, and disasters for the humanitarian community.

A subsection of ReliefWeb is ReliefWeb Response (RW Response). It aggregates operational content from other humanitarian action platforms to provide an authoritative source of information. The goal is to ensure that humanitarians can share, find, and re-use critical information quickly and efficiently.

Website: <https://reliefweb.int/>

RW Response: <https://response.reliefweb.int/>

PreventionWeb

PreventionWeb is provided by UNDRR to consolidate DRR information into an online, easy-to-understand platform.

Website: <https://www.preventionweb.net/>

International Federation of Red Cross and Red Crescent Societies

The IFRC is the world's largest humanitarian organization, comprised of 191 National Societies, including the PRC, a secretariat in Geneva, Switzerland, and over 60 delegations around the world. The IFRC carries out relief operations to assist victims of disasters and combines this with development work to strengthen the capacities of the National Societies. IFRC's work focuses on four core areas: promoting humanitarian values, disaster response, disaster preparedness, and health and community care.²⁸⁰ The IFRC delegation in the Philippines has been in continuous operation since 2004; the delegation includes six international delegates and a team of local focal points for administration, finance, communications, reporting, logistics, programming, and organizational development.²⁸¹

Web: <https://media.ifrc.org/ifrc> and <https://go.ifrc.org/>

International Committee of the Red Cross

The ICRC is an impartial, neutral, and independent organization whose exclusively humanitarian mission is to protect the lives and dignity of victims of armed conflict and other situations of violence and to provide them with assistance. It also works to prevent suffering by promoting and strengthening humanitarian law and universal humanitarian principles.²⁸² The ICRC has had a permanent office in the Philippines since 1982.²⁸³

Street Address: 17th floor, NEX Tower, 6786 Ayala Avenue, Makati City 1229
Tel: 0917-543-7313 (Globe) or 0998-960-0114 (Smart)
Community Contact Centre: 0917-54- 7313 or 0998-960-0114
Website: <https://www.icrc.org/en/where-we-work/philippines>
Facebook: ICRCph or ICRC
X: @ICRC

Global Disaster Alert and Coordination System (GDACS)

GDACS is a cooperation framework among the UN, the European Commission, and disaster managers worldwide to improve alerts, information exchange, and coordination in the first phase after major sudden-onset disasters.

Website: <https://gdacs.org/Alerts/default.aspx>

Virtual OSOCC

The Virtual OSOCC is a real-time online coordination tool for disaster response professionals from urban search and rescue teams, national authorities, and regional and international organizations.

Website: <https://vosocc.unocha.org/>
To subscribe: <https://www.gdacs.org/About/contactus.aspx>

ThinkHazard!

ThinkHazard! is a GFDRR-backed website that provides detailed information on a country.

Information is provided on the Philippines regarding hazards, country assessments, projects, early warning, and other resources.

Website: <https://thinkhazard.org>

Humanitarian Country Teams (HCT)

The HCT is a strategic and operational decision-making and oversight forum established and led by the Humanitarian Coordinator in each country. It is generally comprised of representatives from UN agencies including the IOM, international NGOs, the IFRC, and the National Red Cross or Red Crescent Society. During a disaster response, HCTs often produce a Situation Report (SitRep), usually in conjunction with OCHA.

Most HCT SitReps can be found through ReliefWeb: <https://reliefweb.int/>

Humanitarian Data Exchange (HDX)

HDX is an open platform for sharing data across crises and organizations. Launched in 2014 with the goal of centralizing humanitarian data for easy access and analysis, HDX is managed by OCHA's Center for Humanitarian Data in The Hague.

Website: <https://data.humdata.org/>

Regional Information Sources

ASEAN Disaster Information Network (ADINet)

ADINet is owned by ASEAN member states and operated by the AHA Centre. It serves as a repository of information concerning hazards and disasters that have happened in the region. ADINet is open for public use, and the public can submit information about any hazard or disaster to the AHA Centre, which verifies and validates submitted information to ensure accuracy and may add new information when relevant and necessary. ADINet includes disasters that have occurred since 2012.²⁸⁴

AHA Centre

Street Address: Graha BNPB, 13th floor, Jl. Raya Pramuka Kav.38 East Jakarta 13120 Indonesia
Tel: 62-21-21012278 or 62-21-21012287
E-mail: info@ahacentre.org
Website: www.ahacentre.org
Facebook: ahacentre
X: @AHACentre
Instagram: @ahacentre

Changi Regional HADR Coordination Centre (RHCC)

The Singapore Armed Forces launched Changi RHCC in September 2014 to support the military of a disaster-affected state in coordinating assistance with assisting foreign militaries. It aims to provide open, inclusive, and flexible platforms that allow both regional and extra-regional militaries to work together effectively in a multinational disaster response. To facilitate this mission, the Changi RHCC has a network of international military liaison officers and operational links with regional militaries. It manages the OPERA web portal where it maintains situational updates to ensure that a disaster-affected country can broadcast its needs and requests for assistance as well as where potential assisting states can upload their offers of assistance or pledges. Assisting militaries can share key logistics information via the portal, which is login protected.²⁸⁵ As a member state of ASEAN, the Philippines has links within the Changi RHCC.

Website: <https://www.changirhcc.org/>
To subscribe to RHCC Weekly and Spot Reports, email: Changi_RHCC@defence.gov.sg

U.S. Government Sources

Pacific Disaster Center

The PDC is a leading scientific innovator of global risk reduction science and technology. PDC work in multi-hazard early warning systems, predictive analytics, data science, and machine learning has intersected with various government, community, academic, and

scientific organizations around the world.

PDC has trademarked an early warning and decision support system called DisasterAWARE®. DisasterAWARE® is primarily for disaster management practitioners and senior decisionmakers. It supports DRR and best practices throughout all phases of disaster management from early warning to multi-hazard monitoring. It has a collection of scientifically verified, geospatial, data and modeling tools to assess hazard risks and impacts. A restricted version of DisasterAWARE is the EMOPS (Emergency Operations) system, which is specifically for the disaster management community, including government agencies and humanitarian assistance organizations serving at local, state, federal, and regional levels.²⁸⁶

PDC also provides a public version, Disaster Alert, which offers open access to a world map documenting 18 hazard types.²⁸⁷ Disaster Alert also has a free, early-warning app to receive customizable, maps-based, visual alerts regarding active hazards. The app offers a global notification system covering natural and man-made hazards. It is available on both iPhone and Android.²⁸⁸

In coordination with the Philippines, in 2021, PDC published the Philippines National Disaster Preparedness Baseline Assessment as well as provincial risk profiles.

Website: <https://www.pdc.org/> and <https://www.pdc.org/disasteraware/>
Emergency Operations (EMOPS) system (request account): <https://disasteraware.pdc.org>
Philippines risk profiles are available at: https://www.pdc.org/ndpba/?_country_dropdown=philippines

Pacific Tsunami Warning Center

The PTWC is one of two U.S. tsunami warning centers, operated by the National Oceanic and Atmospheric Administration (NOAA). The PTWC serves the Hawaiian Islands, the U.S. Pacific and Caribbean territories, and the British Virgin Islands, and it is the primary international forecast center for

the Pacific and Caribbean Basins. It is staffed 24-hour-a-day, 7-days-a-week. Staff monitor for tsunamis and the earthquakes that may cause them, forecast tsunami impacts, issue tsunami messages, conduct public outreach, and coordinate with partners to continually improve warning operations.

Website: <https://www.tsunami.gov/>

Joint Typhoon Warning Center

The Joint Typhoon Warning Center provides advanced warning for U.S. Government agencies and organizations.

Website: <https://www.metoc.navy.mil/jtwc/jtwc.html>

Daniel K. Inouye Asia-Pacific Center for Security Studies (DKI-APCSS)

DKI-APCSS is a U.S. DoD institute that addresses regional and global security issues by inviting military and civilian representatives of the U.S. and Asia-Pacific nations to its program of executive education and workshops.

Website: <https://dkiapcss.edu/>

The Center for Excellence in Disaster Management and Humanitarian Assistance

The CFE-DM is a U.S. DoD organization established by the U.S. Congress in 1994 and is a direct reporting unit to USINDOPACOM. CFE-DM provides training and education to help U.S. and foreign military personnel navigate complex issues in disaster management and humanitarian assistance. They produce country focused disaster management reference handbooks, after action reports, best practices, and lessons learned for advancement in response coordination. CFE-DM also works to improve cross-coordination, reduce duplication of efforts, and promote U.S. involvement in civil-military consultations and dialogues with relevant humanitarian and disaster response parties such as UN OCHA and the Changi RHCC. CFE-DM provides resources and updates at its website, as well as via their Facebook (cfedmha) and X (@cfedmha) accounts.

Website: <https://www.cfe-dmha.org/>

Disaster Management Reference Handbooks are available for download at: <https://www.cfe-dmha.org/Publications/Disaster-Management-Reference-Handbooks>

Civil-Military Coordination in Foreign Disaster Relief Missions: Best Practices for Information Sharing is available here: <https://www.cfe-dmha.org/Publications/Best-Practices-Pamphlets>

INFRASTRUCTURE

The PDP 2023-2028 targets investment in transport, communication, energy, water, and other infrastructure to bolster economic productivity and promote safety and security in the face of global economic shocks and local or national environmental crises. As a net importer of energy inputs, the country is highly exposed to global shocks that drive up costs and reduce the attractiveness of the Philippines for investment in manufacturing or other energy-intensive activity. In addition, regular hazard events damage key infrastructure, and financial and human resources must be diverted to repair damaged assets. As an example, in 2021, Typhoon Odette (Rai) left more than one-third of the country's seaports inoperable and left some communities without communication links for six weeks. Investors are commonly deterred by the country's dual challenge of not being able to deliver aid to crisis-affected communities or to invest in resilient infrastructure because budgets are strained by repairs to disaster-hit facilities.²⁸⁹

Transport

The Department of Transportation (DOTr) is the top-level agency that issues technical, environmental, economic, and safety guidelines to transport regulators. Road safety regulation is shared among DOTr subsidiary agencies and offices, the Department of Public Works and Highways (DPWH), and the LGUs. Air regulations are set by Civil Aviation Authority of the Philippines (CAAP) and Civil Aeronautics Board, and maritime regulations are set by the Maritime Industry Authority.

"National" resources are roads and railways that connect regions, as well as airports and seaports that serve as international or regional gateways. LGUs have responsibility for financing, constructing, rehabilitating, and maintaining provincial, city, municipal, and barangay transport resources and services. LGUs that have responsibility for key transport links that serve

"national" resources will coordinate with DOTr, DPWH, and others for financial and human resources to maintain these transport facilities or services.²⁹⁰

The PDP points out that there is inadequate transport infrastructure. Local passenger and freight traffic is dominated by cars and trucks. Longer-distance passenger and freight can be multi-modal, using multiple trucks or busses, passenger ferries, and aircraft. Ports handle significantly more cargo than the country's airports do.²⁹¹ Meanwhile, an estimated 82% of all domestic passenger traffic and 32% of all domestic freight move by road.²⁹² The National Transport Policy (2017) guides development, management, operation, and use of transport infrastructure, facilities, and services. It requires projects to be compliant with DRR and climate change considerations, and it calls for redundancy and resilience measures to ensure an unimpeded flow of humanitarian relief in times of emergency.²⁹³ The National Transport Policy also called for the development of the Philippine Transport System Master Plan; as of December 2024, the DOTr continued to seek consulting firms to support the Plan's development. Once completed, the Plan will run 2025-2055.²⁹⁴

Airports

The CAAP is the lead regulatory authority for aeronautics and aviation in the Philippines. It has the mandate to develop and manage civil airports and aviation services through planning, engineering, inspections, and training.²⁹⁵ The CAAP approves any special provisions related to aircraft involved in non-commercial operations, including humanitarian missions.²⁹⁶ Manila International Airport Authority (MAIA) and Mactan-Cebu International Airport Authority (MCIAA) are separate offices under DOTr with mandates to develop, maintain, and operate their respective airports, which are the country's two busiest air gateways.²⁹⁷ There are 73 heliports registered in the country, and they fall under

CAAP's safety oversight.²⁹⁸

MAIA operates Ninoy Aquino International Airport (NAIA), the main international gateway. In 2021, runway upgrades and rehabilitation at NAIA were completed, and additional taxiways and holding positions were added.²⁹⁹ The airport has the capacity to handle more than 300,000 metric tons (330,700 tons) of cargo annually; the International Cargo Terminal at NAIA is the country main hub for cargo processing, handling, and holding. In addition to NAIA's two runways, there are two helipads – one between Terminals 2 and 4, and one at the Philippine Air Force (PAF) Villamor Air Base, adjacent to NAIA; both have a concrete surface. The Terminal 2-4 pad is 120 × 300 m (393 × 984 ft), and the Villamor pad is 90 × 200 m (295 × 656 ft).³⁰⁰

MCIAA operates Mactan-Cebu International Airport (MCIA), the country's second busiest airport. Improvements in recent years have seen a new taxiway and additional buildings. MCIA has the capacity to handle 13 million passengers annually,³⁰¹ although in recent years, it has seen approximately 10 million annually. The airport handles approximately 58 million kg (63,950 tons) of cargo annually.³⁰² MCIAA has supported multiple DM efforts in cooperation with DRM authorities. Most recently, in November 2024, MCIAA, regional experts from the OCD, the LDRRMC, and fire fighters conducted an additional planning course for incident commanders to ensure MCIAA staff and leaders understand how to coordinate with emergency responders during an incident.³⁰³

Lal-lo (Cagayan North) International Airport was upgraded in 2018 when it received its first international flight. The airport can accommodate the Airbus A320 or Boeing 737.³⁰⁴ Lal-lo was among four sites that, in April 2023, were announced as additions to the U.S.-Philippines EDCA, an arrangement that sees the U.S. DoD allocate funding for infrastructure upgrades to bolster AFP's ability to respond swiftly to operational demands and to build bilateral military-military interoperability, including during disaster responses.³⁰⁵ Indeed, additional fueling capability at Lal-lo became a

critical component of U.S. military support to AFP during the July 2023 response to Typhoon Doksuri (Egay), which struck northern parts of Luzon and elicited a large-scale national response supported by bilateral military capabilities.³⁰⁶

Additional EDCA sites are Fort Magsaysay, Basa Air Base, Antonio Bautista Air Base, Mactan-Benito Abuen Air Base, Lumbia Air Base, Naval Base Camilo Osias, Camp Melchor Dela Cruz, and Balabac Island. Of these, Fort Magsaysay, Basa, Antonio Bautista, Mactan-Benito Abuen, and Lumbia have runways, and the Naval Base Camilo Osias is adjacent to San Vicente Naval Airstrip. EDCA-related improvements at Fort Magsaysay include a warehouse dedicated to stockpiling humanitarian relief supplies, and in September 2024, USAID made a contribution to the stockpile, to which it added shelter materials and tools, as well as kitchen sets, for use during humanitarian emergencies by AFP and OCD responders.³⁰⁷ EDCA-related work at Basa, the PAF's primary airfield, includes an additional warehouse for humanitarian relief supplies and renovation of the runway.³⁰⁸ As part of the EDCA, Lumbia is also set to house a warehouse for pre-positioning humanitarian relief supplies and will serve the AFP and OCD as a resource for disaster relief in northern Mindanao.³⁰⁹

Since 2013, DHL, the international logistics company, has run its Get Airports Ready for Disaster (GARD) Program in the Philippines. Coordinated by the UN Development Programme (UNDP) and with the support of the CAAP and Philippine Disaster Resilience Foundation, DHL delivered four training sessions between 2013 and 2023, the last of these at Laguindingan Airport, northern Mindanao, in July 2023. The GARD Program prepares airport staff for their roles in operating a logistics hub during a disaster. The first Philippines airport to host the GARD Program was NAIA in 2013, followed by MCIA in 2014, and Clark in 2022.³¹⁰ In September 2024, MCIA hosted its second GARD workshop, and participants were drawn from the CAAP, airport staff, OCD, Bureau of Customs, Bureau of Immigration, LGUs, the PNP

Aviation Security Group, and the Bureau of Fire Protection.³¹¹

The Philippines has 11 international airports, 41 domestic airports, and 28 community airports. As travel continues to recover after the COVID-19 pandemic, the country's airports are expected to struggle to accommodate increased numbers of travelers. A key shortfall is the lack of night landing capabilities at most airports,³¹² and as of 2022, fewer than 25 airports were rated for night operations.³¹³ Table 2 provides some details of the country's major airports.³¹⁴

Seaports

There are upwards of 1,800 operational ports in the country; fewer than 500 are commercial ports.³¹⁵ The hundreds of others are small jetties and quays usable by local boaters. The Philippine Ports Authority (PPA) oversees operations, planning, development, and maintenance for ports countrywide.³¹⁶

More than 99% of all domestic, non-road trade moves by sea rather than air.³¹⁷ By 2023, PPA ports were handling 272 million metric tons (MMT; 299.8 million tons) of total cargo; of this total, 7.5 million twenty-foot equivalent units (TEU) were containerized, and 10 million

vehicles (roll-on / roll-off; RORO) were handled. Upwards of 73 million passengers went through PPA ports in 2023. The busiest port, in terms of ship calls, is Panay/Guimaras, a port cluster that sees more than 171,000 ship movements annually. This port cluster is also the most important passenger and RORO node with more than 16.3 million passengers and 1.6 million vehicles using the ports during all of 2023. Surigao has the largest cargo throughput at more than 32 MMT (35.3 million tons), but the Manila International Container Terminal (MICT), which comes second in total cargo throughput at 26.8 MMT (29.5 million tons), has the highest container throughput at 2.7 million TEU.³¹⁸

Port of Manila

North Harbor: 14° 36' N, 120° 57' E

South Harbor: 14° 35' N, 120° 58' E

MICT: 14° 36' N, 120° 57' E

The Port of Manila is the primary seaport for the entire country. It extends along 2 km (1.24 mi) of shoreline on Manila Bay. The shore-based structures are protected by 3,048 m (1,000 ft) of rock barriers, which enclose some 600 hectares (2.3 mi²) of anchorage. There are three areas

Airport	IATA/ICAO Code	Elevation	Runway Length	Runway Surface
Basa Air Base	n/a / RPUF	11 m (33 ft)	2,800 × 45 m (9,186 × 150 ft)	Asphalt/Concrete
Bicol	DRP / RPLK	94 m (309 ft)	2,500 × 45 m (8,202 × 147 ft)	Asphalt
Bohol-Panglao	TAG / RPSP	13 m (43 ft)	2,500 × 45 m (8,202 × 147 ft)	Concrete
Clark	CRK / RPLC	148 m (484 ft)	1: 3,200 × 45 m (10,498 × 147 ft) 2: 3,200 × 60 m (10,498 × 196 ft)	Asphalt / Concrete
Davao	DVO / RPMD	18 (59 ft)	3,000 × 45 m (9,842 × 147 ft)	Asphalt
Fort Magsaysay Air-field	n/a / RPLV	60 m (199 ft)	1,554 × 14 m (5,100 × 45 ft)	Concrete
General Santos	GES / RPMR	154 m (505 ft)	3,227 × 45 m (10,587 × 148 ft)	Concrete (paved)
Kalibo	KLO / RPKV	4 m (14 ft)	2,187 × 45 m (7,175 × 147 ft)	Concrete
Lal-lo	LLC / RPLH	20 m (66 ft)	2,100 × 45 m (6,890 × 147 ft)	Concrete
Laoag	LAO / RPLI	8 m (25 ft)	2,780 × 45 m (9,120 × 147 ft)	Concrete
Lumbia Air Base	n/a / RPML	183 m (601 ft)	2,454 × 36 m (8,051 × 118 ft)	Asphalt
Mactan-Cebu / Mac-tan-Benito Abuen Air Base	CEB / RPVM	11 m (36 ft)	3,300 × 45 m (10,826 × 147 ft)	Asphalt
NAIA	MNL / RPLL	23 m (75 ft)	1: 3,410 × 60 m (11,187 × 196 ft) 2: 1,998 × 45 m (6,555 × 147 ft)	Asphalt / Concrete
Puerto Princesa / An-tonio Bautista Air Base	PPS / RPVP	22 m (71 ft)	2,600 × 45 m (8,530 × 147 ft)	Asphalt
Zamboanga	ZAM / RPMZ	10 m (33 ft)	2,609 × 44 m (8,560 × 144 ft)	Asphalt

Table 2: Codes and Runway Lengths for the Philippines' Major Airports

within the port – the North Harbor, MICT, and the South Harbor.³¹⁹

North Harbor

The North Harbor serves domestic cargo, including containers, and there is RORO capability. It has an annual throughput of approximately 1.2 million TEU of containers cargo, 3.8 MMT (4.2 million tons) of bulk cargo, and 12.7 MMT (14 million tons) of break-bulk cargo. There are dockside cranes, container gantries, mobile cranes, and other equipment. The port covers 52.5 hectares (0.2 mi²) of land with some 5,200 m (17,000 ft) of quays that can accommodate a variety of inter-island transport vessels.

Berthing areas: 54 total
Quay Lengths: 10-665 m (32-2,180 ft)
Draft: 6-10 m (19.6-32 ft)³²⁰

South Harbor

The South Harbor handles international and domestic cargos. Its throughput is upwards of 1 million TEU of containers and 2 MMT (2.2 million tons) of bulk and break-bulk cargo. The South Harbor encompasses five finger piers with a total berthing length of over 4,330 m (14,206 ft). There are RORO-capable berths. At the anchorage, there is space for 27 vessels. A barge point, capable of accommodating 30 barges or lighters, is across from Pier 3. There are dockside cranes, container gantries, mobile cranes, and other equipment.

Berthing areas: 29 total
Quay Lengths: 51-615 m (167-2,017 ft)
Draft: 1-12 m (3.2-39.4 ft)³²¹

Manila International Container Terminal

MICT sits between the North and South Harbors. Throughput stands at approximately 2 million TEU of containers and 20.3 MMT (22.4 million tons) of break-bulk cargo. MICT

can accommodate vessels up to 200 m (656 ft) in length. There are dockside cranes, container gantries, mobile cranes, and other equipment. The terminal covers 94.8 hectares (0.37 mi²) with a 50-hectare (0.19-mi²) container yard.

Berthing areas: 6 total
Quay Lengths: 250-450 m (820-1,476 ft)
Draft: 11 m (36 ft)³²²

Batangas Port

Latitude: 13° 45'N
Longitude: 121° 02'E

Batangas is in southern Luzon, where it serves a hinterland made up of the CALABARZON. Annual throughput is 285,000 TEU of containers, and 2.8 MMT (3 million tons) of bulk and break-bulk cargo.³²³ The anchorage is on Batangas Bay, 0.37 km (0.23 mi) from the shore at a depth of 27.4-32.9 m (89.9-107.9 ft).³²⁴ The main port primarily handles domestic traffic, including passengers, and there are RORO-capable berths. The Bauan International Port terminal handles non-containerized cargo and can accommodate RORO. The Batangas Container Terminal handles containerized cargo at its 15-hectare (0.02-mi²) facility. There are container gantries, mobile cranes, and other equipment.

Berthing areas: 13 total
Quay Lengths: 110-335 m (360-1,099 ft)
Draft: 7.3-13 m (23.9-42.6 ft)³²⁵

Subic Port

Latitude: 14° 48'12" N
Longitude: 120° 15'55" E

Subic Port is the keystone of the Subic Special Economic Zone and Subic Freeport on Luzon's western coast, north of Manila. As part of the Freeport development, the Port is managed by the Subic Bay Metropolitan Authority, and autonomous development authority, whose Seaport Division is charged with administration of the port.³²⁶ Throughput at the port tops 226,000 TEU of containers, and 7 MMT (7.7

million tons) of break-bulk cargo annually.³²⁷ Vessels approach the port via the 1 km (0.62 mi) long, 800 m (2,625 ft) wide, 47-69 m (154-226 ft) deep Grande Island Channel. The shallowest area of the anchorage has a depth of 18 m (59 ft).³²⁸ There are wharves for all types of traffic, including passenger ferries and cruise ships, naval vessels, general and containerized cargo ships, fishing boats, and tankers. There is a 90-million-liter (23.8-million-gallon) diesel tank farm and an additional 65-tank petroleum product storage area, as well as a 5-silo, 285-metric-ton (314-ton) grain storage area. The container terminal covers 26.32 hectares (0.1 mi²), with an 11.14-hectare (0.04-mi²) container yard. There are dockside cranes, container gantries, mobile cranes, and other equipment.

Berthing areas: 11 total

Quay Lengths: 280-906 m (918-2,972 ft)

Draft: 6-14 m (19.6-45.9 ft)³²⁹

Cebu Port

Latitude: 10° 18' N

Longitude: 123° 55' E

The Port of Cebu (Baseport) is on the channel between Cebu and Mactan Islands. It is the gateway for sea-borne cargo for Visayas and the hub of a system of sub-ports located around Cebu. The sub-ports of Mandaue, Danao, Santa Fe, Toledo, and Argao send and receive goods for transshipment via the Baseport.³³⁰ The Baseport is divided into Cebu International Port (CIP) – northern portion – and the domestic port. CIP covers 14 hectares (0.05 mi²) of land. There is a bulk handling terminal. The container yard has nearly 1,953 container slots, of which 204 are reefer slots.³³¹ The CIP has three quayside cranes.³³² The 21-hectare (0.08-mi²) domestic port handles break bulk and passengers; there are three passenger terminals for inter-island ferries and two terminals for the Cebu-City-Mactan ferry. Quay cranes have been added to the domestic port for container handling.³³³ The domestic port berths at the domestic port have RORO capability.³³⁴

CIP Quays: 512 m (1,680 ft) in length; 8.5 m (27.9 ft) depth alongside

Domestic Quays: 3,838 m (12,593 ft) in length³³⁵

Panay/Guimaras - Port of Iloilo

The ferry ports of Iloilo (Panay Island), Bacolod (Negros Island), and Guimaras Island are among the busiest passenger / RORO ports and wharves in the country.³³⁶

Iloilo

Latitude: 10° 41' N

Longitude: 122° 35' E

Iloilo, on Panay Island, supports the cargo needs of both Panay and Guimaras Islands. The approach channel is 1.6 km (1 mi) long, 1,400 m (4,593 ft) wide, and up to 22 m (72 ft) deep. There are three terminals at the port – Loboc, Fort San Pedro, and Muelle Loney – all on separate parcels of land. Loboc – the Iloilo Commercial Port Complex (ICPC) – is multipurpose, and it handles containers, break bulk, and bulk cargo via 526 m (1,725 ft) of quayside with a depth alongside of 10.5 m (34.4 ft). Fort San Pedro is also multipurpose, with a quayside of 634 m (2,080 ft) and a depth alongside of 6 m (19.6 ft). Muelle Loney sits on the right bank of the Iloilo River; the quay is 3,000 m (9,843 ft) with a depth alongside of 4 m (13 ft).³³⁷ As of 2024, ICPC was set to become the Visayas Container Terminal (VCT), which has 20 hectares (0.08 mi²) of yard for container and general cargo storage.³³⁸

VCT Quays: 627 m (2,057 ft) in length³³⁹

Cagayan de Oro Port

Latitude: 08° 29' N

Longitude: 124° 39' E

Northern Mindanao's largest port is Cagayan de Oro, on the Macajalar Bay, and it serves a hinterland made up of Cagayan de Oro city and the Provinces of Misamis Oriental, Bukidnon, Camiguin, and Agusan del Norte.³⁴⁰ The 28-hectare (0.1-mi²) port handles rolling cargo,

agricultural and industrial products, chemicals, and petrochemicals. There are 40,087 m² (431,500 ft²) of open storage, 2,760 m² (29,700 ft²) of covered transit shed, and a 32,195-m² (346,500-ft²) container yard. There is one RORO ramp with a 10-m (32.8-ft) draft alongside.

Quay Lengths: 1,398 m (4,587 ft)
Draft: 4.8-13 m (15.7-42.7 ft)³⁴¹

Davao Port

Latitude: 7° 07'N
Longitude: 125° 40'E

The 16.7-hectare (0.06-mi²) Sasa Wharf includes the Old and New Quays along 1,103 m (3,618 ft) of quays with a depth alongside of 9.5-10 m (31-32.8 ft). The Old Quay mostly handles general cargo, and the New Quay mostly handles containers.³⁴² Sasa Wharf's storage space includes a transit shed of 1,200 m² (12,900 ft²), a container yard of 33,000 m² (355,200 ft²), a storage area of 20,000 m² (215,300 ft²), and a warehouse of 6,000 m² (64,600 ft²). There are dockside cranes, container gantries, mobile cranes, and other handling equipment.³⁴³

Davao International Container Port

Latitude: 7° 17' N
Longitude: 125° 42' E

Davao's container terminal is Mindanao's container gateway. It can accommodate Panamax and Post-Panamax vessels. The container yard covers 20 hectares (0.08 mi²) of land, and there is a capacity of 14,000 TEU of handling space, including more than 1,000 reefer plugs. There is a separate empty container depot. There are four Post-Panamax ship-to-shore cranes, rubber-tired gantries, and other handling equipment.

