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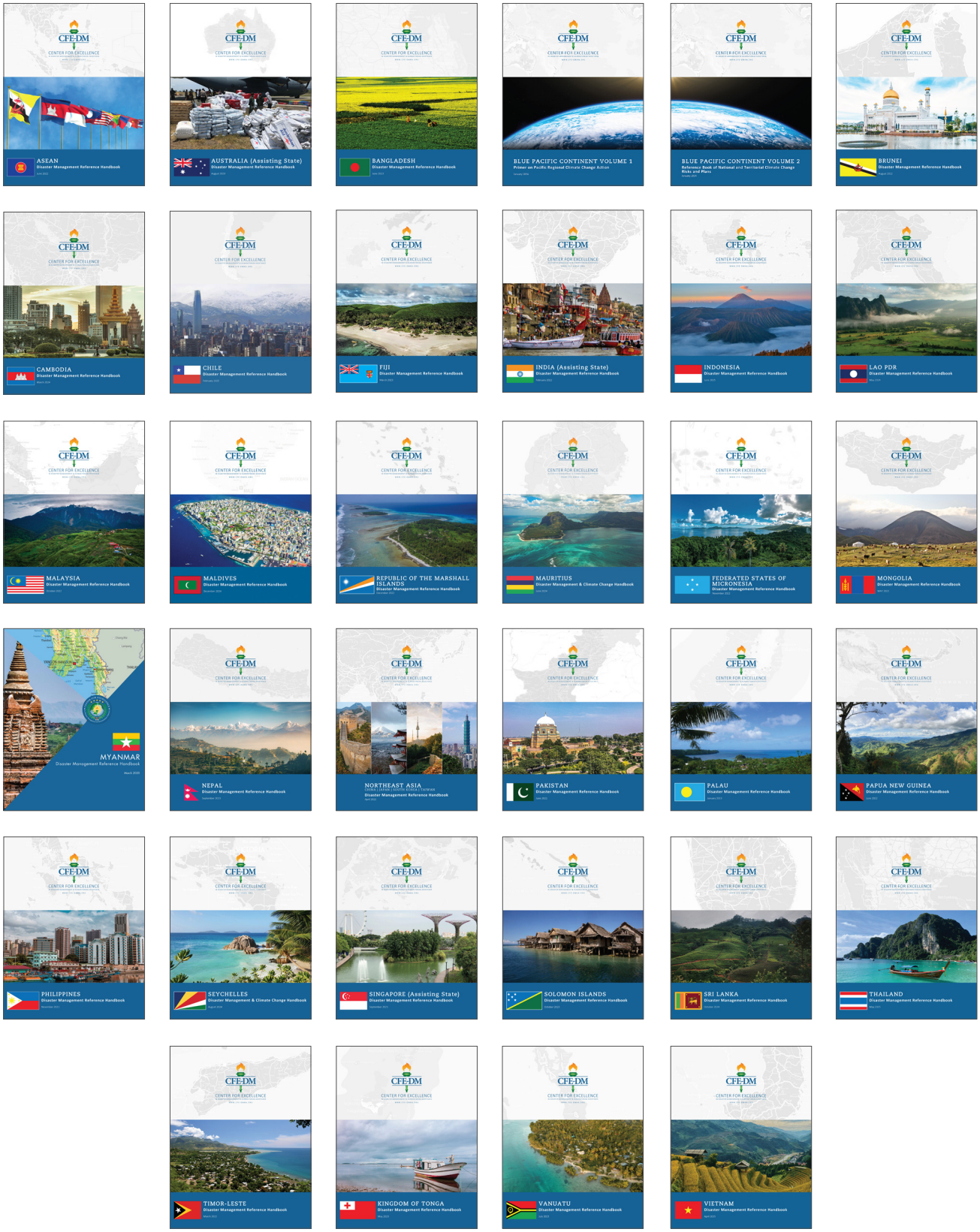
INDONESIA

Disaster Management Reference Handbook

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Disclaimer

This handbook has been prepared in good faith based on resources available at the time of publication. Information was gathered from the public domain, from local and government sources, as well as from subject matter experts. Where possible, a link to the original electronic source is provided in the endnote (reference) section at the end of the document. While making every attempt to ensure the information is relevant and accurate, the Center for Excellence in Disaster Management and Humanitarian Assistance (CFE-DM) does not guarantee or warrant the accuracy, reliability, completeness, or currency of the information in this publication. Each handbook is a working document and will be updated periodically as new and significant information becomes available. We hope that you find these handbooks informative, relevant, reliable, and useful in understanding disaster management and response. We welcome and appreciate your feedback to improve this document and help fill any gaps to enhance its future utility. For feedback, comments, or to request a printed copy please email cfe.dmha.fct@pacom.mil. Please visit our website to download copies of this publication and other products (https://www.cfe-dmha.org). All parts of this publication may be reproduced, stored in retrieval systems, and transmitted by any means without the written permission of the publisher.

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Letter from the Director

Indonesia confronts a wide spectrum of hazards even as urbanization, expanding infrastructure, and unpredictable environmental conditions challenge the country's people to continuously work to avert disaster-related loss.

Since the devastating 2004 Indian Ocean "Boxing Day" earthquake and tsunami, Indonesians have collectively built institutions and practices across the disaster management cycle – prevention, mitigation, preparedness, response, and recovery. One of the ways they do the work of building national and community resilience is through regional and international partnerships. The keystone of these partnerships is the Association of Southeast Asian Nations (ASEAN). Not only is Indonesia one of the founding ASEAN member-states but the offices of the country's National Agency for Disaster Management (BNPB) also host the ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management (AHA Centre).

At the Center for Excellence in Disaster Management and Humanitarian Assistance (CFE-DM), we also see the immense importance of Indonesia and the other ASEAN member-states in building shared disaster management capabilities across Southeast Asia. We value the opportunities we have to engage Indonesia's civilian and military disaster management practitioners on a bilateral basis as well as through the ASEAN mechanisms. Our regular shared training events and frequent exchanges of knowledge and information help build the muscle memory that may be required when the next major disaster occurs.

This updated Indonesia Disaster Management Reference Handbook is part of the CFE-DM effort to ensure the best information is in the hands of personnel who either are planning a disaster management engagement or are involved in a response alongside Indonesia's responders. This handbook provides background on the operational environment, hazards, national coping capacities, and other considerations to support effective preparation or response.

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

Resilient Joint Forces, Allies, and Partners that are fully prepared to respond across the spectrum of humanitarian crises.

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.

Contact Information

Center for Excellence in Disaster Management and Humanitarian Assistance
456 Hornet Ave
JBPHH, HI 96860-3503
Telephone: +1 (808) 472-0518
https://www.cfe-dmha.org

EXECUTIVE SUMMARY

Indonesia's location and topography expose its people to a wide spectrum of hazards. Chronic flooding and rain-triggered landslides affect every province. Global oceanic temperature phenomena drive widespread drought impacts. And the country is perched on active faults that produce frequent earthquakes, occasional tsunamis, and eruptions from more than 100 volcanoes. Moreover, the country is experiencing rapid urbanization, expanding infrastructure networks, and rising asset values that, collectively, mean ever increasing human losses and material costs associated with natural hazard events.

By one count, in the last decade, the country experienced 228 disasters, of which some 80% were hydrometeorological or geophysical – e.g., floods, landslides, earthquakes, tsunamis, volcanic eruptions, droughts, and peatland fires. Floods and landslides occur commonly, but each individual event's impact is generally localized and relatively moderate. At the other end of the spectrum, major quakes can wreak extreme damage across wide swaths of territory. While hydrological emergencies are the most numerous, geophysical shocks account for the highest death tolls.

The dual nature of Indonesia's disaster risk – i.e., geographically widespread and common, smaller-scale hydrological events versus unpredictable, rare, but far more deadly and costly geophysical events – is a challenge for the country's disaster management (DM) stakeholders. For the more than 20 years since the devastating 2004 Indian Ocean "Boxing Day" earthquake and tsunami struck off of Sumatra, Indonesia has made significant strides in all aspects of DM – prevention, mitigation, preparedness, response, and recovery. However, its DM practitioners are continually striving to enhance national and community resilience by building legal, policy, and institutional capacity while fostering regional and international partnerships. A key collaboration is with the DM-related committees and agencies of the Association of Southeast Asian Nations (ASEAN), of which Indonesia is a member state.

Under the country's foundational DM law from 2007, the National Disaster Management Agency (Badan Nasional Penanggulangan Bencana, or BNPB) is the national focal point for government institutions with a stake in DM. The DM focal points for provinces, districts, and cities are the Regional Disaster Management Agencies (Badan Penanggulangan Bencana Daerah, or BPBD). BNPB coordinates preparedness, prevention, mitigation, and response, and its Steering Committee integrates the Indonesian Armed Forces (Tentara Nasional Indonesia, or TNI) and Indonesian National Police (Kepolisian Negara Republik Indonesia, or POLRI), among others. In addition, specialized agencies like the national search-and-rescue (SAR) agency, Badan Nasional Pencarian dan Pertolongan (Basarnas), play key roles in response at home and alongside regional and international partners, including United Nations (UN) agencies. As needed, these specialized agencies and BNPB can deliver expertise, technical assistance, and even trained personnel to a regional response, most often as part of a collective ASEAN response.

As Indonesia confronts cumulative damage and disruption from myriad small-scale hazard events and occasional mass disruption and loss from large-scale incidents, it works closely with other countries, international organizations, domestic non-governmental organizations (NGO) and civil society organizations (CSO), and the private sector to build preparedness, response skills, and recovery capacity. The bilateral relationship between Indonesia and the United States (U.S.) is among these key partnerships, as it encompasses civilian and military cooperation across the security spectrum, including disaster response.

COUNTRY OVERVIEW

Indonesia is the world's largest archipelagic state, spanning over 17,000 islands, about 7,000 of which are inhabited.[1] The country's population of 281.6 million makes it the fourth most populous country in the world, and it is the largest economy in Southeast Asia.[2] Its tropical climate and geographical position along the Pacific "Ring of Fire" and straddling two major tectonic plates expose it to a range of natural hazards.

History

Long before written history, the Indonesian archipelago was inhabited by successive waves of people. Fossil finds show *Homo erectus* on the island of Java nearly 1.5 million years ago, while Homo floresiensis survived on Flores (an island in present-day East Nusa Tenggara Province) until about 50,000 BCE. Modern human hunter-gatherers with Papuan-related ancestry arrived roughly 45,000 years ago and endured in the eastern islands. Around 3000 BCE, seafaring Austronesian speakers spread through the region, intermarried with earlier groups, and introduced wet-rice cultivation, pottery, and the Malayo-Polynesian languages that still dominate western Indonesia today.[3]

The arrival of Indian traders and missionaries around the 1st century CE slowly introduced Hinduism and Buddhism to the region. Initially, these religious ideas were adopted by the elites of the coastal areas, but they spread throughout the archipelago over time.

The Srivijaya Empire, based in Sumatra, exerted influence over maritime Southeast Asia from the 7th century onward. Though primarily Buddhist, the Srivijaya Empire also incorporated aspects of indigenous beliefs and Hinduism. In the 13th century, Srivijaya was overtaken by the Majapahit Empire, a primarily Hindu kingdom with Buddhist influences centered on the island of Java. Majapahit united much of modern Indonesia and extended its reach into the Malay Peninsula and the Philippines.[4]

By the early 16th century, European powers, eyeing Indonesia's lucrative spice trade, began arriving. The Portuguese seized control of the spice-rich Maluku islands in 1512 but were eventually displaced by the Dutch, who established the Dutch East India Company in 1602. Over time, Dutch colonial rule expanded across the archipelago and lasted until the 20th century. During World War II, Japan occupied Indonesia, and this occupation both undermined Dutch control and fueled nationalism.

Shortly before Japan's surrender, Indonesia declared independence on 17 August 1945, but it faced four years of armed conflict and negotiations before the Netherlands formally recognized its sovereignty in 1949.[5] In the decades that followed, Indonesia expanded its territorial claims. In 1969, following Indonesia's passage of the controversial Act of Free Choice, the UN ratified the integration of Western New Guinea (now Papua and West Papua provinces) into Indonesia. In 1976, Indonesia annexed East Timor after Portugal's withdrawal, but, following years of resistance and a UN-sponsored referendum, Timor-Leste gained full independence in 2002.[6]

Since independence, Indonesia has played a key role in the Non-Aligned Movement (NAM) through which it initially positioned itself as a leader among newly decolonized nations seeking to avoid alignment with either the Western or Soviet blocs during the Cold War. In 1955, Indonesia hosted the Bandung Conference, which laid the foundation for NAM by promoting principles of sovereignty, anti-colonialism, and peaceful coexistence. As a founding member of NAM in 1961, Indonesia continued advocating for economic cooperation among developing nations and non-intervention in domestic affairs. Indonesia remains an active member, using NAM to advocate for global South cooperation, Palestinian statehood, and reforms in international governance while maintaining an independent foreign policy.[7]

Culture and Demographics

Indonesia is home to some 281 million residents,[8] but its population growth is beginning to slow. The 2020 census put average annual growth for the period 2010-2020 at 1.25%, down from 1.49% annually for the preceding decade. Statistics Indonesia (Badan Pusat Statistik, or BPS) projects that growth will continue to decelerate steadily, lifting the total population to about 319 million in 2045 before growth plateaus.[9] The fertility transition underpins this slowdown; the BPS long-form 2020 census measured the national total fertility rate at 2.18 children per woman, just above the replacement threshold.[10] Demographically, the country is still enjoying its "bonus" window (where the working-age population is relatively large compared to youth and elderly cohorts). As of 2020, 70% of Indonesians were in the productive 15-64-years-of-age bracket, 23% were under 15 years of age, and only 6% were aged 65 years and over.[11] Because of these dynamics, ageing will accelerate. A joint National Development Planning Agency - BPS projection indicates that the share of seniors in the population will triple to 14.6% by 2045, while the child cohort shrinks to less than 20%.[12] These shifts mean that the youth-heavy provinces of Java and parts of Sumatra must prepare within a single generation for a surge in elderly dependents, a shift that requires policymakers to pivot from mass job creation toward pension funding, geriatric health, and long-term care.

Ethnic Makeup

Indonesia is home to over 600 distinct ethnic groups. The Javanese, the largest ethnic group in Southeast Asia, are the largest group, constituting 40.1% of the population. The Javanese are concentrated in the central and eastern parts of the island of Java. The Sundanese are the second largest ethnic group at 15.5% of the population, and they reside in western Java and the southern edge of Sumatra. Other significant groups include the Malay (3.7%), Batak (3.6%), Madurese (3%), Betawi (2.9%), Minangkabau (2.7%), Buginese (2.7%), Bantenese (2%), Banjarese (1.7%), Balinese (1.7%), Acehnese (1.4%), Dayak (1.4%), Sasak (1.3%), and Chinese (1.2%). Collectively, these groups represent about 85% of the population, with the remaining 15% comprising various other ethnicities.[13]

Key Population Centers

The most densely populated islands are Java, Sumatra, Kalimantan (Indonesian Borneo), Sulawesi, and the Indonesian part of New Guinea (known as Papua). Java is home to over 150 million people, more than half of the country's total population. This concentration of people is illustrated by Figure 1 from the Ministry of Home Affairs.[14] Jakarta, the capital city, has a population of about 11 million in the city proper, though the greater Jakarta metropolitan area (Jabodetabek) encompasses around 34 million people. Other major urban centers on Java include Bekasi, with a population of approximately 3.7 million, and Surabaya, which has around 3.1 million residents. Bandung is home to roughly 2.9 million people, while Tangerang has an estimated population of 3.0 million. Medan, in Sumatra, stands at about 2.5 million people.[15]

Indonesia is currently in the process of shifting its administrative center 1,300 kilometers (km; 807 miles [mi]) from Jakarta to the forested interior of East Kalimantan. The project has been named "Nusantara," Javanese shorthand for "the Indonesian archipelago." The 2022 Law on the National Capital delineated a 256,000-hectare (ha; 632,500-acre) area under authority of the Nusantara Capital Authority, which reports directly to the president.[16] Although construction is underway, analysts note the timeline for completion may stretch well beyond 2045.

Unlike Java's earthquake- and volcano-prone landscape, East Kalimantan sits on comparatively stable crust. Natural-hazard exposure is nevertheless significant. Hydrometeorological events accounted for 97% of disasters recorded in the province between 2010 and 2020.[17] A 2024 satellite-based study found that 22% of

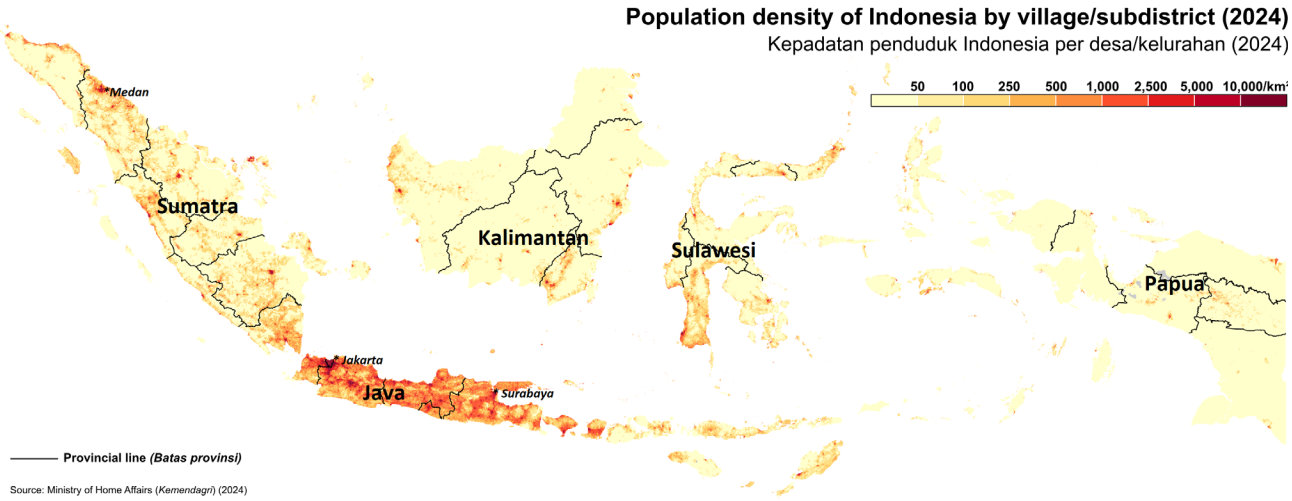


Figure 1: Population Density of Indonesia (2024)

the Nusantara planning area is simultaneously susceptible to floods and landslides, driven by intense monsoon rainfall, steep micro-topography, and rapid land-use change.[18] Peatland fires in Central Kalimantan have been problematic, especially in El Niño years. East Kalimantan is also home to the second highest malaria infection rate in Indonesia.[19]

Language

There are over 700 languages spoken across the Indonesian archipelago. The official language, Bahasa Indonesia, serves as the unifying national language, spoken by nearly all Indonesians and used in government, education, and media. Regional languages, including Javanese, Sundanese, Madurese, and Minangkabau, are widely spoken in daily life. Other notable languages include Balinese in Bali, Bugis in South Sulawesi, and Batak languages in North Sumatra. In addition to these major regional languages, numerous indigenous languages are spoken in remote areas; they include Papuan languages in Papua and the languages of the Dayak in Borneo.

Religion

Around 87% of the population adheres to Islam, and Indonesia ranks as the most populous Muslim nation in the world. The vast majority of Indonesians are Sunni Muslims. Other religious groups include Protestant Christians (7%), Roman Catholics (2.9%), Hindus (1.7%), and smaller communities practicing various other faiths.[20] Indonesia's religious history reflects significant influences from India, particularly through Hinduism and Buddhism. Early Indonesian states, centered on Java and Sumatra, evolved through various forms of these religions. By the 9th century, both Hinduism and Buddhism were practiced, and the two were often seen as complementary, with figures like Shiva and Buddha viewed as different manifestations of the same spiritual essence. Islam arrived on the coasts of Java and Sumatra, as traders from other parts of Southeast Asia brought it to the islands from the 13th century onward. By the 15th century, it had become the dominant religion in many coastal regions and began to spread to other parts of the archipelago.[21]

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 Indonesia, addressing vulnerability is integral to all phases of the DM cycle and is a key component of disaster risk reduction (DRR) efforts. Indonesia's Disaster Management Law highlights the need for emergency response efforts to prioritize four categories of vulnerable groups:

- Infants, preschoolers, and children
- Pregnant women and nursing mothers
- People living with disabilities
- Elders[22]

This section will examine the specific vulnerabilities of these vulnerable groups by focusing on protection in the context of disasters and civil emergencies.

Children

More than 27% of Indonesian children under 5 years of age experience stunting, a condition that can impair physical and cognitive development.[23] In January 2025, President Prabowo Subianto launched a multi-billion dollar program to provide free meals to children and pregnant women with a target of reaching 82.9 million of the country's people by 2029.[24]

Approximately 4.5 million children of secondary school age (13–18 years) are out of school due to economic factors, residence in rural and remote areas, disabilities, or early marriage in the case of adolescent girls.[25] Relatedly, child labor remains prevalent in Indonesia's agriculture, domestic, and informal sectors. Rates of child labor increased during the Coronavirus Disease 2019 (COVID-19) pandemic as the country experienced a general economic downturn, though more recent data points to a return to pre-COVID levels of child labor. Child trafficking remains a persistent issue, particularly in provinces like West Java, Central Java, and East Nusa Tenggara, where trafficking networks exploit vulnerable children for labor, sexual exploitation, and other forms of abuse.[26]

Globally, natural disasters affect about 175 million children annually, and the effects include an increase in physical and mental health issues, as well as disruptions to education.[27] In March 2024, flooding and landslides on the island of Sumatra affected approximately 15,500 children and 40,000 families, an illustration of the significant impact of such disasters on young populations.[28] In Indonesia, children under 5 years of age are particularly at risk, with drowning being a leading cause of death. Between 2005 and 2019, the under-5 population had the highest drowning mortality rates, averaging 9.67 per 100,000 population annually.[29]

Women

Women in Indonesia are more vulnerable than men because of gender inequality and other social challenges. A significant portion of Indonesian women experience economic insecurity, with a reported 23.4% of women living in poverty, compared to 19.7% of men.[30] Women in rural areas are especially disadvantaged, with limited access to education, health care, and employment opportunities. The COVID-19 pandemic worsened existing inequalities by pushing more women, particularly in informal sectors like domestic work and agriculture, into precarious situations. During the pandemic, 92% of women reported a decline in income, compared to 88% of men.[31] Women are also disproportionately affected by other natural disasters. As the impacts of climate change intensify, women in disaster-prone areas face greater risks due to their roles in household care, agriculture, and water management. In the aftermath of disasters like the 2021 Central Sulawesi earthquake, women and girls reported higher rates of sexual violence, displacement, and challenges in accessing relief services.[32]

People Living with Disabilities

People living with disabilities make up approximately 9% of Indonesia's population, and there are significant disparities in access to education, employment, and social protection. Disability prevalence is higher among older populations, with nearly 50% of individuals over 60 years of age experiencing some form of disability. Disabilities in Indonesia vary widely, with physical disabilities being the most common, followed by sensory impairments (such as visual and hearing disabilities), intellectual disabilities, and mental health conditions. In general, women have a higher prevalence of disability than men, across all types of disability. Women living with disabilities tend to experience greater socio-economic vulnerability than men due to limited employment opportunities and higher caregiving burdens. Households with a disabled family member spend more on health

care and assistive devices. People living with disabilities are also less likely to be employed, with workforce participation rates significantly lower than among non-disabled individuals.[33]

Elders

Indonesia is aging quickly. The 2020 census counted 16.1 million people aged 65 years and older, and elders make up about 6% of the population, up from just 2.5% in 1971.[34] Most older adults live with family, yet 17% live alone and depend heavily on neighbors or local officials in an emergency.[35] Meanwhile, only 14.8% of Indonesians above the statutory retirement age (59 years) receive any pension, and BPS estimates that barely 10.8% of those 60 years and older have contributory old-age insurance.[36] Approximately 11% of seniors fall below the national poverty line. Poverty rates among rural seniors and older women are higher than urban and male counterparts.[37] Health burdens compound risk. Non-communicable diseases account for three-quarters of deaths among Indonesians 60 years and over, and World Health Organization (WHO) profiles show that one in three seniors suffers multimorbidity, with hearing loss, vision impairment, and cardiovascular disease topping the list of conditions.[38]

Disasters amplify these vulnerabilities. An assessment after the 2004 Indian Ocean tsunami found that 6.7% of households in Aceh, one of the hardest-hit areas, were headed by an older person. Moreover, it found that at least 5% of seniors were immobile without assistance, and these movement limitations hampered both evacuation and access to food relief distribution.[39] Older survivors also lacked identity papers destroyed in the waves, and this absence delayed compensation and reconstruction grants. Similar patterns emerged during the December 2022 Semeru eruption, after which BNPB reported evacuating 1,969 residents, "including children and seniors," and images showed rescuers carrying elderly villagers who could not outrun ash flows.[40]

Economics

Indonesia is Southeast Asia's largest economy, the 17th largest worldwide, and a key player in global trade and investment. In 2024, the nation's Gross Domestic Product (GDP) expanded by 5.03%, in line with yearly expansion figures for the last decade with the exception of the 2020 pandemic-driven 2% contraction, according to World Bank figures depicted in Figure 2.[41] Growth is supported by ongoing infrastructure projects, increased investment, a post-pandemic recovery in tourism, and government initiatives aimed at stimulating economic activity. Potential economic headwinds include global trade tensions and fluctuating commodity prices.



Figure 2: Indonesia's Annual GDP Growth (% Change)

From the mid-20th century onward, Indonesia shifted from an agrarian-based economy to a rapidly industrializing and service-oriented market. As of 2023, the manufacturing sector was the largest contributor to GDP at 18.67%. This sector encompasses the production of textiles, automotive components, electronics, and food and beverages.[42] Agriculture remains a vital part of Indonesia's economy, to which it contributes around 12% of GDP. Key agricultural products include rice, palm oil, rubber, coffee, and cocoa. The mining sector accounts for approximately 10% of GDP. Indonesia is rich in natural resources, with significant production of coal, oil, natural gas, tin, copper, and gold.[43]

Indonesia's economic development follows a 20-year plan, known as the National Long-Term Development Plan (Rencana

Pembangunan Jangka Panjang Nasional, or RPJPN), which is divided into 5-year phases. The RPJPN 2005-2025 aims to modernize the economy by strengthening agriculture, mining, manufacturing, and services, with the goal of improving economic resilience and fostering equitable growth. While the plan sets ambitious targets for poverty reduction and per capita income, external shocks, such as global economic trends and commodity demand fluctuations, pose challenges. The current phase, running from 2020 to 2025, focuses on enhancing human capital and global competitiveness.[44]

Government

Indonesia is a presidential republic with a decentralized administrative structure. The country is divided into 38 provinces—including the autonomous Aceh, the special region of Yogyakarta, and the National Capital District (Jakarta)—each led by a governor and further divided into regencies (kabupaten) and municipalities (kota). Local governments enjoy significant autonomy in policy implementation and service delivery, and the elected Regional People's Houses of Representatives provide legislative oversight.[45]

The President, serving as head of both state and government, is elected for a five-year term (renewable once) alongside a Vice President. The President appoints cabinet ministers, submits legislation to the People's Representative Council (Dewan Perwakilan Rakyat, or DPR), and can issue regulations or declare emergencies. The bicameral legislature, the People's Consultative Assembly (Majelis Permusyawaratan Rakyat, or MPR), is composed of two chambers: the DPR and the Regional Representative Council (Dewan Perwakilan Daerah, or DPD). As of the 2024 elections, the DPR consists of 580 members elected through proportional representation, and the chamber holds legislative, budgetary, and oversight authority.[46] The DPD comprises 152 non-partisan representatives—four from each of Indonesia's 38 provinces—elected to represent regional interests. While the DPR passes laws, the DPD may propose and advise on legislation related to regional autonomy and central–local government relations, but it does not possess independent lawmaking power. Together, the MPR is responsible for constitutional amendments, inaugurating the president and vice president, and, under specific conditions, initiating impeachment proceedings.[47]

The judiciary, led by the Supreme Court (Mahkamah Agung) and the Constitutional Court (Mahkamah Konstitusi), ensures legal oversight. Specialized courts handle corruption, human rights, and religious matters, with Aceh uniquely enforcing Shariah law for both civil and criminal cases.[48]

Indonesia's political landscape is shaped by a multi-party system, but power remains concentrated among a few dominant parties. The 2011 amendment to the 2008 political party law requires national parties to establish chapters in all provinces and at least 75% of municipalities within each province.[49] While 18 parties contested the 2024 elections, political dynamics continue to be driven by elite networks rather than grassroots mobilization. The ruling coalition, led by the Indonesian Democratic Party of Struggle (Partai Demokrasi Indonesia Perjuangan), has maintained legislative influence, though opposition parties have gained traction in recent years. Political competition remains intense, with coalition-building essential for governance, and regional politics playing an increasing role in shaping national policy debates.[50]

Environment

Indonesia's tropical climate, active tectonic setting, and diverse ecosystems—from coastal mangroves and lowland rainforests to mountainous highlands and volcanic ridges—contribute to both environmental abundance and natural hazard risk. As a result, the country's geography and climate play defining roles in its economic activity, development planning, and exposure to hydrometeorological and geophysical disasters.

Geography

Indonesia is the world's largest archipelagic state, comprising over 17,000 islands that stretch more than 5,000 km (3,100 mi) from Sumatra in the west to Papua in the east. Figure 3 shows a map of the country.[51] Indonesia has a total land area of approximately 1.9 million km² (733,600 mi²).[52] Including its vast maritime territory, the country's total area exceeds 7.8 million km² (3.05 million mi²), ranking it among the largest in the world by total area.[53]



Figure 3: Map of Indonesia

Indonesia sits on the Pacific "Ring of Fire," a tectonically active zone where earthquakes and volcanic eruptions occur frequently. The country lies at the convergence of several major tectonic plates, including the Indo-Australian Plate, the Pacific Plate, the Eurasian Plate, and the smaller Philippine Sea Plate. Subduction zones, such as the Sunda Trench off the western coast of Sumatra and Java, drive much of the seismicity. These fault lines are responsible for some of the most destructive earthquakes and tsunamis, including the 2004 Indian Ocean tsunami.[54]

Indonesia also has more active volcanoes than any other country—over 120 spread across the islands of Java, Sumatra, Bali, and the Lesser Sunda Islands.[55] Some volcanoes, such as Mount Merapi, pictured in Photo 1 from the U.S. Geological Survey (USGS), are extremely active and dangerous; they regularly displace communities and affect air traffic and agriculture.[56] While these volcanoes pose serious risks, they also enrich the soil and support high levels of agricultural productivity, especially in densely populated regions like Java.



Photo 1: Mount Merapi

In Indonesia, climate change is likely to impact water availability, health and nutrition, the ability to manage disaster risk, and urban development, particularly in coastal zones, with implications for poverty and inequality. Indonesia is home to the third largest tropical rainforest in the world (94.1 million ha; 232.5 million acres) and is home to the world's largest tropical peatlands (14.9 million ha; 268.1 million acres) and mangrove forests (3.36 million ha; 8.3 million acres). These natural resources store vast amounts of carbon that mitigate climate change impacts, are crucial to sustain the livelihoods of Indonesians, and support the country's long-term development.

The country's peatlands are deep, water-saturated deposits of partially decomposed plant material. Concentrated in the coastal lowlands of Sumatra (Riau, Jambi, South Sumatra), Kalimantan (Central, West, and South) and Papua's Mamberamo basin, they make up the largest contiguous tropical peat complex on earth. Since the 1980s, peat forests have been cleared and drained for oil palm, pulpwood, and

smallholder food crops, and this clearing has lowered the water table and made the terrain highly flammable. When drought arrives—especially in El Niño years—surface fires set for land clearing ignite the peat itself. The result is protracted underground burns that release thick, transboundary haze and large waves of greenhouse gasses. Indonesia's 2015 peat fires produced more greenhouse gas than Japan does in an entire year. Recognizing the peatlands' dual role as climate asset and disaster liability, Jakarta has enacted a moratorium on new peat concessions, monitors water tables, and created the Peatland and Mangrove Restoration Agency (Badan Restorasi Gambut dan Mangrove, or BRGM) to rewet and revegetate 2 million ha (4.9 million acres).

Borders

Indonesia shares land borders with three neighboring countries. The longest border is with Malaysia—approximately 1,881 km (1,168 mi)—on the island of Borneo. It also shares an 824-km (512-mi) border with Papua New Guinea on the island of New Guinea and a 253-km (157-mi) border with Timor-Leste on the island of Timor.[57] Indonesia and Malaysia continue to dispute parts of their shared border on Borneo, particularly in resource-rich areas, and this dispute has stalled development and led to periodic diplomatic tensions.[58] With Timor-Leste, two land borders exist: a 150-km (93-mi) main border dividing the island of Timor and a 120-km (75-mi) boundary enclosing the East Timorese exclave of Oecusse within Indonesia's Nusa Tenggara province. While the primary border has been demarcated, segments around Oecusse remain unresolved. Negotiations began in 2000 but have been hindered by differing interpretations of the 1904 colonial-era treaty between Portugal and the Netherlands. Indonesia maintains that the boundary lies along the Noelbesi River, while Timor-Leste asserts it is along the Nonotuinan River.[59]

Climate

Indonesia's climate is shaped by its equatorial location and archipelagic geography. Straddling the Equator and lying between the Asian and Australian continents, it experiences seasonal rainfall patterns driven by the monsoon winds.

Indonesia experiences two main monsoon seasons each year. The west monsoon, occurring from December to March, brings moist air from the Asian continent and results in heavy rainfall across much of the archipelago, particularly in the western and southern regions such as Sumatra, Java, Bali, and the Lesser Sunda Islands. Conversely, the east monsoon takes place from June to September, when dry air from Australia produces drier conditions, especially in eastern Indonesia, including Nusa Tenggara, Timor, and parts of Sulawesi. These seasons are separated by transitional periods around April to May and October to November, when shifting pressure systems create more variable weather.

Temperatures are warm year-round at low elevations, where they range from the low 20s to low 30s °C (mid-70s to upper 80s °F), with cooler conditions at higher elevations. Only the Maoke Mountains in Papua are high enough to receive snow. In cities like Jakarta, daily temperature differences often exceed seasonal variations; they can reach nearly 38°C (100°F) on hot days and fall to around 18°C (65°F) at night.[60]

Rainfall distribution is highly variable across the archipelago. Western regions such as Sumatra, Kalimantan, and western New Guinea typically receive over 2,000 millimeters (mm; 80 inches [in]) of rain annually, while mountainous areas often receive precipitation in excess of 3,000 mm (120 in). The wet season runs from December to March. In contrast, eastern islands like Timor and the Lesser Sundas experience pronounced dry seasons from June to October and lower total rainfall, between 1,000 and 1,500 mm (40–60 in) per year.[61] Geography significantly influences precipitation. For example, Jakarta receives about 1,750 mm (70 in) annually, while nearby Bogor—at higher elevation—gets over 4,000 mm (160 in).[62] Although tropical cyclones are rare in Indonesia, intense afternoon thunderstorms are frequent, particularly during the wet season.[63]

DISASTER OVERVIEW

Indonesia sits astride the world's busiest convergence of tectonic plates and monsoon tracks. This geography exposes the country to a wide spectrum of hazards. The Centre for Research on Epidemiology of Disasters (CRED) international disaster database (EM-DAT) classifies disasters as events resulting in 10 or more deaths, affecting 100 or more people, or triggering a declared state of emergency.[64] According to the EM-DAT, between January 2015 and April 2025, Indonesia logged 228 disasters, and roughly 80% of them were natural events such as floods, landslides, earthquakes, tsunamis, volcanic eruptions, droughts, and peat-fed wildfires.

Of the 228 events contained in the data set, 188 (82%) were natural disasters and 40 (18%) were technological disasters. As shown in Figure 4, 134 (59%) of these disasters were hydrological, predominately floods and landslides. Geophysical events like earthquakes and volcanoes numbered 46 (20%); climatological (drought, wildfire), and meteorological (severe weather, tropical cyclones) together accounted for eight events (4%); transportation accidents totaled 30 (13%), with half of these incidents occurring at sea. Industrial and miscellaneous disasters together combined for 10 events or 4% of total disasters during the decade.

Across the disasters recorded between 2015 and April 2025, the data show 9,351 deaths, 27,274 injuries, and more than 30 million people affected. Hydrological hazards—principally floods and wet landslides—make up three-quarters of all incidents (134 of 180) yet account for only 1,579 deaths, whereas geophysical shocks (46 earthquakes, tsunamis, and volcanic eruptions) cause 3.8 times more fatalities (5,927) despite their lower frequency.

The contrast in per-event severity is stark; an average hydrological episode kills about 12 people and injures 10, while a geophysical event kills approximately 129 people and injures 551. Both subgroups affected 5-6 million people over the decade, but the human footprint of hydrological disasters is spread across many smaller-scale events, whereas geophysical impacts are concentrated in a handful of catastrophic shocks such as the 2018 Sulawesi earthquake/liquefaction/tsunami compound disaster.

Recorded economic losses in the surveyed period add up to US$7.88 billion (inflation-adjusted), even though only 33 of 228 events in the dataset contain monetary loss figures, which are, therefore, almost certainly an undercount of true costs. Of that total, geophysical shocks and hydrological hazards together account for 97%

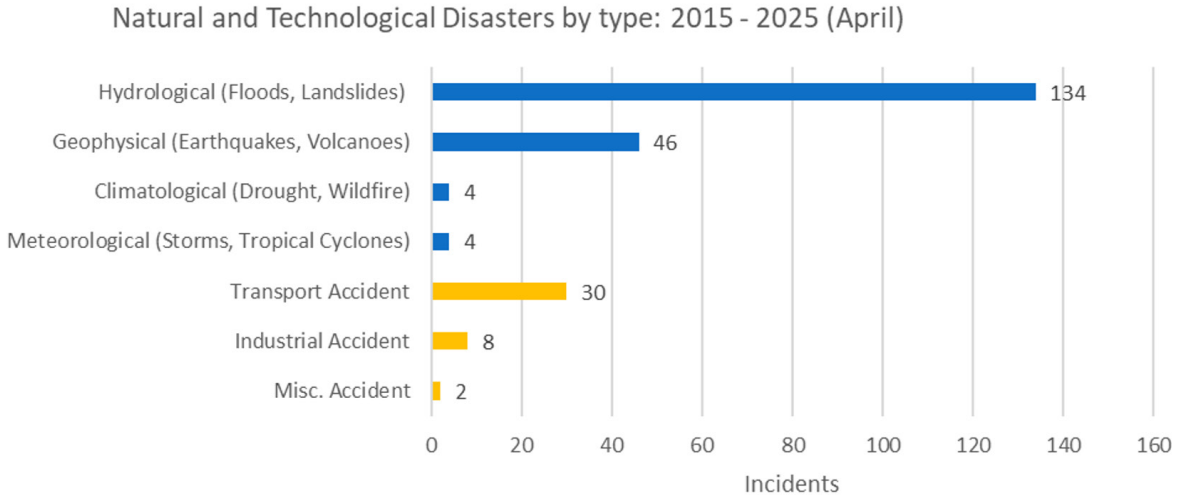


Figure 4: Natural and Technological Disasters in Indonesia, by Type (2015–2025 April)

of total reported losses. Adjusted damages total US$3.44 billion for geophysical events versus US$2.25 billion for hydrological events. These figures translate into about US$75 million per geophysical event—over four times the average hydrological loss. The data highlight Indonesia's dual challenge – i.e., routine water-related emergencies strain local response capacity, and infrequent but massively destructive tectonic episodes demand sustained national investment in seismic and tsunami-resilient infrastructure.

Hazards

Indonesia is exposed to multiple hazards. Chronic monsoon floods and rain-triggered landslides affect every province. Drought deepens during El Niño and primes peatlands for wildfire. And the country's perch on two subduction zones delivers frequent earthquakes, occasional tsunamis, and eruptions from 126 active volcanoes. Climate change is adding stress at both ends of the hydrological cycle; heavier downpours overwhelm century-old drainage even as longer El Niño droughts dry out peatlands and heighten fire risk. Although tropical cyclones remain rare inside the equatorial belt, outlier storms show that even infrequent hazards can cause outsized damage when warning systems and infrastructure are calibrated for more familiar risks.