Berth: 730 m (2,395 feet)
Depth: 15 m (49 feet)³⁴⁴

General Santos Port

Latitude: 06° 06'N
Longitude: 125° 09'E

The Port of General Santos serves most of South Cotabato Province. The port cluster includes one base port – Makar Wharf – two terminals – Glan and Mabila – and four private ports, operated by agricultural and fish processing companies.³⁴⁵ The approach is through a 33-km (20.5-mi) channel. The maximum vessel size is 32,774 deadweight tonnage. There are four wharves, all multi-purpose, along 851 m (2,792 ft) of quay with a depth alongside of 8.5-12 m (27.9-39.4 ft). There are three container yards with a storage capacity of 7,056 TEU of containers, and 204 reefer plugs.³⁴⁶

Zamboanga Port

Latitude: 06° 54'N
Longitude: 122° 04'E

Zamboanga's port is on the Strait of Basilan and serves as a gateway for trade between the Philippines and Brunei, Indonesia, and Malaysia. Entry to the port is via the Zamboanga Channel, which is 7 km (4.3 mi) long, 1.8 km (1.1 mi) wide, and up to 62 m (203 ft) deep.³⁴⁷ The port has a land area of 15.6 hectares (0.06 mi²). There are a total of 19 docks, 12 of which are privately owned. There are two RORO ramps.³⁴⁸ The container marshalling yard is 13,700 m² (147,500 ft²),³⁴⁹ and there are eight reefer spots.³⁵⁰ There are reachstackers, forklifts, and other container handling equipment.³⁵¹

Quays: 1,920 m (6,299 ft); depth: 6-13 m (19.7-42.6 ft)³⁵²

Roads

Road transport of cargo is the norm due to a lack of freight railways. Roads leading to ports and airports are heavily used by short- and long-distance trucking services.

The DPWH is the overarching government authority for roads and bridges. Each province and city has an engineering office responsible for highways, flood control, and water resource development systems, and other public works under the regional office within the province.

There are nearly 200 District Engineering Departments and 16 Regional Offices to cover road administration nationally.³⁵³

Of the 35,164 km (21,850 mi) of national road counted in the DPWH Atlas 2023, 22,337 km (13,880 mi) are concrete, 12,459 km (7,742 mi) are asphalt, and the remainder are gravel or earth. Region IX (Zamboanga Peninsula region of western Mindanao) with just more than 82 km (50 mi), is the region with the longest stretch of gravel roads, and no region tops 10 km (6.2 mi) of earthen road.³⁵⁴ There are an additional 173,977 km (108,104 mi) of local roads, overseen by LGUs, which are commonly not financially resourced to conduct necessary maintenance, according to the national House of Representatives. Local roads include provincial, city, municipal, and barangay roads. By far, the most kilometers of local roads are barangay roads, generally defined as roads that serve farms, especially in providing farm-to-market access. As of 2022, there were more than 38,600 km (23,985 mi) of barangay roads, of which two-thirds remained unpaved, whereas nearly 57% of provincial roads, more than 79% of city roads, and nearly 63% of municipal roads were paved.³⁵⁵

Railways

There are no operational freight rail lines in the country. Less than 1% of all cargo movement throughout the country moves by rail, and only 6% of passenger traffic is rail-based; all of this movement is in and around Metro Manila.³⁵⁶ There are four operational passenger light rail lines with a total length of 76.9 km (47.8 mi). The country has fewer than 1,000 rail cars for passenger use upon these four lines. Although two more commuter lines were under construction as of 2023, estimates of demand over the short-term see ridership of at least 29 million, and the total capacity of planned lines is only 31 million monthly riders. This capacity could be met or exceeded within the decade.³⁵⁷

Waterways

The country is home to many rivers, most of them flowing from mountains down to plains

and then on to the sea. The longest river is the Cagayan, which flows 505 km (314 mi) through northern Luzon, is mostly used by farmers and communities along its banks. The second longest river in the country, the Mindanao River, flows 373 km (232 mi) through a watershed that covers much of central Mindanao. The Mindanao is an important transport artery for locals who live along its banks. Similarly, other long rivers provide opportunities for communities on their banks but are not commonly used for long distance cargo transport.³⁵⁸

Schools

The DepED, Commission on Higher Education (CHED), and Technical Education and Skills Development Authority (TESDA) focus on basic education, higher education, and technical and vocational education and training (TVET), respectively.³⁵⁹ The DepED also oversees “alternative” learning for out-of-school children or for adults who did not complete basic education. Under the laws that formed the BARMM in 2018, the Bangsamoro Government is required to establish, maintain, and support an educational system that is a sub-system of the national system. While the Bangsamoro Government supervises this system, it must conform to the minimum standards set at the national level and integrate standard basic curricula into any religious schools.³⁶⁰

Since 2012, all children have been required to attend at least one year of free pre-primary school (kindergarten).³⁶¹ The basic cycle of schooling now consists of 13 years of compulsory education – i.e., one year of kindergarten, six years of primary school, four years of junior high school, and two years of senior high school. Kindergarten and early primary classes are commonly in the first language of the dominant community in the area. Latter primary and all secondary classes use Filipino and English as the languages of instruction.³⁶² Primary and secondary education are compulsory and free-of-charge. The tertiary system is a mixture of public and private institutions. There are more than 550 public higher education institutions and more

than 1,600 private higher education institutions. From August 2017, students enrolling in their first undergraduate degree program at a state-run, public university, can benefit from free tuition.³⁶³

There are some 30 million school-age children in the country. Net enrollment in primary school tops 94%, but there are substantially lower enrollment rates in secondary, with school year 2019-2020 seeing only 83% enrollment in junior high school and 48% in senior high school.³⁶⁴ As of 2022, Asian Development Bank estimates put the primary school completion rate at 99.6%.³⁶⁵ As of 2019, the UNDP reported that mean years of schooling completed in the Philippines stood at 9.4 years, and females slightly outstripped males in school life expectancy.³⁶⁶ Recent years have seen an uptick in learners moving on to secondary school, and increases in enrollment have been especially notable in senior high school, although DepEd assesses that a significant trend is for families to utilize vouchers to send children to private senior high schools, which serve more than double the number of students served by public senior high schools. There are upwards of 60,000 public and private kindergartens, primary schools, and secondary schools throughout the country.³⁶⁷

The Philippines is short of education resources; as of August 2022. The shortfall totaled more than 91,000 classrooms or 10% of the total needed.³⁶⁸ The geography of the country is among the factors that challenges financial and infrastructural improvements in the education sector, as small island communities are not linked fully to the educational system unless children or learners travel to access schooling. A second major challenge is language, with more than 170 indigenous languages spoken within the Philippines. Therefore, it is extremely difficult to ensure that there are sufficient instructors for early-stage learners to access lessons in their first languages.³⁶⁹

The Basic Education Development Plan (BEDP) for 2022-2030 provides a roadmap for improving basic education for children ages 5-18 years as well as for integrating non-formal

education for youth and adults.³⁷⁰

Disaster Risk Reduction in the Education Sector

As part of the BEDP, the DepEd is committed to integrating sustainable development, DRRM, and climate change action into the curriculum for all ages. DepEd and schools are required to begin collecting data to inform risk assessments; launch planning for disasters, climate change, and conflict; develop DRRM programs; organize functional DRRM teams; publish research on DRRM, climate change, and peace building; and implement hazard prevention and mitigation projects. Moreover, planning for construction or rehabilitation of school facilities is required to utilize a DRRM framework to understand the hazards of an area. Additional strategies outline safety and emergency supplies and equipment to be provided to all DepEd offices and schools. Finally, integration of these offices and schools into the national early warning system is a priority.³⁷¹

The education sector still struggles with basic facilities construction and maintenance. As of 2021, 92% of school facilities had electricity. While some 80% of schools had computers, only 65-70% had reliable internet access. In a 2022 survey, nearly 3,000 schools in remote or marginalized areas were found to have substandard or inadequate facilities or services. On top of these facilities shortfalls, between 2015 and 2020, the DepEd reported that 10,675 schools had been damaged by natural disasters. Classrooms in 11,522 schools had, at some point in the reporting period, been used as temporary evacuation shelters.³⁷² On average, schools in CALABARZON, Bicol, and the Eastern Visayas experience the most tropical cyclones of all regional schools, with CALABARZON seeing more than 19,000 instances of school facilities being damaged during the 2015-2020 school years. Bicol and Eastern Visayas schools are also frequently damaged by flooding, as are schools in Western Visayas and Central Luzon.³⁷³

Under the DepEd Central Office, the Strategic Management Branch houses the Disaster

Risk Reduction and Management Service (DRRMS).³⁷⁴ Since 2015, the DRRMS has overseen the Comprehensive DRRM in Basic Education Framework, which promotes safe learning facilities, DRM, and integrating DRR into education.³⁷⁵

School DRRM Coordinators, among other tasks, are charged with sending Rapid Assessment of Damages Reports (RADAR) to the DRRMS in case of large-scale disasters. These reports are required within 72 hours after a disaster strikes and cover physical damage, and they inform allocation of intervention resources during a response. In the wake of a disaster, the DepEd uses assessments delivered by the NDRRMC to formulate rehabilitation and recovery plans.³⁷⁶

In addition to the DRRM Coordinators, there are School Planning Teams and School DRRM (SDRRM) Teams that work in concert to determine the hazards and risks specific to their schools and to implement DRRM programs and projects.³⁷⁷

Partners continue to help the country's schools build DRRM capacity. National scientific agencies and regional governments and tertiary academic institutions support schools, which are required to conduct quarterly hazard drills. In addition, primary and junior high school students learn about DRRM issues within science or other classes, and DRRM itself is a subject in senior high schools.³⁷⁸ Save the Children's Education-in-Emergencies (EiE) Capacity-Building program helped the DepEd lead the country's Education Cluster in coordinating EiE response planning.³⁷⁹ A DepEd-PRC partnership has promoted first aid learning, youth volunteerism, and other topics to ensure youth and children participate in DRRM directly rather than being viewed as recipients of help.³⁸⁰

At the tertiary level, there are several degree programs related to DRRM and overall disaster management. Major universities in the country offer undergraduate and graduate degrees in DRM, DRM-CCA, public administration for health emergencies and disaster management, medical and nursing degrees focused on

disaster medicine, disaster resiliency, and crisis management.³⁸¹

Communications

Since 2016, the DICT has overseen government policy and spending in the information and communications technology (ICT) sector, including in developing digitized public services, extending ICT infrastructure, and promoting online enterprises. The spectrum of ICT sub-sectors is a growth area for the Philippines' economy, and Filipino consumers are active in demanding and using ever better connectivity options. There is broad reliance on digital communications for personal, business, and government activity, and work under the PDP 2023-2028 has emphasized extending communications infrastructure, including towers, into ever more communities.³⁸² Nonetheless, extending digitized communications is not without obstacles and shortcomings. The country's geography means that networks rely on inter-island submarine cables that are both expensive and vulnerable to natural and anthropogenic sub-surface hazards. Seismic activity has resulted in damage to power supplies, towers, and cables that cuts off large swaths of the country. The frequency of hazard events in the Philippines means that there is commonly a need to repair ICT infrastructure even as the newest technology is being brought on-line.³⁸³

DICT does operate an emergency warning broadcast system (EWBS) that utilizes digital, broadcast, and terrestrial formats in an integrated fashion to ensure that all methods of transmission are exploited when and where they are available. For example, in rural areas, where the mobile-cellular spectrum has gaps but the television spectrum is less congested than in urban areas, emergency transmissions can use vacant television frequencies. As the mobile-cellular network continues to develop, SMS blast messages are likely to be more reliable and scalable although they only allow one-way communication. Gaps left in the mobile-cellular network and the feedback loop for communities

to pass information back to decision-makers will mean a strong case for continuing to develop the role of traditional media in the DRRM landscape.³⁸⁴

Telephone

As of 2024, there were 117.4 million mobile telephone connections in the country. Although this number suggests that more than 99% of Filipinos are mobile subscribers,³⁸⁵ the reality is that many remote and underserved communities are still without mobile-cellular service and their urban counterparts each have more than one mobile subscription.³⁸⁶ The Philippines' mobile telephone handset market is dominated by Android devices, which account for nearly 87% of handsets, while Apple devices account for 12.66% of handsets.³⁸⁷

With only 4.8 million fixed telephone subscriptions, the Philippines' telephone market is entirely dominated by mobile service, for which there is significant public policy support and consumer demand. As of 2021, an estimated 95% of the country was already served by networks enabled with Long-Term Evolution (LTE) and Fifth-Generation (5G) technologies.³⁸⁸ However, there remains a significant demand for tower and mobile-cellular site construction. As of 2023, there were 22,834 cellular sites operated by three major telecom companies; for comparison, the same year, Vietnam had 90,000 sites.³⁸⁹

Leading telecom services companies are PLDT / Smart Communications, Globe Telecom, and Dito Telecommunity.³⁹⁰ PLDT owns the 429,000-km (266,568-mi) fiber network that connects the country to key international networks.³⁹¹ The major service providers offer bundled pre-paid services, which account for a large share of subscriptions because they allow unlimited voice calling and improved Fourth-Generation (4G) connectivity.³⁹² PLDT had more than 55 million subscribers as of 2023, while Globe counted nearly 55 million subscribers, and Dito had more than 7 million subscribers. While the Third-Generation (3G) network is still in operation, 4G, LTE, and 5G are increasingly common and affordable. Piggybacking on the PLDT and Globe

networks, multiple virtual network operators offer “no-frills” pre- and post-paid services and devices.³⁹³

Smart and Globe have increased their capacity to prepare for and respond to disasters. For several years, both have run simulation drills to ensure their staff know their roles and responsibilities in an emergency. Moreover, when they receive information warning of a potential hazard event, they pre-position people and resources that will be needed after the event. Finally, they have initiated post-disaster repair programs and immediate relief assistance projects, such as providing free charging stations and generators to communities to remain connected.³⁹⁴ Concurrently though, there have been instances when all mobile telephone service has been cut to specific geographic areas based on National Telecommunications Commission (NTC) assessments of the potential for security incidents. The signals of all three major service providers have been jammed for the duration of the concerned events, where were, in some cases, community festivals.³⁹⁵

Internet

A 2024 survey found 86.98 million internet users in the Philippines for an internet penetration rate of 73.6%. Nearly 99% of internet users access the web via a mobile device, and 62% access the web via a desktop or laptop computer in a reflection of the fact that most Filipino internet users have multiple devices. Overall, laptops and desktop computers account for 58% of web traffic, and mobile telephones account for 41%.³⁹⁶ An estimated 18% of Filipino households have internet service at home, separate from their mobile accounts. Fixed and mobile broadband prices remain high – 11.56% and 2.04% of monthly gross national income (GNI) per capita, respectively. These prices are well above the global affordability threshold rate of < 2% of monthly GNI per capita.³⁹⁷ Due to a lack of connectivity and high costs of network subscriptions, an estimated 65% of the country does not have easy access to the web.³⁹⁸

In the July 2023 Ookla Speedtest Global Index,

the Philippines ranked 89th of 143 countries in mobile internet speed, with an average of 25.88 megabits per second (Mbps); the global average is 42.35 Mbps. The country ranked 49th of 181 countries with an average of 91.56 Mbps in fixed broadband speeds; the global average is 82.56 Mbps.³⁹⁹ These numbers mark an increase from an average of 4.3 Mbps in the Philippines in 2016.⁴⁰⁰ Based on the National AI Roadmap, the government targets a minimum upload/download speed of 1 Mbps for household broadband nationally in an ambitious effort to connect heretofore unconnected households.⁴⁰¹

There are several key government initiatives to extend internet access and digital services, including to remote and underserved areas. The National Broadband Plan is focused on extending infrastructure, and the National Broadband Program focuses on enhancing connections country-wide.⁴⁰² The National Fiber Backbone program, covering 28,000 km (17,400 mi) of fiber on Luzon, Visayas, and Mindanao,⁴⁰³ is an effort to support the DICT's last-mile projects with a demand-responsive fiber backbone. Among the projects to be bolstered by the National Fiber Backbone are the Free Public Internet Access Program (FPIAP) to provide zero-cost internet access in public spaces nationally.⁴⁰⁴ Based on a 2017 law, public places – e.g., hospitals and schools – are required to provide free wireless (Wi-Fi) connectivity, and the government has committed to establishing 15,000 Wi-Fi sites nationally, although, by one count, as of late 2023, there were only 4,800 sites set up and delivering free internet access to 1,500 remote locations.⁴⁰⁵

Mass Media

The constitution provides for freedoms of expression and the press.⁴⁰⁶ Commercial mass media is the rule, and large media companies compete fiercely for audience share.⁴⁰⁷

Filipinos are very on-line, and they consume mass quantities of digital media – both traditional and social. Online activity provides access not only to globalized information but also to globalized mis- and disinformation as well as to cyberattacks. Since the beginning of the

COVID-19 pandemic, the Philippines' on-line businesses and Filipinos have been investing in better cyber security, but their exposure to malware, hacking, and mis- and disinformation remains high.⁴⁰⁸ In a 2024 survey, some 64% of internet users in the country expressed concern about “real” and “fake” information on the internet. Meanwhile, the top two reasons cited by Filipino internet users for their on-line activity are: 1) staying in touch with friends and family (79.6%); and 2) finding information (79.3%). “Keeping up with news and events” came in sixth with 64.4% of Filipinos citing it.⁴⁰⁹ Ensuring the credibility and veracity of information in the media sphere is a challenge, as was illustrated during the 2022 elections when “disinformation-for-hire” firms were utilized by various candidates to intentionally funnel incorrect and misleading information to voters via social media influencers and partisan news outlets.⁴¹⁰

Television viewership is high nationally with 85% of Filipinos watching cable or broadcast television and 75% watching streaming or on-demand television programming.⁴¹¹ Both free-to-air and cable television are nearly ubiquitous. English and local languages are common across television programming.⁴¹² Radio and other audio media are also very popular, with 63% of Filipinos listening to broadcast radio, nearly 70% listening to streaming audio, and 61% listening to podcasts.⁴¹³ There are hundreds of radio stations, although Manila Broadcasting Company is a market leader.⁴¹⁴ Finally, the press retains a strong share of the mass media consumer base, as 54% of Filipinos either read online press content or regularly read a physical newspaper or magazine.⁴¹⁵

There were 86.75 million social media accounts registered to the Philippines in 2024. While this number could nominally mean that three-quarters of Filipinos use social media, the reality is that many users have more than one account – i.e., use more than one platform.⁴¹⁶ Of the average 10 hours that a Filipino will spend online every day, 144 minutes will be on social media.⁴¹⁷ Facebook is the most commonly-used social media platform, with nearly all Filipinos

who use social media having an account on the platform. YouTube notches more than 58 million users in the Philippines. TikTok has more than 49 million users in the country. Instagram has more than 21 million users in the Philippines. All other social media platforms have fewer than 10 million users in the country.⁴¹⁸

Although the commercial mass media are outspoken on political views and public policy, there is intense political pressure on media outlets, and there are highly-publicized examples of politicians using the apparatus of the state – regulations, law enforcement, taxation, etc. – to try to silence critics in the media. Beyond these commercial challenges, individual journalists face physical threats and harms to their reputations from powerful political, commercial, and other players who perceive reporters as potential enemies. Many mis- and disinformation campaigns against prominent Filipino reporters play out in social media, and on-line whisper campaigns have resulted in real-world harm to targets.⁴¹⁹

There are instances of the NTC ordering and telecoms service companies complying with blocks of specific news websites that authorities have alleged were related to terrorist organizations. Criminal and civil penalties are levied against individuals – regular citizens and journalists – for social media activity that is considered libelous or religiously offensive. There have been cases where authorities have forced individuals and organizations to apologize publicly for social media posts. While there have been discussions of banning specific apps for security reasons, as of the publication of this handbook, there had been no move to legally ban any.⁴²⁰

Post

Since 1992, PHL Post (the Philippine Postal Corporation) has been the government-owned and -controlled corporation undertaking the official role of postal service provider.⁴²¹ It operates under a government-appointed board and the board's appointed Postmaster-General. Under the Postmaster-General, there are nine

postal areas, each led by a director. As of 2023, there were more than 7,000 postal employees staffing Postal Stations in 1,051 communities nationwide. The same year, nearly 600 communities remained without a Postal Station. Of Postal Stations, in 2023, more than 800 remained off-line in terms of ICT access.⁴²² In addition to letter and parcel services, PHL Post provides payment services across the country.⁴²³ Due to this financial services capacity, PHL Post is commonly a partner for distributing cash-based humanitarian relief.⁴²⁴

International parcel services – e.g., DHL and FedEx – serve the Philippines.

Utilities

As the country continues to extend and revamp its electricity, water, and sanitation services, consideration is being given to the expected impacts of climate change on areas where key infrastructure is sited. Construction, repair, and overall operation of plants, lines, and other facilities is already disrupted by regular hazard events, and there is high potential for costs associated with these facilities to skyrocket as climate change influences the environment.⁴²⁵

The Department of Energy (DOE) is the national policy and oversight body with a mandate to prepare, coordinate, supervise, and control, all national government plans, programs, and projects related to energy exploration, development, use, distribution, and conservation. In addition to overseeing all issues related to electrification planning and power market regulations, the DOE oversees the national oil industry and aspects of potential use of nuclear energy.⁴²⁶ The electricity generation, transmission, and distribution sectors are fully privatized.⁴²⁷

The Philippine Water Supply and Sanitation Master Plan (PWSSMP) targets universal access to safe, sufficient, affordable, and sustainable water supply, hygiene, and sanitation by 2030.⁴²⁸ Among the key requirements for meeting these goals is naming and tasking an apex agency for water resources and supply. As of latter 2024, both legislative houses and the

President's office had backed a pending bill to establish a Department of Water Resources within the national government;⁴²⁹ however, as of the publication of this handbook, there had been no final passage of the bill or creation of such a department. Separately, the Solid Waste Management Division of the Department of Environment and Natural Resources (DENR) is the policy-making body for solid waste management, and it provides secretarial support to the National Solid Waste Management Commission (NSWMC).⁴³⁰

Power

Since the passage of the 2001 law requiring reform of the entire electric power sector, what had been previously state-owned assets overseen by the National Power Corporation (NPC) have been spun off to private, public-private, and community operators. All generation assets were sold to private companies or have been decommissioned. Transmission was spun off initially to the National Transmission Corporation (TransCo). TransCo remains the grid owner, but management, operation, and expansion of the transmission network was privatized via a 50-year concession to the National Grid Corporation of the Philippines (NGCP), which began operating the grid in 2009.⁴³¹ Distribution is handled by more than 100 companies. Transmission and distribution are regulated under the DOE.⁴³²

Under the DOE's Philippines Energy Plan 2023–2050, the country retains the goal of achieving 100% household electrification by 2028. To achieve this goal will require connecting off-grid areas to the national grid, expanding the use of distributed systems, and expansion of renewable usage. For these programs, DOE relies on partnerships with the National Electrification Administration (NEA), remnants of the NPC, electricity cooperatives (EC), and private distribution utilities.⁴³³

There are upwards of 70 companies in the generation sector of the electricity market.⁴³⁴ Of the 29.23 Gigawatts (GW) of total installed capacity in 2023, renewables

– i.e., hydro, geothermal, biomass, solar, and wind – accounted for approximately 8.4 GW, less than 30% of the total. Coal-fired plans contributed 58% of power generation in 2023, up from 34% in 2010.⁴³⁵ Oil and natural gas made up the remainder of generation fuels. The government targets 30% renewables by 2030 and 50% renewables by 2040.⁴³⁶ While the share of power generated by coal is expected to fall in the coming decades, the total amount of power produced using coal is not expected to fall by a significant amount. Rather, overall generation is expected to rise, and natural gas is expected to be the primary transition fuel.⁴³⁷ However, the Malampaya gas fields have long been the country's main indigenous source of energy inputs, and they are expected to be depleted in the coming years. There is no identified indigenous replacement. The country is working to develop liquified natural gas (LNG) import capacity to shore up gas delivery to major urban areas on Luzon.⁴³⁸ Estimated renewables capacity stands at an additional 13.1 GW of hydro, 4.4 GW of geothermal, and 150 GW of on- and off-shore wind.⁴³⁹

As the sole national transmission business, NGCP maintains, operates, and develops the network of transmission towers and substations that link generators to distributors.⁴⁴⁰ NGCP is linked to more than 230 generators and more than 130 distributors. There are more than 23,000 km (14,300 mi) of transmission line,⁴⁴¹ 20,000 towers,⁴⁴² and 213 substations. Under its Transmission Development Plan (2024–2050), NGCP is working to meet the DOE's 2018 Resiliency Policy, which requires planning and programming to mitigate the adverse effects of hazard events. The plans cover both infrastructural and human resources preparedness. Over the course of the Plan, the NGCP foresees investments in monitoring and control systems as well as redundancy and backup measures. The top six programs are: design for better performance in high winds, replacement of aging line, integration of telecommunications into a backbone loop, better site and route selection, establishment

of an Emergency Restoration System that includes important spare parts, and flood control measures at substations.⁴⁴³

As of 2021, an estimated 5% of Filipino households lived without an electricity connection.⁴⁴⁴ One utility company, Meralco, dominates power distribution with an estimated 80% of market share. More than 100 regional companies and ECs serve the remaining 20% of customers, often on an island-by-island basis.⁴⁴⁵ The NEA is the implementor for rural electrification projects, and it oversees ECs, which, together, supply power to 2.7 million households nationally. The NPC does continue to perform “missionary electrification,” which is defined as delivery of adequate and reliable power supply to remote islands not yet served by the private sector. The NPC’s Missionary Electrification Plan supports electrification projects that emphasize sustainable growth and clean energy.⁴⁴⁶ Abra, Albay, Masbate, Basilan, Sulu, Tawi-Tawi, and Lanao Del Sur are the least-connected communities, and inhabitants in these areas rely on ECs, many of which have little ability to maintain steady supply or pricing due to a lack of long-term contracts for energy inputs, unreliable distribution systems, customers’ inability to pay, and high rates of diversion or pilfering.⁴⁴⁷

Despite the high levels of household connection to an electricity grid, an estimated 57% of all household energy needs are filled by biomass – charcoal, wood, etc. – and another 13% is filled by liquid petroleum gas or kerosene. These alternatives to electricity are generally used for cooking and heating.⁴⁴⁸

In case of a system-wide blackout, recovery requires “black start” facilities that can resume operation within a specified period of time without feedback power from the grid and that have sufficient power to energize lines and start to deliver sufficient power to sections of the grid to restart other generators. For these purposes, each of the three national grids is subdivided into five sub-grids, each with a designated “power restoration highway” that incorporates at least two black start providers.⁴⁴⁹

Solid Waste

The country generates an estimated 17 MMT (18.7 million tons) of solid waste annually. Metro Manila accounts for fully one-third of all waste generated. Fewer than 40% of all barangays are served by waste facilities, and fewer than 30% have a landfill available.⁴⁵⁰ An estimate from 2018 found that more than 55% of all municipal solid waste was household trash, consisting of kitchen scraps, yard waste, paper products, glass bottles, plastic containers, foils, soiled tissues and diapers, household cleaning containers, batteries, and electronic equipment.⁴⁵¹

LGUs have primary responsibility for implementing solid waste management plans and providing the disposal and management system.⁴⁵² DENR’s Solid Waste Division is tasked with formulating policies and guidelines to promote the development of comprehensive solid waste management. As the Secretariat for the NSWMC, the Division can evaluate, review, and recommend LGU or private sector plans and projects for solid waste.⁴⁵³ The NSWMC brings together national and local government agencies with the private sector to ensure that plans and programs for segregation and collection of solid waste occurs at the municipal or city level.⁴⁵⁴

The DENR has long recognized the potential environmental and health consequences of improperly managed solid waste. Illegal or informal dumping increases the potential for disease spread, water contamination, insects and pests, methane exposure, and flooding due to clogged waterways. Based on a law from the year 2000, no open dumps may be operated.⁴⁵⁵ However, by 2020, more than 400 such open dumps remained in the country.⁴⁵⁶ Some of these dumps were in the process of rehabilitation or conversion to properly managed sites. Prior to 2004, there were only four sanitary landfills in the country,⁴⁵⁷ and by 2020, there were 241.⁴⁵⁸ NSWMC is working to divert more waste to recycling or composting. As of 2021, diversion covered just more than one-half of waste, and only 9% of LGUs have ordinances to regulate or require diversion of plastic waste.⁴⁵⁹

Water and Sanitation

There are dozens of water-related agencies in the country. Many of them have overlapping or conflicting mandates. Key national agencies with a stake in water resources and supplies include the NEDA, the National Water Resources Board (NWRB), Department of Health, DILG, DENR, DPWH, and the Local Water Utilities Administration (LWUA). For waterworks systems, the NWRB is the policy-making body and the resource and economic regulator. The Metropolitan Waterworks and Sewerage System provides additional oversight of the private water utilities in Metro Manila and its surrounding regions, where Manila Water company, Inc. and Maynilad Water Services, Inc are the concessionaires.