The 2015 – April 2025 EMDAT record shows that disaster incidence – like exposure to hazards – is highly uneven spatially across the country. Java accounts for roughly one-third of all recorded events (79 of 228), an illustration of how dense settlement, extensive river systems, and steep, heavily farmed catchments amplify flood and landslide frequency. Sumatra (36 events) follows, driven by a combination of riverine flooding on its eastern lowlands and recurrent peatforest fires in the interior. Sulawesi's total is lower (22 events), yet it stands out for high-impact geophysical hazards - e.g., the 2018 Sulawesi earthquake/tsunami compound disaster. Kalimantan's tally (14 events) is dominated by floods and transboundary haze-producing fires, while Bali and the Nusa Tenggara arc (13 events) show a distinct seismic signature, including the Lombok earthquake swarms of 2018. Maluku and Papua register fewer events (16 combined), but their volcanic and tsunami history—Ruang's 2024 eruption and Biak's 2022 tsunami, for example—confirms that low event counts do not necessarily mean low risk. Table 1 details the total disasters experienced by each island and the percent share they make up of national incidents.

Island group	Total	Share	Notes
Java	79	35%	High exposure to floods & landslides; dense population drives risk
Sumatra	36	16%	Frequent floods & peat-forest fires
Sulawesi	22	10%	Notable 2018 earthquake-tsunami cluster
Kalimantan	14	6%	Floods & forest fires, especially 2015 & 2021
Bali & Nusa Tenggara	13	6%	Earthquake swarms on Lombok in 2018
Maluku & Papua	16	7%	Volcanism and tsunamis; lower population density.
Multiple/ unknown	48	21%	National-scale or multi-region events; no precise point location

Table 1: Disaster Occurrence by Island Group (2015-2025 April)

Biological (Epidemic) Hazards

Vector-borne and respiratory disease epidemics periodically overwhelm Indonesia's health systems. Systematic reviews identify dengue as the fastest-spreading mosquito-borne viral disease globally, with dengue-hemorrhagic fever incidence rates in Indonesia rising alongside urbanization and climate variability. Statistical models link temperature and precipitation anomalies to seasonal dengue case surges in Central Java.[65] The 2015–2016 dengue outbreak recorded 200,000 cases and over 1,000 deaths in Java and Bali.[66] As for respiratory disease epidemics, COVID-19 was declared a pandemic in March 2020. Indonesia reported 1.5 million confirmed cases and 40,000 deaths by the end of 2021, and this spread prompted mass-vaccination campaigns and border closures.[67] As of March 2023, the COVID-19 Data Repository by the Center for Systems Science and Engineering at Johns Hopkins

University recorded Indonesia's cumulative total at 6,760,449 confirmed cases and 158,533 deaths, among the highest absolute figures among the ten ASEAN member states (AMS) but in the mid-range among its neighbors on a per capita basis.[68]

Drought

In Indonesia, El Niño–driven drought periodically deepens water scarcity and heightens agricultural loss. Climatological analysis shows that during El Niño years on Java, hydrological deficits are exacerbated because the dry season can start 20–30 days early and extend months longer than average.[69] In August 2023, Central Java villagers dug into dry riverbeds to extract brackish water after four consecutive rainless months.[70] Meanwhile, southern Kalimantan and Sumatra saw reservoir levels plummet, forcing water rationing and sparking conflicts over water rights. Drought also primes peatlands for smoldering fires. Strengthening water-storage infrastructure, modernizing irrigation systems, and promoting drought-resilient crops are urgent adaptations to mounting dry-season extremes.

Earthquakes

Straddling the Sunda–Banda and Philippine Sea subduction zones, Indonesia records hundreds of tremors annually. Major events—such as the moment magnitude (Mw) 7.5 Palu-Sigi quake and tsunami cascade in September 2018 (4,340 deaths),[71] and the Mw 6.9 Lombok seismic sequence in August 2018 (436 deaths)[72]—demonstrate the lethal interplay of seismic shaking, liquefaction, and infrastructure vulnerability. Even moderate quakes, like the temblor that struck Cianjur (Mw 5.6) in 2022, can be disastrously amplified by poor building practices and landslide risk. Sustained investment in seismic-resistant construction, community drills, and redundant early warning buoys is essential to mitigate the next deadly event.

Flooding

Flooding remains Indonesia's most pervasive hazard, striking every province from Aceh to Papua. Heavy monsoonal rainfall regularly pushes rivers, canals, and storm drains beyond capacity. Urban growth, deforestation, and land subsidence magnify the problem by turning routine high-water events into disasters that overwhelm megacities. The January 2020 Greater Jakarta floods, the city's worst in over a century, saw 377 mm (14.8 in) of rain in 24 hours; they displaced 174,000 people and caused IDR 11 trillion (US$660 million) in damage.[73] In May 2024, flash floods in West Sumatra killed 43 people, left 15 missing, cut roads in three districts, and prompted rapid deployment of army engineers.[74] Recurring inundation on Java's north coast and Kalimantan's river basins underscores the need for watershed restoration, enhanced retention infrastructure, and impact-based forecasting that warns of "flood-depth-at-your-door" rather than generic alerts. A recent World Bank analysis finds that at least 110 million residents across 60 Indonesian cities are regularly exposed to flooding, with informal settlements in low-lying sub-districts bearing the brunt of events.[75]

Landslides

Indonesia's steep, deforested uplands are prone to both rain-triggered and seismic-induced landslides. In May 2024, torrential rains around Mount Merapi in West Sumatra unleashed lahars (mud flows) that buried 43 villagers and overran homes.[76] Similarly, the November 2022 Cianjur earthquake killed 272 people, many when destabilized slopes collapsed onto villages amid aftershocks and heavy rain.[77] Deforestation for agriculture and illegal logging exacerbates slope failure and turns localized slides into mass-movement disasters. Effective slope stabilization, reforestation, and localized early warning systems remain critical to protect at-risk communities living on or below steep terrain.

Storms and Tropical Cyclones

Tropical cyclones are comparatively rare in Indonesian waters, even though the archipelago sits between two of the world's most active cyclone basins—the northwest Pacific to the

north where neighbors like the Philippines are impacted, and the southwest Pacific to the east where island states like Vanuatu are impacted. The primary physical reason is Indonesia's geographic location; most of the country lies between 10°N and 10°S, a belt where the Coriolis force is too weak to sustain the organized rotation required for tropical cyclone inception.[78]

Historical records compiled by Indonesia's Meteorology, Climatology and Geophysics Agency (Badan Meteorologi, Klimatologi, dan Geofisika, or BMKG) show that, since 1900, fewer than 20 named systems have either formed within or tracked directly across the archipelago.[79] Those storms that do make landfall in Indonesia typically arise from monsoon-trough interactions or Madden–Julian Oscillation pulses that briefly push vorticity south of 10°S and allow intensification before the cyclone moves into the Indian Ocean.

The rarity of such events means that Indonesia's local building codes, early warning protocols, and community awareness are all calibrated primarily for floods, landslides, and seismic hazards; when a cyclone does occur, as in Seroja's 2021 landfall that killed 181 people, it often produces outsized disruption relative to its meteorological strength.[80]

Tsunamis

Although most tsunamis follow large earthquakes, submarine landslides can generate "silent" waves. The December 2015 Sunda Strait tsunami was triggered by the partial collapse of the volcano island Anak Krakatau; without a perceptible quake, the wave killed 430 people across Java and Sumatra and inundated 400 ha (900 acres) of coastline.[81] The 2018 Palu tsunami—arriving just 10 minutes after an Mw 7.5 earthquake—claimed 1,047 lives, with many residents unaware of the threat due to damaged warning buoys.[82] Strengthening near-field tsunami-detection networks and community-led evacuation mapping is critical to saving lives from such rapid-onset waves.

Volcanoes

Home to 126 active volcanoes, Indonesia faces frequent eruptions ranging from low-hazard ash plumes to catastrophic pyroclastic flows. The December 2021 eruption of Semeru sent hot clouds down the mountain's slopes; the event killed 22 people and injured 56.[83] In April 2024, Ruang's Volcanic Explosivity Index-3 blast forced the evacuation of 12,000 residents and halted flights for days.[84] These episodes underline the value of multi-parameter monitoring (seismic, gas, deformation), community evacuation drills, and protection of vulnerable island populations. The Multiplatform Application for Geohazard Mitigation in ASEAN (MAGMA) Indonesia is a web-based platform developed and maintained by Indonesia's Centre for Volcanology and Geological Hazard Mitigation (Pusat Vulkanologi dan Mitigasi Bencana Geologi, or PVMBG). It launched in 2020 to provide integrated, near–real-time monitoring of volcanic and seismic activity. Since its inception, MAGMA Indonesia has significantly enhanced geo-hazard transparency and responsiveness. The MAGMA Indonesia dashboard is shown in Figure 5. According to a Pacific Disaster Center (PDC) baseline assessment, the portal's VONA system - accessible at *https://magma.vsi.esdm.go.id/vona/* - issues an average of 2–3 ash–plume alerts per week, and this system reduces warning-dissemination delays from hours to minutes.[85]

Wildfire

Peat and forest fires, fueled by drainage-induced peat oxidation, spark annual health and climate crises in Indonesia and regionally. The 2015 peat-fire season burned 2.6 million ha (6.4 million acres) and caused what the WHO estimated were 100,000 premature deaths regionally.[86] Subsequent interventions (peat-dome rewetting, moratoriums) have reduced area burned but not eliminated risk; the year 2019 saw renewed hotspots in South Sumatra and West Kalimantan. Robust enforcement of land-use regulations and community-based fire patrols remain vital to break the recurrent haze-fire cycle.

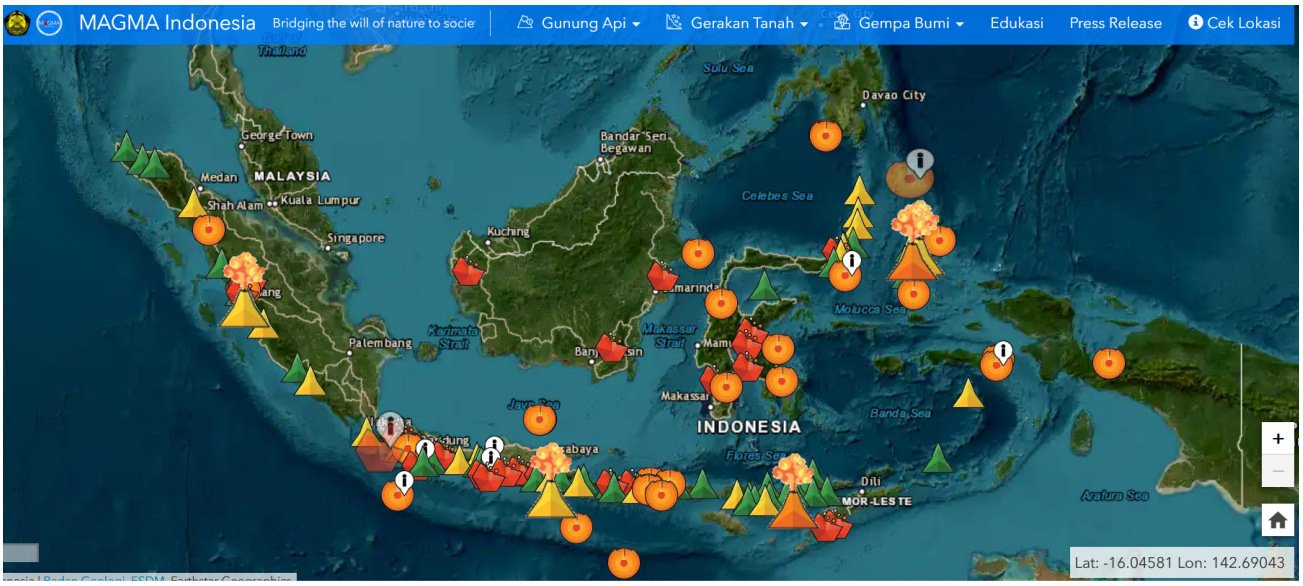


Figure 5: MAGMA Indonesia Portal

Climate Change

Climate change is set to amplify Indonesia's hazard profile in the forms of heavier rains and floods, deeper droughts, higher seas, and more frequent heat extremes, and these effects will increase disaster risk across the archipelago.

Looking back in EM-DAT's historical record for Indonesia, there is a clear increase in the number of reported hydrological disasters. Floods and wet landslides made up about one-third (65 disasters) of events in 2000-2007 but made up significantly greater proportions in the two succeeding periods (2008-2015 and 2016-2023). Indeed, they made up almost three-fifths (108 disasters) during the 2016-2023 period, as illustrated in Figure 6.

Several dynamics appear to be driving this trend:

1. The atmosphere itself is wetter; a BMKG climatology review found a 7% rise in "extreme-rain days" over Java and Sumatra after 1990, a signal consistent with warming-ocean moisture.[87]
2. Rapid land-use change is magnifying runoff; peri-urban Java lost an estimated 21% of its upstream forest cover between 2000 and 2020, while paved area doubled. The impact of these changes means rainfall funnels into rivers that were engineered for mid-20th-century flows.[88]
3. Subnational reporting has become more common; Law No. 24/2007[89] created district-level disaster departments and a national reporting template, and as these subnational agencies grew more proficient, the share of events reported and captured with usable data fields in the EM-DAT has risen.[90]

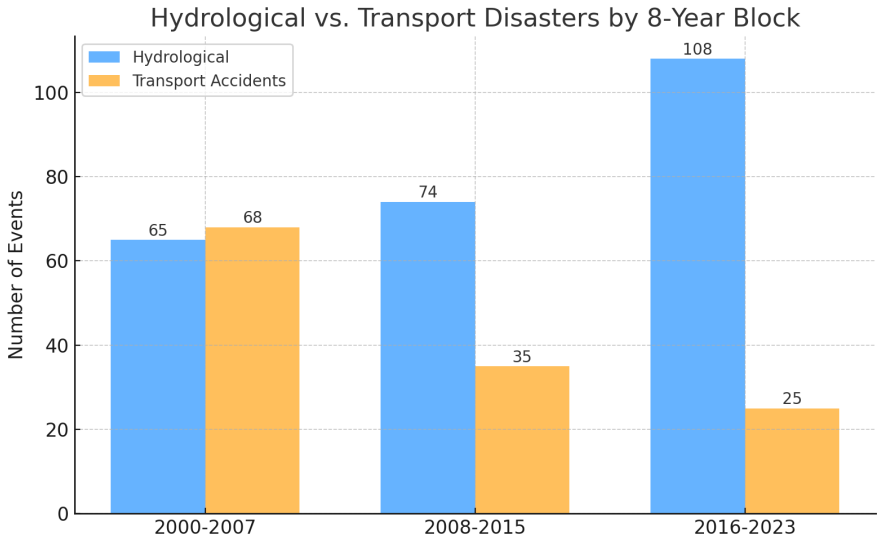


Figure 6: Trends in Hydrological and Technological Disasters (2000-2023)

Indonesia's climate future hinges on the volume of greenhouse gas humanity releases. The Intergovernmental Panel on Climate Change's (IPCC) four Representative Concentration Pathways (RCP) map out different warming scenarios for this century by tracking how much extra heat the atmosphere traps, measured in watts per square meter (W/m^2). Under RCP2.6, or 2.6 W/m^2 radiative forcing—a pathway with strong emissions cuts—warming would peak around 1.5°C above pre-industrial levels by 2100. Intermediate (moderate cuts in greenhouse gases) scenarios RCP4.5 and RCP6.0, or 4.5 W/m^2 and 6.0 W/m^2 radiative forcing, respectively, would see 2.4°C and 2.9°C of warming, respectively, while RCP8.5 (8.5 W/m^2), a "business-as-usual" path with little mitigation, could push Southeast Asia up to 4.7°C hotter by century's end.[91]

Regional studies suggest Southeast Asia—including Indonesia—will warm at rates comparable to or slightly above the global mean, and these projections imply end-of-century warming of approximately 1.6°C, 2.6°C, 3.1°C, and 4.7°C under RCPs 2.6 through 8.5, respectively. Because warmer air holds more moisture, even if total rainfall stays constant, the heaviest downpours will grow more intense. Over Southeast Asia, by 2081–2100, what used to be a once-in-100-year storm could drop 5% more rain under RCP2.6, 8% more under RCP4.5, 10% more under RCP6.0, and 16% more under RCP8.5. For Indonesia's flood-prone islands and sinking cities, that increase means more frequent and deeper floods that overwhelm rivers and drainage systems set up for yesterday's climate.[92]

Rising seas add another layer of risk for Indonesia's long coastlines and low-lying deltas. Even under the strongest greenhouse gas reductions (RCP2.6), global mean sea level is expected to climb 0.24 meters (m; 9.4 in) by 2100; under RCP8.5, it could be 0.32 m (12.6 in) higher. Local subsidence—especially around Java Bay and Kalimantan's river basins—may double that rise, flooding towns, contaminating wells with saltwater, and eroding protective mangrove forests. Many coastal communities may face what used to be a once-in-100-year flood every year by mid-century if they do not shore up their defenses.[93]

Heat and drought will increase as well. Strong El Niño years already bring longer dry spells in Java and Sumatra, and after 4°C of warming, meteorological droughts are likely to become more severe in Southeast Asia. Meanwhile, "hot days" (when daytime highs exceed the 95th percentile of historical records) and "hot nights" are virtually certain to become more frequent with every degree of warming. That effect means more heat emergencies for outdoor workers, greater stress on power grids and water supplies, and higher risk of peat fires that produce toxic haze.[94]

History of Recent Natural Disasters

The following are details of major natural disaster events in Indonesia over the past 10 years.

Ruang Volcano Eruption – 17 – 30 April 2024

Ruang volcano erupted explosively on 17 April 2024. It sent ash 5 km (4.3 mi) high and generated volcanic lightning. PVMBG raised the alert to Level IV and ordered the evacuation of 12,000 residents from Ruang and Tagulandang islands. Sam Ratulangi International Airport closed for 96 hours, and 140 flights were disrupted. BNPB distributed 50,000 N95 masks, deployed mobile seismographs, and issued a tsunami advisory due to sector collapse fears.[95]

Cianjur Earthquake – 21 November 2022

An Mw 5.6 rupture struck Cianjur Regency at only 11 km (6.8 mi) depth. Despite the quake's moderate magnitude, brittle brick housing and classrooms collapsed; 162 people were killed and 326 were injured. More than 58,000 homes suffered damage across 16 subdistricts. BNPB sent 1,700 tents and ran cash-transfer pilots with the Indonesian Red Cross (Palang Merah Indonesia, or PMI). The quake was West Java's deadliest since 2006 and spurred renewed calls

for stricter enforcement of the Indonesian Seismic Code for construction in peri-urban districts south of Jakarta.[96]

Tropical Cyclone Seroja – 5 April 2021

Cyclone Seroja spun up west of Timor, then tracked unusually southeast to make landfall near Kupang, the capital of East Nusa Province in southern Indonesia. Floods and landslides killed 179 people, injured 659 people, and damaged 60,000 homes. BNPB ferried engineering units among 12 islands; the Australian Medical Assistance Team (AUSMAT) supplied reverse-osmosis units; and the U.S. Agency for International Development's Bureau for Humanitarian Affairs (USAID/BHA) released US$1 million in shelter grants. With economic losses of IDR 4.4 trillion (US$261 million), Seroja became Indonesia's costliest cyclone but also validated BMKG's upgrade of its cyclone-tracking radar on Flores Island.[97]

Greater Jakarta Floods – 1-5 January 2020

A stalled monsoon cell produced Jakarta's heaviest 24-hour rainfall since 1866. Halim Airbase in southeastern Jakarta registered 377 mm (14 in) of rain in that period. Floods up to 2 m (6.5 ft) in depth killed 53 residents, disrupted commuter rail, and displaced 174,000 people across the megacity. BNPB pumped tunnels and issued its first cell-broadcast warnings via the new InaRISK platform. Preliminary damage topped IDR 11 trillion (US$660 million).[98] The floods reignited debate over the city's subsidence. Jakarta is sinking at a rate that varies across the city, with some areas experiencing a decline of 1-15 centimeters (0.39-5.9 in) per year, and others reaching 20-28 centimeters (7.87-11 in) per year. In parts of North Jakarta, the ground has sunk as much as 2.5 m (8.2 in) in 10 years.[99]

Flash Floods – 16-17 March 2019

Torrential night-time rain over the Cyclops Mountains in Papua sent debris-laden torrents through Sentani. Within hours, 112 people were dead, 90 were missing, and 11,000 were displaced; entire hamlets were buried under 3 m (9.8 ft) of rock. Situation Reports from the ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management (AHA Centre) noted that slope erosion linked to illegal logging magnified the landslide load. The Indonesian army installed Bailey bridges within 72 hours, while the UN Office for the Coordination of Humanitarian Affairs (OCHA) opened a sub-office at Jayapura airport to coordinate airlifts. Though smaller in scale than previous floods, the Sentani flood highlighted the vulnerability of Papua's rapidly expanding peri-urban settlements.[100]

Sulawesi (Palu) Earthquake, Liquefaction, and Tsunami – 28 September 2018

An Mw 7.5 strike-slip quake ruptured the Palu-Koro fault off Sulawesi. It triggered a 4-7-m (13-22-foot [ft]) tsunami and catastrophic soil liquefaction. Entire neighborhoods in Palu and Sigi were swallowed. The number of confirmed dead was 4,340, with up to 5,000 missing, and total reported losses topped US$1.76 billion. BNPB's search and rescue effort drew 35 international Urban SAR teams. The scope and scale of destruction meant that the Palu events were Indonesia's deadliest disaster since 2004, and they prompted a redesign of the national tsunami early warning buoys, many of which had been vandalized.[101]

Within 24 hours of the quake, the AHA Centre activated the ASEAN Joint Disaster Response Plan (AJDRP) and deployed a 25-member ASEAN Emergency Response and Assessment Team (ASEAN-ERAT) to Central Sulawesi. Working alongside BNPB, the ASEAN-ERAT established the Joint Operations and Coordination Centre for International Assistance (JOCCIA) at Palu Airport and at the Balikpapan staging hub, which served as the single clearinghouse through which Indonesia vetted more than 29 foreign government offers and 102 NGO offers of assistance in the first week.[102] The AHA Centre also mobilized successive airlifts of tents, generators, and hygiene supplies from the regional Disaster Emergency Logistics System

for ASEAN (DELSA) stockpile—an ASEAN-branded cache pre-positioned in Subang, Malaysia. The first batch of two warehouse tents and 200 family tents arrived aboard an Australian C-130 four days after the tsunami.[103]

Alongside other international responders, the USAID Office of Foreign Disaster Assistance (OFDA, latterly BHA) provided an initial disbursement of funding to World Vision and deployed a team of disaster response experts to coordinate U.S. response efforts and conduct damage assessments. USAID requested US Indo-Pacific Command (INDOPACOM) military support in the form of three C-130J Super Hercules cargo aircraft, which delivered over 594 metric tons (655 tons) of relief, transported USAID disaster responders and associated international aid workers, and assisted in the evacuation of displaced civilians from the disaster zone as depicted in Photo 2.[104]



Photo 2: U.S. Military Evacuates Civilians during Sulawesi Earthquake Response Operations

By mid-October, ASEAN-ERAT staff were tracking incoming relief in mobile storage units, hosting UN OCHA, International Federal of Red Cross and Red Crescent Societies (IFRC) personnel, and MapAction within the JOCCIA, and feeding common operating-picture data to national and international actors.[105] The Palu mission marked the largest real-world activation of ASEAN's humanitarian architecture since the AHA Centre's 2011 establishment and demonstrated the value of a regional, government-to-government facilitation node in reducing customs bottlenecks, de-conflicting foreign military assets, and amplifying Southeast Asian solidarity.[106]

Lombok Earthquake Sequence – July-August 2018

Between 29 July and 19 August 2018, Lombok endured a cascade of Mw 6.4, 6.9, and 6.9 ruptures along the Flores Back-Arc Thrust. The quakes toppled 85,000 buildings, displaced 435,000 residents, and claimed 436 lives. Economic losses reached IDR 5.04 trillion (US$350 million) and paralyzed the island's tourism industry in peak season. BNPB deployed 4,600 soldiers and engineers. Australian and Singaporean C-130s delivered shelter kits sourced from ASEAN's standby arrangement. This series of quakes was Lombok's worst seismic crisis since 1977 and, coming weeks before the Palu tragedy, signaled a particularly active year on the Sunda-Banda arc.[107]

Tropical Cyclone Cempaka – 27 – 29 November 2017

Cyclone Cempaka, a rare near-equitorial storm, meandered off Java's south coast with sustained winds of 65 km per hour (40 mi per hour). Although never stronger than a minimal tropical storm, Cempaka stalled on its track and dumped approximately 300 mm (11 in) of rain in 24 hours. Floods and mudslides killed 11 people, destroyed 1,900 homes, and forced 4,000 evacuations in Gunung Kidul and Pacitan. BNPB helicoptered food to villages cut off by washed-out bridges. Cempaka was Indonesia's first named cyclone since 2010 and, together with 2021's Seroja, demonstrated how a warming ocean may allow more storms to intensify within the 10°S latitude belt traditionally considered cyclone free.[108]

Aceh (Pidie Jaya) Earthquake – 7 December 2016

At 5:03 AM local time an Mw 6.5 quake struck Pidie Jaya District, Aceh Province, at a depth of 15 km (9.3 mi). Hundreds of

unreinforced concrete shophouses and four mosques collapsed, killing 102 people and injuring over 700. For five days, rescuers from the Indonesian Army, Basarnas (the national search and rescue agency), and the Aceh Red Crescent worked on the rescue effort; employing sniffer dogs and thermal cameras, they pulled dozens of individuals alive from the rubble in the first day. BNPB set up 45 displacement camps for 85,000 residents, while USAID/OFDA airlifted hygiene kits and generators. Though moderate in magnitude, the shallow, strike-slip quake produced Aceh's greatest losses since the 2004 tsunami in a demonstration of lingering structural vulnerabilities. Damage assessments estimated IDR 1.9 trillion (US$113 billion) in reconstruction needs, largely for housing and schools. The quake spurred Aceh's first provincial-level building code revision in a decade.[109]

Peat-Forest Fires – August – October 2015

For three months in 2015, El Niño–linked drought dried up Indonesia's peatlands,[110] and subsequent fires scorched 2.6 million ha (6.4 million acres) of forest and plantation land. The haze blanketed six countries and resulted in the closure of 10 airports. It also sent half a million Indonesians seeking treatment for respiratory infections. The World Bank estimated direct and indirect losses at US$16.1 billion or 1.9% of Indonesia's GDP that year. Jakarta declared a national emergency; 22,000 troops and police, aided by waterbombers from Singapore, Malaysia, and Australia, fought the blazes while the UN and ASEAN dispatched air-quality specialists. Regionally, the episode eclipsed the 1997-98 "Transboundary Haze" in terms of economic cost, and it exposed the limitations of moratoriums on peat conversion. This incident remains the costliest environmental disaster in Indonesia's modern record.[111]

Country Disaster 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:

$$\textit{Disaster Risk} = (\textit{Hazard} \times \textit{Vulnerability}) / \textit{Capacity}^{112}$$

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.[113]

In general, the goal of indexing risk is to inform decision makers and DRR and adaptation 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. Collectively these indices help humanitarians and disaster managers make decisions at different stages of the disaster management cycle, specifically climate adaptation and disaster prevention, preparedness, and response.

The INFORM Risk model is based on the standard dimensions of risk outlined above with the exception that coping capacity is expressed as "lack of coping capacity." The first dimension measures the natural and human hazards and population exposed to these hazards. The vulnerability dimension evaluates the relative socio-economic and group strengths and weaknesses of a given country. The lack of coping capacity dimension measures the degree to which institutions and infrastructure of a given country are able (or not) to cope with disasters.[114] INFORM gives each country a risk score of 1-10 (1 being the lowest and 10 the highest) for each of the dimensions, categories, and components of risk, as well as an overall risk score.[115] The higher the score, the more at-risk the country.

In the 2025 INFORM Risk Index, Indonesia had an overall risk score of 4.5/10, which INFORM categorizes as the "Medium" risk class. Looking within the specific risk dimensions depicted in Figure 7, Indonesia's Hazard and Exposure score is 7.1 (27th globally), Vulnerability is 3.4 (111th) and Lack of Coping Capacity is 3.9 (107th). In other words, Indonesia faces high hazard exposure while its vulnerability and coping capacity are moderate. Compared to ASEAN peers, Indonesia is exposed to greater hazards than most but is less vulnerable than some lower-income neighbors (e.g., Myanmar, Cambodia). Its coping capacity, while stronger than the most challenged states, is less robust than the capacities of Singapore and Malaysia.[116]

Indonesian National and Subnational Disaster Risk

The Indonesian Disaster Risk Index (Indeks Risiko Bencana Indonesia, or IRBI), developed by the BNPB, is a tool to assess and categorize the level of disaster risk at the provincial and district/city levels. This index helps determine areas most vulnerable to disasters. It serves as a basis for allocating Special Allocation Funds (Dana Alokasi Khusus) for DM at the local level, according to BNPB.

The IRBI analyzes various components for all of Indonesia's identified major hazards: floods, landslides, earthquakes, tsunamis, volcanic eruptions, drought, extreme weather, coastal erosion, and forest- or peat-fires. First, it maps hazard intensity and frequency by acquiring layers of data from technical agencies such as BMKG for seismic shaking and extreme weather, PVMBG for volcanic threat, and the 1:50,000 national flood and landslide maps produced by the Ministry of Public Works. It then overlays those hazards on three vulnerability sub-indices. The social index relies on BPS village-census data for population density, age, disability, poverty, and gender ratio; the physical index

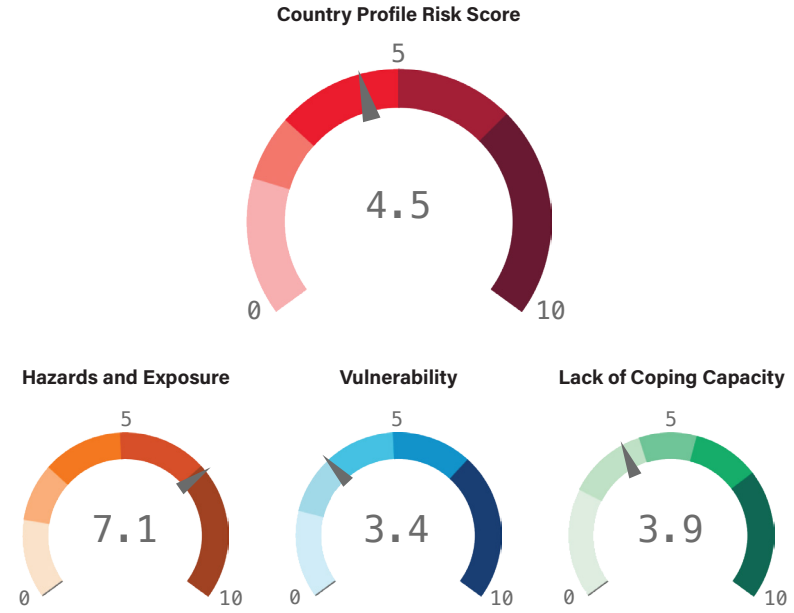


Figure 7: INFORM Risk Dashboard for Indonesia (2025)

values the replacement cost of housing, schools, hospitals, and other critical facilities as drawn from the Public Works asset registry; the economic index uses district-level GDP and land-cover classes supplied by the Ministry of National Development Planning (Kementerian Perencanaan Pembangunan Nasional, or BAPPENAS) and the Ministry of Environment. Each variable is normalized to a 0–1 scale, ranked low/medium/high, and weighted according to an official BNPB matrix – i.e., social 40%, physical 35%, and economic 25%.[117]

A separate capacity score – the Indeks Ketahanan Daerah (IKD, regional resilience index) – is calculated from how many disaster-trained responders, evacuation shelters, early warning devices, and contingency plans exist in a district; BPBDs submit this data based on annual audits. Scores are averaged across all 1-km grid cells inside a district; provincial figures are the mean of their districts' scores so that densely populated areas do not automatically dominate the provincial total. The resulting scale runs from 0 (very low risk) to 250 (very high risk).[118]

On a national level, the mean provincial IRBI score has fallen from about 145 (2019) to 138 (2024). Capacity improvements—early warning system upgrades, Incident Command System rollouts, and the growth of local DM agencies—explain roughly two-thirds of that drop, while hazard and exposure components remained essentially flat. Java and parts of Sumatra benefit most from new structural mitigation projects (check-dams, river normalization), whereas Kalimantan and Papua show rising risk, driven by land-use change that amplifies both flood and fire hazards.[119] The provinces of Sulawesi Barat (160.08) and Maluku (160.03) continue to register the highest composite risk scores, even after slight year-on-year declines. Broadly, high multi-hazard exposure and persistent vulnerability outweigh modest capacity gains in these areas.[120] Papua Tengah, Jambi, and Kalimantan Selatan are the only provinces whose scores rose between 2023 and 2024, and the largest drivers are expanding flood and peat-fire footprints.[121] At the district level, the 2024 ranking shows a very tight cluster of West-Javan districts at the top; Cianjur (250.0), Garut (238.0), Sukabumi (231.2), Lumajang (231.2), and Tasikmalaya (224.8); all of these districts have high exposure to floods and landslides. Outside Java, Halmahera Selatan and Maluku Barat Daya in the Maluku archipelago also exceed 224 on the index, largely because of combined earthquake-tsunami threats. Table 2 provides a breakdown of districts that are hotspots for particular hazards and details some of the drivers of their exposure and trend lines, based on the data in the IRBI.

Hazard	2024 Hotspots (District Level)	Key Drivers	2019–24 Trend
Flood & landslide	West Java's volcanic ridge (Garut, Cianjur, Sukabumi); West Sumatra's Agam & Pasaman Barat	Rapid urban encroachment on steep terrain; deforestation	Slight increase in Java; decrease in parts of Sumatra after slope-stabilization projects
Earthquake	West Sumatra coastal belt; Maluku (Halmahera Selatan); Papua north coast	Megathrust and strike-slip faults	Composite hazard scores essentially stable
Tsunami	Mentawai Islands; Maluku Sea; south Java littoral	Proximity to subduction zones	Minor rise in risk where new shoreline settlements recorded
Volcanic eruption	Lumajang (Semeru), Sleman (Merapi), North Sulawesi (Siau Tagulandang)	Persistent dome-growth and lahar systems	No significant change
Drought & peat/forest fire	Central & West Kalimantan, South Sumatra, East Nusa Tenggara	El Niño 2023–24 plus peat drainage	Marked increase (5-8 index points) since 2021

Table 2: Indonesia Subnational Disaster Hazard Hotspots

ORGANIZATIONAL STRUCTURE FOR DISASTER MANAGEMENT

Directly subordinate to the President,[122] the BNPB is the national focal point for government institutions with a stake in DM. The DM focal points for provinces, districts, and cities are the BPBDs.[123] BNPB was established in 2008, and by March 2023, 34 of Indonesia's 38 provinces had established their BPBDs; the remaining four provinces were newly created from one larger province. Also as of 2023, 481 of 514 districts and cities had established local BPBDs.[124]

BNPB coordinates preparedness, prevention, mitigation, and response, and it directs and manages national disaster risk management (DRM). BNPB's DM Steering Committee integrates various national stakeholder agencies, including the TNI and POLRI.[125] Alongside BNPB, the BAPPENAS and local agency for planning and development (BAPPEDA) play key roles in DRR based on their authorities over development and land-use planning.[126]

Under the foundational DM law from 2007 and subsequent BNPB Head Regulations, international and domestic NGOs, private-sector entities, and other stakeholders can gain a formal place within the DM structure if they adhere to national policies, account for their activities, and follow humanitarian principles. To participate in local and national responses, CSOs and NGOs may be required to enter a contractual arrangement.[127] The National Coordination Meeting on Disaster Management (Rapat Koordinasi Nasional Penanggulangan Bencana, or Rakornas PB) is an annual event that brings together national ministerial and government agencies, local DM agencies, and non-government stakeholders. It sets the broad focus for the year for various DM work programs – e.g., technology adoption or localization.[128] In recent years, the Government of Indonesia has worked to institute the "pentahelix" approach to integrate government and non-government actors within the national DM system. The objective is to ensure appropriate policies and resources for DRR and response activities by all stakeholders, especially local ones who can mobilize local, traditional knowledge and local resources. The objective is for "pentahelix" stakeholders – government, private sector, academia, mass media, and CSOs or the community – to engage in collaborative governance of DM under the leadership of BNPB.[129]

Lead Government Agencies in Disaster Response

BNPB consists of its Head, a DM Steering Committee, and the DM executing body. The Steering Committee advises the BNPB Head and is responsible for policy development as well as for monitoring and evaluation of operations.[130] The Committee integrates government officials and community members or professionals with relevant expertise or a stake in DM.[131] The executing body commands and controls DM operations.[132] It is made up of BNPB's directorates and sections, including the Chief Secretariate, Chief Inspectorate, and operations units.[133] Figure 8 shows the organizational structure of BNPB.[134]

BNPB formulates policies for DM and coordinates implementation of DM activities to ensure they are planned, integrated, and comprehensive. The agency's duties are:

- Providing guidance and direction for the full scope of DM activity – prevention, response, rehabilitation, and reconstruction – to be conducted in a fair and equitable manner
- Determining needs for standardized implementation of DM based on laws and regulations
- Conveying information on DM activities to the public

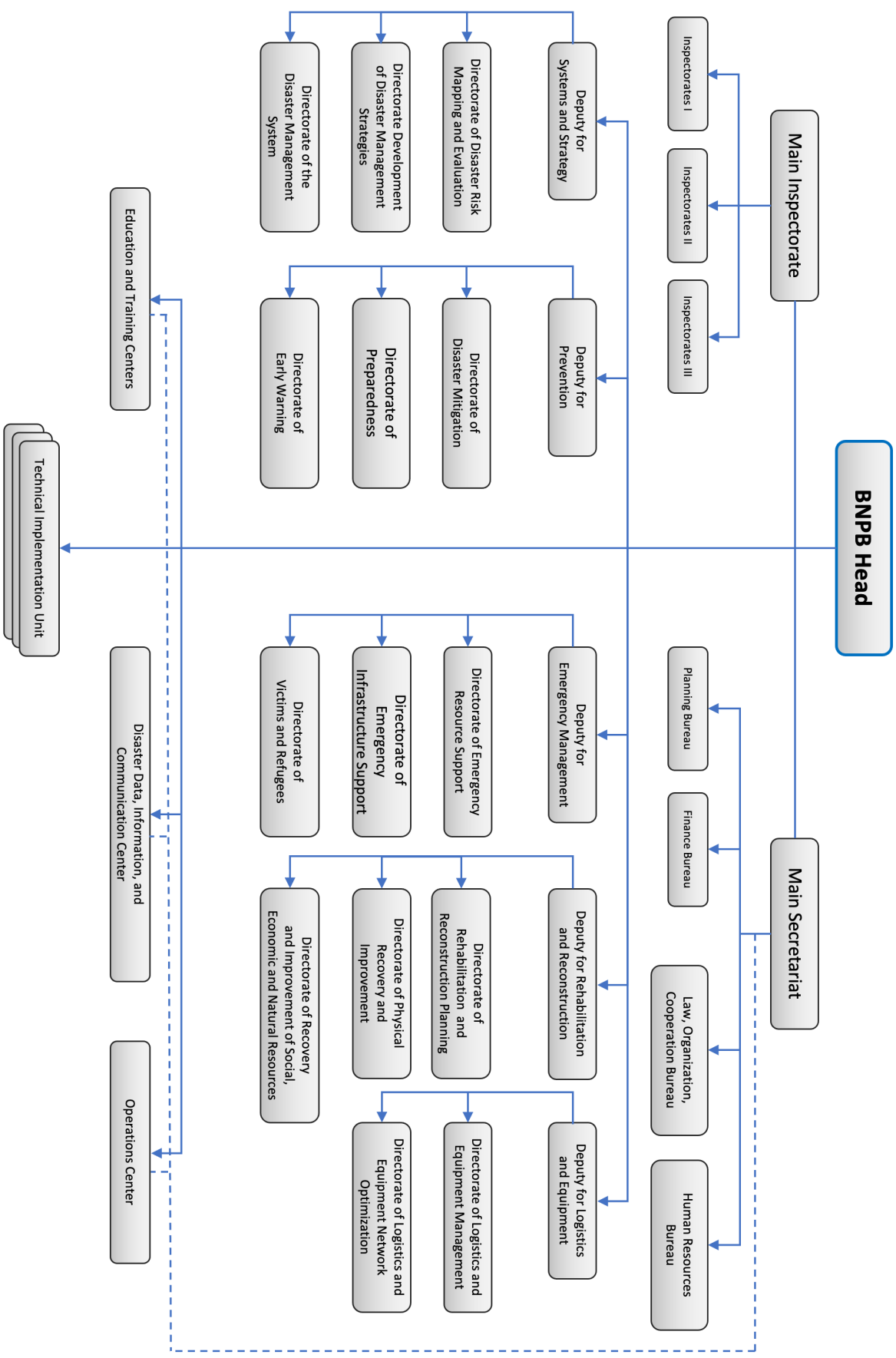


Figure 8: Organization Structure of BNPB

- Reporting to the President on implementation of DM – monthly under normal circumstances or at any time during an emergency
- Using and accounting for national and international donations or assistance
- Accounting for the use of the budget received from the State Revenue and Expenditure Budget
- Carrying out other obligations in accordance with laws and regulations
- Compiling guidelines for the establishment of BPBDs[135]

The national emergency operations center (EOC), the Pusat Pengendalian dan Operasi Penanggulangan Bencana (PUSDALOPS-PB), is at BNPB's headquarters.[136]

The Head of BNPB has authority to certify international institutions and foreign NGOs to participate in DM within the country, and it coordinates all donations, funding, or other monetary assistance. These activities are conducted by the Division of Cooperation under the Law, Organization, and Cooperation Bureau.