Outside Metro Manila, LGUs and community groups can form various types of organizations to provide water services. As of 2018, there were nearly 25,000 water service providers registered with the NWRB. The LWUA can certify an LGU's Water District as a quasi-public corporation that operates and maintains an LGU's water supply and wastewater management systems. Alternately, an LGU – province, city, or municipal government – can directly own and operate the water supply system. Community-based organizations can form Barangay Waterworks and Sanitation Associations (BWSA) or Rural Waterworks and Sanitation Associations (RWSA), either of which is a non-stock and non-profit entity with a remit to operate and maintain a water supply system in a barangay (BWSA) or defined area (RWSA). Cooperatives are also eligible to become water supply service providers, as are specific private groups, such as homeowners' associations, real estate developers, or water container truck operators.⁴⁶⁰

The 2020 Annual Poverty Indicators Survey of the Philippine Statistics Authority found that more than 54% of Filipino families had piped water to their dwellings, 21.5% sourced water from protected wells, and 16% accessed communal sources (public taps or developed

springs). Less than 10% of the population relied on undeveloped water sources or bought water from tanker trucks or water peddlers.⁴⁶¹ An estimated 12.4 million people may rely on unsafe sources of fresh water.⁴⁶²

The 2020 Survey also found that more than 80% of Filipino families have basic sanitation within the home. Some 13.5% of households had limited access, and most of these households had an improved sanitation facility shared with two or more other households. Less than 10% of the population had no access to improved sanitation, and they either practiced open defecation or used “unimproved” pit latrines, “hanging latrines” built over water, or buckets.⁴⁶³

Under the Philippines Water Supply and Sanitation Master Plan 2019-2030, Key Reform Agenda #4 is “Balancing Water Supply and Demand,” and Key Reform Agenda #5 is “Building Climate Resiliency.” Together, they recognize that the country's water resources are subject to ever-increasing demand even as climate change puts water resources at risk, and they require integration of DRR and climate resiliency into all aspects of water resource management. The objectives of the reforms will be to promote efficient water use, develop additional water sources in water-scarce areas, design and implement efficient water infrastructure, and protect critical watersheds. To achieve these objectives, DPWH, DILG, LWUA, NEDA, NWRB, LGUs, and water service providers all have tasks, including reforming building codes to require water efficiency standards, implementing water loss and pilferage prevention schemes, updating water permitting processes and procedures, issuing standards and guidelines for climate resiliency and flood protection, and rehabilitating and protecting watersheds, among other actions. Water service providers are expected to develop emergency response plans for their respective systems and to work with their respective LGUs to ensure that water-related issues are integrated into the local DRRM plans.⁴⁶⁴

HEALTH

According to a 2023 study, the Philippines suffers a “triple burden” of communicable diseases, non-communicable diseases (NCD), and conditions arising from rapid industrialization and urbanization. While infectious diseases remain among the top causes of morbidity, NCD-related causes of mortality also rank among the top challenges. Meanwhile, mental health concerns are increasingly common.⁴⁶⁵

In the past few decades, the Philippines has consistently seen a rise in overall life expectancy and a decrease in the health effects of malnutrition among children. However, in 2023, the national health leadership reported that maternal mortality rates, infant mortality rates, and the rate of tuberculosis (TB) infection had worsened, with a notable stagnation or worsening during the COVID-19 pandemic.⁴⁶⁶

As part of its strategy to address some of the lingering challenges to the health system, the country continues to target a shift to comprehensive health that addresses some of the socio-economic determinants of health – i.e., income, education, employment, and social support network – rather than relying wholly on traditional health care delivery. It also seeks to ensure access to ICT resources that extend the reach of health service providers to more remote areas in hopes of meeting people where they live. Meanwhile, the Philippines is already confronting the health-related impacts of climate change as food systems are affected, vector- and water-borne infections spread into new geographic areas, and heat disrupts labor and other market factors.⁴⁶⁷

Health Care System Structure

For 30 years, health care has been a devolved service, entrusted to LGUs. Thus, public hospital services – except a few hospitals specifically retained under the national Department of

Health (DOH) – are under control of city and municipal governments. Public primary care is delivered at barangay health stations (BHS), which are staffed by barangay health workers and midwives.⁴⁶⁸ There are also private and non-profit healthcare service providers. NGOs have been noted to play a key role, especially in remote and marginalized communities, where they can provide specific services – e.g., chest X-rays for TB screening or sexually-transmitted infection (STI) prevention and screening. Fragmentation of both the public and private sectors has been noted. There is limited evidence of referrals or coordination within the public system or between the public and private systems.⁴⁶⁹ An estimated 40% of the population uses private providers.⁴⁷⁰

There are an estimated 3,900 primary care facilities (PCF) countrywide. Of PCFs, nearly 2,600 are public sector BHSs. A key challenge is that only one-half of Filipinos have access to a BHS within 30 minutes of their residence, and estimates find that an additional 2,400 BHSs are needed to ensure all barangays have at least one health station. Due to a lingering shortage of BHSs, patients often go directly to hospitals rather than to PCFs. In 2018, there were 1,200 licensed hospitals with a total of 105,330 beds. Of hospitals, 769 were private facilities and 431 were run by LGUs or the military.⁴⁷¹ There are 66 hospitals under direct DOH control, and all administrative regions in the country have at least one DOH hospital.⁴⁷²

The DOH is the national technical authority with responsibility for developing national health policy and guidelines. It is also the top-level regulator and provides special tertiary health services and technical assistance to health providers and stakeholders. The DOH Central Office oversees various bureaus and services, each region’s Center for Health Development (CHD), and the DOH hospitals.⁴⁷³

The Health Emergency Management Bureau (HEMB) under the DOH acts as the DOH

Coordinating Unit and Operation Center (OpCen) for all health emergencies and for coordinating the mobilization and sharing of health resources during disasters. It serves as the DOH communication hub, maintains updated information on all health emergencies and disasters, and provides that information to other offices and agencies. Moreover, it maintains a database of all health emergency personnel and technical experts. Together with the National Center for Health Facilities Development, HEMB maintains a database of capabilities of health facilities. The HEMB leads development of the DRRM in Health (DRRMH) Plan and of protocols, guidelines, and standards for health emergency management, to include simulation exercises and the Integrated Human Resource Training Agenda for the Health Sector, an agenda that is specially constructed to address emergencies and disasters. HEMB's OpCen is a 24-hours-a-day, 365-days-a-year office.⁴⁷⁴ Figure 13 illustrates the HEMB's organizational structure.⁴⁷⁵

HEMB is the lead for the Philippine Emergency Medical Assistance Team (PEMAT), which has been organized and trained to

provide medical and public health services during disasters.⁴⁷⁶ Based on the World Health Organization (WHO) Emergency Medical Team (EMT) initiative, PEMAT is organized and trained to be a self-sustaining EMT that can operate as an outpatient department within existing health facilities or as a stand-alone health facility, within temporary tents, during disasters. As of September 2024, Philippines had three PEMATs officially recognized as ready for deployment. These teams are the Dr. Jose N. Rodriguez Memorial Hospital and Sanitarium (PEMAT Metro Manila), Jose B. Lingad Memorial General Hospital (PEMAT Luzon), and Eastern Visayas Medical Center (PEMAT Visayas).⁴⁷⁷ PEMAT deployed for the first time in 2023 when 30 of its members – seven doctors, seven nurses, two pharmacists, two medical technologists, three nursing attendants, four administration and finance personnel, and five logisticians and support staff – were sent to Türkiye after the 7.8-magnitude earthquake that struck there on 6 February 2023. The PEMAT operated for nearly two weeks (11-24 February) and served more than 1,000 patients.⁴⁷⁸

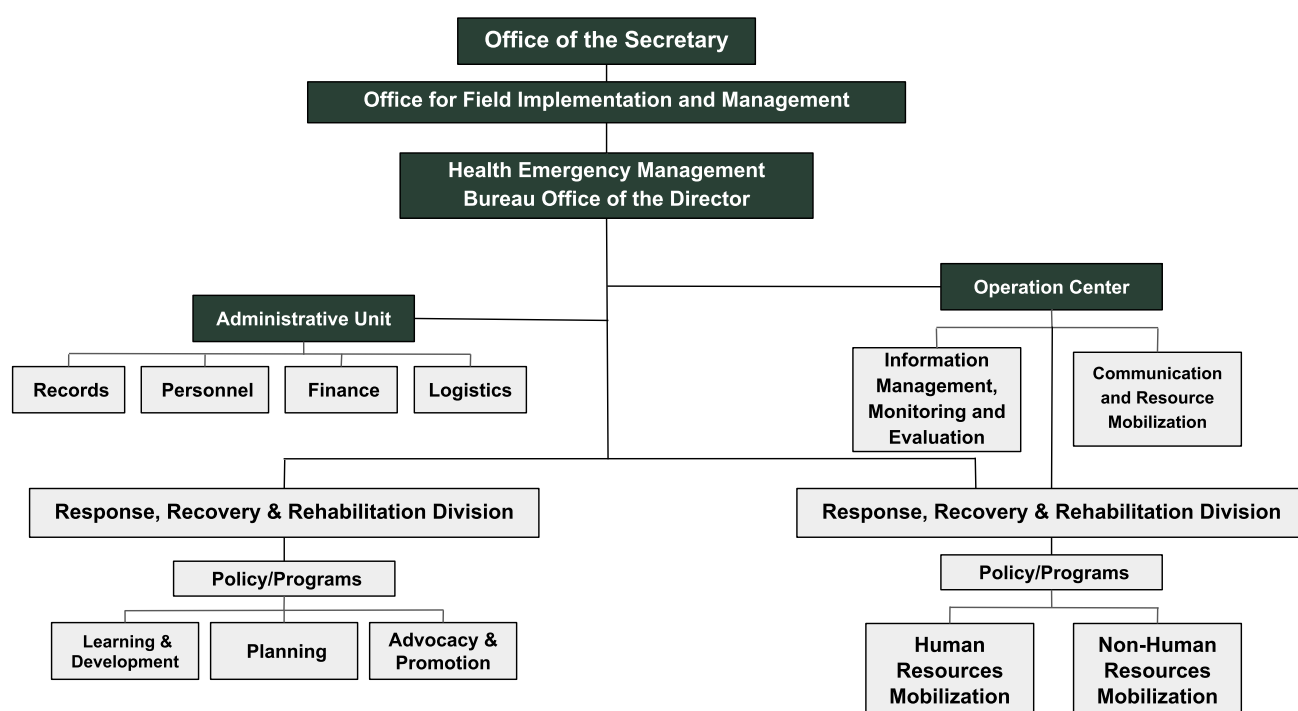


Figure 13: Health Department's Health Emergencies Bureau Structure

Health Strategies and Surveillance

In 2019, the country passed the Universal Health Care (UHC) Law, but progress has been slow due to impacts on the health system of the COVID-19 pandemic. The desired outcome is that Filipinos can access comprehensive health care without discrimination or financial barriers. To reach this goal, DOH has developed the National Objectives for Health (NOH). The latest NOH (2023-2028) and the 8-Point Action Agenda for implementation align with the PDP 2023-2028.⁴⁷⁹

Given the country's exposure to natural and anthropogenic hazards, Action #4 is particularly important. Indeed, the combination of regular hazard events and climate change impacts are considered a public health emergency that necessitates a robust response mechanism. To address this challenge, the NOH lays out actions to reach comprehensive planning, investment, and resource mobilization for public health and safety. The two components of this action item are to ensure the resilience of health facilities and to build capacity for large-scale health emergencies. The concept of the Health Emergency Auxiliary Reinforcement Team (HEART) was introduced to ensure that, at times of crisis, there is a roster of professionals that can be called into service.

Under the Mandatory Reporting of Notifiable Diseases and Health Events of Public Health Concerns Act of 2019, public authorities are required to report on certain diseases and conditions of public health concern; conduct outbreak and case investigations; interview patients; review medical records; conduct and test specimens; and deliver risk assessments, laboratory investigations, population surveys, and environmental investigations. The Act empowers authorities to enforce quarantine and isolation measures. Given these mandated roles and responsibilities, under the NOH and 8-Point Action Agenda, the country is working to:

- Establish the Philippine Center for Disease Prevention and Control (PCDC) and the

Virology Institute of Philippines (VIP)

- Develop a National Health Security Plan
- Enhance local epidemiology and surveillance
- Establish infectious disease hospital wings in every provincial hospital with sufficient staffing for specialization in infectious diseases
- Create more fellowships for specializations in infectious diseases
- Promote active participation in international agreements and pandemic-related instruments

Finally, based on the experiences of the national laboratory network during COVID-19, the DOH targets development of the Laboratory Response Network to ensure that national, regional, provincial, city, and municipal public health laboratories are networked alongside traditional sentinel clinical laboratories. Epidemiological Surveillance Units (ESU) have been established throughout the country at national, regional, provincial, city, and municipal levels. The national and regional ESUs generate weekly and monthly surveillance reports.⁴⁸⁰

The Philippines uses a Field Health Services Information System (FHSIS) to monitor morbidity, including infectious diseases targeted for control – e.g., malaria, TB, and rabies – and NCDs. FHSIS data on critical health interventions show fluctuations in service coverage for maternal and child health and nutrition and NCD management during 2020 and 2021, the first two years of the COVID-19 pandemic. In 2021, immunization rates for children under 5 years of age were below the national target (95%), and only 63% of infants were considered fully immunized, a drop in coverage from 69% of infants in 2019. NCD management for adults aged 20 years and above also declined during the pandemic, as BHSs nationally reported a lack of supplies of the most common vaccines and medications.⁴⁸¹

Communicable Diseases

Based on the DOH's list of notifiable diseases, the country continues to record high rates of

respiratory infections, skin diseases, pneumonia, and TB. However, the national statistics authority records higher rates of mortality from NCDs than from communicable conditions, except for COVID-19. Table 3 illustrates the two “top ten” lists from the DOH Epidemiology Bureau and the Philippine Statistics Authority, both from 2022 data.⁴⁸²

The Philippines continues to be burdened by outbreaks and epidemics of dengue, diphtheria, human immunodeficiency virus (HIV), measles, polio, and TB, among other diseases.

COVID-19

Authorities imposed travel restrictions on 28 January 2020, two days before the first case of COVID-19 was confirmed in the Philippines. On 30 January, the DOH reported the country’s first confirmed case, in a traveler. On 7 March, the first local transmission was confirmed.⁴⁸³ After the first cases of local transmission, authorities imposed additional travel restrictions by requiring that travelers arriving from a list of “restricted” countries quarantine for 14 days and test regularly. Because the “restricted” country list excluded places where the virus was also circulating, travelers who were not subject to quarantine and testing protocols still brought the virus to the Philippines, and by late March, the country was reporting tens of cases daily. These counts can only be considered indicative as there was minimal testing at the time due to limited resources or access to testing supplies or locations until April 2020.⁴⁸⁴

The country began its national vaccine drive on 1 March 2021, with the goal of vaccinating 70 million citizens by the end of the calendar year.⁴⁸⁵ By December 2023, health authorities had administered 189.32 million doses of vaccine, and 72% of the population had received a complete primary series. By the end of 2023, the country had recorded more than 4.1 million total cases of COVID-19, and more than 66,700 people had died from the disease.⁴⁸⁶

Dengue

Dengue is endemic in the Philippines, and the country recorded Southeast Asia’s first official dengue outbreak in 1954.⁴⁸⁷ Dengue virus (DENV) is transmitted to humans through the bite of infected mosquitoes, primarily the *Aedes aegypti*. DENV has four serotypes (DENV-1, DENV-2, DENV-3, DENV-4). Infection with one serotype provides long-term immunity to the same serotype and only transient immunity to the other serotypes. Dengue cases are most commonly asymptomatic or result in mild febrile illness. However, some cases will develop severe dengue, which may involve shock, severe bleeding, or severe organ impairment. This stage often starts after the fever has gone away, and it is preceded by warning signs such as intense abdominal pain, persistent vomiting, bleeding gums, fluid accumulation, lethargy or restlessness, and liver enlargement. There is no specific treatment for dengue, but the timely diagnosis, identification of warning signs for severe dengue, and appropriate clinical

Top Burden of Disease	
Acute Respiratory Infection	Ischemic Heart Disease
Hypertension	Cerebrovascular Diseases
Animal Bite	COVID-19 (virus confirmed)
Urinary Tract Infection	Neoplasms
Acute Lower Respiratory Tract Infection	Diabetes mellitus
Skin Diseases	Hypertension
Pneumonia	Pneumonia
Heart Diseases	Chronic Lower Respiratory Diseases
TB	Other Heart Diseases
Fever (origin unknown)	Other Genitourinary System Diseases

Sources: DOH - Epidemiology Bureau (left) and Philippine Statistics Authority (right)

Table 3: Top Ten Causes of Mortality

management are key elements of care to prevent the progression to severe dengue and death.

The WHO has reported a global uptick in dengue cases, with a ten-fold surge from 500,000 cases in 2000 to 5.2 million cases in 2019. The Philippines is not an outlier. Generally, dengue transmission is cyclic, and large outbreaks can be expected every 3-4 years.⁴⁸⁸ Outbreaks in the Philippines do tend to be seasonal, with upticks in the wet season (June-February).⁴⁸⁹ In April 2019, the DOH declared a national dengue epidemic. During the year, more than 437,500 cases of the disease were reported,⁴⁹⁰ and more than 1,400 people died from the infection during that year. Approximately half of the people who died of the disease were between the ages of 5 and 9 years.⁴⁹¹ In 2023, the country reported more than 167,300 cases and 575 deaths. Globally, several factors are associated with the increasing risk of spread of dengue. These factors include the changing distribution of vectors; the consequences of El Niño phenomena and climate change leading to increasing temperatures and high rainfall and humidity; fragile health systems disrupted by the COVID-19 pandemic; political and financial instability; and high population movement, especially urbanization.⁴⁹²

Dengue has been a notifiable disease in the Philippines since 1958.⁴⁹³ The government established the National Dengue Prevention and Control Program in 1993. Through this program, public health authorities conduct case and vector surveillance, case diagnosis and management, vector management, outbreak response, health promotion and advocacy, and research. In 2016, the multinational pharmaceutical company Sanofi developed Dengvaxia, a vaccine against dengue, and it was introduced as part of the Philippines' dengue prevention efforts. By 2018, Sanofi had found that Dengvaxia might cause more severe disease in people who have not had previous dengue infection, but by the time this news was announced, over 800,000 children had been inoculated with Dengvaxia. Lawsuits were filed against Sanofi and various government officials due to claims of children's deaths from the vaccine and government corruption. The

public health sector suffered immense loss of trust, and immunization rates plunged for all diseases in the Philippines.⁴⁹⁴

Diphtheria

Diphtheria is a bacterial infection. The *Corynebacterium diphtheriae* bacterium multiplies on or near the surface of the throat or skin. It spreads through airborne droplets or via contact with contaminated surfaces. When an infected person's sneeze or cough releases a mist of contaminated droplets, people nearby may inhale the bacteria. Alternately, people can be infected by handling an infected person's things, such as used tissues or hand towels, that may be contaminated. Touching an infected wound also can transfer diphtheria-causing bacteria. Diphtheria symptoms usually begin 2-5 days after a person becomes infected. Signs and symptoms may include a thick, gray membrane covering the throat and tonsils, a sore throat and hoarseness, swollen glands (enlarged lymph nodes) in the neck, difficulty breathing or rapid breathing, nasal discharge, fever and chills, or tiredness. In some people, infection causes only a mild illness or no obvious symptoms at all. Infected people who stay unaware of their illness are known as carriers and can spread the infection without being sick themselves. A second type of diphtheria can affect the skin, where it causes pain, redness, and swelling. Ulcers covered by a gray membrane may be a sign of skin diphtheria.⁴⁹⁵ In severe cases, the toxin-producing bacteria form layers called pseudo-membranes, which block airways. The toxins, if absorbed from infected areas, can also weaken the heart muscles, cause chest pains, and, in extreme cases, result in heart failure. Severe diphtheria cases – those with established pseudo-membranes – require emergency treatment with the diphtheria antitoxin. Half of cases result in death if left untreated. With the antitoxin, the risk of death decreases to 10% of cases.

The standard vaccination schedule for children in the Philippines includes three doses of pentavalent vaccine for diphtheria, whooping cough (pertussis), tetanus, Hepatitis B, and

influenza B. By 2014, the DOH's Expanded Program on Immunization (EPI) recorded 79% coverage for the full three-dose course, well below the national target of 95%. This gap meant 18.7 million children were insufficiently vaccinated or entirely unvaccinated.

In the past decade, there have been several years in which high rates of diphtheria have been recorded. In 2015, the DOH reported 105 cases of diphtheria.⁴⁹⁶ From January to October 2019, more than 200 cases of diphtheria were reported, and 47 people died of the disease.⁴⁹⁷ In the first nine months of 2023, DOH reported 152 cases, compared to 65 during the same period in 2022, and there were 33 deaths from diphtheria recorded in 2023. Metro Manila, the BARMM, and CALABARZON accounted for 60% of cases. However, Zamboanga also saw a 1,800% uptick from one case in 2022 to 19 cases in 2023. Other regions saw similarly shocking percent increases year-on-year.⁴⁹⁸ The first six months of 2024 showed a continued rise in case numbers with an uptick of 75% year-on-year. As of 4 May 2024, there had been 110 cases reported by DOH, and 14 people had died due to infection.⁴⁹⁹

HIV

Although the Philippines has an incidence rate of HIV infection of less than 1 per 1,000 people, the country experienced the fastest-growing HIV epidemic in Southeast Asia and the Pacific. There was a 418% increase in new HIV infections between 2010 and 2022, and there was a 538% rise in deaths related to acquired immune deficiency syndrome (AIDS) during the same period. From 1984 through the early 2010s, HIV/AIDS deaths in the Philippines numbered fewer than 20, but from 2012, they started to skyrocket, and by 2022, there were 978 deaths recorded in the country in one year. By age group, the hardest-hit cohort were adults ages 24-34 years, among whom there were a cumulative 3,489 deaths over the course of 40 years. In addition, the epidemic is concentrated among men who have sex with men and trans-gender women, who, together, account for nearly 90% of all new infections.⁵⁰⁰ High burden regions of the country

are Western and Central Visayas (Regions VI and VII).⁵⁰¹

With the rapid increase in infections, the country now has a larger number of people living with HIV. By the end of 2023, there were an estimated 189,000 people living with HIV, and this number was expected to increase to more than 401,000 people living with HIV by 2030.⁵⁰² While a combination of overall public health interventions is thought to have averted some 268,000 HIV infections between 2005 and 2022, there remain gaps in testing and treatment. As of 2023, only an estimated 62% of people living with HIV knew their status, 63% of people who knew their status were on anti-retroviral treatment (ART), and 44% of people on ART were testing and presenting suppressed viral loads. There remain barriers to reaching the 95-95-95 targets (95% of people with HIV know their status; 95% of people who know their status are on ART; and 95% of people on ART show suppressed viral loads), but reaching these targets could avert tens of thousands of infections and nearly all deaths in the coming years.⁵⁰³

The high burden of TB and hepatitis B virus co-infection also complicates HIV management.⁵⁰⁴

The Philippines was included in the 2020 Asia regional program of the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), and this inclusion saw the U.S. CDC open a new country office in Manila in 2022 to support PEPFAR programming and other public health cooperation initiatives. The national reporting platform is the One HIV, AIDS, and STI Information System (OHASIS).⁵⁰⁵

Measles

Measles is a viral infection that spreads easily among people who have neither had the disease nor been vaccinated. The virus is generally found in the nose and throat of an infected person and, when that person coughs, sneezes, or talks, infectious droplets spray into the air, and other people breathe them in. Infectious droplets may remain in the air for an hour or may land on a surface where they can live for several hours and

from which people who touch those surfaces can become infected. Symptoms appear 10-14 days after exposure to the virus and may include fever, dry cough, runny nose, sore throat, inflamed eyes, tiny white spots with bluish-white centers on a red background inside the mouth or on the inner linings of the cheeks, and a skin rash of large, flat blotches.⁵⁰⁶

Globally, during 2017-2019, there were measles outbreaks, but the largest registered by the WHO was in the Philippines, where vaccine coverage had fallen to 75% in 2018. Reported cases increased from 2,428 in 2017 to 20,827 in 2018, and 48,525 in 2019. Outbreak clusters were first reported in Mindanao in September 2017, followed by the NCR later that year. In February 2018, a measles outbreak was declared in five regions, including in the NCR, and in the weeks following the declaration, outbreaks reached 17 regions. Supplemental Immunization Activity (SIA) campaigns were conducted in NCR and Mindanao, followed by the Visayas and the rest of Luzon during 2018. The SIA campaign was extended to all regions during 2019. At the peak of the epidemic, measles care units were established to support overcrowded hospitals. By mid-2019, reported cases had declined over several months. Pockets of measles outbreaks were reported in 2020, a year when only 3,832 cases were reported nationally. During 2020 and 2021, it is very likely that cases remained subdued because of movement and socialization restrictions tied to the COVID-19 pandemic.

Key to the likely roots of recent outbreaks, measles vaccination coverage nationally had been in decline prior to the 2018-2019 outbreak. The measles vaccine was introduced in the Philippines in 1983, and a second dose was added to the schedule in 2009. Vaccine coverage for the first dose peaked at 92% (2004-2008) but gradually declined to 80% in 2016 and 75% in 2018. The Dengvaxia controversy in late 2017 is considered one of the contributing factors to decline in uptake of the measles vaccine among Filipino children.⁵⁰⁷

Polio

Polio is a viral disease that is highly infectious. It invades the nervous system of an infected person and can cause total paralysis in a matter of hours. The virus is transmitted person-to-person mainly through the fecal-oral route, and it commonly spreads via contaminated water or food. It multiplies in the intestine. Initial symptoms are fever, fatigue, headache, vomiting, stiffness of the neck, and pain in the limbs. One in 200 infections leads to irreversible paralysis, usually in the legs. Among those paralyzed, 5–10% die when their breathing muscles become immobilized. Although commonly considered a childhood infection, any unvaccinated person of any age can contract the disease. There is no cure. It can only be prevented. Polio vaccine can protect for life. There are two vaccines available: oral polio vaccine and inactivated polio vaccine.⁵⁰⁸

The Philippines was declared polio free in 2000. In September 2019, the country's health authorities declared an outbreak of polio.⁵⁰⁹ The DOH and its partners immediately launched a comprehensive response that included mass immunization.⁵¹⁰ The outbreak was halted with no new cases detected after late 2020.⁵¹¹ Nonetheless, the WHO still assessed the country as at-risk for a polio outbreak as of latter 2023, and 24 of 81 provinces were considered high-risk. There were significant challenges to the DOH's comprehensive vaccine catch-up campaign due to shortages in vaccine supply, governance obstacles, low demand, and other problems related to the COVID-19 pandemic.⁵¹² Finally, on World Polio Day, 24 October 2024, the WHO reported that the country had closed gaps in vaccination as it had reduced the number of zero-dose children to an estimated 163,000.⁵¹³

Tuberculosis

TB is caused by *Mycobacterium tuberculosis*. People with active TB disease in the lungs or voice box can spread the disease. When they speak, sing, laugh, cough, or sneeze, they release tiny droplets that carry the bacteria through the air. A person can get an infection after

inhaling the droplets. A person with a latent TB infection cannot pass the disease to other people. A person taking drugs to treat active TB disease usually cannot pass the disease after 2-3 weeks of treatment. However, some forms of the TB bacteria have become drug resistant, and, globally, as antibiotic drugs are not used correctly or the drugs fail to kill all the bacteria, the conditions are ideal for more resistant versions of the bacteria to become established and multiply. New drug-resistant strains are the result. People with HIV or other conditions leading to weakened immune systems have a higher risk of catching TB.

A TB infection may be in one of three stages. Symptoms are different in each stage. The first stage is called the primary infection, during which immune system cells find and capture the bacteria; most people do not have symptoms during a primary infection, although some may experience flu-like symptoms – e.g., low fever, fatigue, or cough. Primary infection is usually followed by latent TB infection, during which immune system cells build a wall around infected lung tissue, but the bacteria do survive. There are no symptoms during latent TB infection. The final stage, active TB disease, happens when the immune system cannot control an infection. The bacteria cause disease throughout the lungs or other parts of the body. Active TB disease may occur any time after infection, but it usually happens after months or years of latent TB infection. Symptoms of active TB disease in the lungs usually begin gradually and worsen over a few weeks. They include cough, coughing up blood or mucus, chest pain, pain with breathing or coughing, fever, chills, night sweats, weight loss, loss of appetite, fatigue, or general malaise. TB infection can spread from the lungs to other parts of the body, and extrapulmonary symptoms vary depending on what part of the body is infected. Common symptoms may include fever, chills, night sweats, weight loss, lack of appetite, fatigue, general malaise, or pain near the site of infection.⁵¹⁴

TB is a major public health problem in the Philippines, and recent surveys have found rising

prevalence of multi-drug resistant (MDR) TB and extensively-drug resistant (XDR) TB strains, with more than two-thirds of survey samples found to be MDR- or XDR-TB strains between 2011 and 2019. In 2021 alone, there were more than 741,000 infections recorded alongside 61,000 deaths.⁵¹⁵ By 2022, the Philippines had the fourth highest rate of TB incidence in the world. An estimated 1 million Filipinos have active TB infection, and nearly 70 Filipinos die every day from the disease.⁵¹⁶ TB is the leading cause of death among people living with HIV as the two diseases are often co-infections.⁵¹⁷

The National TB Program is the DOH's main vehicle for addressing infections and treatment of TB. During the COVID-19 pandemic, the Philippines Strategic TB Elimination Plan for 2020-2023 included the development and launch of a package of digital solutions called the "End TB AppSuite," intended to improve the efficiency of specific tasks and help address challenges, particularly data collection and under-notification of TB cases. In addition, the End TB AppSuite helps health authorities monitor and improve TB treatment adherence and assists in keeping patients on their treatment plan.⁵¹⁸

The Philippine Acceleration Action Plan for TB (PAAP-TB) 2023-2035 serves as a blueprint for the National TB Coordinating Committee agencies to align their TB elimination efforts to increase access to screening chest X-rays and expand laboratory-based diagnostic capability, all in the expectation of boosting treatment adherence and reducing the potential for new MDR-TB strains to emerge.⁵¹⁹

Non-Communicable Diseases

NCDs are chronic conditions that arise due to a combination of genetic, physiological, environmental, and behavioral factors. They include various cardiovascular diseases, cancers, chronic respiratory diseases, and diabetes. The major risk factors are tobacco use, physical inactivity, the harmful use of alcohol, unhealthy diets, and air pollution, and additional risk

factors include high blood pressure, obesity, and environmental toxins. These factors share roots in rapid urbanization, poor urban planning, unhealthy lifestyles, and population aging.⁵²⁰

In 2022, the top three causes of death in Philippines were ischemic heart disease, cerebrovascular diseases, and cancer, with cancer having replaced COVID-19 in the third slot after that disease was among the top three in 2021. Ischemic heart disease accounts for more than 18% of mortality, and both cerebrovascular disorders and various cancers each account for more than 10% of deaths.⁵²¹ In addition, the Philippines has the highest number of deaths caused by kidney diseases across Southeast Asia. There is significant concern that, barring radical intervention, the incidence of NCDs may double by 2040.⁵²² In addition to the loss of healthy years of living for individual Filipinos, the total cost to the economy of NCDs is equal to nearly 5% of GDP due to surging health care costs and reduced productivity.⁵²³

To curb the rising burden of NCDs, taxes on unhealthy products have been incrementally implemented since 2012 and are used to help fund UHC benefit packages.⁵²⁴ Nonetheless, an estimated 20% of Filipino adults smoke (40% of men), and surveys suggest that more than 10% of adolescents (13-15 years of age) are daily smokers. Exposure to second-hand smoke is near ubiquitous. Additional drivers of various cancers, cardiovascular conditions, digestive disorders, and diabetes are high rates of alcohol consumption, physical inactivity, and unhealthy diet. Recent surveys have found that more than 40% of adult Filipinos get insufficient physical exercise, with more women than men being too inactive. In addition, Filipinos of both sexes and all ages are assessed to have too much sodium in their diets, some notching more than twice the WHO-recommended amounts of salt per day. Finally, a reported one-third of Filipino adults are overweight or obese, with women having slightly higher rates of overweight/obese.