Under the Logistics and Equipment Directorate, BNPB maintains inventories of DM equipment and supplies. BNPB's disaster stockpiles are concentrated on Java, where there are 10 stockpiles; the remainder are in Kalimantan (1), the Maluku Islands (3), Lesser Sunda Islands (2), Western New Guinea (3), Sulawesi (8), and Sumatra (4). BNPB also set up 12 regional Technical Operational Units (UPT) with attached warehouses; each UPT serves multiple provinces.

The BNPB Training Center (PUSDIKLAT PB) maintains a database, SIDIKLAT, with details of staff certifications on DM-specific skills and competencies. PUSDIKLAT PB was established in 2009 to coordinate and implement education and technical training across. It falls under the Indonesian Disaster Relief Training Ground (INA-DRTG), which also trains personnel and conducts exercises on DRR issues. INA-DRTG is in Bogor, West Java, and non-BNPB agencies, institutions, and organizations – including the private sector and civil society – have access to this training complex and its courses.[137]

Disaster and Emergency Response

Disaster response activities are directly carried out by regional BPBDs, which have three functions – i.e., coordination with other levels of the government, command and control over early warning systems (EWS), and spatial planning and determination of "Disaster-Prone Areas." BPBDs maintain a dedicated, purpose-built EOC. Each BPBD EOC has the capacity to operate 24-hours-a-day, 7-days-a-week, when activated for a major disaster.[138]

BNPB's Deputy for Emergency Management is tasked with national-level oversight of disaster operations. The PUSDALOPS-PB can activate with no notice to conduct this oversight and manage high-level coordination.[139]

In the event of an emergency, municipalities are the first responders. When an event exceeds their capacity, they request assistance from higher levels of authority.[140] BNPB's Rapid Reaction Unit (Satuan Reaksi Cepat-Penanggulangan Bencana, or SRC), which integrates staff from TNI and POLRI, multiple ministries, and major NGOs, can deploy to support a regional government or BPBD to which it delivers technical assistance, equipment, and logistical support. Additional immediate surge capacity comes from civil society and other government agencies. PMI personnel are trained and on-call to conduct rapid assessments and deliver water-sanitation-hygiene (WASH) services, shelter, health and medical, and psychosocial services. The Ministry of Social Affairs can also deploy Disaster Preparedness Cadets (Taruna Siaga Bencana, or TAGANA) upon declaration of a state of emergency.[141]

The national SAR agency is Basarnas, which reports directly to the President. Under Law 29/2014, the Search and Rescue Act, Basarnas is tasked with SAR operations nationally for all types of emergencies – e.g., air accidents, maritime distress calls, and disasters – and

it conducts community education on safety and evacuation procedures as part of DRR efforts.[142] The Basarnas command center is an integrated facility for coordination, control, and monitoring of operations.[143] Basarnas maintains 43 regional SAR offices across the archipelago. Its equipment includes various fixed- and rotary-wing aircraft, all equipped with critical SAR equipment. Basarnas' regional offices all have direct links to the BMKG, which delivers bulletins and assessments to Basarnas for pre-planning when early detection systems note a potential seismic, volcanic, or other hazard event.[144] Basarnas and PMI share links for SAR training. Moreover, Basarnas cooperates directly with SAR units from Australia, India, Malaysia, Papua New Guinea, the People's Republic of China (PRC), Singapore, Sri Lanka, the U.S., and Vietnam, among others.[145] Basarnas' Indonesia SAR Team (INASAR) is a 61-person "medium" capacity urban search and rescue (USAR) team. It gained classification in 2019 from the International Search and Rescue Advisory Group (INSARAG), which delivers the INSARAG External Classification (IEC) system to ensure that USAR teams' operational capabilities are described in standardized ways. The "medium" classification means that the USAR team comprises five components – management, search, rescue, medical, and logistics – and has the ability to conduct complex technical SAR operations in collapsed or failed structures of heavy wood or reinforced masonry, including structures reinforced or built with structural steel. They must also conduct rigging and lifting operations. A "medium" USAR team is expected to have the operational capability to work only at one worksite.[146]

Domestic and international NGOs, businesses, and other community stakeholders may be formally integrated into the government response system, including through contractual arrangements to participate in the incident command system (ICS). Numerous private-sector entities, NGOs, media organizations, and other stakeholders maintain Memoranda of Understanding (MoU) with BNPB for various aspects of the DM cycle.[147]

BNPB and the BPBDs have been incorporating ICS structures, procedures, and practices into their responses. The Disaster Response Command System (Sistem Komando Penanggulangan Darurat Bencana, or SKPDB) is the national ICS. NGOs and the private sector are integrated into the SKPDB, and those NGO or private-sector staff who have completed courses with PUSDIKLAT PB are maintained in a database of trained and ready personnel to respond.[148] Under BNPB regulations establishing the SKPDB, the executing hierarchy is the Disaster Response Task Force (DRTF), which activates an on-site command post and oversees a response. Figure 9 shows the DRTF structure.[149]

Indonesia has also established a cluster coordination structure through Head of BNPB Decree 174/2014, concerning National Cluster for Disaster Management. Nationally, there are eight clusters.[150] Each cluster is coordinated by a national government focal point agency with support from other national and international agencies, as listed in Table 3.[151]

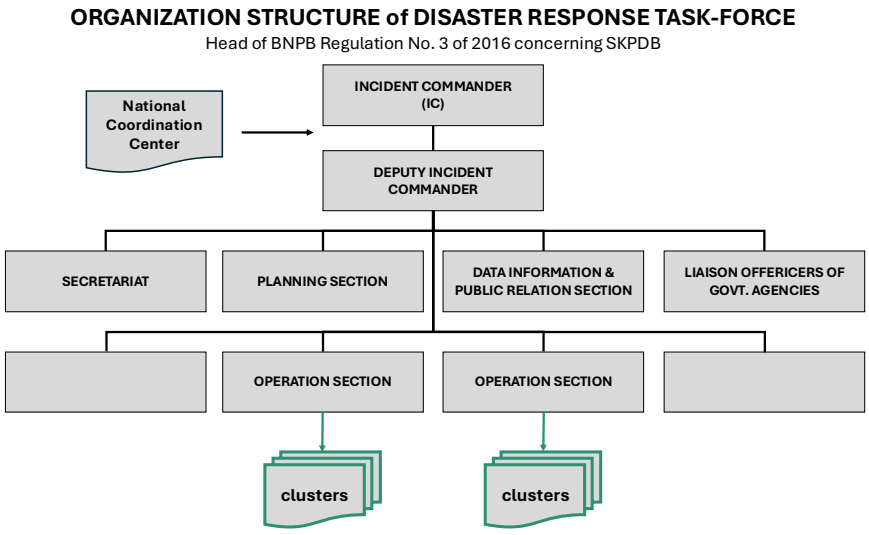


Figure 9: On-Site Command Post Organization Structure

Cluster	National-Level Coordinator	Co-Coordinator	Supporting International Agencies
Search and Rescue	Basarnas	TNI	UN OCHA
Logistics	BNPB	Ministry of Social Affairs	World Food Programme (WFP)
Displacement and Protection	Ministry of Social Welfare	POLRI	International Organization for Migration (IOM), IFRC, UN Children's Fund (UNICEF), UN High Commission on Refugees (UNHCR), and the UN Population Fund (UNFPA)
Education	Ministry of Education	Ministry of Religious Affairs	UNICEF and Save the Children
Early Recovery	Ministry of Interior Affairs	BNPB	UN Development Programme (UNDP)
Economic Recovery	Ministry of Agriculture	Ministry of Cooperatives and Small and Medium Enterprises	Food and Agriculture Organization (FAO)
Structures and Infrastructure	Ministry of Public Works and Housing		WFP and IFRC
Health	Ministry of Health	Pusdokkes POLRI (National Police Health Centers)	WHO and UNICEF

Table 3: Response Cluster Coordinating Agencies

For interagency management related to lead agencies for clusters, a DRTF will integrate representatives of each national and regional agency, provincial governments, and international assistance coordinators.[152] The SKPDB components include an operational control unit, the Disaster Response Management Post (PBD), as well as field PDBs, which are the operational execution units, and the national coordination center (NCC), which is usually housed at the provincial level and provides coordination between BNPB and lower-level units. At the district or city level, SKPDB can establish a provincial coordination center unit that delivers coordination between Provincial BPBDs and responders.[153]

Armed Forces Role in Disaster Response

Per Government Regulation 21/2008, the President may call upon the TNI for support during an emergency.[154] There have been cases where TNI area commanders were called upon to assist BPBDs without a national disaster declaration, but lines of command and communication are unclear in these circumstances.

Law 34/2004, the Tentara Nasional Indonesia Act, spells out 14 tasks for the national military. One of these tasks is to conduct operations in support of disaster relief and refugee or humanitarian assistance, and the TNI must, therefore, maintain the capacity – staff, equipment, and standards – to conduct such operations.[155] The law specifies roles, especially supporting SAR, that the TNI will execute in coordination with BNPB and other agencies.[156] Moreover, since Basarnas has an explicit SAR mandate, the TNI and Basarnas are required to collaborate, coordinate, and even integrate for some operations.

The TNI headquarters and BNPB share responsibility for the decision to activate the SRC, which has been formed at the national level with membership from across the national-level inter-agency. The SRC is ready to immediately deploy when a disaster occurs. At its core is TNI's Quick Reaction Strike Force (Pasukan Pemukul Reaksi Cepat, or PPRC),[157] which formed initially in 1985 and comprises personnel and resources from the army, navy, and air force.[158] Command of the PPRC and its primary units rotate among the forces. The PPRC is primarily tasked with quick reaction to an armed threat within the national territory, but its capacity means that it can swiftly travel to any part of the archipelago to address security threats, including impending or actual damage to vital assets from a large-scale hazard event.[159]

The TNI commander sits on the BNPB

Steering Committee.[160] BNPB has also signed an MoU with the TNI and several MoUs with the Ministry of Defense to facilitate overall DM cooperation. Under these agreements, the TNI has begun to play a larger role in mitigation, preparedness, and training activities.[161] Based on BNPB's framework for inter-agency DM activity, the TNI's roles are spelled out in Table 4.[162]

Disaster Management Partners

As the "pentahelix" approach to DM continues to develop, it relies on key BNPB regulations, which have introduced the roles and regulations for non-government involvement. Those regulations that specifically promote non-government involvement are:

- Head of BNPB Regulation No. 11/2014 on Community Participation in Disaster Management
- Head of BNPB Regulation No. 12/2014 on Private Sector Participation in Disaster Management
- Head of BNPB Regulation No. 13/2014 on Gender Mainstreaming in Disaster Management
- Head of BNPB Regulation No. 14/2014 on Handling, Protection, and Participation of People with Disability in Disaster Management

In addition, Head of BNPB Decree No. 173/2014 on National Clusters in Disaster Management has been used to consolidate the "pentahelix" actor groups within the disaster response phase by mapping out which helix stakeholder fits in which cluster based on capacity.[163] Because of the highly contextualized nature of disaster response, the non-government stakeholders within the "pentahelix" vary widely across the archipelago, and each BPBD will have a different constellation of partners for all phases of DM. Some of the key actors in response already participate in DRR "platforms" that bring together government staff, civil society, businesses, academe, mass media, and international institutions. The National Platform (Planas PRB) serves as such a forum at the national level,[164] and most provinces have set up a similar DRR forum platform,[165] although their maturity and usefulness in mobilizing for response are untested.

Based on Regulation 11/2014, local CSOs and NGOs can distribute relief via the central command post or directly to affected communities in coordination with the command post. Some CSOs or NGOs may also be invited to send representatives to the command post. In practice, commanders of different responses have dealt differently with CSOs. Legally, local and national CSOs and NGOs can fundraise in

DM Phase	TNI Roles and Tasks
Pre-Disaster	• Conduct preparedness activities – e.g., SAR training, exercises, education, training, research, development, and resource and capacity building • Contribute to SAR, Logistics, and Infrastructure DRTF cluster working groups
Emergency Alert	• Coordinate SRC alongside BNPB and Public Works Ministry • Supervise, mobilize, and control potential need for military assistance • Plan for meeting the needs of and ensuring the safety of vulnerable groups
Emergency Response	• Provide SAR as requested • Ensure priority is given to the needs and safety of vulnerable groups • Work with Minister of Defense to determine need, eligibility, and approval for foreign military assistance • Attach personnel to all foreign military entities operating in Indonesia • Participate in the SAR, Logistics, Infrastructure, and Education DRTFs
Transition	• Support BNPB and BPBDs, as requested • Continue operations, as needed • Assist in transition to recovery • Ensure priority is given to vulnerable groups in transitional activity • Participate in SAR, Logistics, Infrastructure, and Education DRTFs
Post-Disaster	• Evaluate event • Deliver recommendations for improvement • Provide observations as part of after-action report

Table 4: TNI Roles and Responsibilities in Disaster Management

various ways and put these funds toward their disaster response activities.[166]

Head of BNPB Regulation Number 22/2010 on participation of international agencies and foreign NGOs provides thresholds of damage and need that will trigger requests for international assistance, and it details mechanisms for international assistance, as well as procedures for managing assistance. It also designates representatives from specific agencies to establish Supporting Posts in the event of an emergency.[167]

United Nations

The UN Resident Coordinator (UNRC) in Indonesia leads and gives strategic direction to the UN Country Team (UNCT), which comprises 24 UN system agencies, funds, and programs. During disasters, the UNRC also leads the Indonesian Humanitarian Country Team (HCT), which brings together UN agencies that support humanitarian action, alongside the IFRC, PMI, and national and international NGOs. HCT observers include the International Committee of the Red Cross (ICRC), Doctors without Borders (MSF), the AHA Centre, and UN Department for Safety and Security. UN OCHA serves as the inter-cluster coordinator and liaises with BNPB and coordinating ministries. HCT members offer technical assistance to the national cluster leads.[168]

ASEAN

As an AMS, Indonesia enjoys close partnerships with other AMS. BNPB, in particular, maintains strong relationships with its counterparts through the ASEAN Committee on Disaster Management (ACDM), which also serves as the steering committee for the AHA Centre,[169] hosted at BNPB's headquarters in Jakarta.[170] Through the ASEAN Agreement on Disaster Management and Response (AADMER), signed in 2005, AMS are legally bound to cooperate and collaborate regionally to reduce disaster-related losses and to intensify shared disaster response.[171] Indonesia's BNPB has a particularly close connection to the AHA Centre because of it co-location in Jakarta.

Based on the Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations (SASOP), the DM agencies, militaries, and health sectors of the AMS have described and committed to preparedness and coordination mechanisms. These mechanisms include formal standby arrangements as well as assets and capacities earmarked for immediate deployment across ASEAN in response to a disaster and a subsequent request by a fellow AMS. Two of these key arrangements are the ASEAN-ERAT and DELSA, both of which can be mobilized as part of a collective ASEAN response and are managed by the AHA Centre.[172] There are many Indonesian DM practitioners who have been ASEAN-ERAT trained and who participate in ASEAN-ERAT deployments, including in recent responses to cyclones[173] and the March 2025 earthquake in Myanmar.[174] An additional tool is the AJDRP, the framework plan for mobilizing collective ASEAN assets. Finally, during a response, AMS have access to the AHA Centre's information tools, especially the Web-EOC, which allows AMS to have a common operating picture via which to coordinate response operations.[175]

Muhammadiya Disaster Management Center (MDMC)

"Muhammadiya" is the generic word for Islamic organizations in Indonesia. There is a large network of them across the country. Several Muhammadiya formed an ad-hoc response team after the 2006 Yogyakarta earthquake. Afterward, they began to formalize their disaster-focused network under the national Muhammadiya Central Board and were finally recognized as the MDMC in 2010. The MDMC's work incorporates themes of disaster response, community education, and prevention of damage from future disasters. In addition to work within Indonesia, it has delivered responses elsewhere in the region, especially in the Philippines after Typhoon Haiyan in 2013 and in Myanmar during the height of the refugee crisis in 2016-2017. To

provide response, MDMC relies on its national members as well as regional networks with similar Islamic organizations.[176]

The International Red Cross and Red Crescent Movement

International Committee of the Red Cross

The ICRC is a private, independent humanitarian organization, headquartered in Geneva, Switzerland. The ICRC bases its activities on the provisions of International Humanitarian Law (IHL), and it 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.[177] The ICRC has been active in Indonesia for 80 years. It works with the TNI, policymakers, academics, and CSOs to promote IHL, and it partners with law enforcement bodies to promote international standards in policing. It collaborates across the emergency preparedness spectrum to ensure first responders are trained and prepared to manage various aspects of response. The ICRC office in Jakarta also works with PMI to build that society's capacity as a first responder.[178]

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 Red Cross and Red Crescent Societies ("National Societies"), with the aim of 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.[179] The IFRC Delegation in Jakarta covers IFRC work in Brunei, Indonesia, Singapore, and Timor-Leste, and it represents the IFRC network at ASEAN. It provides support to PMI on strategy and operational coordination, society development, and humanitarian diplomacy. IFRC has delivered support to PMI via various Disaster Response Emergency Fund (DREF) and Emergency Appeal operations after earthquakes, tsunamis, volcanic eruptions, floods, disease outbreaks, and evacuations. Among its key activities, IFRC supports PMI's coordination with and assistance from other National Societies, including the cross-border relationship between PMI and the Timor-Leste Red Cross Society.[180]

Indonesian Red Cross Society / Palang Merah Indonesia

Although its roots stretch back to the Dutch colonial era, PMI was formally established in September 1945 and was immediately involved in delivering assistance to victims of the Indonesian war for independence and in repatriating prisoners of war left from World War II. These efforts helped build toward PMI's recognition as Indonesia's National Society by IFRC and ICRC in 1950. Between 1950 and 1963, Presidential decrees recognized the Society and tasked it with providing first aid to victims of disasters and conflict. In 2018, the government enacted Law No. 1, concerning Red Cross Affairs, which reaffirmed the tenets of the 1949 Geneva Convention regarding Red Cross activities. Based on the law, PMI has eight duties:

- Provide assistance to victims of armed conflict, riots, and other disturbances
- Offer blood services
- Develop and manage volunteers
- Carry out education and training related to Red Cross activities
- Disseminate information about Red Cross activities
- Provide assistance in disaster management domestically and internationally
- Provide health and social services
- Carry out other humanitarian tasks assigned by government[181]

The Disaster Management Division executes PMI's mandate for assisting across the DM cycle, including ensuring swift, effective, and

coordinated response in support of communities affected by all types of hazards. Before a disaster strikes, PMI conducts education and training for communities, prepares volunteers, identifies and maps disaster-prone areas, ensures readiness of facilities and equipment for disaster response, and strengthens partnerships across stakeholders. During a disaster, PMI may establish a command post for coordinating and mobilizing resources; it delivers aid in the form of first aid, evacuation support, health services, temporary shelter, and public kitchens, conducts impact and needs assessments, delivers relief supplies based on assessments, and collaborates with response stakeholders. After a disaster, PMI supports recovery and rehabilitation efforts for victims and for the environment in general, and it delivers long-term support, such as counselling. Finally, it assesses resource and infrastructure needs to ensure readiness for future disasters and evaluates the response for lessons learned and best practices.[182]

There are more than 500 branches of PMI across the country, with 34 chapters at the provincial level and branch offices at the district level. As of 2024, there were more than 300,000 PMI volunteers nationally. PMI maintains six regional and eight sub-regional warehouses at key locations across the archipelago; PMI's national headquarters manages the regional warehouses, and provincial chapters manage the sub-regional warehouses. In partnership with Australia, PMI developed logistic management schemes, training, standard operating procedures, and e-learning systems for management of disaster response stockpiles.[183]

U.S. Government Agencies in Indonesia

The U.S. Embassy in Jakarta houses both the U.S. Mission to Indonesia and the U.S. Mission to ASEAN. Various U.S. federal agencies have a presence within the U.S. Embassy; these agencies include – but are not limited to – the Environmental Protection Agency, National Oceanic and Atmospheric Administration, USGS, and Forest Service. Historically, the presence of USAID as part of the U.S. country team has served to develop partnerships with the Government of Indonesia, non-government leaders, the private sector, civil society, and other development partners, and USAID has supported natural disaster responses.[184] A key area of cooperation in Indonesia for the USGS was to deliver the USGS-USAID Volcano Disaster Assistance Program (VDAP), at the request of Indonesia's PVMBG, which sought ways to improve volcano monitoring. From 2005 onward, the VDAP scientists and PVMBG conducted monitoring and installed improved equipment on volcanoes across the archipelago, and by the time Mount Merapi erupted in 2010, the partnership allowed PVMBG to inform DM leaders on data that authorities used to save lives.[185]

As part of the U.S.-Indonesia Strategic Partnership, bilateral cooperation extends across various issues of regional and global significance.[186] Within this scope are various security-related issues – e.g., border security, counter-proliferation, cybersecurity, terrorism, maritime security, and DM.[187] The U.S. Army, Navy, Air Force, and Marine Corps all have personnel assigned to the Defense Attaché's Office, and they maintain military-to-military contact with their Indonesian counterparts. The Office of Defense Cooperation provides advice and assistance to the Defense Attaché and the Chief of Mission (COM) regarding security assistance.[188]

As of the publication of this handbook, the U.S. Secretary of State is the acting Administrator of USAID,[189] as USAID functions transition to the Department of State's Bureau of Population, Refugees, and Migration (PRM). After 1 July 2025, the named offices and tasks may differ.[190] One of USAID's functions is to support global disaster response and humanitarian assistance in furtherance of U.S. foreign policy goals, and USAID / PRM is lead federal agency for foreign disaster response.[191] After a disaster event, in consultation with other Department of State officers, the COM in the U.S. Embassy in the affected state assesses need, and the COM may issue a Declaration of Humanitarian Need

(DHN), which is the key action that triggers U.S. government foreign disaster assistance, including funds. USAID / PRM may, as needed, request support from other U.S. government agencies, including the DoD.[192]

The COM will consider four criteria before issuing a DHN. All four criteria must be met before U.S. Government foreign disaster assistance will be undertaken. These criteria are:

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
4. Responding aligns with U.S. Government interests and humanitarian objectives

When host nation and international humanitarian response capacity is overwhelmed and the U.S. military has a unique capability, USAID / PRM may request supplemental support from DoD for a limited period. Interagency requests for DoD support to disaster response are transmitted to the Secretary of Defense (SecDef) in an official memorandum (Executive Secretariat Memo), which is required to leverage such DoD support. With SecDef approval, DoD components may provide non-reimbursable foreign disaster relief support to USAID / PRM using available Overseas Humanitarian, Disaster, and Civic Aid (OHDACA) funds. The DoD capabilities most commonly requested during a disaster response are logistics and airlift support rather than direct assistance to beneficiaries.

U.S. Mission in Indonesia

Jl. Medan Merdeka Selatan No. 3 – 5
Jakarta 10110, Indonesia
Tel: +62-21-5083-1000; select extension 0 for emergencies

Laws, Policies, and Plans on Disaster Management

In the past 20 years, Indonesia has worked to ensure that its legal and policy frameworks reflect global norms. Early reforms laid the foundations for strong DM through land-use and spatial planning; coastal and small-island management; environmental, meteorological, climate, and geophysical management; human settlements; and conflict mitigation. More recent shifts have integrated climate adaptation, public health, water resource management, business permitting, and pandemic management. The Disaster Management Master Plan, published in 2018, runs through the year 2045 and has become the primary reference for subsequent plans.[193]

Law No. 24/2007 on Disaster Management

The 2007 DM Law established the BNPB and the provincial, district, and city BPBDs.[194] It lays out the responsibilities and obligations of these agencies alongside dedicated roles for private entities – corporate, civil society, etc. – in the various phases of DM. The key subsidiary regulation is Regulation No. 21/2008 concerning the Implementation of DM, which mandated the development of DRR action plans at national and subnational levels.[195] It also outlined detailed objectives for each phase of DM and designated the entities responsible for each objective. Both Law 24/2007 and Regulation 21/2008 empower the President to declare a national emergency and BPBD heads to declare regional emergencies. After such declarations, the BNPB Head (national) or regional or local BPBD Head becomes the emergency "Commander" and can call upon any government or non-government people or resources for support.[196]

An additional key regulation relating to Law No. 24/2007 is Regulation No. 23 on the roles of international agencies, including UN system agencies, and foreign NGOs in DM.[197] Regulation 23/2008 stipulates that the involvement of these non-national actors must be to support national DM, reduce disaster risk, alleviate victims'

suffering, and accelerate recovery. It delegates to the BNPB Head the authority to determine participation of international institutions and foreign NGOs in DM within Indonesia. Each such entity seeking to participate must have submitted a proposal, signed an MoU, and submitted a work plan. If these conditions are met, during an emergency, the non-national entity can directly provide aid in coordination with BNPB as long as the entity has submitted to BNPB a list of personnel, logistics, equipment, and location of activities. If the assistance is related to aid from a foreign country, BNPB consults and coordinates with the ministry in charge of foreign affairs.[198]

Head of BNPB Regulation 3/2016 on the Command System for the Mitigation of a Disaster Emergency

This regulation mandates the use of the incident command system at the national, provincial, city, and regency levels. It stipulates that the SKPDB will be executed by a DRTF at an on-site command post. The objective is to ensure that six main tasks are accomplished; they are: 1) perform rapid assessment; 2) declare state of emergency; 3) search and rescue; 4) fulfill basic needs; 5) protect vulnerable groups; and 6) immediately recover vital infrastructure.[199]

Head of BNPB Decree 173/2014 concerning National Clusters for Disaster Management

This decree laid out the command structure that oversees the cluster system, as developed and implemented within Indonesia. With eight, rather than 11, clusters, it is an adaptation of the international cluster system. The Decree lists the Education, Health, Search and Rescue, Logistics, Displacement and Protection, Structures and Infrastructure, Economy, and Early Recovery clusters. These clusters reflect the specific context of Indonesia's national and subnational government, utilities, and civil society structures. Most clusters lay out a strategy to which their sub-clusters contribute, and each sub-cluster is semi-autonomous and empowered to implement its own activities.[200]

Law No. 23/2014 on Local Government and subsidiary regulations

Regulation No. 2/2018 on Minimum Service Standards and Ministry of Home Affairs Regulation No. 101/2018 on the Technical Standards for the Minimum Service Standards for Disaster Management make it obligatory for local government to provide three basic services – disaster risk information, disaster prevention and preparedness, and rescue and evacuation of disaster victim – and they spell out greater roles for local governments in managing risk and funding DRR within their jurisdictions.[201]

National Long-Term Development Plan (2005-2025)

DRM is a key component of half of the eight missions laid out in the Plan. It underpins the country's ability to be competitive, fair and equitable, environmentally sustainable, and "[i]ndependent, advanced, and strong." Within the country's long-term development plans, medium-term plans cover 4-year spans. The National Middle-Term Development Plan (2020-2024) implemented three Adaptive Social Protection projects related to DRM. They covered work under the Resilient Districts/Cities program to bolster community DRM, preparedness programs in hazard-prone locations, and social protection actions targeting victims of disaster.[202]

Master Plan for Disaster Management

Presidential Decree Number 87 (2020) led to the Master Plan (Rencana Induk Penanggulangan Bencana, or RIPB), which lays out how the country will achieve resilience to disasters, by which it means the country will be able to "withstand, absorb, adapt, and recover from" disaster effects. In line with the Sendai Framework for DRR (2015-2030), the RIPB serves as the national guideline for DM implementation and is intended for integration into the national long-term, medium-term, and annual development plans, as well as into ministerial, agency, and local government annual work plans.[203] The RIPB emphasizes inclusivity

in DRR to ensure that policies address the needs of vulnerable communities, integrates local knowledge, and builds strong civil society partnerships.[204] Regarding response, the RIPB lays out short-, medium-, and long-term goals; they are:

- 2020-2029 – Rapid, effective, and coordinated emergency management
- 2030-2034 – Disaster and emergency management is based on resource independence
- 2035-2039 – Reliable disaster and emergency management includes active regional and global stance
- 2040-2044 – Emergency management is based on sustainable disaster resilience[205]

National Disaster Management Plan

The RENAS PB is regularly updated by BNPB. It aligns with Sendai Framework DRR goals and creates the framework for provinces and municipalities to develop their DM plans (RPB).[206] The RENAS PB for 2025-2029 lays out work to contribute to fast, effective, and coordinated emergency management. It targets work that harmonizes DM laws, ensures technical and industrial underpinnings for successful DM, builds easier access to multi-hazard early warning services, invests in DRR, builds synergies among DRM efforts across regions, socializes understanding of risk, integrates resilience and adaptation into urban and settlement planning, protects coastal and marine ecosystems, increases the availability of skilled DM professionals, smooths recovery, and results in disaster-resilient infrastructure.[207]

National Disaster Response Framework

The Framework was approved by the government in 2018. It clarified roles, responsibilities, and organization for disaster response, and it specified roles for PMI and IFRC across several response areas.[208] With a look to building inclusive DM, the Framework built in provisions to address disaster-related gender-based violence in addition to overall protection issues, especially in relation to displacement.[209] Despite the publication of the Framework, there is no indication that it is regularly mobilized for DRR, responses, or recovery.

BNPB Regulation Number 1 Year 2023 on One Disaster Data

This regulation laid the legal framework for building the One Disaster Data System (Satu Data Bencana Indonesia), which is based on the UN Economic and Social Commission for Asia and the Pacific (USESCAP) Disaster Related Statistics Framework. It is intended to improve the production and analysis of high quality, integrated disaster statistics. The objective is to include in the One Disaster Data System data on disaster events and impacts, disaster risk, disaster financing, and countermeasures so that both decision makers and the broader public can understand risk and improve their analyses of options for activities from residence construction to planning evacuation routes.[210]

Presidential Decree Number 75 Year 2021 on Disaster Pooling Fund (DPF)

This decree established the DPF, which is intended to increase disaster risk financing capacity by allowing subnational authorities to transfer risk via insurance, thereby ensuring greater budgetary allocations for DRM at the district and city levels. Concurrently, DPF is a means for collection of funds from national and local governments, the private sector, international development partners, and the community. These funds are subsequently invested to ensure that returns build fiscal resilience against disaster impacts. Overall, the target is to strengthen government financing capacity for mitigation, preparedness, and risk transfer, as well as accelerating recovery, all of which support DRM efforts.[211]

ASEAN Agreement on Disaster Management and Emergency Response

The AADMER, signed in 2005 and ratified in 2009, is a legally binding agreement among the AMS to address risk associated with hazards and vulnerability. It guides regional cooperation

in DM and, in the 20 years since its creation, has galvanized AMS to build a unified DRR and climate adaptation community. While the AADMER itself is the foundation for regional cooperation, coordination, technical assistance, and resource mobilization across all phases of DM, it also supports AMS' own initiatives toward DM. The 2021-2025 AADMER work program is crafted to build on the successes of previous work plans, which resulted in the ASEAN-ERAT, the DELSA, and the SASOP, among other accomplishments.[212]

Disaster Management Communications

Following the 2004 Indian Ocean earthquake and tsunami, the process of developing the AADMER highlighted the importance of risk identification, monitoring, and EWS. The 2018 Palu earthquake and tsunami highlighted EWS system failures due to unforeseen triggers and equipment vandalism, both of which underscored the need for continuous improvement toward a sustainable EWS.

Early Warning Systems

National government ministries and agencies monitor all major hazards, including (but not limited to) volcanic activity, mass earth movement, public health, severe storms (including wind and rain), lightning, air quality, seismicity, extreme temperatures, forest fires, sea level, tsunami, and flood. By law and policy, the BNPB is tasked with oversight and management of monitoring for all major hazards, and the Multi Hazard Early Warning System (MHEWS) and InAWARE serve as centralized platforms for monitoring data.[213] BNPB Regulation No. 1 / 2025, Concerning the National Disaster Management Plan for 2025-2029 (RENAS PB), calls for improved synergy among Indonesia's ministries and disaster management stakeholders to develop a sustainable EWS and enhance disaster data sharing and informational services, based on the principles of "one map and one data policy."[214]

BNPB is the central coordinating body for DM in Indonesia's and is the lead agency responsible for ensuring the integration of EWS across sectors. The BMKG sits under the Ministry of Transportation and is the lead technical agency for EWS.[215] Within BMKG, the Directorate of Earthquake and Tsunami Manages seismic monitoring and early warning for earthquakes and tsunami, the Directorate of Applied Climate Services handles climate monitoring and early warning related to climate anomalies, and the Directorate of Public Meteorology Oversees weather forecasting and early warning for extreme weather events.[216] BMKG operates a network of observation stations and utilizes advanced modeling systems to provide timely and accurate warnings to the public and relevant authorities.[217] Other agencies that support EWS include:

- PVMBG: Monitors volcanic activity and geological hazards; issues alerts and risk assessments.
- Directorate General of Water Resources: Manages hydrological data and flood forecasting; contributes to flood early warning.
- National Research and Innovation Agency: Develops and implements advanced technologies for hazard monitoring and early warning.
- BPBDs: Disseminate warnings and coordinate local response efforts.[218]

The core components of Indonesia's EWS consist of monitoring systems, data processing, and warning dissemination. The monitoring system includes Climate Early Warning System (InaCEWS), Coastal Inundation Forecasting System (InaCIFS), Earthquake Early Warning System (InaEEWS), Meteorological Early Warning System (InaMEWS), and Tsunami Early Warning System (InaTEWS). There are two MHEWS centers, in Jakarta and Bali; the latter stood up in 2024 and aims to be operational by 2026. Also, by 2026, the government aims to have the capability to disseminate tsunami early warnings within three minutes after an

earthquake occurs, extreme weather early warnings at one week, three days, and three hours before the event, and climate anomaly early warnings, such as drought and heat wave, six months before the event.[219]

While Indonesia's EWS are improving because of the creation of an MHEWS, challenges exist. Despite BMKG serving as the lead technical agency for EWS, hazard-monitoring responsibilities are assigned to different ministries and agencies, and several non-governmental partners contribute to these efforts. As a result, monitoring is conducted using a mix of new and legacy technologies, and monitoring challenges are often the result of a dependence on subnational and local capabilities, which differ significantly among the country's many geographic areas. Likewise, assignment of notifications and early warning responsibilities vary across the archipelago. For example, for many hazards, warning is consolidated through the MHEWS, while others remain outside the system. Alerts may be issued by relevant technical agencies or by subnational authorities, such as the BPBDs, where systems are to receive and disseminate warnings through local media. EWS coverage is also a challenge, where 75% of Indonesia's population is served by EWS, especially through radio and mobile phones, but coverage in rural areas is lacking, and geo-fencing capabilities are not always available.[220]

Indonesia is working to improve preparedness for response by developing a plan to enhance the MHEWS. Institutions responsible for managing specific hazards have continuously developed their EWS by upgrading EWS technology, adding more monitoring instruments, building the capacity of people living in hazard-prone areas to respond to warning signs, and exchanging knowledge and technology with foreign partners.[221] Indonesia's MHEWS vision is outlined in the RIPB 2020-2044. While MHEWS are at an advanced state for most hazards, according to the PDC, technical and spatially extensive expansions in the long term will help protect Indonesia's diverse and distributed stakeholders and critical infrastructure. It will be imperative that Indonesia implement further data storage and open data standards in the near term to promote transparency, interoperability, civic innovation, and capacity building across primary, secondary, and advanced educational institutions. BNPB and other Indonesian DRR and DM centers of excellence are adept at social media messaging and community engagement.[222]

Tsunami EWS

The ASEAN region has two tsunami warning systems, and Indonesia is both a service provider and an end user. The systems are the Indian Ocean Tsunami Warning and Mitigation System (IOTWMS) and the Pacific Tsunami Warning System (PTWS). IOTWMS is comprised of three tsunami service providers (TSP) - InaTEWS, Joint Australia Warning Centre, and Indian Tsunami Early Warning Centre; the end-users in ASEAN include Indonesia, Malaysia, Myanmar, and Thailand. PTWS is comprised of two TSPs - the North West Pacific Tsunami Advisory Centre of the Japan Meteorological Agency and the U.S. Pacific Tsunami Warning Centre; the end-users in ASEAN are Indonesia and the Philippines.[223]

BMKG operates InaTEWS, in cooperation with the National Coordinating Agency for Survey and Mapping (BAKOSURTANAL) and the Agency for Assessment and Application of Technology. InaTEWS issues TSP bulletins for tsunami threats and when an earthquake of magnitude 6.5 or greater is detected under the sea in AMS, the Nicobar Islands, Papua New Guinea, or the Pacific Ocean. TSP bulletins are generally not for public dissemination but are transmitted by fax, email, and SMS to National Tsunami Warning Centers and are also made available on InaTEWS' Warning Receiver System, which provides real time visualization; it is available at *https://inatews.bmkg.go.id/wrs/tsp/index.html*.[224]

Indonesia has strengthened its InaTEWS infrastructure in recent years. The land observation system consists of 165 seismograph stations and 238 accelerograph stations. The ocean observation system includes 134 tide gauge stations and two DART-Buoys. InaTEWS maintains 55 siren units, and a dissemination system which includes 205 Digital Video

Broadcasting units, 56 two-way Warning Receiver System units, and nine Tsunami closed-circuit television (CCTV) locations.[225]

Earthquake EWS

InaEEWS infrastructure improved greatly following the Anak Krakatau volcanic eruption and subsequent tsunami in 2018. As of 2025, the number of seismic stations has increased to over 400 sensors spread throughout the country. Seismic monitoring devices are placed in seismic vaults built on bedrock and transmit data to a central processing center via Very Small Aperture Terminal (VSAT) communication.[226] InaEEWS works in conjunction with InaTEWS for comprehensive hazard assessment and warning dissemination.[227] Separately, BMKG and the ASEAN Earthquake Information Center (AIEC) collaborated to provide a mobile phone application, WRS-AIEC, which is aimed at disseminating real time information of earthquakes particularly to the territories of the AMS. The app is available for both Android and iOS devices.

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.[228] 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.

Indonesia Information Sources

Badan Nasional Penanggulangan Bencana

BNPB is the lead agency for coordinating disaster preparedness, response, and recovery at the national level. In the event of disaster, command and coordination centers facilitate the collection and dissemination of information through SMS alerts, radio, broadcasts, and social media platforms. BNPB also maintains Geoportal Data Bencana Indonesia, which hosts several information sharing sources, such as crisis maps, InaRISK, InAWARE, Prevention Dashboard, as well as interoperability services to support the implementation of One Disaster Data. The geoportal can be found at: *https://gis.bnpb.go.id/*, along with links to databases according to disaster type.

Website: *https://www.bnpb.go.id/*

InAWARE

InAWARE is a custom version of PDC's global, multi-hazard, early warning system – DisasterAWARE – for Indonesia.[229] InAWARE is used by BNPB for coordination and planning and by BPBDs at the subnational level for field-level reporting and response. The platform allows users to visualize hazards in real time, analyze exposure and vulnerability, share data, and coordinate response. The platform integrates data from multiple sources, including BMKG, PVMBG, satellite, and local BPBD field inputs.

Website: *https://inaware.bnpb.go.id/inaware/*

Center for Engineering Seismology, Geopotential and Time Signs

The Center for Engineering Seismology, Geopotential and Time Signs is a BMKG center tasked with providing information and services related to engineering seismology, geophysics, timely warning, and historical data. The center is an important component of InaEEWS. Information is made available for the public at: *https://simora.bmkg.go.id/simora/*.

Indonesian Disaster Data and Information

The Government launched a disaster database and information application called DIBI (Indonesian Disaster Data and Information), which focuses on disaster events and past disaster impacts, using the Desinventar methodology in data collection and disaster impact analysis.

Website: *http://dibi.bnpb.go.id*

InaRISK

InaRISK is Indonesia's risk-assessment portal using ArcGIS server web-mapping technology.[230] InaRISK presents information on hazard, vulnerability (including population, and potential physical, economic, and environmental losses) and disaster risk, as well as the Indonesian Disaster Risk Index of each district and city in the country. This portal is meant to be used by local governments and other decision makers in developing risk sensitive development plans and programs. It also serves as an educational platform for the public in understanding the level of risk of their place of residence and preparing mitigation actions to increase their preparedness for response.