As part of a broader package of health interventions that coincide with WHO recommendations and strategies, the Philippine Government has adopted various plans and

laws on tobacco control, harmful use of alcohol, unhealthy diets, and physical activity.⁵²⁵ On-going programs include:

- Finalization of the Philippine Multi-sectoral Strategic Plan for the Prevention and Control of NCDs (2017 – 2025)
- The Philippine Package of Essential NCD (PhilPEN) Intervention for the integrated management of hypertension and diabetes implemented nationwide, supplemented by DOH Hypertension and Diabetes Health Clubs in PCFs to ensure continuity of care and provision of drugs
- Training for Regional Offices and LGUs on diabetes management using insulin
- Provision of NCD drugs through Medicine Access Programs – covered conditions include breast cancer, childhood cancers, colorectal cancer, hypertension, and diabetes
- Training for health workers on cervical cancer screening using visual inspection using acetic acid (VIA)
- NCD indicators integrated in existing DOH current performance reporting systems like FHSIS and LGU scorecard
- DOH support for proposed legislation focusing on alcohol consumption and integrating palliative and hospice care into the healthcare system⁵²⁶

The Healthy Hearts Program is one project targeting a reduction in loss of healthy years of life. In 2021, the DOH worked with local governments, the WHO, and the non-profit Resolve to Save Lives, to implement the Healthy Hearts Program in Iloilo Province.⁵²⁷

Other programs at the community level are expanding to ensure all Filipinos have access to the basic testing and treatment required to ensure early screening, detection, and treatment of conditions that can become chronic ailments. The U.S. CDC's office in the Philippines is a partner in strengthening the capacity of community health offices to deliver lipid testing without using a central laboratory, which requires transport and storage of blood samples. By conducting this testing within the community, it is hoped that more patients

are screened sufficiently early to undertake lifestyle interventions to prevent cardiovascular diseases.⁵²⁸

Training for Health Professionals

The national ratio of health workers to population stands at 7.7 doctors per 10,000 people and 54.4 nurses and midwives per 10,000 people.⁵²⁹ While the density of the nursing workforce is generally considered sufficient, there is a constant outflow of trained nurses going to work overseas, and the availability of doctors, dentists, and midwives falls well short of need.⁵³⁰ A 2023 survey found that most physicians are concentrated in cities, where 90% of PCFs have at least one medical doctor. Meanwhile, less than 10% of facilities outside of urban areas have doctors and nurses, although 80% of BHSs have a midwife, and 90% have a barangay health worker.⁵³¹

To implement the national policy on UHC, the CHED has called for medical schools and other health professional schools to reorient their curriculum towards primary health care.⁵³² The Federation of Accrediting Agencies of the Philippines through the Philippine Accrediting Association of Schools, Colleges and Universities (PAASCU), conducts the external accreditation of the basic medical education program. The practice of medicine is then regulated by the Professional Regulatory Board of Medicine of the Professional Regulation Commission as mandated by Republic Act 2382 known as Medical Act of 1959.⁵³³ In recent years, these organizations have overseen a decoupling of medical education and clinical training such that students who complete their classroom studies in urban environments can complete their clinical residencies in more rural areas in hopes of bolstering overall community access to health care.⁵³⁴

There are nearly 50 public and private institutions offering a medical curriculum, a 5-year program that leads to a Doctor of Medicine (MD) degree.⁵³⁵ These studies are

dominated by a focus on basic and clinical disciplines – anatomy, pathology, internal medicine, pediatrics, obstetrics, and general surgery. The final year of the degree program is typically dedicated to clinical training in hospital settings, and some trainees spend a period in service within communities.⁵³⁶ The combination of the basic degree, a residency, and specialized training can take up to 13 years to complete.⁵³⁷ There are upwards of 200 nursing schools that produce more than 20,000 graduates annually. Broadly, the Philippines' nursing schools have a globalized curriculum that delivers a Bachelor of Science in Nursing degree and prepares students for the Nurse Licensure Examination.⁵³⁸ Two-year midwifery courses are available across public and private colleges and universities nationally. Most health professional education programs are delivered in English.⁵³⁹

The National Human Resources for Health Master Plan (NHRHMP) 2020-2040 provides a strategic direction to develop the Philippines' health workforce to meet the demands of UHC. It targets sustainable delivery of new members of the labor force, training, job generation, competitive salaries, retention mechanisms, and career development services. The NHRHMP complements the National Health Workforce Support System (NHWSS), which incorporates human resource management, salaries, benefits, incentives, and occupational health and safety for healthcare professionals. Moreover, there is a special focus on delivery these benefits for professionals who serve in underserved regions.

Under NHWSS, there are various programs to augment LGUs' ability to hire and retain professionals. They include the Doctors to the Barrios Program, the Nurse Deployment Project, and the Human Resources for Health program, which deploys nurses, dentists, nutritionists, medical technologists, physical therapists, and midwives to areas in need. More recently, the Post-Residency Deployment Program and Espesyalista para sa Bayan Program aim to deploy specialist physicians to underserved areas after they complete their residency training in DOH hospitals.⁵⁴⁰

WOMEN, PEACE AND SECURITY

The Philippines has undertaken several significant initiatives in terms of women's inclusion, justice, and security. These activities are in line with the international Women, Peace and Security (WPS) agenda, which covers a wide range of efforts to increase women's meaningful participation in the promotion of sustainable peace and security through conflict prevention and resolution, peace negotiation, peacebuilding, peacekeeping, humanitarian response, relief aid, and economic recovery and development. The WPS agenda gained global visibility with United Nations Security Council Resolution (UNSCR) 1325, adopted in October 2000. UNSCR 1325 affirmed the important role women play in many aspects of promoting and maintaining peace and security. The WPS agenda has since expanded with the adoption of additional related UNSCRs: 1820 (2009); 1888 (2009); 1889 (2010); 1960 (2011); 2106 (2013); 2122 (2013); 2242 (2015); 2467 (2019); and 2493 (2019). These resolutions together address various issues of gender and security, including the need to stop gender-based violence and to promote women's roles in conflict resolution, recovery, and peacebuilding. The WPS agenda has also broadened to look at women's and men's meaningful participation in humanitarian assistance, disaster management, DRR, and climate security to facilitate a wider range of input and inform decision-making that benefits the whole of society.

Key to the Philippines' implementation of the WPS agenda was Republic Act 9710 (14 August 2009), known as the "Magna Carta of Women" (MCW). This law translated into local legislation the government's commitment to the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW). It defines gender discrimination, state obligations, and substantive equality. Among the key features of the MCW, the law:

- Increased the number of women in

career civil service positions to achieve a 50-50 gender balance by 2014 while the composition of women in all levels of development planning and program implementation would rise to at least 40%

- Mandated leave benefits of two months with full pay based on gross monthly compensation for women employees who undergo surgery caused by gynecological disorders, provided that they have rendered continuous aggregate employment service of at least six months during the preceding 12 months
- Required non-discrimination in employment in the fields of military, police, and other similar services, and that women be accorded the same promotional privileges and opportunities as their male counterparts, including pay increases, additional benefits, and awards, based on competency and quality of performance
- Provided for equal access and elimination of discrimination in education, scholarships, and training (outlawing expulsion, non-readmission, prohibiting enrollment, or other discrimination of women students and faculty due to pregnancy out of marriage)
- Prescribed non-discriminatory and non-derogatory portrayal of women in media and film to raise the consciousness of the general public in recognizing the dignity of women and the role and contribution of women in family, community, and the society through the strategic use of mass media; and
- Instituted equal status for men and women on the titling of land and issuance of stewardship contracts and patents.⁵⁴¹

Under the MCW, the National Commission on the Role of Filipino Women was renamed the Philippine Commission on Women (PCW), which was also tasked with overall monitoring

and oversight of implementation of the MCW. PCW is now an agency under the Office of the President, and it is the primary policymaking and coordinating body for women and gender equality.⁵⁴²

Following passage of the MCW and reformation of the PCW, in 2010, the Philippine Government crafted its first National Action Plan on Women, Peace and Security (NAPWPS) in cooperation with civil society.⁵⁴³ In 2010, the Philippines became the first country in Asia to launch an NAPWPS structured around the global WPS agenda's four main pillars – participation, protection, prevention, and relief and recovery.⁵⁴⁴ The 2010-2016 (amended in 2014) NAP was followed by the Philippine NAPWPS 2017-2022, which adopted a framework that recognized women's contributions to conflict transformation and addressed their intersecting vulnerabilities in armed conflict. During the period of the second NAPWPS, there was an increase in the participation of women in governance and peace processes at the national level. Women participated in and led the implementation of closure agreements and peace negotiations as panel members or as part of the panel secretariat. The Philippines was the first country to have had a female chief negotiator who signed a final peace accord when the government entered into a peace agreement with the Moro Islamic Liberation Front.⁵⁴⁵ Finally, this period saw the adoption of the initial Regional Action Plan (RAPWPS) for the Autonomous Region in Muslim Mindanao (now the BARMM).⁵⁴⁶

The current NAPWPS (2023-2033) shifts the focus to human rights and women's agency and refers to non-traditional WPS issues, such as climate security and cybersecurity, as well as the inclusion of women in all their diverse and intersecting identities. The plan is structured around: 1) Empowerment and Participation, and 2) Protection and Prevention. There are two support pillars: 1) Promotion and Mainstreaming, and 2) Monitoring, Evaluation, Accountability, and Learning.⁵⁴⁷ The NAPWPS 2023-2033 also includes the context of non-international armed conflict as stipulated in

CEDAW General Recommendation 30 on women in conflict prevention, conflict, and post-conflict situations. Women and girls in conflict-affected and conflict-vulnerable communities become more susceptible to various forms of sexual and gender-based violence, such as sexual harassment, rape, trafficking, prostitution, and domestic violence. Those living in crowded evacuation centers have limited privacy and are, thus, more exposed to gender-based violence. Internal displacement and the lack of sustained means of livelihood further increase the risk of women and children to exploitation, abuse, and other forms of discrimination.⁵⁴⁸ In a related issue, the Philippines marked the 30th anniversary of the entry of women into service in the national security forces in 2023.⁵⁴⁹ Nonetheless, despite the provision in the MCW that women in the military, police, and other security services are provided with decent billet facilities and quartering, separated from the men, regardless of the location or type of assignment, the COVID-19 pandemic pointed up challenges within the services because various agencies of the security sector were mobilized for the response. Among the key observations were a lack of well-fitting personal protective equipment for female personnel, including uniforms and firearms.⁵⁵⁰

The country's Inter-Agency Committee on Gender and Children Statistics was mandated to resolve data issues, review current techniques and methodologies, and recommend policies and workable schemes towards the improvement of gender and other related statistics.⁵⁵¹ The PCW oversees development and use of the Gender Mainstreaming Monitoring System (GMMS), an online knowledge management tool to monitor the gender mainstreaming efforts of national government agencies, state tertiary education institutions, and other government organizations.⁵⁵²

Since independence, the country has seen 15.79 years of a female in the presidency versus 34.21 years of male leadership.⁵⁵³ There have been two female Presidents – Corazon Aquino (1986-1992) and Gloria Macapagal Arroyo (2001-2010).

CONCLUSION

Due to the Philippines' geography and location in both the "Ring of Fire" and along the Pacific typhoon belt, the country is exposed to many natural hazards. It is also exposed to anthropogenic hazards and the impacts of climate change. In an average year, the country experiences 20 typhoons, several of which are destructive. It experienced its most destructive disaster in recorded history in 2013 when Typhoon Haiyan (Yolanda) affected 26 million people and claimed at least 8,000 lives. As a "lower-middle-income" country in 2024, the Philippines also struggles to address the vulnerabilities of many of its citizens. Poverty, disability, discrimination, and displacement all make some portions of the populace more susceptible to the adverse effects of hazard events.

Due to its high levels of exposure and vulnerability, the country is putting resources into developing resilient and green infrastructure to allow communities to recover from disasters more swiftly and to ensure the country meets its international climate commitments. The PDP 2023-2028 continues to target investment in transport, communication, energy, water, and other infrastructure to bolster economic productivity and promote safety and security. However, these improvements to society's assets cannot stop major hazard events from occurring. In recognition of this fact, as a society, the Philippines continues to develop and refine DRRM strategies and risk mitigation mechanisms. DRR and CCA are integrated within a sole framework, and the National DRRM Act establishes a multi-level DRRM system of institutions that operate at every level of government. Nonetheless, decision- and policymakers continue to seek improvements.

In November 2024, a House of Representatives committee approved a bill to create the Department of Disaster Resilience (DDR) as the principal government institution responsible for leading, organizing, and managing national-

level DRR, including preparedness, response, recovery, and rehabilitation, with an emphasis on "Build Back Better." The new Department would undertake holistic DRRM, reducing vulnerabilities of local communities and building resilience to both immediate hazards and climate change, while also retaining responsibility for coordinating the national response to a disaster event. Supporters of the bill said, "The current Disaster Risk Reduction and Management (DRRM) structure, where authority is shared, responsibility is dispersed, and resources are scattered, renders it difficult to operate an appropriate and immediate response, thus delaying critical disaster response and delivery."⁵⁵⁴

As the country works to mitigate and manage risk, it continues to develop its response capacity. It has formalized disaster response structures, specifically those involving AFP. Disaster response is among AFP's specified internal defense missions, and AFP has developed the CMCC and MNCC as dedicated coordination mechanisms for government and non-government entities, as well as for assisting foreign militaries. Among the key partners of AFP in both training for and responding to disaster events throughout the country is the U.S. armed forces. For years, the two forces have trained in bilateral and multilateral, military-only and inter-agency formats to build AFP's ability to respond and to bolster the U.S.'s understanding of how the Philippines Government and AFP respond so that they can support U.S. bilateral aid to the Philippines during a disaster response.

In addition to the U.S., the Philippines partners regionally and globally on humanitarian relief and DRRM issues. As part of ASEAN, the country participates in that group's DM institutions and work programs that target regional solidarity in the face of worsening hazards, and Manila is poised to continue building its leadership and cooperation across the DRRM and CCA spectrums.

APPENDICES

DoD DMHA Engagements in the Past Five Years (FY 2019-2024)

The list below describes the DMHA Engagements that the U.S. DoD and Coast Guard have had with Philippine civilian and military agencies in the last five years.

KAMANDAG 8 – October 2024

The U.S. Marine Corps, including personnel from Marine Rotational Force – Southeast Asia (MRF-SEA) and the 15th Marine Expeditionary Unit (15th MEU), joined the Philippine Marine Corps (PMC) to kick off KAMANDAG 8 on 15 October 2024. The bilateral exercise ran for 10 days. The annual KAMANDAG was conducted as part of the framework of the U.S.-Philippines Mutual Defense Board and Security Engagement Board (MDB-SEB) and, as such, aims to strengthen the interoperability of participating nations while promoting regional security and cooperation within the Indo-Pacific region. KAMANDAG 8 was designed to enhance combined operational proficiency in combat medicine; coastal defense; HADR; engineering; and chemical, biological, radiological, and nuclear (CBRN) response. This iteration of the exercise series featured more than 2,300 participants, not only from the Philippines and U.S. but also from several allied and partner nations. U.S. and Philippines Marines were joined by Philippine National Police and service members from the Japanese Ground Self-Defense Force (JGSDF), Republic of Korea Marine Corps, British Armed Forces, Australian Defence Force, and French Armed Forces. Members of the Royal Thai Marine Corps and Indonesian Marine Corps were observers. Training venues were in Northern Luzon, Central Luzon, the NCR, Cavite, and Palawan.⁵⁵⁵ Burgos, in Ilocos Norte, in Northern Luzon, hosted a key part of KAMANDAG 8. Members of the JGSDF's Amphibious Rapid

Deployment Brigade (ARDB) joined the PMC's 4th Marine Brigade (4MBDE) and Bureau of Fire Protection (BFP), with support from U.S. Marines and Sailors from MRF-SEA, elements of Marine Medium Tiltrotor Squadron (VMM) 165 (Reinforced), 15th Marine Expeditionary Unit (MEU), and Combined Task Force (CTF) - 76 in various subject matter expert exchanges (SMEE) leading up to a final HADR demonstration on Camp Cape Bojeador, in Burgos. The SMEEs included classes on Small Unmanned Aerial Systems (sUAS); medical care, triage, and casualty evacuation; small boats; and operational planning. All of these activities were vital to the final execution of the HADR demonstration by the combined forces. Leading up to execution of the HADR mission demonstration, leaders from the JGSDF, 4MBDE, and MRF-SEA engaged in four days of extensive planning at Camp Cape Bojeador. They developed a comprehensive and integrated response strategy for the simulated disaster scenario. Concurrently, participating forces conducted multilateral training in key areas, including amphibious landings, search-and-rescue (SAR) operations, medical triage and patient evacuation, engineering clearance procedures, and sUAS operations with an RQ-20 PUMA. The U.S. Marines manning the PUMA were able to showcase the abilities of an unmanned aerial vehicle in assisting with SAR missions in the event of a natural disaster. Meanwhile, medical personnel at Camp Cape Bojeador exchanged knowledge on best medical practices for responding to natural disasters.⁵⁵⁶

FDR Support – October 2024

On 10 October 2024, U.S. Marines across multiple forward-deployed commands concluded six days of FDR efforts in the Philippines, where they were supporting the USAID humanitarian response to Typhoon Krathon (Julian) at the request of the Philippine Government. Marines and Sailors from MRF-SEA; 1st Marine Aircraft Wing (1st MAW); III Marine Expeditionary

Force (III MEF); and the 15th MEU embarked aboard the amphibious assault ship USS Boxer (LHD 4) delivered nearly 43,500 kg (96,000 pounds) of relief supplies to one of the worst-affected areas, Batan, a remote island in Batanes Province, north of Luzon. On 1 October, Krathon reached peak intensity, with sustained winds of 195 kph (120 mph). The storm heavily battered the Philippines' northern islands, and many communities were evacuated, while infrastructure was damaged, and food security was undermined. At the request of Manila, the U.S. Secretary of Defense directed U.S. INDOPACOM to support USAID's relief efforts due to the unique capabilities and high state of readiness of forward-deployed U.S. Marine forces. MRF-SEA had arrived in the Philippines in late September to participate in exercises with the AFP. Operating out of Fort Bonifacio, in Manila, MRF-SEA immediately began coordination with the U.S. Department of State, USAID, the AFP, and other U.S. Marine Corps (USMC) units to plan support for the relief effort. Two teams of Marines and Sailors from MRF-SEA integrated with USAID and AFP personnel in Manila and Laoag (Ilocos Norte, in Northern Luzon) to plan and prepare for the arrival of KC-130J Super Hercules aircraft from the 1st Marine Aircraft Wing in Okinawa, Japan, and personnel from 3rd Marine Logistics Group. On 5 October, the cargo planes were loaded with supplies at Villamor Air Base (Manila) and flown to Laoag International Airport for staging and preparation to move the supplies to their destination on Batan. The KC-130 crews conducted 26.2 hours of flight operations. As U.S. and Philippine personnel worked to move supplies north, the 15th MEU arrived aboard USS Boxer and began flight operations to support relief efforts on 8 October. MV-22B Ospreys, assigned to Marine VMM-165 (Reinforced), landed in Laoag, and combined teams from the 15th MEU, MRF-SEA, and PMC spent the three days loading Ospreys with relief supplies for the final leg of the movement to the Basco Airport on Batan. Pilots and aircrews from VMM-165 (Reinforced) conducted more than 55 flights and successfully delivered the final material on 10 October.⁵⁵⁷

Sama Sama / Cooperation Afloat Readiness and Training – October 2024

From 7 to 18 October 2024, the U.S. Navy, USMC, AFP, and allied forces conducted the eighth iteration of Exercise Sama Sama in the vicinity of Subic Bay, Philippines. The exercise consisted of two weeks of maritime engagements designed to enhance interoperability and strengthen security ties among regional partners. Sama Sama 2024, part of the Cooperation Afloat Readiness and Training (CARAT) series, builds on the legacy of previous maritime collaboration, expanding its scope of operations with both shore and sea phases. Participants engaged in specialized training across medicine, legal operations, engineering, logistics, and public affairs. Working alongside naval vessels and maritime surveillance aircraft, specialized teams, including diving and explosive ordnance disposal units, conducted high-intensity drills focusing on anti-submarine warfare, anti-surface warfare, anti-air warfare, and maritime domain awareness. Sama Sama, a Philippines-U.S. bilateral exercise with invited allied and partner participants, continues to evolve in complexity and scope into a more sophisticated and multinational environment with each iteration. The 2024 exercise included participants from Australia, Canada, France, and Japan, and allowed participating military forces to refine their combined ability to respond to natural disasters, maritime threats, and humanitarian crises, while ensuring the safety and security of the region.⁵⁵⁸

Pacific Partnership 2024-2 – August 2024

The Pacific Partnership 2024-2 (PP24-2) humanitarian mission kicked off in Legazpi, Albay Province, with an opening ceremony on 2 August 2024. The PP24-2 Philippines mission stop ran 1-14 August and provided tailored medical care focusing on SMEEs and community education; construction and reconstruction of multiple schoolhouses; and knowledge exchanges with exercises covering HADR. Pacific Partnership uses an all-hazards approach to HADR with medical and public

health, engineering, and host nation outreach facets. Individual projects and events are synchronized with the host nation and are organized according to their requests and needs. U.S. Coast Guard (USCG) Lieutenant Flor Joseph, the PP24-2 HADR line of effort lead, detailed that the HADR activities “focused on increasing the Urban Search and Rescue capacity by 30% and testing the city’s Tsunami Response Plan for the first time.” The Legazpi City DRRM Office collaborated on developing a plan for the activities.⁵⁵⁹ In a collaborative effort between Australia, Japan, the Philippines, Republic of Korea, Singapore, the United Kingdom, and the U.S., PP24-2 participants held basic first aid workshops for members of the community; taught health fundamentals to local students; facilitated training for SAR professionals and K-9 units; renovated a building at Legazpi Port Elementary School; and carried out other activities.⁵⁶⁰ Born out of the devastation of the 2004 Indian Ocean “Boxing Day” Tsunami, PP began as a military-led humanitarian response to one of the world’s most catastrophic natural disasters. The inaugural PP mission took place in 2006 and leveraged the expertise of partner nation militaries and NGOs. In its 20th iteration, PP is the largest annual multinational HADR preparedness mission conducted in the Indo-Pacific.⁵⁶¹

Coast Guard Engagement – July 2024

The USCG and the Philippine Coast Guard (PCG) conducted a bilateral SAR exercise in the South China Sea on 16 July 2024. The exercise included the USCG Cutter Waesche (WMSL 751) and the PCG patrol vessel BRP Melchora Aquino (MRRV-9702). Operations included a joint sail and SAR training, personnel transfer evolutions, and bilateral sailing to ensure the two forces are ready to respond to save lives on the high seas.⁵⁶²

Balikatan 24 – April-May 2024

Exercise Balikatan 2024 commenced on 22 April 2024 at the AFP General Headquarters.⁵⁶³ Through 10 May, Filipino, American, Australian, and French service members trained at

locations throughout the Philippines to increase proficiency in maritime security, amphibious operations, combined arms, aviation operations, and information and cyberspace operations. In addition to field training events, humanitarian civic assistance teams built schools and medical centers at four locations while training medical providers, gifting education supplies, and building relationships with local communities. Balikatan prepared the combined forces for potential contingencies and disasters and increased each country’s ability to work with the others.⁵⁶⁴ During the exercise, on 29 April, service members from the U.S. Army and USMC gathered at the AFP Civil-Military Operations school to conduct an SMEE on humanitarian civic assistance best practice. During the exchange, attendees discussed the AFP’s and U.S. military’s civil affairs missions and lessons learned from past events through training exercises and real-world scenarios.⁵⁶⁵ Balikatan is the largest annual bilateral exercise conducted between the Philippines and the U.S. Exercise Balikatan directly supports the U.S.-Philippine Mutual Defense Treaty by ensuring forces are tactically proficient and capabilities and modernization efforts are mutually compatible, and by strengthening military-to-military coordination.⁵⁶⁶

FDR Support – February 2024

Heavy rainfall and subsequent flooding and landslides hit communities in Mindanao from 28 January through 2 February 2024. They affected more than 1.1 million people. On 8 February, the U.S. Ambassador issued a DHN, and USAID/BHA provided US\$1.2 million to international NGOs to provide emergency cash and WASH support to affected communities.⁵⁶⁷ U.S. Marines from III MEF assisted the Philippine Government by providing FDR from 12 to 15 February. Marines from Marine Aircraft Group 12, 1st Marine Aircraft Wing, supported USAID with 10 missions that delivered supplies using KC-130J Hercules aircraft. Supplies – 15,000 family food packs to sustain 75,000 affected people – were delivered to disaster-affected

people in Davao del Norte, Davao del Sur, and Davao de Oro. USAID/BHA said, “The rapid deployment and close coordination of the skilled III MEF aviators and logisticians was critical to the delivery of life saving assistance in support of our Philippine Allies.”⁵⁶⁸ Photo 4 shows U.S. Government assistance being delivered to Mindanao in February 2024.⁵⁶⁹

KAMANDAG 7 – November 2023

As part of Exercise KAMANDAG 7, U.S. Marines with MRF-SEA and their PMC counterparts, 3rd Marine Brigade, forged a deeper alliance. On 18 November 2023, on the island of Palawan, SMEEs highlighted the unique terrain of the island as a proving ground for interoperability and shared military objectives. The collaborative events encompassed a comprehensive range of military expertise, from sUAS to jungle survival training and maritime sensing drills, integral for regional security. Concurrently, medical teams from both nations engaged in exchanges, enriching each other’s knowledge in trauma care and humanitarian assistance. KAMANDAG 7’s multifaceted training also included communication exercises and coastal defense strategies.⁵⁷⁰

Sama Sama – October 2023

The U.S. Navy, USMC, and AFP joined allies in the seventh iteration of exercise Sama Sama. From 2 October 2023, Maritime Training Activity (MTA) Sama Sama included shore and sea phases that incorporated training in medicine, legal concepts, engineering, logistics, and public affairs while diving and explosive ordnance disposal teams, naval vessels, and maritime surveillance aircraft conduct exercises focused on anti-submarine, -surface, and -air warfare, and maritime

domain awareness. The multilateral training has evolved in complexity and sophistication as the MTA series has continued. Sama Sama 2023 was the largest yet, with participants from Australia, Canada, France, Japan, Malaysia, the Philippines, the United Kingdom, and U.S.⁵⁷¹

Mutual Defense and Security Engagement Boards – September 2023

General Romeo Brawner Jr., Chief of Staff of the AFP, and Admiral John Aquilino, Commander of U.S. INDOPACOM, led the 2023 MDB-SEB at Camp Aguinaldo, Philippines, on 14 September 2023. The annual convening of the MDB-SEB highlighted the long legacy of sustained relations between the U.S. and Philippine militaries and concluded a year of bilateral planning and training. During the meeting, U.S. and Philippine leaders agreed to over 500 joint activities scheduled for 2024 to include exercises, high-level exchanges between the allies, and capability building in maritime security, combatting terrorism and transnational crime, cyber security, HADR, and many other national security interests. In the days preceding the meeting, Brawner and Aquilino visited three EDCA sites and their surrounding communities; they were Lal-lo Airport, Cagayan; Naval Base Camilo Osias, Santa Ana, Cagayan; and Basa Air Base, Pampanga. Aquilino noted that, “Lal-lo



Photo 4: U.S. Government Relief Supplies Reach Mindanao

airport was a place where we came together to support the most recent humanitarian assistance effort to the Philippine people. This is the best example of why these sites are important.”⁵⁷²