Website: *https://inarisk.bnpb.go.id*

InaTEWS

As a TSP for the Indian Ocean Countries, the InaTEWS offers web access to ocean-wide tsunami warning products. Registered users may log in to access warning bulletins issued by TSP Indonesia. The Warning Receiver System of TSP Indonesia (WRS-TSP Indonesia) is the real-time system dedicated to receiving earthquake information and tsunami bulletins from TSP Indonesia. This system receives data directly from the InaTSP BMKG Jakarta headquarters processing and dissemination system.

Website: *https://rtsp.bmkg.go.id/* and *https://inatews.bmkg.go.id/wrs/tsp/index.html*

Humanitarian Information Sources

United Nations Office for the Coordination of Humanitarian Affairs (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.

Website: *https://www.unocha.org/roap*

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

X: OCHAAsiaPac

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 disaster risk reduction information into an online, easy to understand platform.

Website: *https://www.preventionweb.net/*

International Federation of Red Cross and Red Crescent Societies

IFRC is the world's largest humanitarian organization, comprised of 191 National Societies, including PMI, 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.[231]

Web: *https://media.ifrc.org/ifrc* and *https://go.ifrc.org/*

International Committee of the Red Cross

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.[232]

Website: *https://www.icrc.org/en*
Facebook: @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://www.gdacs.org/alerts/*

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/*
The latest alerts can be found here: *https://www.gdacs.org/Alerts/default.aspx*
To subscribe: *https://www.gdacs.org/About/contactus.aspx*

ThinkHazard!

ThinkHazard! is a website that provides detailed information on a country. Information is provided on Indonesia regarding hazards, country assessments, projects, EWS, and other resources.

Website: *https://www.thinkhazard.org/en/*

Humanitarian Country Teams

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 IOM, international NGOs, and the IFRC and the National Red Cross/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 AMS 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.

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)

Changi Regional Humanitarian Assistance and Disaster Relief (HADR) Coordination

Centre was launched 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. Changi RHCC manages the OPERA CIS web portal to broadcast the updated situation status of multinational military disaster responses to minimize duplication and gaps in the provision of foreign military assistance.

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 supports the world's most demanding DM decision makers – from the senior level to the operational practitioner – with advanced science, technology, tools, and information to reduce disaster risk. PDC's offerings include its robust DisasterAWARE® technology, which boasts the largest, scientifically vetted big data catalogue of geospatial information for disaster mitigation, preparedness, response, and recovery. DisasterAWARE features a PDC-developed global exposure model, which is among the world's most powerful, to provide near real-time analytics about potential impacts, humanitarian needs, and other key indicators to enable effective anticipatory action during large-scale hazard events. The system includes global early warning, hazard monitoring, and situational awareness for all types of natural and technical hazards worldwide and is free to disaster management practitioners at: *https://disasteraware.pdc.org*

PDC is also advancing the use of artificial intelligence (AI) for DRR through its AI for Humanity™ initiative. The Center conducts specialized research on national fragility, climate change, and women, peace and security, among other topics. It also supports the humanitarian and disaster response community with training, best practices, and exercise support.

Website: *https://www.pdc.org/*

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 (CFE-DM)

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: h*ttps://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

This section provides an overview of Indonesia's key infrastructure capabilities, challenges, and development initiatives, with a focus on how these systems may be impacted by disasters and how they contribute to broader efforts in development and community resilience. Given Indonesia's geographic complexity and exposure to natural hazards, infrastructure systems play a critical role in both enabling daily life and shaping the country's capacity to prepare for, respond to, and recover from emergencies. This section covers transportation networks (air, sea, roads, rail, and waterways), educational infrastructure and DRR efforts in the school system, and essential utilities such as power, water, and sanitation.

Transport

Indonesia's island-based geography presents both challenges and opportunities for its transportation sector. The government continues to invest heavily in improving connectivity across all modes of transportation to support economic growth and regional development. Key initiatives focus on modernizing infrastructure, expanding access to remote areas, and promoting more efficient, integrated transport systems. Meanwhile, addressing challenges such as uneven development, maintenance needs, and complex logistics across the archipelago remains an ongoing priority.

Airports

Indonesia's aviation sector is a critical component of national connectivity and disaster preparedness, due in large part to the country's geography. With over 17,000 islands spanning more than 5,000 km (3,106 mi) east to west, air transportation remains the most practical and often the only feasible method for moving people, goods, and humanitarian assistance between remote regions.[233] As of 2025, Indonesia operates a total of 683 airports, providing a nationwide network of air access points.[234] Of these airports, 35 commercial facilities are managed by state-owned operators—PT Angkasa Pura I in eastern Indonesia, and PT Angkasa Pura II in western Indonesia. These commercial aviation hubs are essential not only for civilian mobility but also for the strategic deployment of emergency personnel and life-saving aid during disaster events.

Oversight of Indonesia's civil aviation sector is led by the Directorate General of Civil Aviation (DGCA), which operates under the Ministry of Transportation. The DGCA is responsible for implementing national air transportation policies, ensuring compliance with international aviation safety standards, and issuing certifications for airworthiness and airport operations. Its core functions include formulating technical standards, guidelines, and regulatory procedures; overseeing aviation engineering and electronic systems; and providing technical supervision and evaluation across the aviation sector.[235] The DGCA also plays a key role in modernizing air traffic management systems, enhancing airport infrastructure, and promoting safe and efficient aviation operations. These regulatory and administrative responsibilities are especially critical in a disaster-prone country like Indonesia, where the reliability and safety of air transport directly impact emergency response capabilities.

Table 5 lists 20 of Indonesia's most important airports, selected based on passenger volume, geographic coverage, and strategic value in both international and domestic disaster response planning. These hubs are vital to supporting logistics, search and rescue missions, and the rapid mobilization of aid to affected communities.

Airport Name	City/Region	Elevation	IATA/ICAO	Runway Length	Runway Surface
Soekarno–Hatta International Airport	Jakarta	10 m (32 ft)	CGK/WIII	3,660 m (12,008 ft)	Asphalt
Ngurah Rai International Airport	Denpasar, Bali	4 m (14 ft)	DPS/WADD	3,000 m (9,843 ft)	Asphalt
Juanda International Airport	Surabaya, East Java	3 m (9 ft)	SUB/WARR	3,000 m (9,843 ft)	Asphalt
Sultan Hasanuddin International Airport	Makassar, South Sulawesi	14 m (47 ft)	UPG/WAAA	3,100 m (10,171 ft)	Asphalt
Kualanamu International Airport	Medan, North Sumatra	7 m (23 ft)	KNO/ WIMM	3,750 m (12,303 ft)	Asphalt
Ahmad Yani International Airport	Semarang, Central Java	3 m (10 ft)	SRG/WARS	2,560 m (8,399 ft)	Asphalt
Adisutjipto International Airport	Yogyakarta	116 m (379 ft)	JOG/WARJ	2,200 m (7,218 ft)	Asphalt
Minangkabau International Airport	Padang, West Sumatra	5 m (16 ft)	PDG/WIEE	2,750 m (9,022 ft)	Asphalt
Supadio International Airport	Pontianak, West Kalimantan	8 m (26 ft)	PNK/WIOO	2,600 m (8,530 ft)	Asphalt
Sam Ratulangi International Airport	Manado, North Sulawesi	24 m (80 ft)	MDC/ WAMM	2,650 m (8,694 ft)	Asphalt
Sultan Aji Muhammad Sulaiman Sepinggan Airport	Balikpapan, East Kalimantan	4 m (12 ft)	BPN/WALL	2,500 m (8,202 ft)	Asphalt
Lombok International Airport	Praya, West Nusa Tenggara	105 m (343 ft)	LOP/WADL	3,300 m (10,827 ft)	Asphalt
Pattimura Airport	Ambon, Maluku	10 m (33 ft)	AMQ/ WAPP	2,500 m (8,202 ft)	Asphalt
Frans Kaisiepo International Airport	Biak, Papua	12 m (38 ft)	BIK/WABB	3,571 m (11,713 ft)	Asphalt
Sentani Airport	Jayapura, Papua	88 m (289 ft)	DJJ/WAJJ	3,000 m (9,843 ft)	Asphalt
Sultan Syarif Kasim II International Airport	Pekanbaru, Riau	31 m (102 ft)	PKU/WIBB	2,600 m (8,530 ft)	Asphalt
Syamsudin Noor International Airport	Banjarmasin, South Kalimantan	20 m (66 ft)	BDJ/WAOO	2,500 m (8,202 ft)	Asphalt
El Tari International Airport	Kupang, East Nusa Tenggara	108 m (354 ft)	KOE/WATT	2,500 m (8,202 ft)	Asphalt
Depati Amir Airport	Pangkal Pinang, Bangka Belitung	33 m (108 ft)	PGK/WIPK	2,600 m (8,530 ft)	Asphalt
Tjilik Riwut Airport	Palangkaraya, Central Kalimantan	25 m (82 ft)	PKY/WAOP	2,250 m (7,382 ft)	Asphalt

Table 5: Codes and Runway Lengths for Indonesia's Main Airports

Seaports

Indonesia's geographic position and archipelagic character give it strategic importance in global maritime trade. With a coastline stretching more than 54,000 km (33,554 mi) and proximity to major international shipping routes between the Indian Ocean and Pacific Ocean, seaports are essential to Indonesia's economy. The country is home to over 1,700 small ports and harbors, but only about 110 of these ports are commercially significant. A limited number are capable of handling large cargo and container vessels.[236] Among these largest ports, eight major seaports stand out for their critical role in supporting international trade, cargo throughput, and economic development.[237]

Indonesia's port system is managed by four state-owned enterprises under the umbrella of Pelabuhan Indonesia (Pelindo), which has recently consolidated into a single entity to improve operational efficiency and national connectivity. The Port of Tanjung Priok in Jakarta is by far the busiest port, handling more than 8 million twenty-foot equivalent units

(TEU) annually and serving as the country's principal gateway for imports and exports. Other key ports specialize in commodities like palm oil, coal, and industrial goods in a reflection of the regional strengths of each island.[238] Table 6 provides an overview of seven major ports across Indonesia; it highlights their size, location, and unique contributions to the nation's maritime economy.

In addition to fostering economic growth, Indonesian ports play a crucial role in DM and community resilience. They are vital hubs for the rapid distribution of relief materials, equipment, and personnel during crises. Ongoing infrastructure expansions, like the Balikpapan and Makassar New Port projects, are crucial for supporting the country's resilience efforts, particularly in response to natural disasters and the relocation of Indonesia's capital city from Jakarta (Java) to Nusantara (Borneo).[239] As ports become more efficient and connected, they play a key role in enhancing economic stability and supporting Indonesia's long-term development goals.

Roads

Indonesia's road network spans over 550,735 km (approximately 342,400 mi), and about 318,517 km (197,900 mi) of roads are paved as of 2022.[240] On the island of Java, particularly in Jakarta and West Java, the road system is highly developed, featuring 1,782 km (1,108 mi) of national roads and bridges and 788 km (490 mi) of toll roads, as of 2025.[241] Traffic congestion and frequent flooding pose ongoing challenges in Jakarta.[242] Major infrastructure projects, such as the US$1.43 billion Jakarta Outer Ring Road Elevated Toll Road, are underway to improve traffic flow and resilience.[243] Nationally, the Ministry of Public Works and Housing (Kementerian Pekerjaan Umum, or Kemen PU) has allocated substantial funding to enhance road infrastructure in 2025; key projects include the construction of 104 km (65 mi) of new national roads, upgrades to over 1,600 km (994 mi) of existing routes, and the addition of tunnels, bridges, and flyovers. These efforts are intended to improve logistics performance and connectivity across the archipelago.[244]

Foreign investment plays a significant role in supporting Indonesia's infrastructure ambitions. Notably, a recent collaboration between the Kemen PU and South Korea will deliver an underwater tunnel for the new capital city's toll road in Nusantara.[245] While urban centers see rapid development, road accessibility in rural regions remains uneven, particularly in eastern provinces, like Papua. Many smaller islands rely heavily on motorcycles, minibuses, and intercity buses for transportation. Despite ongoing development, these areas often face limited road connectivity due to geographic and budgetary constraints.[246] Continued investment and international partnerships are crucial to expanding access and ensuring inclusive, long-term growth.

Port Name	Location	Land Area	Capacity	Key Features & Importance
Port of Tanjung Priok	North Jakarta, Java	424 ha (1,47 acres)	8 million TEUs	Indonesia's busiest port; key entry to Jakarta; handles over 50% of national cargo traffic.
Port of Belawan	Medan, North Sumatra	139 ha (343 acres)	1.2 million TEUs	Key western port; exports palm oil, rubber, and other agro-industrial products.
Port of Dumai	Riau, Sumatra	61 ha (150 acres)	300,000 TEUs	Specialized in crude palm oil exports; major bulk terminal.
Port of Cirebon	West Java	25 ha (61 acres)	50,000 TEUs	Regional port focused on bulk commodities like cement and coal; supports local industry.
Port of Gresik	East Java (near Surabaya)	68 ha (168 acres)	150,000 TEUs	Industrial port serving cement, fertilizer, and petrochemical industries.
Port of Jambi	Jambi, Sumatra	30 ha (74 acres)	25,000 TEUs	Riverine port handling rubber, palm oil, and coal; connects inland trade to sea routes.
Port of Teluk Bayur	Padang, West Sumatra	109 ha (269 acres)	350,000 TEUs	Major port on Sumatra's west coast; exports coal, cement, and agricultural products.

Table 6: Major Seaports of Indonesia

Railways

Indonesia's railway network spans approximately 5,042 km (3,132 mi) and plays a critical role in the country's transportation system, particularly on the islands of Java and Sumatra.[247] Managed by the state-owned PT Kereta Api Indonesia (PT KAI), the system supports both passenger and freight transport. Although Indonesia's railway development began during the Dutch colonial era to facilitate the movement of export goods, the network has evolved significantly in recent years.[248] Modernization initiatives include the introduction of the high-speed Whoosh train and ongoing infrastructure upgrades.[249] Partnerships with countries such as Japan and PRC have further advanced rail technology and knowledge transfer.[250]

Despite these developments, Indonesia's rail system faces several challenges. Rail infrastructure planning is largely centralized, resulting in broad, top-down strategies that often overlook local needs. Meanwhile, private investment tends to target only profitable routes, and this focus leads to uneven development. PT KAI also grapples with financial constraints, partly due to unclear roles and inadequate maintenance funding from the government. As Indonesia seeks to shift more freight and passenger traffic from roads to rail, it must address these structural inefficiencies.[251]

Waterways

Inland water transportation in Indonesia is a critical yet neglected mode of transport, particularly in remote rural areas where rivers are often the only accessible route for moving goods and supplies. Despite having 214 navigable rivers spanning approximately 23,255 km (14,452 mi), challenges like tidal fluctuations, sedimentation, poor safety conditions, and inadequate infrastructure limit their usability.[252] Inland water transport holds potential for supporting rural agriculture and industry, improving access for marginalized communities, and offering environmentally friendly alternatives to road transport, which currently carries 90% of passengers and domestic goods.[253]

Schools

Indonesia operates one of the world's largest education systems, with over 52 million students, 3 million teachers, and around 400,000 schools.[254] The system includes 12 years of compulsory education—six years of primary school and six years of secondary education, split between junior and senior levels. Schools are run by either the Ministry of Education and Culture or the Ministry of Religious Affairs, with public schools generally free of charge and private schools—including Islamic and Christian institutions—providing additional options. At the secondary level, students can choose between Sekolah Menengah Atas (SMA) and Sekolah Menengah Kejuruan (SMK) high schools. SMA schools are designed to prepare students for higher education, while SMK schools prepare students for vocational jobs and entering the workforce upon graduation. International schools, offering curricula such as International Baccalaureate or Cambridge International Examinations, are increasingly popular, and Indonesia now has one of the highest numbers of English-language international schools in the ASEAN region.[255]

While the government has steadily increased education funding and launched scholarship programs to support access to top national and international universities, the system continues to face key challenges. These include unequal access between urban and rural areas, limited internet infrastructure, high dropout rates in remote regions, and significant teacher-to-student ratio disparities. Teacher welfare and professional development also remain concerns. As Indonesia aims to become a top five global economy by 2045, improving the quality and equity of its education system is critical to strengthening its human capital and achieving inclusive national growth.[256]

Disaster Risk Reduction in the Education Sector

Indonesia's high vulnerability to natural disasters – ranging from earthquakes and tsunamis to floods and volcanic eruptions – makes disaster education critical. The impacts of

disasters on the education sector have historically been severe, with school closures, building damage, and evacuations disrupting learning and endangering students' safety.[257]

To build resilience, formal and informal methods are critical parts of DRR education.[258] While Indonesia does not yet have fully unified national DRR education programs, various promising initiatives have been implemented at local and regional levels.[259] For example, schools in disaster-prone areas of Yogyakarta and West Sumatra have introduced disaster preparedness drills and evacuation simulations. Programs like "Sekolah Aman" (Safe Schools) promote risk assessments and structural improvements alongside DRR training for teachers and students. Additionally, BMKG and the BNPB have supported public outreach campaigns and school-based learning using interactive tools, such as disaster-themed games, songs, and mobile apps. Research has shown that these diverse strategies can improve preparedness and safety, especially when efforts are consistent and collaborative.[260]

While local initiatives show promise, challenges remain in ensuring consistent DRR education nationwide. The absence of a national framework creates gaps and uneven implementation. This presents an opportunity to develop a coordinated national DRR program that builds on existing local successes. In the meantime, community-based education efforts remain essential, especially in reaching high-risk and remote areas. With continued support and collaboration, these grassroots programs can help sustain preparedness and resilience despite ongoing challenges.

Communications

Telephones

Indonesia's telephone communication infrastructure has rapidly shifted toward mobile technology. Approximately 67% of the population owned a mobile phone in 2023, and usage is expected to keep rising.[261] Most Indonesians access the internet primarily through their mobile devices, as mobile connections account for about 61% of internet usage across the country.[262] Traditional landline telephone ownership has sharply declined, with just more than 1% of households maintaining a landline, and this number is projected to decrease further.[263] Infrastructure improvements have focused on expanding 4G networks nationwide and introducing 5G services in select cities, although coverage remains limited in more remote areas.[264] While urban centers, like Jakarta, enjoy high mobile penetration rates of over 82%, more rural and remote areas, such as Papua, lag behind, with only about 38% mobile phone ownership.[265]

Internet Access

Indonesia has one of the world's largest internet user bases, with around 212.38 million users as of 2025.[266] While mobile internet access is widespread and continues to grow, nearly 20% of the population—mostly in rural areas, like Papua, Maluku, and Sulawesi—remains unconnected. Urban centers, such as Jakarta and Surabaya, enjoy strong digital infrastructure and access to services like e-commerce and telemedicine, but many remote villages still lack basic internet coverage. Efforts to bridge this gap include expanding fiber optic networks, building more base transceiver stations (BTS), and deploying Low-Earth Orbit (LEO) satellites, although Indonesia's geography and high infrastructure costs present ongoing challenges.[267]

According to Freedom House's 2024 report, Indonesia's internet was rated "partly free," with a score of 49/100. While fixed-line speeds have improved and mobile access continues to expand, internet freedom remains limited by content restrictions, censorship, and barriers to access, particularly in rural regions where connectivity is sparse and often more expensive.[268] Government initiatives such as Law No. 6 / 2023, which promotes infrastructure sharing among providers, aim to make network expansion more cost-effective and inclusive, but significant work remains to ensure equal digital opportunities across the archipelago.[269]

Mass Media

Indonesia's mass media landscape is dominated by powerful conglomerates, such as MNC Group, Media Group, CT Corp, and Emtek, and many of these companies have direct ties to political parties and figures.[270] While the country hosts a vibrant and diverse media scene, press freedom is increasingly constrained by regulatory restrictions, including the Electronic Information and Transactions Law (UU ITE) and a new law that criminalizes defamation and criticism of public institutions. Journalists face harassment, violence, and censorship, particularly when reporting on sensitive issues, such as corruption, environmental degradation, or minority rights.[271]

In recent years, funding cuts to independent media have further weakened investigative journalism, especially on environmental and human rights issues.[272] Amid tightening controls and declining traditional media audiences, many outlets are shifting toward digital platforms to stay relevant. According to Freedom House, Indonesia's media environment remains lively but is marred by growing political influence and self-censorship, and independent media have been scrambling to find new revenue streams to maintain critical reporting.[273]

Post

Pos Indonesia is the state-run provider of universal postal services, offering mail, courier, logistics, and financial services across the country.[274] While urban areas typically benefit from door-to-door delivery, in many rural regions, services are often limited to collection points like village post offices. To modernize its traditionally manual operations, Pos Indonesia is working with the Ministry of Communication and Information to digitize services through shipment tracking, updated postal applications, and greater integration with customs systems, thus helping the postal sector stay competitive and improve nationwide accessibility.[275]

Utilities

Indonesia's vast and fragmented geography makes equitable access to basic utilities a persistent challenge. While national electrification rates are high, many remote and rural communities still struggle with unreliable power, limited access to clean water, and inadequate sanitation. Ongoing government and private sector initiatives aim to expand infrastructure and improve service delivery to underserved regions.