Pacific Partnership 2023 – August-October 2023

On 22 August 2023, PP23 arrived in the Philippines as part of the largest annual multinational HADR preparedness mission conducted in the Indo-Pacific. PP enables participants to work together to enhance disaster response capabilities. At the invitation of the Philippines, PP’s mission was to conduct tailored humanitarian and civic preparedness activities in areas such as engineering, disaster response, and public health. The 2023 mission, featuring nearly 1,500 personnel, was a joint effort on behalf of Australia, Canada, Chile, Japan, Republic of Korea, New Zealand, the United Kingdom, and the United States.⁵⁷³ The PP23 mission stop in Philippines also featured servicemembers of the USCG. Members of the USCG joined the mission’s HADR team to conduct various SMEEs, side-by-side trainings, symposia, and exercises based on the requests of the host country. In San Fernando, Philippines, the Coast Guard team collaborated with the San Fernando City DRRM Office in organizing 11 activities, executed as a joint effort on behalf of the U.S., Australian Defence Force, AFP, and various other federal and local government agencies. These engagements included exchanges on incident command, disaster response planning, Gender, Peace and Security, and SAR.⁵⁷⁴

FDR Support – July 2023

On 26 July 2023, Typhoon Doksuri (Egay) made landfall on the remote northern islands of Fuga and Dalupiri. The storm’s effects – high winds, landslides, and flooding – killed at least 39 people. Upwards of 310,000 people were reported to have been displaced by the storm, and some of the storm system’s rains even extended southward into southern Luzon, Visayas, and Mindanao. This storm intensified the impacts of monsoon rains, disrupting transport systems and damaging buildings and croplands. The

national and provincial DRRM offices worked with government departments to mobilize relief alongside civil society and international partners. Key units of the AFP also mobilized to conduct evacuations, SAR operations, and delivery of relief items. The AFP’s Disaster Response Units (DRU) assisted LGUs, especially in northern Luzon. U.S. Marines and Sailors from the I and III MEF had been in country working with the PMC for Marine Aviation Support Activity 23 (MASA 23), which had run 6-21 July. Although there was no government-to-government request for international assistance, the AFP Headquarters at Camp Aguinaldo did ask the U.S. DoD for support via the JUSMAGPHIL, and on 30 July, U.S. INDOPACOM ordered U.S. Marine Forces Pacific (MARFORPAC) and JUSMAGPHIL to provide support to AFP over a 72-hour period from mid-day on 31 July. AFP and U.S. forces largely followed a military-to-military coordination structure due to an absence of U.S. civilian agency leadership because this mobilization lacked a DHN. A reported 35 U.S. Marine and Navy personnel, four MV-22B Ospreys, and four CH-53H Super Stallions transitioned from preparations to redeploy from MASA 23 to delivering support for relief efforts. Their first stop was at Subic Bay International Airport to load relief supplies provided by the Philippine Government. During the 72 hours of support, the aircraft delivered 29,000 kg (64,000 pounds) of relief items to remote areas of northern Luzon and remote islands to the north of Luzon. An additional rescue effort included a Marine Osprey supporting PCG SAR operations around some of the northern islands. The U.S. military support ended on 3 August.⁵⁷⁵

Coast Guard Engagement – June 2023

The USCG Cutter Stratton (WMSL 752) and crew departed the Philippines on 12 June 2023 following three days that marked the first trilateral engagements among the U.S., Philippine, and Japan Coast Guards. Vessels and crew from the three countries involved in the “Kaagapay” activities conducted professional exchanges and joint operations in port and at sea

off the coast of Bataan, Philippines, where they executed simulated SAR scenarios, maritime law enforcement boardings, passing exercises, and formation maneuvering drills. Additionally, they conducted communications and signaling drills, crew professional exchanges, and joint boat and air operations.⁵⁷⁶

Balikatan 23 – April 2023

From 11 to 28 April 2023, more than 17,600 members of the AFP and U.S. military took part in Balikatan 2023, the largest Balikatan to date. In the 38th iteration of the exercise, training activities occurred throughout the Philippines. Approximately 5,400 AFP personnel and 12,200 U.S. personnel developed interoperability and improved capability in the areas of maritime security, amphibious operations, live-fire training, urban and aviation operations, cyber defense, counterterrorism, and HADR preparedness. The 2023 iteration included a bilateral command post exercise to strengthen participants' ability to plan, coordinate, and provide command and control of forces together in a range of scenarios and challenges. Field training exercise events also tested various skill sets. The AFP and U.S. military also conducted multiple civic assistance projects to improve infrastructure, enhance medical response, and strengthen ties between local communities and Philippine and U.S. military forces. These activities included the construction or renovation of three community health centers and multipurpose halls and hands-on training in advanced emergency rescue and lifesaving techniques.⁵⁷⁷

Sama Sama – Lumbas – October 2022

Military personnel from the Philippines and the U.S. were joined by personnel from Australia, France, Japan, and the United Kingdom in Exercise Sama Sama-Lumbas in the Philippines from 11 through 18 October 2022. Sama Sama is an annual bilateral Philippine and U.S. Navy exercise, while Lumbas is a yearly bilateral navy-to-navy exercise between the Philippine and Australian navies. This activity marked the first

time that the bilateral exercises were conducted simultaneously. The interoperability exercises focused on warfighting capabilities among the three main participants, while the French Navy, Japan Maritime Self-Defense Force (JMSDF), and British Royal Navy participated in HADR training. The shore phase included a series of activities comprised of SMEEs on maritime domain awareness and intelligence, maritime aviation, surface warfare missile engagement, replenishment-at-sea, medical, explosive ordnance disposal, legal, and underwater construction operations. At-sea events in the Sulu Sea included division tactics, deck landing qualifications, replenishment-at-sea, and SAR.⁵⁷⁸

Mutual Defense Board and Security Engagement Boards – September 2022

Lieutenant General Bartolome Vicente Bacarro, Chief of Staff of the AFP, and Admiral John Aquilino, Commander of U.S. INDOPACOM, led the 2022 MDB-SEB at Camp H. M. Smith, Hawaii, on 27 September. The annual MDB-SEB concluded a year of bilateral planning between the two armed forces to ensure continued, robust relations between the U.S. and Philippine militaries. The U.S. and Philippines agreed to over 500 activities to be completed in 2023. The successful completion of the MDB-SEB ensured cooperation between the two countries in support of their Mutual Defense Treaty through exercises, training, and capability building in maritime security, combatting terrorism and transnational crime, cyber security, HADR, and other national security interests.⁵⁷⁹

KAMANDAG 6 – September 2022

During the first two weeks of October 2022, U.S. Marines and AFP conducted KAMANDAG 6 across Luzon, Batanes, and Palawan. The exercise ran simultaneously with a large-scale exercise in Hokkaido, Japan, and the Third Marine Division headquarters in Okinawa exercised command and control for U.S. forces involved in both. They also provided liaison officers to U.S. INDOPACOM to rehearse

concepts associated with functioning as a joint task force. More than 2,500 members of the AFP and the USMC joined forces for the annual KAMANDAG. During the exercise, 530 Philippine Marines and 1,900 U.S. Marines trained together, along with about 100 members of the Philippine Navy and Air Force. The forces focused on increasing combined capabilities for amphibious operations, special operations, maritime security, coastal defense, combined arms, and HADR. This iteration of KAMANDAG also integrated 30 members of the JGSDF ARDB and 100 Republic of Korea Marines within select events.⁵⁸⁰

Pacific Partnership 2022 – August 2022

Nearly 2,000 military and medical personnel from the United States, the Philippines, Australia, Chile, South Korea, and the United Kingdom participated in PP22, which concluded in Palawan on 16 August 2022. Over two weeks, U.S. sailors from the USNS Mercy and medical professionals from the Philippines and partner nations performed more than 9,600 medical procedures for residents from seven barangays in Puerto Princesa City and conducted nearly 200 surgeries aboard the U.S. hospital ship. Participating military personnel worked together to complete several humanitarian assistance projects, including the renovation of barangay halls and schools, community health engagements, and exchanges of advanced emergency rescue and lifesaving techniques. These activities improved local infrastructure, enhanced medical capacity, and strengthened ties between the local community and military forces.⁵⁸¹

Balikatan 22 – March-April 2022

Members of the AFP and the U.S. military gathered on 8 April 2022 to celebrate the successful completion of two weeks of training as part of Balikatan 2022. Nearly 9,000 exercise participants from the AFP and U.S. military trained in areas reaching from the northern coast of Luzon to Palawan, and events focused on maritime security, amphibious operations,

live-fire training, urban operations, aviation operations, counterterrorism, and HADR. U.S. and Philippine forces employed more than 50 aircraft, four ships, 10 amphibious craft, four High Mobility Artillery Rocket System launchers, and four Patriot missile systems. The 2022 exercise also included approximately 40 personnel from the Australian Defence Force. The exercise saw the inaugural deployment of the U.S. Marine Corps' 3rd Marine Littoral Regiment (3d MLR), established in Hawaii in March 2022. Over eight days, the 3d MLR partnered with the PMC Coastal Defense Regiment and provided command and control over multiple areas across northern Luzon. The AFP and U.S. military also conducted multiple humanitarian and civic assistance projects, including the renovation of four elementary schools, multiple community health engagements, and the exchange of advanced emergency rescue and lifesaving techniques.⁵⁸²

Mutual Defense Board and Security Engagement Board – October 2021

General Jose Faustino, Jr., Chief of Staff of the AFP, and Admiral John Aquilino, Commander of U.S. INDOPACOM, led the 2021 MDB-SEB at Camp Aguinaldo, Quezon City, on 14 October 2021. The meeting resulted in the successful completion of the MDB-SEB, ensuring continued, robust relations between the U.S. and Philippine militaries. The U.S. and Philippines agreed to over 300 activities for 2021, an increase over 2020. Shared activities were slated to cover areas including counterterrorism, maritime security, cyber security, HADR, and many others. The MDB was established in 1958, and the SEB was established in 2006. The two boards together form the annual MDB-SEB, which coordinates a framework for defense and security cooperation between the U.S. and Philippine militaries.⁵⁸³

Sama Sama – October 2021

Military personnel from the U.S., Philippines, Japan, and France kicked off a virtual MTA Sama Sama on 11 October 2021. The engagement focused on naval capabilities and featured

cooperative evolutions that highlighted the ability of the U.S. and Philippines to work together towards the common goal of ensuring a free and open Indo-Pacific. The 2021 iteration of the annual exercise saw SMEEs that also integrated personnel from JMSDF and France. Sama Sama aims to provide valuable opportunities for participating militaries to learn and foster professional dialogue. The SMEEs featured a variety of joint training opportunities, to include diver training, aviation and information sharing, replenishment at sea methods, maritime domain awareness, medical best practices, Illegal, Unreported and Unregulated (IUU) fishing and maritime law, and HADR. The exercise highlighted the role of intergovernmental and non-governmental experts to improve the understanding of the operational environment. Participants represented the European Union's Critical Maritime Route Wider Indian Ocean (CRIMARIO), UN Office on Drugs and Crime (UNODC), USAID, ICRC, UN OCHA, CFE-DM, and the Philippines' OCD and Bureau of Fisheries and Aquatic Resources (BFAR). Additional U.S. participants represented various task force staff, III MEF, U.S. INDOPACOM, and JUSMAGPHIL.⁵⁸⁴

Coast Guard Training – September 2021

The USCG Cutter Munro (WMSL 755) arrived in Subic Bay, Philippines, on 2 September 2021, following operations and exercises in the West Philippine Sea with the PCG and the Philippine BFAR. Munro's crew participated in bilateral operations, professional exchanges, search-and-rescue and communications exercises, small boat operations, multi-vessel maneuvering, and maritime domain awareness drills while at sea. The SAR exercise simulated the agencies' bilateral response to a vessel in distress. During the exercise, the Munro, PCG, and BFAR practiced searching for the distressed vessel, shipboard firefighting techniques, and recovering and treating persons in the water. As part of the exercise, members of the PCG joined USCG members aboard Munro as they launched the cutter's sUAS to aid in the response.⁵⁸⁵

Balikatan 21 – April 2021

Service members from the AFP and U.S. concluded the 36th iteration of Balikatan on 23 April 2021 after 11 days of events that occurred mostly in and around Luzon. Due to the COVID-19 pandemic, the magnitude of Balikatan 2021 was scaled down. Approximately 225 U.S. military personnel and 415 AFP personnel participated. Major Balikatan 2021 events were held in Colonel Ernesto Ravina Airbase in Tarlac, Central Luzon, where combined Air Force and Special Operations Forces conducted close air support training, increasing interoperability across the joint forces. AFP Northern Luzon Command Battle Staff and U.S. INDOPACOM representatives conducted a bilateral staff exercise in Clark, Pampanga, while Philippine and U.S. Special Operations Forces conducted a Bilateral Staff Academic Seminar in Taguig City. Academic discussions and SMEEs were held virtually to mitigate the spread of COVID-19. The PAF and U.S. Pacific Air Forces conducted a virtual Global Health Engagement and other virtual training on various air operations and capabilities. The exercise also included humanitarian and civic assistance activities, which began on 26 March, prior to the opening of the exercises.⁵⁸⁶

Sama Sama – October 2019

The U.S. Navy, Philippine Navy, and JMSDF began MTA Sama Sama with an opening ceremony in Puerto Princesa, on 14 October. The week-long 2019 activity was the third iteration of MTA Sama Sama, a maritime exercise designed to promote regional security cooperation, maintain and strengthen maritime partnerships, and enhance maritime interoperability. This iteration marked the first year the JMSDF participated. The exercise consisted of both shore-based and at-sea activities designed to allow participating navies to undertake complex maritime training utilizing diverse naval platforms and operating areas. Shore-based events included SMEEs on maritime domain awareness, force protection, medical care, HADR, explosive ordnance disposal, dive and salvage

operations, engineering, aviation, and visit, board, search, and seizure operations. MTA Sama Sama builds on other U.S.-Philippines maritime engagements including Pacific Partnership, Southeast Asia Cooperation and Training (SEACAT), ASEAN Defense Ministers' Meeting Maritime Security Exercise, and the ASEAN-U.S. Maritime Exercise (AUMX).⁵⁸⁷

KAMANDAG 3 – October 2019

After nine days, on 18 October 2019, Japan, the Philippines, and the United States conducted the closing ceremony of exercise KAMANDAG 3. The Philippine-led, bilateral military exercise, was designed to increase readiness through capabilities development, improve combined responsiveness, and enhance partnership and interoperability among Philippine, Japanese, and U.S. forces. KAMANDAG 3 marked two major milestones: 1) the PMC successfully launched assault amphibious vehicles (AAV) alongside U.S. and JGSDF AAVs to conduct a multilateral amphibious landing; and 2) significant advancements were made during bilateral air defense and threat reaction drills between Philippine and U.S. forces. Throughout the exercise, Philippine and U.S. service members conducted training in amphibious operations, live fire drills, military operations in urban terrain, reconnaissance, low altitude air defense, aviation operations, HADR, and other areas. The JGSDF participation focused on HADR training scenarios. All three countries partnered during a variety of community relations events, including teaching hundreds of local civilians on Luzon about lifesaving skills, disease prevention practices, and overall personal wellness.⁵⁸⁸

Balikatan 19 – April 2019

Military units from all branches of the U.S. military and AFP participated in Balikatan 19 from 1 through 12 April 2019. Members of the Australian Defence Force also participated in the exercise. This iteration of the annual exercise comprised 28 major combined or joint interoperability events that tested and enhanced the services' skills and abilities in areas such as

counterterrorism, amphibious operations, live-fire, urban operations, and aviation operations. The exercise also incorporated 18 humanitarian and civic assistance, community relations, and SMEE events. These events included extensive renovation projects at several elementary schools, one-day veterinary and medical clinics, friendship visits to schools and orphanages, and a multi-day mental health conference for providers. Australia's participation in the exercise enriched the relationship among all three countries' military forces. The 2019 iteration was the first Balikatan to incorporate the USS Wasp paired with the USMC F-35B Lightning II aircraft. Together they represented an increase in military capability committed to a free and open Indo-Pacific. Their participation in Balikatan demonstrated their ability to forward deploy in support of an ally should a crisis or natural disaster occur.⁵⁸⁹

Pacific Partnership 2019 – March 2019

During a two-week Pacific Partnership 2019 mission stop in the Philippines, U.S., partner nation military members, and NGO volunteers conducted more than 40 SMEEs, worked more than 1,500 hours on two evacuation center construction projects, engaged with more than 7,000 Tacloban students and residents, and included more than 300 personnel in the final collaborative disaster relief exercise.⁵⁹⁰

Salaknib 19 – February-March 2019

The AFP and U.S. Army Pacific participated in Exercise Salaknib 2019, which was conducted in and around Fort Magsaysay, Palawan, and Nueva Ecija, Philippines, from 4 to 24 March 2019. Salaknib is an annual, bilateral exercise sponsored by U.S. Army Pacific and hosted by the Philippine Army. The exercise contributes to and enhances U.S. and Philippine defense readiness and tactical interoperability while strengthening multinational relationships. More than 1,600 soldiers took part in the 2019 exercise, which consisted of a jungle field training exercise, a bilateral command post exercise, various SMEEs, Cooperative Health Engagements, and

humanitarian civic action projects. Exercise Salaknib 2019 provided a venue for the exchange of tactics, techniques, and procedures for HADR operations, demonstrating U.S. and Philippine resolve to support the security interests of allies and partners in the region.⁵⁹¹

International/Foreign Relations

Historically, the Philippines' diplomats have been strong proponents of multilateral diplomatic fora. Indeed, a long-serving foreign minister, Carlos Romulo, was among the authors of the UN Charter, and he was not alone among his country's diplomats in emphasizing the importance of the UN to small states like the Philippines. The UN and other similar multilateral groupings allow Manila to express its "independent" foreign policy. Although what "independence" means in practice shifts with time and context, it always allows the Philippines to seek partners and policies that promote the national interest over those of global powers.⁵⁹²

Legally, the Department of Foreign Affairs (DFA) has three mandates:

1. To preserve and enhance national security
2. To promote and attain economic security
3. To protect the rights and promote the welfare and interest of Filipinos overseas.

In addition, the DFA operates on the eight "foreign policy realities" as outlined by the Presidential administration. As of 2024, these realities are:

- The PRC, Japan, and the U.S., and their relationships will be determining influences in the security situation and economic evolution of East Asia
- Philippine foreign policy decisions have to be made in the context of ASEAN
- The international Islamic community will continue to be important for the Philippines
- The coming years will see the growing importance of multilateral and inter-regional organizations to promote common interests
- As an archipelagic state, the defense of the

nation's sovereignty and the protection of its environment and natural resources can be carried out only to the extent that it asserts its rights over the maritime territory and gets others to respect those rights

- The country's economic policy will continue to be friendly to both domestic and foreign direct investment
- The Philippines can benefit most quickly from international tourism
- Overseas Filipinos will continue to be recognized for their critical role in the country's economic and social stability.⁵⁹³

This combination of legal mandate and Presidential viewpoint are a key characteristic of the Philippines' foreign policy as successive Presidential administrations have conducted widely differing styles of international relations activity, and there can be wide swings in relationships when an administration changes. Most recently, during the "Noynoy" Aquino administration (2010-2016), U.S.-Philippines ties were very close, and the two countries launched the EDCA, which allowed more U.S. troops to deploy rotationally to AFP military bases. Then, under the Duterte administration (2016-2022), there were greater tensions between Manila and Washington, and Manila charted a more conciliatory path toward Beijing. Next, in its early years, the "Bongbong" Marcos administration (2022-present) revived warmth with the U.S. and sought revitalized EDCA activity.⁵⁹⁴

ASEAN & Brunei-Indonesia-Malaysia-Philippines East ASEAN Growth Area

The Philippines was a founding member state of ASEAN in 1967, and the regional association has long been a cornerstone of the Philippines' foreign and trade policies.⁵⁹⁵ Across the bloc, the Philippines' ties with fellow member states and neighbors cover the sectors of diplomacy, politics, trade, and environment / climate security. In 2022, the newly-inaugurated President Marcos made his first overseas visit to two fellow ASEAN member states, Indonesia

and Singapore.⁵⁹⁶ Moreover, in mid-2024, the President emphasized the centrality of ASEAN in upholding regional stability. Nonetheless, within ASEAN, Philippines uses smaller groupings of three or four states in “mini-lateral” processes to work toward specific goals.⁵⁹⁷ The Brunei, Indonesia, Malaysia, and Philippines East ASEAN Growth Triangle (BIMP-EAGA) launched in 1994 to build cooperation in order to accelerate economic development by promoting free movement of people, goods, and services, and by making use of common infrastructure and natural resources⁵⁹⁸ across the Sultanate of Brunei, Indonesia’s Kalimantan, Sulawesi, Maluku, and Papua, Malaysia’s Sabah, Sarawak, and Labuan, and the Philippines’ Mindanao and Palawan. The BIMP-EAGA Power and Energy Infrastructure Cluster is working under a 2017-2025 roadmap to guide energy infrastructure development through shared knowledge and best practices in energy efficiency and conservation, renewables, and power interconnections⁵⁹⁹ More recently, in 2017, Manila worked to establish a Trilateral Cooperative Arrangement with Jakarta and Kuala Lumpur to combat terrorism.⁶⁰⁰

Japan

Japan and the Philippines have a “strategic partnership” that has long seen significant aid and investment flow from Japan to the Philippines, and there is some indication of a stronger security-oriented relationship. Japan is the Philippines’ second biggest trading partner. In 2021, Philippine exports in goods and services to Japan were worth ¥1.19 trillion (US\$7.7 billion). Japan is also the leading investor in the Philippines, with US\$2.8 billion in investments between 2016 and 2022. By 2021, there were 964 Japanese companies operating in the Philippines, and they worked in manufacturing, ICT, facilities operation, and logistics, among other sectors, and created jobs for over 350,000 Filipinos. Japan has been the leading source of overseas development assistance (ODA) to the Philippines, providing US\$11.2 billion worth of loans and grants.⁶⁰¹

Since 1979, JICA has been working in the

Philippines. A key aspect of its programming has been DM, with some US\$3 billion delivered over four decades to helping the country improve aspects of DRM and DRR. JICA reports that more than 200 Filipino professionals have attended DM training in Japan, and these activities have provided OCD staff opportunities to learn from Japan’s experiences, technology and innovation, and good practices in disaster and climate resilience. A key focus of this JICA engagement is on ensuring LGUs build capacity for crafting DRRM Plans. The JICA Knowledge Co-Creation Program for Young Leaders is one way to ensure that rising OCD and LGU leaders begin to grasp “disaster culture,” in which each person and community are expected to be informed and prepared. Other JICA projects include:

- Flood Risk Management Project for the Cagayan, Tagoloan, and Imus Rivers
- Flood Risk Management for Cagayan de Oro River
- Cavite Industrial Area Flood Risk Management
- Pasig-Marikina River Channel Improvement
- Master Plan and Feasibility Study on Flood Control and Drainage in Davao City
- Development of Extreme Weather Monitoring and Information Sharing System in the Philippines
- Improvement of Flood Forecasting and Warning System for Cagayan de Oro River Basin
- Disaster Risk Reduction Capacity Enhancement Project Phase II
- Capability Enhancement for High-Quality Weather Observation, Forecast, Warning, and Information⁶⁰²

On the security front, Tokyo and Manila share some concerns related to their common sea lanes and alliances with the U.S. In recent years, Japan has worked with the PCG to build capacity, and in 2016, they inked the Maritime Safety Capability Improvement Project, which saw 10 multi-role response vessels transferred to the Philippines. In 2022, Japan sent an air

surveillance radar unit to the Philippines, and Japanese troops exercised with U.S., South Korean, and Philippines troops in the Philippines. Finally, Japanese fighter aircraft deployed to the Philippines for a bilateral exercise. In early 2023, the two countries were working on “terms of reference” for Japanese Self-Defense Forces (JSDF) involvement in any HADR missions in the Philippines, and this document forms part of the countries’ bilateral Reciprocal Access Agreement (RAA).⁶⁰³ In mid-2024, they signed the RAA, a defense cooperation agreement that allows for the increased presence of Japanese troops in the Philippines and vice versa for HADR and other scenarios.⁶⁰⁴

PRC

Manila has a strong interest in a stable relationship with Beijing. Successive Philippine administrations have sought constructive if not warm ties with the PRC with greater or lesser success. Although the countries have rival territorial claims in the South China Sea, they also have large-scale trade ties that neither would like to see disrupted.⁶⁰⁵

The past two decades have seen ups and downs in the bilateral relationship. The “Noynoy” Aquino administration was initially considered relatively neutral between the U.S. and the PRC. In 2011, during a state visit, the President received a commitment from Beijing that it would provide US\$13 billion worth of aid and investment. However, in 2012, there was a tense standoff between the two countries after a Philippine Navy ship accosted Chinese fishermen near Scarborough Shoal, and this incident induced closer cooperation between Manila and Washington, culminating in the EDCA signing in 2014. Also in 2014, the Philippines filed a case at the International Tribunal of the Law of the Sea about its maritime entitlements under the UNCLOS. The Tribunal ruled mainly in the Philippines’ favor even as Beijing started constructing artificial islands in disputed areas of the South China Sea. After 2016, the Duterte administration performed a sort of pivot that

saw significantly greater tensions between the U.S. and Philippines, as Manila sought ways to strengthen ties with Beijing without weakening the Philippines’ claims in disputed waters.⁶⁰⁶ Although the 2016 ruling by the Permanent Court of Arbitration in The Hague rejected Beijing’s territorial claims, Duterte declined to press Manila’s position during his tenure.⁶⁰⁷ Since the 2022 inauguration of the “Bongbong” Marcos administration, U.S.-Philippines ties have again taken precedence over cultivating Beijing, and these early years of the administration have been marked by repeated destabilizing encounters between Philippine forces and PRC military, coast guard, and fishing vessels in disputed waters.⁶⁰⁸ Nonetheless, during his own state visit to Beijing, President Marcos netted investment pledges worth US\$22.8 billion alongside infrastructure financing loans, and Presidents Marcos and Xi agreed to convene an Annual Defense Security Talk to complement the Bilateral Consultation Mechanism on the South China Sea.⁶⁰⁹

Philippine territorial integrity, sometimes equated with the issue of the South China Sea, evokes strong nationalist emotions among Filipinos, and domestic political actors have to pay particular attention to this matter. Filipinos’ sensitivity to the South China Sea issue helps explain reservations about the PRC even as an economic partner.⁶¹⁰ Indeed, sovereignty issues in the South China Sea and West Philippine Sea (areas of the South China Sea within the Philippines’ EEZ), spell trouble for any effort to build constructive dialogue between the two countries’ leaders.⁶¹¹

The Philippines signed up to the PRC’s Belt and Road Initiative (BRI) during the Duterte presidency, and when President Xi visited Manila in November 2018, 29 cooperation agreements were signed. Nonetheless, recent accounting has pointed out that Chinese investments did not increase significantly during the Duterte administration. Rather, the PRC’s share of net foreign direct investment (FDI) was 1.12% of the total in 2021.⁶¹²

U.S.

Bilateral ties date to 1946. The 1951 U.S.-Philippines Mutual Defense Treaty provides a strong foundation for the security partnership, which is bolstered by strong people-to-people ties and economic exchange. The U.S.-Philippine Bilateral Strategic Dialogue (BSD) is the annual forum for forward planning across the spectrum of the bilateral relationship,⁶¹³ and the most recent BSD took place in April 2024 in Washington alongside a bilateral meeting between Presidents Biden and Marcos.⁶¹⁴ Most recently, in September 2024, the inaugural U.S.-Philippines Democracy Dialogue was held in Manila and led to the October signing of a Memorandum of Understanding launching the WPS Center for Excellence in Manila.⁶¹⁵

U.S. companies are significant investors, private employers, and taxpayers in the Philippines. Trade and investment are massive, with 2023 having seen US\$22.6 billion in total goods trade and an estimated US\$12.3 billion in trade in services. The U.S. is one of the Philippines' largest export markets. Key U.S. imports from the Philippines include semiconductor devices and computer peripherals, automobile parts, electric machinery, textiles and garments, wheat and animal feeds, coconut oil, and ICT/business process outsourcing services. Key U.S. exports to the Philippines are agriculture goods, machinery, cereals, raw and semi-processed materials for the manufacture of semiconductors, electronics, and transport equipment. The two countries are exploring growth and diversification in the global semiconductor ecosystem under the International Technology Security and Innovation (ITSI) Fund, created by the CHIPS Act of 2022. The two countries have a bilateral Trade and Investment Framework Agreement, signed in 1989 and most recently convened in July 2024, as well as a tax treaty. In May 2022, the Philippines and the U.S. joined 12 other partners to launch the Indo-Pacific Economic Framework for Prosperity (IPEF).⁶¹⁶

Key to military-to-military ties is the EDCA,

which originally, in 2014, provided U.S. troops with temporary access to five AFP bases as part of enhanced deterrence. The scope of the EDCA was expanded in 2023 with an agreement for four more AFP bases to become EDCA locations and plans to support AFP modernization via capacity-building and infrastructure.⁶¹⁷

Participation in International Organizations

Philippines is a member of, participates in, or cooperates with the following international organizations and agreement frameworks either as a government or via a national NGO or other entity:

Asia-Pacific Economic Cooperation (APEC), Asian Development Bank (ADB), ASEAN Regional Forum (ARF), Association of Southeast Asian Nations (ASEAN), Bank for International Settlements (BIS), Colombo Plan (CP), Conference on Disarmament (CD), Conference on Interaction and Confidence Building Measures in Asia (CICA, observer), East Asia Summit (EAS), Food and Agriculture Organization of the United Nations (FAO), Group of 77 (G-77), Institute of Catastrophe Risk Management (ICRM), Inter-Parliamentary Union (IPU), Intergovernmental Group of 24 on International Monetary Affairs and Development (G-24), International Atomic Energy Agency (IAEA), International Bank for Reconstruction and Development (IBRD), International Civil Aviation Organization (ICAO), International Criminal Police Organisation (INTERPOL), International Development Association (IDA), International Federation of Red Cross and Red Crescent Societies (IFRC), International Finance Corporation (IFC), International Fund for Agricultural Development (IFAD), International Hydrographic Organization (IHO), International Labour Organization (ILO), International Maritime Organization (IMO), International Mobil Satellite Organization (IMSO), International Monetary Fund (IMF), International Olympic Committee (IOC),

International Organization for Migration (IOM of the UN), International Organization for Standardization (ISO), International Telecommunications Satellite Organization (ITSO), International Telecommunications Union (ITU), International Trade Union Confederation (ITUC-NGOs), Multilateral Investment Guarantee Agency (MIGA), Non-Aligned Movement (NAM), Organisation for the Prohibition of Chemical Weapons (OPCW), Organization of American States (OAS, observer), Pacific Islands Forum (PIF, partner), Permanent Court of Arbitration (PCA), Union Latina, United Nations (UN), United Nations Conference on Trade and Development (UNCTAD), United Nations Educational, Scientific, and Cultural Organization (UNESCO), United Nations High Commissioner for Refugees (UNHCR), United Nations Industrial Development Organization (UNIDO), United Nations Office for Outer Space Affairs (UNOOSA), Universal Postal Union (UPU), World Customs Organization (WCO), World Federation of Trade Unions (WFTU, NGOs), World Health Organization (WHO), World Intellectual Property Organization (WIPO), World Meteorological Organization (WMO), World Tourism Organization (UNWTO), World Trade Organization (WTO)

UN peacekeeping missions that Philippines is contributing personnel to, as of August 2024:⁶¹⁸

- UN Multidimensional Integrated Stabilization Mission in the Central African Republic (MINUSCA) – 2 experts on mission, 1 staff officer
- UN Mission in South Sudan (UNMISS) – 2 experts on mission, 23 individual police
- UN Military Observer Group in India and Pakistan (UNMOGIP) – 6 experts on mission

Force Protection/Pre-Deployment Information

The following information is provided for pre-deployment planning and preparations.⁶¹⁹ Visit www.travel.state.gov prior to deployments for further up-to-date information. DoD personnel

must review the Foreign Clearance Guide (FCG) for travel to Philippines (www.fcg.pentagon.mil). All official travel and personal travel for active-duty personnel must be submitted through an APACS request. Contact information for the Defense Attaché Office can be found in the FCG if you have additional questions.

Passport/Visa

Visit the website of the Embassy of the Republic of the Philippines in Washington, D.C. (<https://philippineembassy-dc.org/>), for the most current visa information. As of 14 November 2024:

- U.S. travelers who intend to remain in the country for fewer than 30 days do not require a visa
- U.S. citizens who plan to stay in the Philippines for more than 30 days must have a visa before traveling⁶²⁰
- Travelers must have at least 6 months validity remaining on their passports when they arrive in the country

Upon entry, customs and immigration personnel will stamp “valid from” and “valid until” on a passport page; these dates indicate the continuous period during which the visitor is authorized to stay in the country.⁶²¹

People who remain in the Philippines beyond the “admit until” date stamped in their passports by immigration authorities may be subject to fines and detention by the Philippine Bureau of Immigration (BI).

Certain foreigners must apply for an Emigration Clearance Certificate (ECC) from BI before they may depart the Philippines.

Safety and Security

Terrorist and armed groups continue plotting possible kidnappings, bombings, and other attacks in the Philippines. Terrorist and armed groups may attack with little or no warning, and they may target tourist locations, markets/shopping malls, and local government facilities.

Confidence games (con games), pickpocketing, Internet scams, and credit/

ATM card fraud are common. Be wary of unknown individuals who attempt to befriend you, especially just after you arrive in country. Do not accept food, drinks, or rides in private vehicles from strangers, even if they appear to be legitimate. Solo travelers have been drugged and robbed by strangers after accepting an invitation to visit a tourist destination.

Kidnappings, physical assaults, murder-for-hire, and other violent crimes occur in the Philippines. Philippine government law enforcement agencies are engaged in a nationwide counter-narcotics campaign that has resulted in a sharp increase in violence between police and individuals suspected of involvement in the drug trade. As part of this campaign, law enforcement is engaged in aggressive search and buy-bust operations that could affect foreigners.

Taxis or ride-sharing applications are the recommended form of public transportation. However, taxi drivers and/or individuals using stolen taxi cabs have committed robberies. Ask your hotel, restaurant, and/or business establishment to call a reliable taxi service. Do not enter a taxi if it has already accepted another passenger. Request that the taxi driver use the meter to record your fare, and wait for another cab if the driver is unwilling to comply with these requests. Make a mental note of the license plate number of your taxi, or text it to someone, should there be a problem.

When driving in cities, make certain that vehicle doors are locked and windows are rolled up. Travelers have been stopped and robbed shortly after leaving Manila Ninoy Aquino International Airport in a taxi or private vehicle.

One common form of credit/ATM card fraud involves an illicit electronic device attached to ATM card readers that retrieves and records information, including the PIN, from a card's magnetic strip.

Internet romance and financial scams are prevalent in the Philippines. Scams are often initiated through Internet postings/profiles or by unsolicited emails and letters. Scammers almost always pose as U.S. citizens who have no one else to turn to for help. Common scams

include romance/online dating, money transfers, lucrative sales, gold purchase, contracts with promises of large commissions, grandparent/relative targeting, free trip/luggage, lotteries, inheritance notices, work permits/job offers, or bank overpayments.

Report crimes to the local police at the 911 hotline and contact the U.S. Embassy at +(63)(2) 5301-2000. Local authorities are responsible for investigating and prosecuting the crime.

U.S. citizen victims of sexual assault or domestic violence are encouraged to contact the U.S. Embassy for assistance.

The Embassy can:

- Help find appropriate medical care
- Assist in reporting a crime to the police
- Contact relatives or friends with written consent
- Provide general information regarding the victim's role during the local investigation and following its conclusion
- Provide a list of local attorneys
- Provide our information on victim's compensation programs in the U.S
- Provide an emergency loan for repatriation to the United States and/or limited medical support in cases of destitution
- Help find accommodation and arrange flights home
- Replace a stolen or lost passport.

Check with the Philippine Department of Tourism before traveling. The safety standards you might expect of transport and tour operators, including adventure activities such as diving, are not always met. Sufficient safety equipment may not be provided, and recommended maintenance standards and safety precautions may not be observed. Always use available safety equipment, such as lifejackets or seatbelts, even if others do not. If appropriate safety equipment is not available, use another provider. In the event of an injury, appropriate medical treatment is widely available throughout the country. Outside of a major metropolitan center, it may take more time for first responders and medical professionals

to stabilize a patient and provide life-saving assistance. U.S. citizens are encouraged to purchase medical evacuation insurance. Visitors who are planning to dive should consult the Diver's Alert Network (DAN), which provides information on diving accident management.

Emergency Contact Information

Local Police Hotline: 911

U.S. Embassy Manila

1201 Roxas Boulevard
Manila, Philippines 1000
Tel: +63 2 5301-2000
Emergency: +63 2 5301-2000
Fax: +63 2 5301-2017
E-mail: ACSInfoManila@state.gov
Web: <https://ph.usembassy.gov/>

Currency Information

Philippine Peso (PHP or ₱)
PHP 1.00 = US\$0.017 or PHP 58.92 = US\$1.00
(as of 14 November 2024)

Travel Health Information

The CDC provides guidance that all travelers to Philippines should be up to date on routine vaccinations. The following are additional recommendations for travel. The information in Tables 4 and 5 is taken directly from the CDC website under the Travelers Health Section (<https://wwwnc.cdc.gov/travel/destinations/list/>).⁶²²

Health Alerts for Philippines: At the time of writing this handbook (November 2024), there are no health risk alerts.

The following actions you can take to stay healthy and safe on your trip include:

Eat and Drink Safely

Unclean food and water can cause travelers' diarrhea and other diseases. Reduce your risk by sticking to safe food and water habits.

Eat

- Food that is cooked and served hot
- Hard-cooked eggs
- Fruits and vegetables, you have washed in clean water or peeled yourself
- Pasteurized dairy products

Don't Eat

- Food served at room temperature
- Food from street vendors
- Raw or soft-cooked (runny) eggs
- Raw or undercooked (rare) meat or fish
- Unwashed or unpeeled raw fruits and vegetables
- Unpasteurized dairy products
- "Bushmeat" (monkeys, bats, or other wild game)

Drink

- Bottled water that is sealed
- Water that has been disinfected
- Ice made with bottled or disinfected water
- Carbonated drinks
- Hot coffee or tea
- Pasteurized milk

Don't Drink

- Tap or well water
- Ice made with tap or well water
- Drinks made with tap or well water (such as reconstituted juice)
- Unpasteurized milk

Take Medicine

Talk with your doctor about taking prescription or over-the-counter drugs with you on your trip in case you get sick. If you are going to a high-risk area, fill your malaria prescription before you leave, and take enough with you for the entire length of your trip. Follow your doctor's instructions for taking the pills; some need to be started before you leave.

Prevent Bug Bites

Bugs (like mosquitoes, ticks, and fleas) can spread a number of diseases in Philippines. Many of these diseases cannot be prevented with a vaccine or medicine. You can reduce your risk by taking steps to prevent bug bites.

To prevent bug bites:

- Cover exposed skin by wearing long-sleeved shirts, long pants, and hats.
- Use an appropriate insect repellent (see below).
- Use permethrin-treated clothing and gear (such as boots, pants, socks, and tents). Do not use permethrin directly on skin.
- Stay and sleep in air-conditioned or screened rooms.
- Use a bed net if the area where you are sleeping is exposed to the outdoors.

For protection against ticks and mosquitoes:

Use a repellent that contains 20 percent or more DEET for protection that lasts up to several hours.

For protection against mosquitoes only:

Products with one of the following active ingredients can also help prevent mosquito bites. Higher percentages of active ingredient provide longer protection.

- DEET
- Picaridin (also known as KBR 3023, Bayrepel, and Icaridin)
- Oil of lemon eucalyptus (OLE) or para-Menthane-3,8-diol (PMD)
- IR3535
- 2-undecanone

If you are bitten by bugs:

- Avoid scratching bug bites and apply hydrocortisone cream or calamine lotion to reduce the itching.
- Check your entire body for ticks after outdoor activity. Be sure to remove ticks properly.

Safety and Security

Note that conditions can change rapidly in a country at any time. To receive updated Travel Advisories and Alerts for the countries you choose, sign up at step.state.gov.

Chikungunya	Chikungunya is spread through the bite of an infected mosquito. To avoid infection, avoid bug bites.
Dengue	Transmitted by the bite of infected mosquitoes. Avoid bug bites.
Hantavirus	Contracted by breathing in air or accidentally eating food contaminated with the urine, droppings, or saliva of infected rodents, by the bite of an infected rodent, or, less commonly, by being around someone sick with hantavirus. Avoid rodents and areas where they live. Avoid sick people.
Leptospirosis	Contracted by touching urine or other body fluids from an animal infected with leptospirosis, by swimming or wading in urine-contaminated fresh water or contact with urine-contaminated mud, or by drinking water or eating food contaminated with animal urine. Avoid contaminated water and soil.
Schistosomiasis	Exposure occurs through wading, swimming, bathing, or washing in contaminated freshwater streams, rivers, ponds, lakes, or untreated pools. To avoid exposure, avoid contaminated water.
Tuberculosis	TB is transmitted by inhaling TB bacteria that is in the air from an infected and contagious person coughing, speaking, or singing. Avoid sick people.
Zika	Zika can be contracted via the bite of a vector mosquito, or it may be transmitted by a pregnant person to a fetus. To avoid exposure, avoid bug bites.

Table 4: CDC Travel Health Information for Non-Vaccine-Preventable Diseases in Philippines

Routine Vaccines	All travelers should be up to date on all routine vaccines before every trip. Some of these vaccines include: • Chickenpox (Varicella) • Diphtheria-Tetanus-Pertussis • Flu (influenza) • Measles-Mumps-Rubella (MMR) • Polio • Shingles
COVID-19	All eligible travelers should be up to date with COVID-19 vaccines.
Chikungunya	There has been evidence of chikungunya virus transmission in Philippines within the last 5 years. Chikungunya vaccination may be considered for the following travelers: • People aged 65 years or older, especially those with underlying medical conditions, who may spend at least 2 weeks (cumulative time) in indoor or outdoor areas where mosquitoes are present in Philippines • People planning to stay in Philippines for a cumulative period of 6 months or more
Cholera	Cholera is presumed to be present in Philippines. Cholera is rare in travelers. Certain factors may increase the risk of getting cholera or having severe disease. Avoiding unsafe food and water and washing your hands can also help prevent cholera. Vaccination may be considered for children and adults who are traveling to areas of active cholera transmission.
Hepatitis A	Recommended for unvaccinated travelers 1 year old or older going to Philippines. Infants 6-11 months old should also be vaccinated against Hepatitis A; the dose does not count toward the routine 2-dose series. Travelers allergic to a vaccine component or who are younger than 6 months should receive a single dose of immune globulin, which provides effective protection for up to 2 months depending on dosage given. Unvaccinated travelers who are over 40 years old, immunocompromised, or have chronic medical conditions and who are planning to depart to a risk area in less than 2 weeks should get the initial dose of vaccine and at the same appointment receive immune globulin.
Hepatitis B	Recommended for unvaccinated travelers of all ages traveling to Philippines.
Japanese Encephalitis	Vaccination is recommended for travelers who: • Are moving to live in an area with Japanese Encephalitis • Will spend one month or more in areas with Japanese Encephalitis • Frequently travel to areas with Japanese Encephalitis Other travelers who may consider vaccination if they will be doing activities that increase risk of infection – e.g., visiting rural areas, hiking or camping, staying in places without air conditioning. Vaccination is not recommended for short-term travelers who will be in urban areas or areas with no clear Japanese Encephalitis season.
Malaria	CDC recommends that travelers going to certain areas of Philippines take prescription medicine to prevent malaria. Depending on the medicine you take, you will need to start taking this medicine multiple days before your trip, as well as during and after your trip. Talk to your doctor about which malaria medication you should take.
Measles	Travelers are at risk of measles if they have not been fully vaccinated at least two weeks prior to departure or have not had measles in the past and travel internationally to areas where measles is spreading. All international travelers should be fully vaccinated against measles with the MMR vaccine, including an early dose for infants 6–11 months.
Rabies	Dogs infected with rabies are commonly found in Philippines. If rabies exposures occur while in Philippines, rabies vaccines are typically available throughout most of the country. Rabies pre-exposure vaccination considerations include whether travelers 1) will be performing occupational or recreational activities that increase risk for exposure to potentially rabid animals, and 2) might have difficulty getting prompt access to safe post-exposure prophylaxis. Please consult with a healthcare provider to determine whether you should receive pre-exposure vaccination before travel.
Typhoid	Recommended for most travelers, especially those staying with friends or relatives or visiting smaller cities or rural areas.
Yellow Fever	Required for travelers 9 months old or older and who are arriving from countries with risk for virus transmission.

Table 5: CDC Travel Health Information for Vaccine & Prophylaxis-Preventable Diseases in Philippines

Sendai Framework

The Sendai Framework for Disaster Risk Reduction 2015-2030 is the global blueprint and 15-year plan to build the world's resilience to natural disasters.⁶²³ The Sendai Framework is the successor instrument to the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters.⁶²⁴ Adopted at the Third United Nations World Conference on Disaster Risk Reduction in Sendai, Japan, in 2015, the Framework aims to achieve the substantial reduction of disaster risk and losses in lives, livelihoods, and health and in the economic, physical, social, cultural, and environmental assets of persons, businesses, communities, and countries by 2030.⁶²⁵

The Framework outlines seven targets and four priorities for action to prevent new and reduce existing disaster risks.

The Seven Global Targets include:

- Substantially reduce global disaster mortality by 2030, aiming to lower average per 100,000 global mortality rates in the decade 2020-2030 compared to the period 2005-2015.
- Substantially reduce the number of affected people globally by 2030, aiming to lower average global figure per 100,000 in the decade 2020 -2030 compared to the period 2005-2015.
- Reduce direct disaster economic loss in relation to global GDP by 2030.
- Substantially reduce disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030.
- Substantially increase the number of countries with national and local DRR strategies by 2020.
- Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this Framework by 2030.
- Substantially increase the availability of and access to multi-hazard early warning

systems and disaster risk information and assessments to the people by 2030.⁶²⁶

The Four Priorities of Action include:

- Understanding disaster risk
- Strengthening disaster risk governance to manage disaster risk
- Investing in disaster reduction for resilience; and
- Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation, and reconstruction.

Figure 14 shows the Sendai DRR Framework.⁶²⁷

In its Midterm Review of Implementation of the Sendai Framework from October 2022, the NDRRMC highlights the high levels of exposure to natural hazards across the country. Due to the common occurrence of hazard events – averaging 148 extreme events and disasters annually – the country struggles to dedicate resources to non-emergency development, like poverty reduction and sustainable economic growth. Given this exposure and experience, the country has been proactive in developing and revising strategies and plans to manage risk and has steadily been integrating a prevention, mitigation, and preparedness model rather than a response model. What follows is taken from the Midterm Review unless otherwise noted.⁶²⁸

Understanding disaster risk

The respective national government agencies in-charge of identifying and characterizing elements of risk have made headway in identifying, characterizing, and disseminating information regarding elements of risk through the development of tools for risk assessment. Efforts also point to achieving the First Outcome (Outcome 1) of the Philippines National DRRM Plan – improved access, understanding, and utilization of risk information, DRR-related statistics and research.

Hazard identification and risk assessments by science agencies are conducted and

Chart of the Sendai Framework for Disaster Risk Reduction 2015-2030

Scope and Purpose						
The present framework will apply to the risk of small-scale and large-scale, frequent and infrequent, sudden and slow-onset disasters, caused by natural or manmade hazards as well as related environmental, technological, and biological hazards and risks. It aims to guide the multi-hazard management of disaster risk in development at all levels as well as within and across all sectors						
Expected Outcome						
The substantial reduction of disaster risk and losses in lives, livelihoods, and health and in the economic, physical, social, cultural, and environmental assets of persons, businesses, communities, and countries						
Goal						
Prevent new and reduce existing disaster risk through the implementation of integrated and inclusive economic, structural, legal, social, health, cultural, educational, environmental, technological, political, and institutional measures that prevent and reduce hazard exposure and vulnerability to disaster, increase preparedness for response and recovery, and thus strengthen resilience						
Targets						
Substantially reduce global disaster mortality by 2030, aiming to lower average per 100,000 global mortality during 2020-2030 compared to 2005-2015	Substantially reduce the number of affected people globally by 2030, aiming to lower the average global figure per 100,000 during 2020-2030 compared to 2005-2015	Reduce direct disaster economic loss in relation to global GDP by 2030	Substantially reduce disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030	Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020	Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this framework by 2030	Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to people by 2030
Priorities for Action						
There is a need for focused action within and across sectors by States at local, national, regional, and global levels in the following four priority areas.						
Priority 1	Priority 2	Priority 3	Priority 4			
Understanding disaster risk	Strengthening disaster risk governance to manage disaster risk	Investing in disaster risk reduction for resilience	Enhancing disaster preparedness for effective response, and to “Build Back Better” in recovery, rehabilitation, and reconstruction			
Disaster risk management needs to be based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics, and the environment	Disaster risk governance at the national, regional, and global levels is vital to the management of disaster risk reduction in all sectors and ensuring the coherence of national and local frameworks of laws, regulations, and public policies that, by defining roles and responsibilities, guide, encourage, and incentivize the public and private sectors to take action and address disaster risk	Public and private investment in disaster risk prevention and reduction through structural is non-structural measures are essential to enhance the economic, social, health, and cultural resilience of persons, communities, countries, and their assets, as well as the environment. These can be drivers of innovation, growth, and job creation. Such measures are cost-effective and instrumental to save lives, prevent and reduce losses, and ensure effective recovery and rehabilitation	Experience indicates that disaster preparedness needs to be strengthened for more effective response and to ensure capacities are in place for effective recovery. Disasters have also demonstrated that the recovery, rehabilitation, and reconstruction phase, which needs to be prepared ahead of the disaster, is an opportunity to “Build Back Better” through integrating disaster risk reduction measures. Women and persons with disabilities should publicly lead and promote gender-equitable and universally accessible approaches during the response and reconstruction phases			

Figure 14: UN Sendai Framework for Disaster Risk Reduction 2015-2030

updated at a national scale. There are different mandated science agencies responsible for the identification of hazards, development of maps, and hazard assessments. The DENR and its Mines and Geosciences Bureau (MGB) developed Geohazard Maps, which show flood and landslide. The DENR-MGB is updating geohazard maps of scale that can be used by cities and municipalities. MGB reported that it has conducted a Vulnerability and Risk Assessment (VRA) updating the 1:10,000 scale flood and landslide susceptibility maps for the entire country. Exposure maps from the VRA provide data on the potential population, extent of built-up areas and roads considering their exposure to various levels of susceptibility to landslides and flooding. The DENR-MGB works hand in hand with LGUs to validate the population and the disaggregated data such as number of vulnerable sectors that could be exposed to various hazards. The DOST through PAGASA is responsible for identification and hazard assessment for hydrometeorological hazards, while PHIVOLCS is tasked to develop earthquake and volcano-related hazard maps, respectively.

- Hazard maps and assessments are put into government databases accessible to the public. The DOST and DENR developed databases to store and share risk information with LGUs so that risk information can be better accessed and used for planning and concrete policy or program actions.
- GeoRiskPH. MGB Flood and Rain-induced Landslide Susceptibility maps were updated to GeoRiskPH, ready and accessible for public use
- GeoPH is a project housed by the DENR National Mapping and Resource Information Agency, which intends to hold and serve to various stakeholders all the base maps produced by the Agency, and eventually, all the fundamental and thematic datasets of other data producing agencies. Geoportal is used to find and access geospatial data and services. The Geoportal features Disaster Risk related maps which are produced by mandated agencies examples are the same

hazard maps such as Flood Hazard maps at 1:10,000 scale, Ground shaking Risk for Magnitude 7.2 Earthquake¹⁶. These can be downloaded by all users.

- DENR MGB National Geohazard Assessment and Mapping Program. Database portal shows Hazard Susceptibility ratings to floods and landslide down to the barangay level. Moreover, the Program undertook Coastal Geohazard assessment along coastal areas of select coastal provinces. The portal and the results of the Geohazard assessments are publicly available at the DENR-MGB website.

Hazard maps and assessments are accompanied by training and capacity building for local government officers so that these can be used for local risk assessments and subsequently, development planning. Capacity building, information, and education campaigns are also slated to foster better understanding of risks and its characterization, especially on the aspect of hazard assessment.

Efforts are being expanded on hazard assessment for disaster-stricken areas and Environmentally Critical Areas (ECA). The government, through the DENR has the capacity to generate Post-Disaster Geohazard Assessment Reports for cities and municipalities (13 LGUs). Likewise, ECAs were also assessed for geohazards. ECAs are areas delineated as environmentally sensitive so that significant environmental impacts are expected if certain types of proposed projects are located, developed, or implemented in it.

Other elements of risk, such as exposure to hazards of population, critical infrastructure, and facilities as well as vulnerability, which includes datasets and statistics on basic social and demographic characteristics of populations at risk, as well as historical and indigenous knowledge of risk, are being collected by various mandated government agencies. The Department of Education has a database of school facilities, DPWH for the Roads and Bridges inventory, Department of Health for public hospitals and so forth. At the national

level, the Philippine Statistics Authority (PSA) compiles vulnerability data and indicators such as poverty incidence and population density, but these have to be processed at the local level to obtain a clearer picture on the elements and population at risk. Not all LGUs have good data management to consolidate the data collected by various government agencies at the national level. To help LGUs measure and evaluate risk, policies were issued on promulgating the use of risk assessment tools such as Climate and Disaster Risk Assessment (CDRA) and the Community-Based Monitoring System (CBMS) for vulnerability data.

Notable advancements since 2015 on the aspect of early warning are due to technology and enabling policies. As a result, more people have been able to receive accurate and timely information about an impending threat in their respective localities. The full implementation of Republic Act 10639, the Free Mobile Disaster Alerts Act, compels mobile phone service providers to send out free alerts and warnings as issued by the NDRRMC through the science warning agencies, PAGASA and PHIVOLCS. Up-to-date information are sent directly to the mobile phones of people located within and near the would-be affected areas.

The DENR-MGB issues advisories on geohazard threats (those concerning hazards such as flooding and rain-induced landslide). A total of 1,061 advisories have been issued/re-issued to LGUs as a preparedness measure whenever there is an impending tropical cyclone or extreme rainfall event. The country benefited from great improvements in weather forecasting and monitoring due to the passage of the PAGASA Modernization Act or Republic Act 10692. The law provided for the acquisition of state-of-the-art equipment, facilities, and systems, established a technology-based data center, and incentivized scientists. PAGASA has been able to provide downscaled climate projections that are beneficial for the implementing agencies and local governments.

PAGASA also released the Modified Tropical Cyclone Warning System wherein a Super

Typhoon (STY) Category will be employed for wind signals 185 kph (115 mph) or higher. Weather forecasting is also made available through various media outlets including social media platforms.

Utilization of risk information, especially hazard assessments done by national agencies are already reflected in the mandated plans of LGUs but there is no evidence or mechanism to understand how these plans get implemented, monitored, and evaluated to inform policy or programmatic decisions. Elements of risk knowledge, particularly hazard assessment issued by the DENR-MGB must be used in new construction of government infrastructure projects such as but not limited to schools, buildings, evacuation centers, and hospitals. This is mandated for in Philippine legislation as reflected in the annual legislated budget or the General Appropriations Act (GAA). The General Provisions in the GAA state that one of the requirements for the implementation of infrastructure projects is that the standards of construction, rehabilitation, improvement or repair of all infrastructure projects are consistent with the rules set by the Department of Public Works, which shall consider among others, the structural strength and disaster resilience required for infrastructure. Moreover, based on accounts of government mapping agencies, there is increasing demand from private sector for hazard maps before undertaking their respective development projects.

Strengthening disaster risk governance to manage disaster risk

- The Philippines DRRM Law and the improvements made by its institutions and stakeholders working on DRRM provided the enabling environment for risk to be integrated into plans, budgets, and organization from national to local level.
- The Philippines recently updated its National DRRM Plan for 2020-2030. The Plan explicitly aligned its objectives, priorities, outcomes, and indicators with the Sendai Framework. Annex 3 of the Plan illustrates

the alignment of the Sendai Framework Priority Actions with the NDRRM Plan Outcomes. It also abides by the principle of inclusivity and participation of a wide array of actors in DRRM from the government and outside of government. The Plan explicitly identified as one of its Outcomes under the Prevention and Mitigation thematic area, “risk-centered national, subnational and sectoral policies, plans, and budget.”

- At the local level, all 1,715 LGUs (provinces, cities, municipalities, and barangays) are mandated by the National DRRM Law to have a Local DRRM Plan. Government reports show progress with 1,253 LGUs having adopted and implemented their respective LDRRM Plans in line with the National Plan. Apart from the LDRRM Plan, national agencies are requiring LGUs to develop related plans to DRRM. Based on a report from the DILG, a majority of LGUs have Plans related to DRRM, 84% have Community Based DRRM Plan, and 58% have Contingency Plans.
- Policies were issued for DRR and CCA to be integrated in the two Local Government mandated development plans: Local Comprehensive Development Plan (CDP) and Land Use Plans through CDRA and to the Local DRRM Plan.
 - The DILG policy issuance provides for the guidelines to monitor DRR-CCA integration in CDPs. Based on the ongoing assessments of 849 CDPs, 28% are assessed to have risk-informed CDPs, 47% are partially risk-informed while the rest have no risk information. There are also LGUs which do not have updated CDPs, therefore, one can assume the absence of risk information in the lack of updated Plan.
 - The Department of Human Settlements and Urban Development promulgates the Supplemental Guidelines on Mainstreaming Climate Change and Disaster Risks in the Comprehensive Land Use Plan (CLUP). Of LGUs

nationwide, there are 648 LGUs with updated CLUPs based on latest Guidebooks for CLUP Formulation. However, 821 LGUs are due for updating while 165 do not have approved CLUPs.

There is strong evidence of integrating DRR and CCA in key sectoral plans and budgets implying works towards mainstreaming this integration in critical sectors. Examples include the Food Resiliency Action Plan by the Department of Agriculture in the light of COVID-19 and DRR-CCA demands. The Philippine Health Facility Development Plan 2020-2040 also embodies disaster resilience throughout the document with a vision of “A Modern, Resilient, and Sustainable Healthcare System” whereby a Climate-Resilient Health System features health information system which includes health and climate research, with integrated health risk monitoring and early warning, and vulnerability and adaptability assessments. Essential technology and infrastructure include climate resilient and sustainable health infrastructure for all health facilities. The Department of Energy Department Circular 2018 adopted and enhanced its Energy Resiliency Planning and Programming processes and expanded the structure with a Task Force on Energy Resiliency. Finally, disaster preparedness measures have been developed for schools through Department of Education policies, namely, Department Order No. 83, series 2011 and School Based Disaster Preparedness and Response Measures for Tropical Cyclones, Flooding, and other Weather-Related Disturbances and Calamities.

The Philippine government encounters policy and capacity limitations on knowing whether DRRM plans are indeed realized on the ground and whether actions translate to a reduction in disaster risk especially among the most vulnerable. Actual implementation of National and Local DRRM Plans rests with the concerned national government agencies and local governments. One of the critical gaps in the national DRRM system is on monitoring

and evaluation. Plans, which took a while to be formulated, vetted, and reviewed by various stakeholders and agencies, should be monitored and evaluated up to implementation. While there are monitoring and evaluation (M&E) provisions in the DRRM Laws and plans, establishing a robust, simple M&E system is still at its nascent stage for DRRM. The National DRRM Law provides the NDRRM Council, through the OCD as its Secretariat, with monitoring mechanisms. The Law tasks the NDRRMC to include a periodic assessment and performance monitoring of member-agencies to ensure that the NDRRM Plan is well implemented. Efforts by the OCD to install a Results-based Monitoring and Evaluation System (RBMES) for the NDRRM Plan is currently in progress.

As of 2022, the NDRRM Plan did not show a list of priority outcomes, projects, and activities and their corresponding responsible agency and appropriate investment programming. Since M&E of the LDRRM Plans are assigned to the respective local government, there is limited overall knowledge and comprehensive information as to whether LDRRM Plans are actually being implemented on the ground. What is being monitored and checked is whether LDRRM Plans embody and integrate global frameworks and NDRRM Plan outcomes covering the four thematic pillars of prevention and mitigation, preparedness, response, and rehabilitation and recovery. The OCD reports that majority of LGUs have their LDRRM Plans. However, there is no data or assessment whether the Plans get implemented.

Investing in disaster reduction for resilience

In the Philippines, investments for DRRM are mobilized primarily through public resources.

National DRRM Fund – The passage of the Philippine DRRM Act created the NDRRM Fund, a Special Purpose Fund in the government's annual budget. The NDRRM Fund is intended to be used for the four DRRM thematic areas: prevention and mitigation; preparedness; response; and rehabilitation and recovery. The Fund can be accessed by

both National and Local Governments upon the recommendation of the National DRRM Council. Since the National DRRM Fund appropriations is a Special Purpose Fund, the allocation is not fixed and is dependent on the national budget.

Local DRRM Fund – Per the National DRRM Law, local governments are mandated to allocate not less than 5% of their estimated revenues from regular sources, 70% of which is to be used for prevention, mitigation, and preparedness activities while the remaining 30% shall be reserved for Quick Response Funds (QRF) for response and relief activities. For QRFs to be released, the Local Government shall issue a Resolution from the Local Council declaring the LGU under the “State of Calamity” or a Presidential declaration of State of Calamity which is governed by specific Guidelines.

Agency Programs and Budget – Government agencies and offices are authorized to use a portion of their appropriations to implement DRRM projects and activities according to the National DRRM Law, subject to the Guidelines to be issued by the NDRRM Council and the Department of Budget and Management. Agency programs and budgets in the light of their commitments to the NDRRM Plan and given their agency mandates, functions related to DRR-CCA can be covered by the respective appropriations of each agency or office. To further enable the use of agency budgets and programs for DRR, there is a standing General Provision in the Government's National Budget on the integration of Disaster Risk Reduction and Climate Change Adaptation and Mitigation (DRR-CCAM) Measures. It tasks all agencies of the government to implement projects on DRR-CCAM using multi-scenario, probabilistic analysis. It mandates the Climate Change Commission to extend necessary technical assistance for the agencies in the conduct of risk assessment.

Special Purpose Funds are specific budget allocations for specific purposes in the National Budget. Various Special Purpose Funds include DRRM in their Menus of Projects along with

other developmental programs and projects which can be requested by the agencies and local governments. Since DRRM serves as only a subset of the types of projects which can be funded under this funding source, data is limited in quantifying the specific amounts appropriated under this type of fund. One example in the current National Budget is the Local Government Support Fund (LGSF). However, some of the uses of the LGSF are agricultural support, construction of local infrastructure facilities, ICT systems and infrastructure, green open spaces, and implementation of programs, projects, and activities for disaster response, rehabilitation, and recovery including procurement or acquisition of equipment for disaster response and rescue activities.

ODA usually runs parallel to or complements the government's programs, which may include capacity-building, technical assistance, tools and technology development, policy development or formulation, and infrastructure support.

Contingent credit financing is a Disaster Risk Management Development Policy Loan with a Catastrophe-Deferred Drawdown Option wherein a form of contingency financing offering immediate liquidity of up to USD\$500 million or 0.25% of a country's GDP, whichever is less can be tapped.

Sovereign risk transfer instruments / mechanisms – Examples are catastrophe risk insurance, insurance of public assets, and catastrophe bonds (Cat bonds). Cat Bonds are examples of contingent financing instruments, which allow quick disbursement at a reasonable amount.

Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation, and reconstruction

Due to the establishment of the Guidelines for Preparedness for Response to Early Recovery, government agencies and local governments already have a system in place for preparing, responding, and conducting rehabilitation and recovery activities. The systems, policies, and protocols in place are premised on the principle

of an all-of-society approach to DRRM as there is no one organization, office, or government instrument fully responsible and resourced for DRM. Resources, manpower, and expertise are recognized and are capitalized to bring effective DRRM. The NDRRMC, through its member agencies developed these Guidelines and protocols:

- Operation Listo Program, which comes with the Disaster Preparedness Manuals and Checklist
- Pre-Disaster Risk Assessment Actions, Programs, and Protocols
- Review and Enhancement of National Disaster Response Plans
- Revised Guidelines for the Declaration of a State of Calamity, which integrates the tools for evidence-based declaration - Pre-Disaster Risk Assessment (PDRA) and Post-Disaster Needs Assessment (PDNA)
- PDNA and Disaster Rehabilitation and Recovery Planning Guide, both of which serve as the basis for identifying and funding post-disaster recovery and rehabilitation programs and projects

There is increasing compliance and knowledge of communities on pre-emptive evacuation. A majority of local governments, 92%, reported implementing pre-emptive and forced evacuation activities whenever there is an impending disaster. Many LGUs have made progress in aspects of preparedness for response such as developing SOPs, practicing the ICS, prepositioning, and SAR. The progress can be attributed to the established and institutionalized protocols, systems, and training and capacity building activities conducted by various stakeholders. While SOPs and systems are in place so that relief and response distribution can be made seamless, some implementation gaps with the DRRM Law were noted in disaster-stricken areas in the country. There is lack of M&E in the way government tracks and distributes donations, relief goods, and cash to affected communities. Reports of relief re-branding, hoarding, and non-distribution were

noted in some earthquake affected provinces.

There are additional aspects of preparedness for response activities and protocols reported by LGUs to the DILG, the NDRRM Council's Vice-Chair for Preparedness Pillar.

- 88% of LGUs have SOPs or DRRM-related mechanisms processes and structures to ensure effective coordination and monitoring of actions in the event of disasters. These can be found in LGU's plans.
- 83% of LGUs have ICS or a temporary organization and an on-scene disaster response that will be activated in response to disasters or emergencies. LGUs are mandated to professionalize their ICS organization through attendance in ICS training provided by the OCD.
- 82% of LGUs have in place SAR teams. The National DRRM Law mandates the Local DRRM Offices to "organize, train, equip and supervise local emergency response teams and to provide continuing training in civil defense and DRRM." In line with this provision, the National Disaster Response Plan promulgates minimum standards, which include materials and equipment for SAR and other response staff. LGUs should have list of organized teams and personnel, inventory of equipment, and accomplishment reports from training.
- 79% are prepositioning response items and essential needs such as relief goods, medical support, and medicines. NDRRMC Disaster Preparedness Minimum Standards Vol. 2 prescribes that minimum for stockpiling is 500 food packs and 500 hygiene kits. LGUs compliant in this aspect should have an inventory of stockpiled food packs and hygiene kits, list of hired professionals for psychosocial support services, medical services, and security system.
- 52% have a permanent Operations Center (OpCen). Based on the National Disaster Preparedness Plan: Disaster Preparedness Minimum Standards Vol. 2, the OpCen must be able to function 24-hours-a-day, 7-days-a-week on three shifts, have a dedicated officer, and develop and implement SOPs and a Contingency Plan.
- 62% of LGUs have their respective list of evacuation centers, which meet the minimum required facilities - kitchen, water supply, toilet and bath, child-friendly learning space, health service, waste disposal, communication, etc.

Almost all LGUs are able to enforce pre-emptive and forced evacuation but only about 62% have evacuation centers with complete minimum facilities. There is no available information whether those LGUs which do not have complete facilities are those which are also located in hazard-prone areas, and this missing data highlights the need to inventory evacuation centers nationally. While there are various programs on the construction and management of evacuation centers, there is still limited number of women- and child-friendly hygiene spaces in evacuation centers.

As regards Rehabilitation and Recovery and Building Back Better, assessment tools like the PDNA enable identification of priority needs and requirements of disaster-stricken areas and identify total funding requirements, as well as sources of funds. The conduct of PDNAs enable a more robust approach in quantifying damage and losses for key sectors of infrastructure, agriculture, and housing. However, there is a lack of indicators or a guide for implementing agencies to define or characterize whether an area and its sectors have indeed bounced back from disasters and have applied "Build Back Better" in their rehabilitation and recovery efforts.

Country Profile

The information in the Country Profile section is sourced directly from the CIA World Factbook entry for Philippines. Additional numbers on country comparison to the world can be found by going directly to the CIA website (<https://www.cia.gov>). It discusses topics including geography, people and society, government, economy, energy, communications, military and security, transportation, terrorism, and transnational issues.⁶²⁹

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. Led by Emilio AGUINALDO, the Filipinos conducted an insurgency against US rule from 1899-1902, although some fighting continued in outlying islands as late as 1913. 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. 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.

Twenty-one years of authoritarian rule under Ferdinand MARCOS ended in 1986, when a “people power” movement in Manila (“EDSA 1”) forced him into exile and installed Corazon AQUINO as president. Several coup attempts hampered her presidency, and progress on political stability and economic development faltered until Fidel RAMOS was elected president in 1992. The US closed its last military bases on the islands the same year. Joseph ESTRADA was elected president in 1998. His vice-president, Gloria MACAPAGAL-ARROYO, succeeded him in 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 president in 2004. Corruption allegations marred her presidency,

but the Philippine economy was one of the few to avoid contraction after the 2008 global financial crisis. Benigno AQUINO III was elected as president in 2010, followed by Rodrigo DUTERTE in 2016. During his term, DUTERTE pursued a controversial drug war that garnered international criticism for alleged human rights abuses. Ferdinand MARCOS, Jr. was elected president in 2022 with the largest popular vote in a presidential election since his father’s ouster.

For decades, the country has been challenged by armed ethnic separatists, communist rebels, and Islamic terrorist groups, particularly in the southern islands and remote areas of Luzon.

Geography

Location

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

Geographic coordinates

13 00 N, 122 00 E

Area

total : 300,000 sq km

land: 298,170 sq km

water: 1,830 sq km

comparison ranking: total 74

Area - comparative

slightly less than twice the size of Georgia;

slightly larger than Arizona

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 as wide as 285 nm

exclusive economic zone: 200 nm
continental shelf: to the depth of exploitation

Climate

tropical marine; northeast monsoon (November to April); southwest monsoon (May to October)

Terrain

mostly mountains with narrow to extensive coastal lowlands

Elevation

highest point: Mount Apo 2,954 m
lowest point: Philippine Sea 0 m
mean elevation: 442 m

Natural resources

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

Land use

agricultural land: 41% (2018 est.)
arable land: 18.2% (2018 est.)
permanent crops: 17.8% (2018 est.)
permanent pasture: 5% (2018 est.)
forest: 25.9% (2018 est.)
other: 33.1% (2018 est.)

Irrigated land

16,270 sq km (2012)

Major lakes (area sq km)

saltwater lake(s): Laguna de Bay - 890 sq km

Population distribution

population concentrated where good farmlands lie; highest concentrations are northwest and south-central Luzon, the southeastern extension of Luzon, and the islands of the Visayan Sea, particularly Cebu and Negros; Manila is home to one-eighth of the entire national population

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 (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 (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 Babuyan, Didicas, Iraya, Jolo, Kanlaon, Makaturing, Musuan, Parker, Pinatubo, and Ragang; see note 2 under "Geography - note"

Geography - note 1: for decades, the Philippine archipelago was reported as having 7,107 islands; in 2016, the national mapping authority reported that hundreds of new islands had been discovered and increased the number of islands to 7,641, though not all of the new islands have been verified; the country is 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

Geography - note 2: Philippines is one of the countries along the Ring of Fire, a belt of active volcanoes and earthquake epicenters bordering the Pacific Ocean; up to 90% of the world's earthquakes and some 75% of the world's volcanoes occur within the Ring of Fire

Geography - note 3: the Philippines sits astride the Pacific typhoon belt and an average of 9 typhoons make landfall on the islands each year -- with about 5 of these being destructive; the country is the most exposed in the world to tropical storms

People and Society

Population

total: 118,277,063
male: 59,227,092
female: 59,049,971 (2024 est.)
comparison rankings: female 13; male 12; total 13

Nationality

noun: Filipino(s)

adjective: Philippine

Ethnic groups

Tagalog 26%, Bisaya/Binisaya 14.3%, Ilocano 8%, Cebuano 8%, Illonggo 7.9%, Bikol/Bicol 6.5%, Waray 3.8%, Kapampangan 3%, Maguindanao 1.9%, Pangasinan 1.9%, other local ethnicities 18.5%, foreign ethnicities 0.2% (2020 est.)

Languages

Tagalog 39.9%, Bisaya/Binisaya 16%, Hiligaynon/Ilonggo 7.3%, Ilocano 7.1%, Cebuano 6.5%, Bikol/Bicol 3.9%, Waray 2.6%, Kapampangan 2.4%, Maguindanao 1.4%, Pangasinan/Panggalato 1.3%, other languages/dialects 11.2%, unspecified 0.4% (2020 est.)

note: data represent percentage of households; unspecified Filipino (based on Tagalog) and English are official languages; eight major dialects - Tagalog, Cebuano, Ilocano, Hiligaynon or Ilonggo, Bicol, Waray, Pampango, and Pangasinan

Religions

Roman Catholic 78.8%, Muslim 6.4%, Iglesia ni Cristo 2.6%, other Christian 3.9%, other 8.2%, none/unspecified <0.1 (2020 est.)

Demographic profile

The Philippines is an ethnically diverse country that is in the early stages of demographic transition. Its fertility rate has dropped steadily since the 1950s. The decline was more rapid after the introduction of a national population program in the 1970s in large part due to the increased use of modern contraceptive methods, but fertility has decreased more slowly in recent years. The country's total fertility rate (TFR) – the average number of births per woman – dropped below 5 in the 1980s, below 4 in the 1990s, and below 3 in the 2010s. TFR continues to be above replacement level at 2.9 and even higher among the poor, rural residents, and the less educated. Significant reasons for elevated TFR are the desire for more than two children,

in part because children are a means of financial assistance and security for parents as they age, particularly among the poor.

The Philippines are the source of one of the world's largest emigrant populations, much of which consists of legal temporary workers known as Overseas Foreign Workers or OFWs. As of 2019, there were 2.2 million OFWs. They work in a wide array of fields, most frequently in services (such as caregivers and domestic work), skilled trades, and construction but also in professional fields, including nursing and engineering. OFWs most often migrate to Middle Eastern countries, but other popular destinations include Hong Kong, China, and Singapore, as well as employment on ships. Filipino seafarers make up 35-40% of the world's seafarers, as of 2014. Women OFWs, who work primarily in domestic services and entertainment, have outnumbered men since 1992.

Migration and remittances have been a feature of Philippine culture for decades. The government has encouraged and facilitated emigration, regulating recruitment agencies and adopting legislation to protect the rights of migrant workers. Filipinos began emigrating to the US and Hawaii early in the 20th century. In 1934, US legislation limited Filipinos to 50 visas per year except during labor shortages, causing emigration to plummet. It was not until the 1960s, when the US and other destination countries – Canada, Australia, and New Zealand – loosened their immigration policies, that Filipino emigration expanded and diversified. The government implemented an overseas employment program in the 1970s, promoting Filipino labor to Gulf countries needing more workers for their oil industries. Filipino emigration increased rapidly. The government had intended for international migration to be temporary, but a lack of jobs and poor wages domestically, the ongoing demand for workers in the Gulf countries, and new labor markets in Asia continue to spur Philippine emigration.

Age structure

0-14 years: 30.2% (male 18,234,279/female 17,462,803)
15-64 years: 64.3% (male 38,381,583/female 37,613,294)
65 years and over: 5.6% (2024 est.) (male 2,611,230/female 3,973,874)

Figure 15 is the population pyramid for Philippines for 2023. A population pyramid illustrates the age and sex structure of a country’s population and may provide insights about political and social stability, as well as economic development. The shape of the population pyramid gradually evolves over time based on fertility, mortality, and international migration trends.⁶³⁰

Dependency ratios

total dependency ratio: 56.2
youth dependency ratio: 47.8
elderly dependency ratio: 8.3
potential support ratio: 12 (2021 est.)

Median age

total: 25.7 years (2024 est.)
male: 25.1 years
female: 26.3 years
comparison ranking: total 167

Population growth rate

1.56% (2024 est.)
comparison ranking: 60

Birth rate

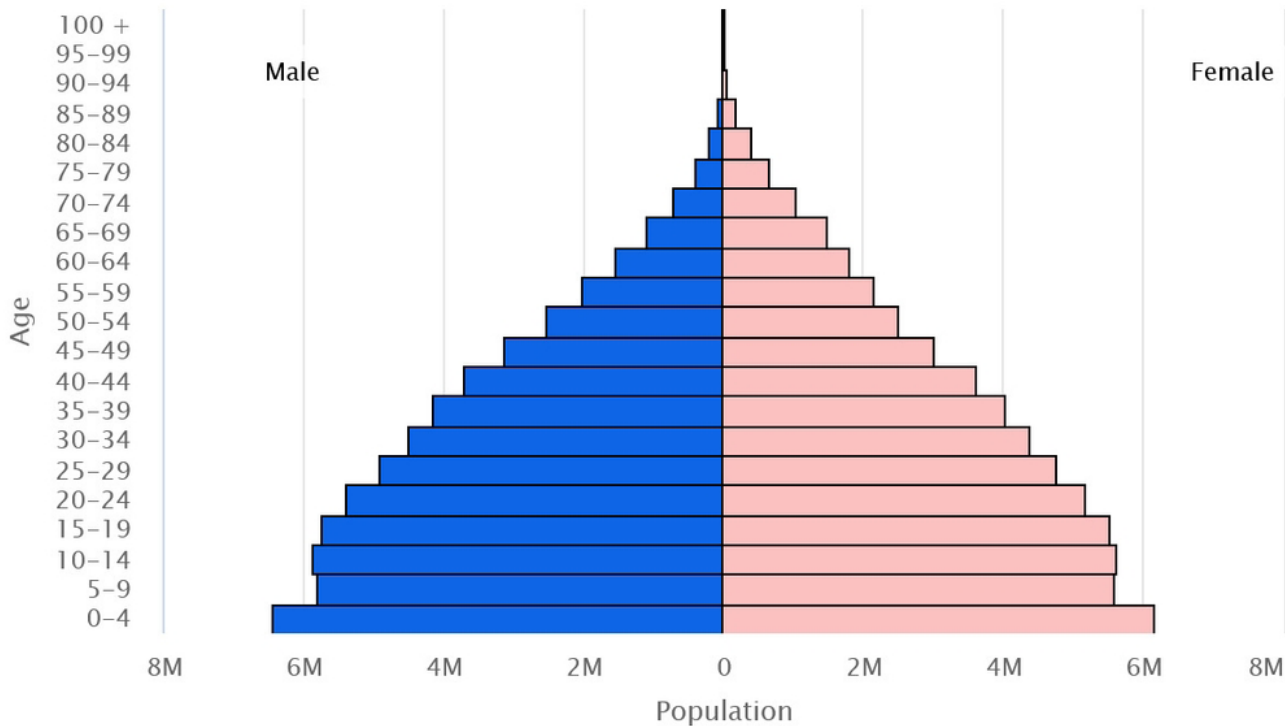
22.1 births/1,000 population (2024 est.)
comparison ranking: 53

Death rate

6.2 deaths/1,000 population (2024 est.)
comparison ranking: 146

Net migration rate

-0.2 migrant(s)/1,000 population (2024 est.)
comparison ranking: 109



U.S. Census Bureau, International Database

Figure 15: Population Pyramid, Philippines (2023)

Population distribution

population concentrated where good farmlands lie; highest concentrations are northwest and south-central Luzon, the southeastern extension of Luzon, and the islands of the Visayan Sea, particularly Cebu and Negros; Manila is home to one-eighth of the entire national population

Urbanization

urban population: 48.3% of total population (2023)
rate of urbanization: 2.04% annual rate of change (2020-25 est.)
total population growth rate v. urban population growth rate, 2000-2030

Major urban areas - population

14.667 million MANILA (capital), 1.949 million Davao, 1.025 million Cebu City, 931,000 Zamboanga, 960,000 Antipolo, 803,000 Cagayan de Oro City, 803,000 Dasmariñas (2023)

Sex ratio

at birth: 1.05 male(s)/female
0-14 years: 1.04 male(s)/female
15-64 years: 1.02 male(s)/female
65 years and over: 0.66 male(s)/female
total population: 1 male(s)/female (2024 est.)

Mother's mean age at first birth

23.6 years (2022 est.)
note: data represents median age at first birth among women 25-49

Maternal mortality ratio

78 deaths/100,000 live births (2020 est.)
comparison ranking: 75

Infant mortality rate

total: 22 deaths/1,000 live births (2024 est.)
male: 24.4 deaths/1,000 live births
female: 19.6 deaths/1,000 live births
comparison ranking: total 69

Life expectancy at birth

total population: 70.8 years (2024 est.)
male: 67.3 years
female: 74.5 years
comparison ranking: total population 170
Total fertility rate
2.75 children born/woman (2024 est.)
comparison ranking: 58

Gross reproduction rate

1.34 (2024 est.)

Contraceptive prevalence rate

54.1% (2017)

Drinking water source

improved: urban: 99.1% of population
rural: 95% of population
total: 97% of population
unimproved: urban: 0.9% of population
rural: 5% of population
total: 3% of population (2020 est.)

Current health expenditure

5.1% of GDP (2020)

Physician density

0.77 physicians/1,000 population (2020)

Hospital bed density

1 beds/1,000 population (2014)

Sanitation facility access

improved: urban: 96% of population
rural: 91% of population
total: 93.4% of population
unimproved: urban: 4% of population
rural: 9% of population
total: 6.6% of population (2020 est.)

Obesity - adult prevalence rate

6.4% (2016)
comparison ranking: 167

Alcohol consumption per capita

total: 4.85 liters of pure alcohol (2019 est.)
beer: 1.47 liters of pure alcohol (2019 est.)
wine: 0.03 liters of pure alcohol (2019 est.)
spirits: 3.34 liters of pure alcohol (2019 est.)
other alcohols: 0.01 liters of pure alcohol (2019 est.)
comparison ranking: total 84

Tobacco use

total: 22.9% (2020 est.)
male: 39.3% (2020 est.)
female: 6.5% (2020 est.)
comparison ranking: total 67

Children under the age of 5 years underweight

19.1% (2018)
comparison ranking: 17

Currently married women (ages 15-49)

59.3% (2023 est.)

Child marriage

women married by age 15: 2.2%
women married by age 18: 16.5% (2017 est.)

Education expenditures

3.7% of GDP (2020 est.)
comparison ranking: 129

Literacy

definition: age 15 and over can read and write
total population: 96.3%
male: 95.7%
female: 96.9% (2019)

School life expectancy (primary to tertiary education)

total: 13 years
male: 13 years
female: 13 years (2020)
People – note: one of only two predominantly Christian nations in Southeast Asia, the other being Timor-Leste

Environment

Environment - current issues

uncontrolled deforestation especially in watershed areas; illegal mining and logging; 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; coastal erosion; dynamite fishing; wildlife extinction

Environment - international agreements

party to: Biodiversity, Climate Change, Climate Change-Kyoto Protocol, Climate Change-Paris Agreement, Comprehensive Nuclear Test Ban, Desertification, Endangered Species, Hazardous Wastes, Law of the Sea, Marine Dumping-London Convention, Marine Dumping-London Protocol, Nuclear Test Ban, Ozone Layer Protection, Ship Pollution, Tropical Timber 2006, Wetlands
signed, but not ratified: none of the selected agreements

Climate

tropical marine; northeast monsoon (November to April); southwest monsoon (May to October)

Land use

agricultural land: 41% (2018 est.)
arable land: 18.2% (2018 est.)
permanent crops: 17.8% (2018 est.)
permanent pasture: 5% (2018 est.)
forest: 25.9% (2018 est.)
other: 33.1% (2018 est.)

Urbanization

urban population: 48.3% of total population (2023)
rate of urbanization: 2.04% annual rate of change (2020-25 est.)
total population growth rate v. urban population growth rate, 2000-2030

Revenue from forest resources

0.18% of GDP (2018 est.)
comparison ranking: 96

Revenue from coal

0.07% of GDP (2018 est.)

comparison ranking: 28

Air pollutants

particulate matter emissions: 22.45 micrograms per cubic meter (2019 est.)

carbon dioxide emissions: 122.29 megatons (2016 est.)

methane emissions: 51.32 megatons (2020 est.)

Waste and recycling

municipal solid waste generated annually: 14,631,923 tons (2016 est.)

municipal solid waste recycled annually: 4,096,938 tons (2014 est.)

percent of municipal solid waste recycled: 28% (2014 est.)

Major lakes (area sq km)

saltwater lake(s): Laguna de Bay - 890 sq km

Total water withdrawal

municipal: 8.16 billion cubic meters (2020 est.)

industrial: 9.88 billion cubic meters (2020 est.)

agricultural: 67.83 billion cubic meters (2020 est.)

Total renewable water resources

479 billion cubic meters (2020 est.)

Geoparks

total global geoparks and regional networks: 1

global geoparks and regional networks: Bohol Island (2023)

GovernmentCountry name

conventional long form: Republic of the Philippines

conventional short form: Philippines

local long form: Republika ng Pilipinas

local short form: Pilipinas

etymology: named in honor of King PHILLIP II of Spain by Spanish explorer Ruy LOPEZ de VILLALOBOS, who visited some of the islands in 1543

Government type

presidential 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)

etymology: derives from the Tagalog “may-nila” meaning “where there is indigo” and refers to the presence of indigo-yielding plants growing in the area surrounding the original settlement

Administrative divisions

81 provinces and 38 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, Cotabato, Davao del Norte, Davao del Sur, Davao de Oro, Davao Occidental, 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, Negros Occidental, Negros Oriental, 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, 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

Independence

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

Legal system

mixed legal system of civil, common, Islamic (sharia), and customary law

Constitution

history: several previous; latest ratified 2 February 1987, effective 11 February 1987
amendments: proposed by Congress if supported by three fourths of the membership, by a constitutional convention called by Congress, or by public petition; passage by either of the three proposal methods requires a majority vote in a national referendum; note - the constitution has not been amended since its enactment in 1987

International law organization participation

accepts compulsory ICJ jurisdiction with reservations; withdrew from the ICCT in March 2019

Citizenship

citizenship by birth: no
citizenship by descent only: at least one parent must be a citizen of the Philippines
dual citizenship recognized: no
residency requirement for naturalization: 10 years

Suffrage

18 years of age; universal

Executive branch

chief of state: President Ferdinand “BongBong” MARCOS, Jr. (since 30 June 2022)
head of government: President Ferdinand “BongBong” MARCOS, Jr. (since 30 June 2022)
cabinet: Cabinet appointed by the president with the consent of the Commission of Appointments, an independent body of 25 Congressional

members including the Senate president (ex officio chairman), appointed by the president
elections/appointments: president and vice president directly elected on separate ballots by simple majority popular vote for a single 6-year term; election last held on 9 May 2022 (next to be held on 9 May 2028)

election results:

2022: Ferdinand MARCOS, Jr. elected president; percent of vote - Ferdinand MARCOS, Jr. (PFP) 58.7%, Leni ROBREDO (independent) 27.9%, Manny PACQUIAO (PROMDI) 6.8%, other 6.6%; Sara DUTERTE-Carpio elected vice president; percent of vote Sara DUTERTE-Carpio (Lakas-CMD) 61.5%, Francis PANGILINAN (LP) 17.8%, Tito SOTTO 15.8%, other 4.9%

2016: Rodrigo DUTERTE elected president; percent of vote - Rodrigo DUTERTE (PDP-Laban) 39%, Manuel “Mar” ROXAS (LP) 23.5%, Grace POE (independent) 21.4%, Jejomar BINAY (UNA) 12.7%, Miriam Defensor SANTIAGO (PRP) 3.4%; Leni ROBREDO elected vice president; percent of vote Leni ROBREDO (LP) 35.1%, Bongbong MARCOS (independent) 34.5%, Alan CAYETANO 14.4%, Francis ESCUDERO (independent) 12%, other 4%
note: the president is both chief of state and head of government

Legislative branch

description: bicameral Congress or Kongreso consists of:

Senate or Senado (24 seats; members directly elected in multi-seat constituencies by majority vote; members serve 6-year terms with one-half of the membership renewed every 3 years)
House of Representatives or Kapulungan Ng Mga Kinatawan (316 seats; 253 members directly elected in single-seat constituencies by simple majority vote and 63 representing minorities directly elected by party-list proportional representation vote; members serve 3-year terms)
elections: Senate - elections last held on 9 May 2022 (next to be held in May 2025)
House of Representatives - elections last held on 9 May 2022 (next to be held in May 2025)

election results: Senate - percent of vote by party - NA; seats by party - NPC 5, PDP-Laban 5, NP 4, other 5, independent 5; composition - men 17, women 7, percentage women 29.2%

House of Representatives - percent of vote by party - PDP-Laban 22.7%, NP 13.7%, NUP 12.6%, NPC 11.7%, Lakas-CMD 9.4%, LP 3.8%, HNP 2.5%, other 19.6%, independent 4%; seats by party - PDP-Laban 66, NP 36, NPC 35, NUP 33, Lakas-CMD 26, LP 10, HNP 6, other 35, independent 6, party-list 63; composition - men 226, women 85, percentage women 27.3%; total Congress percentage women 27.5%

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

Democratic Action (Aksyon Demokratiko)
Alliance for Change (Hugpong ng Pagbabago or HNP)
Lakas ng EDSA-Christian Muslim Democrats or Lakas-CMD
Liberal Party or LP
Nacionalista Party or NP
Nationalist People's Coalition or NPC
National Unity Party or NUP
Partido Demokratiko Pilipino-Lakas ng Bayan or PDP-Laban
Partido Federal ng Pilipinas or PFP
Progressive Movement for the Devolution of Initiatives or PROMDI

International organization participation

ADB, APEC, ARF, ASEAN, BIS, CD, CICA (observer), CP, EAS, FAO, G-24, G-77, IAEA, IBRD, ICAO, 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, UNESCO, UNHCR, UNIDO, Union Latina, UNMIL, UNMOGIP, UNOCI, UNOOSA, UNWTO, UPU, WCO, WFTU (NGOs), WHO, WIPO, WMO, WTO

Diplomatic representation in the US

Chief of mission: Ambassador Jose Manuel del Gallego ROMUALDEZ (since 29 November 2017)

Chancery: 1600 Massachusetts Avenue NW, Washington, DC 20036

Tel: 1 202 467-9300

Fax: 1 202 328-7614

E-mail: info@phembassy-us.org

Web: philippineembassy-dc.org

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

Diplomatic representation from the US

Chief of mission: Ambassador MaryKay Loss CARLSON (since 22 July 2022)

Embassy: 1201 Roxas Boulevard, Manila 1000

Mailing address: 8600 Manila Place, Washington DC 20521-8600

Tel: 63 2 5301-2000

Fax: 63 2 5301-2017

E-mail: acsinfomanila@state.gov

Web: <https://ph.usembassy.gov/>

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)

three stars and sun, Philippine eagle; national colors: red, white, blue, yellow

National anthem

name: “Lupang Hinirang” (Chosen Land)

lyrics/music: Jose PALMA (revised by Felipe PADILLA de Leon)/Julian FELIPE

note: music adopted 1898, original Spanish lyrics adopted 1899, Filipino (Tagalog) lyrics adopted 1956; although the original lyrics were written in Spanish, later English and Filipino versions were created; today, only the Filipino version is used

National heritage

total World Heritage Sites: 6 (3 cultural, 3 natural)

selected World Heritage Site locales: Baroque Churches of the Philippines (c); Tubbataha Reefs Natural Park (n); Rice Terraces of the Philippine Cordilleras (c); Historic Vigan (c); Puerto-Princesa Subterranean River National Park (n); Mount Hamiguitan Range Wildlife Sanctuary (n)

Economy

Economic overview

growing Southeast Asian economy; commercial rebound led by transportation, construction and financial services; electronics exports recovering from sector slowdown; significant remittances; interest rate rises following heightened inflation; uncertainties due to increased regional tensions with China

Real GDP (purchasing power parity)

\$1.138 trillion (2023 est.)

\$1.078 trillion (2022 est.)

\$1.002 trillion (2021 est.)

note: data in 2021 dollars

comparison ranking: 31

Real GDP growth rate

5.55% (2023 est.)

7.58% (2022 est.)

5.71% (2021 est.)

note: annual GDP % growth based on constant local currency

comparison ranking: 37

Real GDP per capita

\$9,700 (2023 est.)

\$9,300 (2022 est.)

\$8,800 (2021 est.)

note: data in 2021 dollars

comparison ranking: 148

GDP (official exchange rate)

\$437.146 billion (2023 est.)

note: data in current dollars at official exchange rate

Inflation rate (consumer prices)

5.98% (2023 est.)

5.82% (2022 est.)

3.93% (2021 est.)

note: annual % change based on consumer prices

comparison ranking: 128

Credit ratings

Fitch rating: BBB (2017)

Moody's rating: Baa2 (2014)

Standard & Poor's rating: BBB+ (2019)

note: The year refers to the year in which the current credit rating was first obtained.

GDP - composition, by sector of origin

agriculture: 9.4% (2023 est.)

industry: 28.2% (2023 est.)

services: 62.4% (2023 est.)

note: figures may not total 100% due to non-allocated consumption not captured in sector-reported data

comparison rankings: services 73; industry 77; agriculture 80

GDP - composition, by end use

household consumption: 76.5% (2023 est.)

government consumption: 14.2% (2023 est.)

investment in fixed capital: 23.6% (2023 est.)

investment in inventories: -0.3% (2023 est.)

exports of goods and services: 26.7% (2023 est.)

imports of goods and services: -40.7% (2023 est.)

note: figures may not total 100% due to rounding or gaps in data collection

Agricultural products

sugarcane, rice, coconuts, maize, bananas, vegetables, tropical fruits, plantains, pineapples, cassava (2022)

note: top ten agricultural products based on tonnage

Industries

semiconductors and electronics assembly, business process outsourcing, food and beverage manufacturing, construction, electric/gas/water supply, chemical products, radio/television/communications equipment and apparatus, petroleum and fuel, textile and garments, non-metallic minerals, basic metal industries, transport equipment

Industrial production growth rate

3.59% (2023 est.)

note: annual % change in industrial value added based on constant local currency

comparison ranking: 90

Labor force

49.477 million (2023 est.)

note: number of people ages 15 or older who are employed or seeking work

comparison ranking: 14

Unemployment rate

2.23% (2023 est.)

2.6% (2022 est.)

3.4% (2021 est.)

note: % of labor force seeking employment
comparison ranking: 24

Youth unemployment rate (ages 15-24)

total: 6.9% (2023 est.)

male: 5.9% (2023 est.)

female: 8.4% (2023 est.)

note: % of labor force ages 15-24 seeking employment

comparison ranking: total 160

Population below poverty line

18.1% (2021 est.)

note: % of population with income below national poverty line

Gini Index coefficient - distribution of family income

40.7 (2021 est.)

note: index (0-100) of income distribution; higher values represent greater inequality
comparison ranking: 37

Average household expenditures

on food: 37.9% of household expenditures (2022 est.)

on alcohol and tobacco: 2% of household expenditures (2022 est.)

Household income or consumption by percentage share

lowest 10%: 2.7% (2021 est.)

highest 10%: 32.5% (2021 est.)

note: % share of income accruing to lowest and highest 10% of population

Remittances

8.94% of GDP (2023 est.)

9.41% of GDP (2022 est.)

9.31% of GDP (2021 est.)

note: personal transfers and compensation between resident and non-resident individuals/households/entities

Budget

revenues: \$65.051 billion (2022 est.)
 expenditures: \$75.238 billion (2022 est.)
 note: central government revenues and expenses (excluding grants/extrabudgetary units/social security funds) converted to US dollars at average official exchange rate for year indicated

Public debt

39.9% of GDP (2017 est.)
 note: central government debt as a % of GDP
 comparison ranking: 132

Taxes and other revenues

14.62% (of GDP) (2022 est.)
 note: central government tax revenue as a % of GDP
 comparison ranking: 144

Current account balance

-\$11.206 billion (2023 est.)
 -\$18.261 billion (2022 est.)
 -\$5.943 billion (2021 est.)
 note: balance of payments - net trade and primary/secondary income in current dollars
 comparison ranking: 195

Exports

\$103.601 billion (2023 est.)
 \$98.832 billion (2022 est.)
 \$87.798 billion (2021 est.)
 note: balance of payments - exports of goods and services in current dollars
 comparison ranking: 49

Exports - partners

US 14%, China 14%, Hong Kong 11%, Japan 10%, Singapore 6% (2022)
 note: top five export partners based on percentage share of exports

Exports - commodities

integrated circuits, machine parts, gold, semiconductors, insulated wire (2022)
 note: top five export commodities based on value in dollars

Imports

\$150.269 billion (2023 est.)
 \$152.638 billion (2022 est.)
 \$126.565 billion (2021 est.)
 note: balance of payments - imports of goods and services in current dollars
 comparison ranking: 38

Imports - partners

China 32%, Indonesia 8%, South Korea 7%, Japan 7%, Singapore 6% (2022)
 note: top five import partners based on percentage share of imports

Imports - commodities

integrated circuits, refined petroleum, coal, cars, plastic products (2022)
 note: top five import commodities based on value in dollars

Reserves of foreign exchange and gold

\$103.742 billion (2023 est.)
 \$96.04 billion (2022 est.)
 \$108.755 billion (2021 est.)
 note: holdings of gold (year-end prices)/foreign exchange/special drawing rights in current dollars
 comparison ranking: 27

Exchange rates

Philippine pesos (PHP) per US dollar -
 Exchange rates:
 55.63 (2023 est.)
 54.478 (2022 est.)
 49.255 (2021 est.)
 49.624 (2020 est.)
 51.796 (2019 est.)

Energy

Electricity acce

ss

electrification - total population: 94.8% (2022 est.)
 electrification - urban areas: 98%
 electrification - rural areas: 91.1%

Electricity

installed generating capacity: 27.542 million kW (2022 est.)

consumption: 102.834 billion kWh (2022 est.)

transmission/distribution losses: 10.174 billion kWh (2022 est.)

comparison rankings: transmission/distribution losses 179; consumption 34; installed generating capacity 38

Electricity generation sources

fossil fuels: 78.2% of total installed capacity (2022 est.)

solar: 1.4% of total installed capacity (2022 est.)

wind: 1.1% of total installed capacity (2022 est.)

hydroelectricity: 8% of total installed capacity (2022 est.)

geothermal: 10.2% of total installed capacity (2022 est.)

biomass and waste: 1.1% of total installed capacity (2022 est.)

Coal

production: 14.483 million metric tons (2022 est.)

consumption: 37.13 million metric tons (2022 est.)

exports: 8.698 million metric tons (2022 est.)

imports: 31.634 million metric tons (2022 est.)

proven reserves: 361 million metric tons (2022 est.)

Petroleum

total petroleum production: 10,000 bbl/day (2023 est.)

refined petroleum consumption: 453,000 bbl/day (2022 est.)

crude oil estimated reserves: 138.5 million barrels (2021 est.)

Natural gas

production: 2.251 billion cubic meters (2022 est.)

consumption: 2.251 billion cubic meters (2022 est.)

proven reserves: 98.543 billion cubic meters (2021 est.)

Carbon dioxide emissions

136.273 million metric tonnes of CO₂ (2022 est.)

from coal and metallurgical coke: 70.975 million metric tonnes of CO₂ (2022 est.)

from petroleum and other liquids: 60.932 million metric tonnes of CO₂ (2022 est.)

from consumed natural gas: 4.365 million metric tonnes of CO₂ (2022 est.)

comparison ranking: total emissions 35

Energy consumption per capita

15.558 million Btu/person (2022 est.)

comparison ranking: 138

CommunicationsTelephones - fixed lines

total subscriptions: 4.885 million (2022 est.)

subscriptions per 100 inhabitants: 4 (2022 est.)

comparison ranking: total subscriptions 30

Telephones - mobile cellular

total subscriptions: 166.454 million (2022 est.)

subscriptions per 100 inhabitants: 144 (2022 est.)

comparison ranking: total subscriptions 11

Telecommunication systems

general assessment: the Covid-19 pandemic had a relatively minor impact on the Philippine's telecom sector in 2020; subscriber numbers fell in some areas, but this was offset by strong growth in mobile data and broadband usage since a significant proportion of the population transitioned to working or studying from home; major investment programs covering LTE, 5G, and fiber broadband networks suffered slight delays due to holdups in supply chains, but activity has since ramped up in an attempt to complete the roll outs as per the original schedule; the major telecom operators had mixed financial results for the past year; overall, the number of mobile subscribers is expected to grow to 153 million by the end of 2021, with the penetration rate approaching 144%; the government remains keen, and committed, to seeing strong competition, growth, and service excellence in the telecom sector, so there is likely

to be continued support (financially as well as through legislation such as enabling mobile tower sharing and number portability) to ensure that the sector remains viable for emerging players; the mobile sector will remain the Philippines' primary market for telecommunications well into the future; the unique terrain and resulting challenges associated with accessing remote parts of the archipelago means that in many areas fixed networks are neither cost-effective nor logistically viable; the bulk of telecoms investment over the coming years will continue to be in 5G and 5G-enabled LTE networks; coverage of LTE and 5G networks extends to over 95% of the population, and for the vast majority of people mobile will likely remain their only platform for telecom services (2021)
domestic: fixed-line nearly 4 per 100 and mobile-cellular nearly 143 per 100 (2021)
international: country code - 63; landing points for the NDTN, TGN-IA, AAG, PLCN, EAC-02C, DFON, SJC, APCN-2, SeaMeWe, Boracay-Palawan Submarine Cable System, Palawa-Iloilo Cable System, NDTN, SEA-US, SSSFOIP, ASE and JUPITAR submarine cables that together provide connectivity to the US, Southeast Asia, Asia, Europe, Africa, the Middle East, and Australia (2019)

Broadcast media

multiple national private TV and radio networks; multi-channel satellite and cable TV systems available; more than 400 TV stations; about 1,500 cable TV providers with more than 2 million subscribers, and some 1,400 radio stations; the Philippines adopted Japan's Integrated Service Digital Broadcast – Terrestrial standard for digital terrestrial television in November 2013 and is scheduled to complete the switch from analog to digital broadcasting by the end of 2023 (2019)

Internet country code

.ph

Internet users

total: 58.3 million (2021 est.)
percent of population: 53% (2021 est.)
comparison ranking: total 18

Broadband - fixed subscriptions

total: 7,936,574 (2020 est.)
subscriptions per 100 inhabitants: 7 (2020 est.)
comparison ranking: total 25

Transportation

National air transport system

number of registered air carriers: 13 (2020)
inventory of registered aircraft operated by air carriers: 200
annual passenger traffic on registered air carriers: 43,080,118 (2018)
annual freight traffic on registered air carriers: 835.9 million (2018) mt-km

Civil aircraft registration country code prefix

RP

Airports

246 (2024)
comparison ranking: 27

Heliports

341 (2024)

Pipelines

530 km gas, 138 km oil (non-operational), 185 km refined products (2017)

Railways

total: 77 km (2017)
standard gauge: 49 km (2017) 1.435-m gauge
narrow gauge: 28 km (2017) 1.067-m gauge
comparison ranking: total 130

Roadways

total: 216,387 km
paved: 61,093 km
unpaved: 155,294 km (2014)
comparison ranking: total 24

Waterways

3,219 km (2011) (limited to vessels with draft less than 1.5 m)
comparison ranking: 32

Merchant marine

total: 2,203 (2023)
by type: bulk carrier 52, container ship 43,
general cargo 955, oil tanker 207, other 946
comparison ranking: total 11

Ports

total ports: 70 (2024)
large: 2
medium: 4
small: 8
very small: 56
ports with oil terminals: 22
key ports: Batangas City, Cagayan de Oro, Cebu,
Manila, San Fernando Harbor, Subic Bay

Military and SecurityMilitary and security forces

Armed Forces of the Philippines (AFP): Army,
Navy (includes Marine Corps), Air Force
Department of Transportation: Philippine Coast
Guard (PCG) - armed and uniformed service
that would be attached to the AFP during a
conflict
Department of the Interior: Philippine National
Police Force (PNP) (2024)
Note: the Philippine Government also arms and
supports civilian militias; the AFP controls the
Civilian Armed Force Geographical Units, while
the Civilian Volunteer Organizations fall under
PNP command

Military expenditures

1.5% of GDP (2023 est.)
1.2% of GDP (2022 est.)
1.2% of GDP (2021 est.)
1.1% of GDP (2020 est.)
1.1% of GDP (2019 est.)
comparison ranking: 87

Military and security service personnel strengths

approximately 140,000 active-duty personnel
(100,000 Army; 25,000 Navy, including about
8,000 Marine Corps; 15,000 Air Force) (2023)

Military equipment inventories and acquisitions

the AFP is equipped with a wide mix of imported
weapons systems; in recent years, it has received
equipment from more than a dozen countries,
including Israel, South Korea, and the US (2024)

Military service age and obligation

18-27 years of age for voluntary military service
for men and women; no conscription (2023)
Military note 1: as of 2023, women made up
about 8% of the active military; women have
attended the Philippine Military Academy and
trained as combat soldiers since 1993
Military note 2: the Armed Forces of the
Philippines (AFP) were formally organized
during the American colonial period as the
Philippine Army; they were established by
the National Defense Act of 1935 and were
comprised of both Filipinos and Americans
the US and Philippines agreed to a mutual
defense treaty in 1951; in 2014, the two
governments signed an Enhanced Defense
Cooperation Agreement (EDCA) that established
new parameters for military cooperation;
under the EDCA, the Philippine Government
may grant US troops access to Philippine
military bases on a rotational basis “for security
cooperation exercises, joint and combined
military training activities, and humanitarian
assistance and disaster relief activities”; the
Philippines has Major Non-NATO Ally (MNNA)
status with the US, a designation under US
law that provides foreign partners with certain
benefits in the areas of defense trade and security
cooperation the Philippine Government faces
internal threats from several armed separatists,
terrorists, and criminal groups; as such, much of
the AFP’s operational focus is internal security,
particularly in the south, where several separatist
Islamic insurgent and terrorist groups operate
and a considerable portion of the AFP is typically
deployed; additional combat operations are

conducted against the Communist People's Party/New People's Army, which is active mostly on Luzon, as well as the Visayas and areas of Mindanao; prior to a peace deal in 2014, the AFP fought a decades-long conflict against the Moro Islamic Liberation Front (MILF), a separatist organization based mostly on the island of Mindanao; the MILF's armed wing, the Bangsamoro Islamic Armed Forces (BIAF), had up to 40,000 fighters under arms the AFP's naval forces are also involved in interdiction operations against terrorist, insurgent, and criminal groups around the southern islands, including joint maritime patrols with Indonesia and Malaysia, particularly in the Sulu Sea; rising tensions with China over disputed waters and land features in the South China Sea since 2012 have spurred the AFP to place more emphasis on blue-water naval capabilities, including acquiring larger warships such guided missile frigates, corvettes, offshore patrol vessels, and landing platform dock (LPD) amphibious assault ships the Philippines National Police (PNP) has an active role in counterinsurgency and counter-terrorism operations alongside the AFP, particularly the Special Action Force, a PNP commando unit that specializes in urban counter-terrorism operations (2024)

Space

Space agency/agencies

Philippine Space Agency (PhilSA; established 2019); Philippine Space Council (PSC; established in 2019 as an advisory body responsible for coordinating and integrating policies, programs and resources affecting space science and technology applications) (2024)

Space program overview

has a small and ambitious space program focused on acquiring satellites and related technologies, largely for the areas of climate studies, national security, and risk management; also prioritizing development of the country's space expertise and

industry; manufactures and operates satellites (mostly micro- and nano-sized), including remote sensing (RS) and scientific/experimental; has relations with a variety of foreign space agencies and industries, including those of China, the European Space Agency and some of its member states, Japan, Russia, and the US (2024)

note: further details about the key activities, programs, and milestones of the country's space program, as well as government spending estimates on the space sector, appear in the Space Programs reference guide

Terrorism

Terrorist group(s)

Abu Sayyaf Group; Communist Party of the Philippines/New People's Army (CPP/NPA); Islamic State of Iraq and ash-Sham – East Asia (ISIS-EA) in the Philippines

Terrorism note 1: ISIS-EA factions include Daulah Islamiya-Lanao (aka Maute Group), Daulah Islamiya-Maguindanao, Daulah Islamiya-Socsargen, ISIS-aligned elements of the Abu Sayyaf Group (ASG), ISIS-aligned elements of the Bangsamoro Islamic Freedom Fighters (BIFF), and rogue elements of the Moro Islamic Liberation Front (MILF)

Terrorism note 2: details about the history, aims, leadership, organization, areas of operation, tactics, targets, weapons, size, and sources of support of the group(s) appear(s) in the Terrorism reference guide

Transnational Issues

Refugees and internally displaced persons

IDPs: 102,000 (government troops fighting the Moro Islamic Liberation Front, the Abu Sayyaf Group, and the New People's Army; clan feuds; armed attacks, political violence, and communal tensions in Mindanao) (2022)

stateless persons: 261 (2022); note - stateless persons are descendants of Indonesian migrants

Illicit drugs

Illegal drugs, including methamphetamine hydrochloride, cannabis, and methylenedioxymethamphetamine (MDMA, or “ecstasy”) enter the Philippines from the Golden Triangle (Thailand, Laos, and Burma); drugs entering the Philippines are used locally and transported to other countries in Southeast Asia and Oceania; Chinese transnational organizations are the principal supplier of methamphetamine; not a significant source or transit country for drugs entering the United States

Acronyms and Abbreviations

°	degree(s) – of temperature (°C or °F) or of latitude and longitude (°N, °S, °E, and °W)
\$	dollar(s) – of the U.S.
₱	Philippine Peso
AADMER	ASEAN Agreement on Disaster Management and Emergency Response
ADINet	ASEAN Disaster Information Network
AFP	Armed Forces of the Philippines
AHA Centre	ASEAN Coordinating Centre for Humanitarian Assistance on disaster management
AI	artificial intelligence
ASEAN	Association of Southeast Asian Nations
ASTI	Advanced Science and Technology Institute
BARMM	Bangsamoro Autonomous Region in Muslim Mindanao
BDRRMC	Barangay Disaster Risk Reduction and Management Council
BEDP	Basic Education Development Plan
BHA	Bureau for Humanitarian Assistance (of USAID)
BHS	barangay health station
BWSA	Barangay Waterworks and Sanitation Associations
CAAP	Civil Aviation Authority of the Philippines
CDC	Centers for Disease Control and Prevention
CDRRMC / O	City Disaster Risk Reduction and Management Council / Office
CCA	climate change adaptation
CDP	Comprehensive Development Plan
CE	Common Era (formerly AD [Anno Domini])
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
CERF	Central Emergency Response Fund (of the UN)
CFE-DM	Center for Excellence in Disaster Management and Humanitarian Assistance
CHED	Commission on Higher Education
CIP	Cebu International Port
CLUP	Comprehensive Land Use Plan
cm	centimeter(s)
CMCC	Civil-Military Coordinating Centre
COVID-19	Coronavirus Disease 2019
CSO	civil society organization
DELSA	Disaster Emergency Logistics System for ASEAN
DENR	Department of Environment and Natural Resources
DepEd	Department of Education
DDR	Department of Disaster Resilience
DHN	Declaration of Humanitarian Need
DICT	Department of Information and Communication Technology

DILG	Department of the Interior and Local Government
DM	Disaster Management
DMHA	Disaster Management and Humanitarian Assistance
DMS	Disaster Management Services
DND	Department of National Defense
DoD	Department of Defense (of the U.S.)
DOE	Department of Energy
DOH	Department of Health
DOST	Department of Science and Technology
DOTr	Department of Transportation
DPWH	Department of Public Works and Highways
DROMIC	Disaster Response Operations Monitoring and Information Center
DRR	Disaster Risk Reduction
DRRM	Disaster Risk Reduction and Management
DRRMC	Disaster Risk Reduction and Management Council
DRRMH	Disaster Risk Reduction and Management in Health
DRRMS	Disaster Risk Reduction and Management Service
DSWD	Department of Social Welfare and Development
EC	electricity cooperative
EDCA	Enhanced Defense Cooperation Agreement
EiE	education in emergencies
EMT	Emergency Medical Team
EOC	emergency operations center
EPI	Expanded Program on Immunization
ER4	early recovery, risk reduction, and resilience
ESU	Epidemiological Surveillance Unit
EWBS	emergency warning broadcast system
EWS	early warning system
FAO	Food and Agriculture Organization
FDR	Foreign Disaster Response
FHSIS	Field Health Services Information System
GARD	Get Airports Ready for Disaster
GDP	Gross Domestic Product
GHG	greenhouse gas
GW	Gigawatt
HADR	humanitarian assistance and disaster relief
HEMB	Health Emergency Management Bureau
ICRC	International Committee of the Red Cross
ICT	information and communications technology
IDP	Internally Displaced Person

APPENDICES

IFRC	International Federation of Red Cross and Red Crescent Societies
IHL	International Humanitarian Law
INDOPACOM	Indo-Pacific Command (of the U.S. DoD)
IOM	International Organization for Migration
IPCC	Intergovernmental Panel on Climate Change
ISIS	[so-called] Islamic State
JICA	Japan International Cooperation Agency
JUSMAGPHIL	Joint U.S. Military Assistance Group – Philippine
kg	kilogram(s)
km / km ²	kilometer(s) / square kilometer(s)
kph	kilometers per hour
kWh	kilowatt-hour
LDRRMC / O	Local Disaster Risk Reduction and Management Council / Office
LDRRMP	Local Disaster Risk Reduction and Management Plans
LGU	Local Government Unit
LNG	liquified natural gas
LWUA	Local Water Utilities Administration
m / m ²	meter(s) / square meter(s)
MAIA	Manila International Airport Authority
Mbps	megabits per second
MCIA (A)	Mactan-Cebu International Airport (Authority)
MCW	Magna Carta of Women
MDRRMC / O	Municipal Disaster Risk Reduction and Management Council / Office
MICT	Manila International Container Terminal
mm	millimeter(s)
MMT	million metric ton(s)
MNCC	Multinational Coordinating Centre
mph	miles per hour
NAIA	Ninoy Aquino International Airport
NAPWPS	National Action Plan on Women, Peace and Security
NCD	non-communicable disease
NCR	National Capital Region
NDRP	National Disaster Response Plan
NDRRMC	National Disaster Risk Reduction and Management Council
NDRRMOC	National Disaster Risk Reduction and Management Operations Center
NDRRMP	National Disaster Risk Reduction and Management Plan
NEA	National Electrification Administration
NEDA	National Economic and Development Authority
NGCP	National Grid Corporation of the Philippines
NGO	Non-Governmental Organization

NOH	National Objectives for Health
NPA	New People's Army
NPC	National Power Corporation
NSWMC	National Solid Waste Management Commission
NTC	National Telecommunications Commission
NWRB	National Water Resources Board
OCD	Office of Civil Defense
OCHA	Office for the Coordination of Humanitarian Affairs (of the UN)
OFW	Overseas Filipino Worker
OpCen	Operation Center (of the Department of Health)
PAF	Philippine Air Force
PAGASA	Philippine Atmospheric, Geophysical and Astronomical Services Administration
PCF	primary care facility
PCG	Philippine Coast Guard
PCW	Philippine Commission on Women
PDC	Pacific Disaster Center
PDNA	Post-Disaster Needs Assessment
PDP	Philippine Development Plan
PDRRMC / O	Provincial Disaster Risk Reduction and Management Council / Office
PEMAT	Philippine Emergency Medical Assistance Team
PHIVOLCS	Philippine Institute of Volcanology and Seismology
PHP	Philippine Peso
PNP	Philippines National Police
PPA	Philippine Ports Authority
PRC	Philippine Red Cross or People's Republic of China
PTWC	Pacific Tsunami Warning Center
PWD	People living with disabilities
PWSSMP	Philippine Water Supply and Sanitation Master Plan
RADAR	Rapid Assessment of Damages Reports
RAPWPS	Regional Action Plan on Women, Peace and Security
RDANA	Rapid Damage Assessment and Needs Analysis
RDRRMC	Regional Disaster Risk Reduction Management Council
RDRRMOC	Regional Disaster Risk Reduction and Management Operations Center
RHCC	[Changi] Regional HADR Coordination Centre
RORO	roll-on / roll-off
RWSA	Rural Waterworks and Sanitation Association
SDRRM	School Disaster Risk Reduction and Management
SRR	Search, Rescue and Retrieval
STI	sexually-transmitted infection
TB	tuberculosis

APPENDICES

TESDA	Technical Education and Skills Development Authority
TEU	twenty-foot equivalent unit
TVET	technical and vocational education and training
U.S.	United States
UHC	Universal Health Care
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UNCT	United Nations Country Team
UNDP	United Nations Development Programme
UNDRR	United Nations Office for Disaster Risk Reduction
UNFPA	United Nations Population Fund
UNICEF	United Nations Children’s Fund
UNSCR	United Nations Security Council Resolution
USAID	United States Agency for International Development
WASH	water, sanitation and hygiene
WFP	World Food Programme
WHO	World Health Organization
WPS	Women, Peace and Security

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