Power

Indonesia is a major player in global energy markets and was the world's largest exporter of coal by weight in 2023, exporting 521 million metric tons (574 million tons).[276] Domestically, coal plays an outsized role in Indonesia's energy system due to its cost-effectiveness and abundance. As of 2022, coal accounted for 36.4% of Indonesia's total energy supply, a measure that includes all energy produced in or imported to a country, minus the energy exported or stored. The full breakdown of Indonesia's total supply in 2022 was 36.4% coal, 28.1% oil, 12.7% natural gas, 11.1% wind, solar, and other sources, and 10.8% biofuels and waste.[277]

Indonesia's power sector is dominated by the state-owned utility Perusahaan Listrik Negara (PLN), which oversees electricity generation, transmission, and distribution nationwide. Coal-fired power plants remain the backbone of PLN's generation portfolio; they provide a critical and cost-efficient energy source. In terms of final energy consumption, the industrial sector leads at 42%, followed by transportation (24.7%) and residential use (13.9%).[278] Indonesia has made strong progress in expanding electricity access, reducing the number of people without power by over 75 million between 2000 and 2016.[279] However, challenges remain in remote regions. As of 2020, electrification rates in eastern provinces, such as East Nusa Tenggara (Nusa Tenggara Timur) and Papua, were notably lower - 59% and 44%, respectively.[280]

The country's growing electricity demand presents both a challenge and an opportunity. Despite its heavy reliance on fossil fuels, Indonesia possesses immense renewable energy potential—estimated at 3,692 gigawatts (GW).[281] To meet future needs sustainably, Indonesia is shifting its focus toward renewables and just transition strategies. The government is preparing to update its 2014 National Energy Policy (NEP) and is focused on expanding efforts to improve energy security, efficiency, and decarbonization, with goals to peak emissions by 2035 and achieve net zero by 2060. However, the updated NEP plans to lower the 2025 renewables target from 23% to just 17–19%, a reflection of implementation challenges linked to regulatory barriers and Indonesia's economic dependence on coal.[282] From 2020 to 2023, renewable energy usage only increased from 2% to 3%.[283]

Water and Sanitation

Access to clean water and sanitation in Indonesia has seen notable improvements in recent years, but significant disparities persist. As of 2020, approximately 90% of Indonesian households used improved drinking water sources, and 79% had access to improved sanitation services.[284] However, only 12% had access to safely managed drinking water, which includes water that is accessible on premises, available when needed, and free from contamination.[285] Similarly, handwashing facilities with soap and water were present in only about 78% of households.[286] These gaps contribute to ongoing public health concerns, particularly in rural and low-income urban communities. The burden of poor sanitation and contaminated water falls disproportionately on children, with diarrhea remaining a leading cause of child mortality. Open defecation, still practiced by around 25 million people in the country, further threatens community health by contaminating water sources and spreading disease.[287]

Water and sanitation services in Indonesia are managed through a combination of national ministries, local governments, and community-based organizations. The Kemen PU plays a key regulatory and implementation role, supporting initiatives such as the Community-Based Drinking Water and Sanitation Provision Program (Pamsimas and Sanimas). Pamsimas and Sanimas aim to expand access in rural and water-scarce regions, aligning with Indonesia's 2020–2024 National Medium-Term Development Plan and Sustainable Development Goal 6 (SDG 6), which targets universal access to safe water and sanitation.[288] Non-profit organizations like Water.org have partnered with local financial institutions and water utilities to provide sustainable, affordable solutions to improve access to safe water and sanitation. Since 2014, Water.org's WaterCredit initiative has reached over 5.1 million Indonesians in low-income households,[289] while UNICEF and other agencies focus on addressing disparities in hygiene infrastructure.[290]

Despite these efforts, Indonesia faces persistent challenges in providing potable water and managing waste. Urban areas, like Jakarta, grapple with aging infrastructure and rapid population growth, while rural and remote regions struggle with resource scarcity and underfunded services. The disparity in waste and wastewater management is also stark; only 7% of wastewater is treated, and many areas still practice open dumping.[291] By 2045, Indonesia is projected to generate 74.3 million metric tons (82 million tons) of waste annually, yet most local governments have not developed or funded adequate waste management plans.[292] Weak institutional coordination, low public investment, and limited community engagement hinder progress. Bridging these urban-rural gaps and strengthening both governance and infrastructure are essential for achieving long-term water and sanitation goals.

HEALTH

In the 2024 Global Sustainable Development Report, Indonesia ranked 78th of 167 countries, with a score of 69.4, just above the East and South Asia regional average of 66.5.[293] Despite progress, the country's health-related SDG scorecard suggests myriad challenges that impact the effectiveness and efficiency of the healthcare system, including high rates of maternal mortality,[294] persistent prevalence of communicable diseases such as tuberculosis (TB) and human immunodeficiency virus / acquired immunodeficiency syndrome (HIV/AIDS), and child health and nutrition outcomes.[295] Additionally, there is an increasing burden of non-communicable diseases (NCD).

Indonesia is making significant strides toward attaining universal health coverage (UHC) through strategic investments in its public health infrastructure.[296] In 2021, health expenditures accounted for approximately 3.7% of GDP.[297] The establishment of the National Health Insurance Program (Jaminan Kesehatan Nasional, or JKN) in 2014 was a significant government initiative to enhance healthcare access and provide financial protection to all Indonesians.[298] As of 2024, JKN has expanded coverage to over 90% of the population.[299] Although JKN functions autonomously from the Ministry of Health (Kementerian Kesehatan, or KEMENKES), KEMENKES formulates the program's purchasing policies.[300]

Health Care System Structure

Indonesia's healthcare system is undergoing a significant transformation. In 2022, the KEMENKES launched the Health System Transformation Agenda, which focuses on six fundamental pillars: primary health services, referral health services, health resilience systems, health financing systems, healthcare human resources development, and the integration of health technology.[301]

The country's health system consists of public and private sectors. The health system operates at five levels: central, province, district, subdistrict, and village.[302] At the central level, the strategic objectives outlined by the KEMENKES emphasize the enhancement of public health across the various life stages in order to strengthen both basic and specialized health services, improve of disease prevention and control measures and effective management of public health emergencies, and increase health resources.[303] The KEMENKES performs the following functions:

- Formulate, determinate, and implement policies in the areas of primary and community health, disease control, advanced health services, pharmaceuticals, medical devices, and health human resources
- Provide technical guidance and supervision over the implementation of KEMENKES affairs in the regions
- Coordinate task implementation and foster and provide administrative support to all organizational elements
- Manage state-owned goods and assets under KEMENKES
- Oversee task implementation
- Formulate and provide recommendations for health development policies
- Provide substantive support to all elements within KEMENKES
- Perform other functions assigned by the President[304]

Provincial governments are responsible for implementing and managing health policies within their respective areas, alongside overseeing health-related resources and budgets. At the district level, government health officials are responsible for executing health policies and programs. District Health Offices supervise health facilities and services, which are crucial in implementing the JKN program. Community health centers (Puskesmas) serve as the primary

healthcare providers at the subdistrict level. Puskesmas offers essential services, which include health promotion, sanitation, and disease prevention, and they are tasked with executing public health initiatives.[305] According to KEMENKES, as of 2023, there are approximately 2,636 hospitals and 10,180 Puskesmas across the country. The healthcare system heavily relies on Puskesmas, which deliver vital services through trained nurses, particularly in remote areas or provinces where hospitals are scarce.[306]

Health Strategies and Surveillance

Indonesia's health system is governed by Health Law No. 17 / 2023. This legislation aligns with the Health System Transformation Agenda. It emphasizes health prevention, access to health services, health resilience, and the efficiency and transparency of health financing.[307] In 2025, KEMENKES, along with central, provincial, district, subdistrict, and village governments, as well as the private sector, were working together to draft the national health sector master plan in accordance with the mandates of Law No. 17.[308]

The WHO plays a pivotal role in enhancing the national health system by providing technical assistance and forging collaboration with KEMENKES by implementing the Country Cooperation Strategy (CCS) for the period 2023-2027. The WHO's CCS is a strategic guiding document that aligns with the KEMENKES Strategic Plan for 2020-2024. The CCS has three key priorities: 1) reinforcing intersectoral health action; 2) advancing UHC; and 3) building health security preparedness.[309]

In 2023, KEMENKES and the WHO developed a transition plan to strengthen and improve Indonesia's surveillance capabilities. This plan focuses on enhancing pathogen detection and risk assessment, monitoring epidemiological characteristics, and informing health interventions. To facilitate early detection and notification, as well as data analysis and sharing, the WHO provided training on the National Early Warning and Response System to puskesmas, District Health Offices, and health laboratories. Furthermore, in collaboration with the WHO, the Indonesian Epidemiology Association, and the Field Epidemiology Training Program (FETP), KEMENKES created a practical handbook to assist with simple surveillance data analysis and effective communication.[310]

Communicable Diseases

Indonesia is burdened with the following communicable diseases:

Dengue

Dengue is a mosquito-borne viral disease caused by infection with any of four dengue viruses (DENV-1 to DENV-4). The disease is transmitted primarily by the bite of infected Aedes mosquitoes, mainly Aedes aegypti and Aedes albopictus.[311] Dengue occurs year-round in Indonesia, with peak transmission in the warm rainy season, from November through March.[312] KEMENKES is dedicated to combatting dengue fever and achieving zero dengue-related deaths by 2030. In collaboration with the World Mosquito Program, KEMENKES released Wolbachia-infected mosquitoes in five cities: Bandung, Bontang, Kupang, Semarang, and West Jakarta, as part of a pilot project. Researchers in Indonesia are breeding a mosquito species containing the Wolbachia bacteria, which inhibits the growth of viruses such as dengue. Once released, these Wolbachia-carrying mosquitoes mate with dengue-infected Aedes aegypti mosquitoes to produce offspring that will not transmit dengue.[313]

Malaria

In 2022, the country reported one of Southeast Asia's highest malaria burdens, with an estimated 1,156,000 cases.[314] This parasitic disease is primarily transmitted by Anopheles mosquitoes, which carry the malaria parasite.[315] All five types of Plasmodium, the parasites that cause malaria, have been identified in Indonesia with P. knowlesi as the dominant parasite. Between 2022 and 2023, approximately 120 malaria cases

caused by P. knowlesi were reported.[316] In 2022, the provinces with the highest malaria cases were Papua, East Nusa Tenggara, and West Papua.[317] Despite national efforts to reduce malaria, it remains endemic in many provinces, and a significant portion of the population, particularly among mobile and migrant groups, is at risk.[318]

KEMENKES aims to eliminate malaria by 2030, in alignment with the WHO's target for malaria elimination.[319] In 2020, KEMENKES endorsed the National Action Plan for Acceleration of Malaria Elimination from 2020 to 2026. However, the malaria program faced disruptions due to the COVID-19 pandemic.[320] In 2022, the National Malaria Control Program and the WHO conducted a midterm review of the malaria program to assess its progress. As a result of this review, recommendations were made to revise the National Action Plan to achieve malaria elimination in high-endemic districts and establish specific targets.[321]

Tuberculosis

TB is an infectious disease caused by Mycobacterium tuberculosis, primarily affecting the lungs. In 2023, the incidence of TB in Indonesia was approximately 387 cases per 100,000 people.[322] Indonesia is one of the 30 countries classified by the WHO as having a high burden of TB.[323] Despite progress made in TB recovery rates from 2022 to 2023, Indonesia continues to face significant challenges, including HIV-associated TB and multi-drug-resistant TB (MDR-TB). Risk factors contributing to this high burden include smoking, substandard housing and water and sanitation, malnutrition, and diabetes.[324]

In 2023, Indonesia conducted a second national TB inventory study, revealing a significant reduction in the underreporting of newly diagnosed TB cases compared to the 2017 national study.[325] Accurate notification of TB cases to the National Tuberculosis Program (NTP) is essential for effectively controlling the disease. Without precise reporting, it becomes difficult to identify active TB cases, and lack of identification increases the risk of transmission. To combat underreporting, the NTP has implemented several policies and interventions – i.e., developing a new TB surveillance system, strengthening the reporting of new TB cases with healthcare providers, expanding active case finding, and enhancing engagement with the private healthcare sector.[326]

HIV/AIDS

HIV infects and weakens the immune system, and it gradually compromises the body's ability to defend against infections. The most advanced stage of this infection is AIDS, which indicates a significant decline in immune system effectiveness.[327] HIV can be transmitted through the exchange of body fluids from people living with HIV (PLHIV), and it can also be passed from mother to child during pregnancy and delivery.[328] In 2023, there were approximately 570,000 PLHIV in Indonesia, and the country has recorded around 27,000 deaths due to AIDS.[329]

Indonesia has aligned its efforts to combat HIV/AIDS with the Joint United Nations Programme on HIV/AIDS (UNAIDS) 95-95-95 targets. However, the country is currently not on track to meet these goals by 2030. In 2023, approximately 79% of PLHIV know their status, 33% are receiving antiretroviral treatment, and 6% of those on treatment have achieved viral suppression.[330] Addressing the treatment gap remains one of Indonesia's biggest challenges.[331] To address these challenges, KEMENKES released Regulation No. 23 of 2022, which focuses on the prevention and control of HIV, AIDS, and sexually transmitted infections (STI) to accelerate progress toward the 95-95-95 targets. Additionally, the 2024-2026 National Action Plan for HIV and STI Prevention and Control aims to reduce the incidence rate to 8 cases per 100,000 population.[332]

Non-Communicable Diseases

Indonesia is undergoing an epidemiological transition characterized by a rapid increase in

the burden of NCDs due to lifestyle changes, environmental factors, and technological advancements. NCDs are the leading cause of death in the country, and they contribute significantly to its overall mortality rate.[333] In 2021, the primary causes of death, primarily linked to NCDs, included stroke, coronary artery disease, chronic obstructive pulmonary disease, diabetes, high blood pressure, lung cancer, and chronic kidney disease.[334] According to the Institute for Health Metrics and Evaluation, the top 10 risk factors associated with death and disability include high blood pressure, dietary risks, air pollution, malnutrition, elevated fasting plasma glucose levels, kidney dysfunction, high body mass index, high cholesterol, occupational hazards, and tobacco use.[335]

Tobacco use remains a significant public health issue in Indonesia. As of 2022, the smoking prevalence among adults aged 15 years and older was 36.7%, with 71.2% of men and 2.2% of women being smokers. Each year, approximately 268,614 people die from smoking-related illnesses.[336] Indonesia has neither signed nor ratified the WHO Framework Convention on Tobacco Control nor the WHO Illicit Trade Protocol.[337] In response to this health crisis, KEMENKES has implemented several policies to control tobacco use. These include stricter regulations on smoking in public areas, expanded health warnings on tobacco packaging, and rules governing the sale and marketing of tobacco products and e-cigarettes.[338]

Training for Health Professionals

Indonesia is experiencing a shortage of health workers, including general practitioners, medical specialists, and dentists. There are significant regional disparities in the distribution of healthcare professionals between urban and rural areas. A national study on health workforce distribution indicates that the ratio of health workers is 3.84 per 1,000 people, short of the WHO's recommended threshold of 4.45 per 1,000 people necessary to achieve UHC. The study also reveals significant disparities between the number of health workers at the district and provincial levels.[339]

There are 83 medical schools, with approximately 8,000 graduates each year. The medical education law mandates a two-year program for post-interns to become primary care physicians, while some specialties may require an additional one to two years of clinical experience. In 1979, the government established a Consortium of Health Sciences to organize the program and provide general guidelines. Since 2013, medical schools have managed these programs in coordination with various specialist associations. The re-certification process requires physicians to participate in Continuing Medical Education (CME) or Continuing Professional Development (CPD) programs. Providers of CME/CPD include the Indonesian Medical Association, specialist associations, medical schools, and KEMENKES.[340]

Established in 1982, the FETP Indonesia is conducted by the KEMENKES Directorate General of Communicable Disease Control and Environmental Health with technical assistance from the U.S. Centers for Disease Control and Prevention (CDC). In collaboration with Universitas Indonesia in Jakarta in 1990 and with Universitas Gadjah Mada in Yogyakarta in 1991, the program was transformed into a two-year master's degree program. Since 2016, seven universities have adopted a standardized curriculum with a minimum training duration of 21 months; 75% of the training is focused on fieldwork and 25% on academic studies. FETP Indonesia aims to strengthen the national health workforce in applied epidemiology and enhance the country's capacity to detect and respond to emerging public health threats.[341]

WOMEN, PEACE AND SECURITY

Indonesia has undertaken several significant initiatives for 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 aid, and economic recovery and development. The WPS agenda was kickstarted by UN Security Council Resolution (UNSCR) 1325, which was unanimously adopted in 2000 and marked the first formal recognition by the Security Council of the impact of armed conflict on women and the importance of their contributions to conflict prevention and peacebuilding. The WPS agenda has been further developed by the passing of UNSCRs 1820 (2008), 1888 (2008), 1889 (2009), 1960 (2010), 2106 (2013), 2122 (2013), 2242 (2015), 2467 (2019), 2493 (2019), and 2538 (2020).[342]

The Government of Indonesia has adopted two National Action Plans (NAP) to localize WPS. In 2014, the government launched the first NAP as a presidential decree, which called it the "National Action Plan for the Protection and Empowerment of Women and Children during Social Conflicts."[343] It focused on three pillars: prevention, handling and empowerment, and the participation of women and children. In July 2021, Indonesia adopted the second NAP on WPS (2020-2025), which incorporated emerging and non-traditional security issues that are priorities for Indonesia, including the prevention of violent extremism, intolerance and radicalization, land disputes, and the prevalence of misinformation and disinformation, including false news and hate speech online. Indonesia is planning for its third NAP, which would expand toward the inclusion of additional emerging issues, such as climate change, cybersecurity, and technology-facilitated gender-based violence.[344]

Indonesia initiated UNSCR 2538, which was adopted on 28 August 2020. The resolution aims to strengthen efforts to ensure the full, effective, and meaningful participation of uniformed and civilian women at all levels and positions within UN peacekeeping operations (PKO).[345] It was the first UNSCR that was heavily an Indonesian-led effort, which Indonesia advocated for during its 2019-2020 tenure as a non-permanent member of the Security Council. The resolution was ratified by rare consensus among UNSC members in a showcase of the success of Indonesian diplomacy.[346] The resolution addresses increasing the deployment of uniformed women to peacekeeping missions, enhancing training and capacity-building cooperation, establishing networks and databases of women personnel, and improving safety and security. Indonesia first deployed women peacekeepers in 2008, and it started with just two women personnel, though numbers have grown significantly since. As of February 2025, Indonesia ranked 6th among 119 troop- and police-contributing countries for contributing personnel, with a total of 2,752 Indonesian personnel deployed to UN PKO; these personnel include 2,559 men (93%) and 193 women (7%) peacekeepers. Women comprised 35% of individual police, 19% of Formed Police Units (FPU), 19% of experts on mission, 13% of staff officers, and 5% of troops.[347]

The Government of Indonesia has emphasized women's role in preventing conflict and countering violent extremism. The government made efforts to integrate WPS into implementation of the NAP on Preventing and Countering Violent Extremism that Leads to Terrorism 2020-2024 (NAP on P/CVE), which was adopted in early 2021 under the leadership of the National Counter Terrorism Agency of Indonesia (Badan Nasional

Penanggulangan Terrorisme, or BNPT). The NAP on P/CVE incorporates gender and human rights dimensions in addressing P/CVE.[348] BNPT has stated that they consider the Peace Village model a concrete program action to promote community resilience, which is key for implementing the NAP on P/CVE.[349] Women are the main actors in the Peace Village program, which aims to tackle the threat of radicalism by empowering communities through cultivating social cohesion, community resilience, societal equality, and respect for diversity.[350] The Wahid Foundation and UN Women support the initiative, which promotes women's participation in community decision-making and conflict prevention, helps build the capacity of communities to develop local action plans, and identifies the early warning signs of intolerance and radicalization at the village level. By the end of 2022, 20 villages declared themselves "Peace Villages," meaning that community members committed to protecting and fostering tolerance and peace within their communities.[351] Photo 3, by UN Women/Satu Bumi Jaya, depicts participants in Peace Village initiatives engaged in community activities in in East Java.[352]



Photo 3: Peace Village Community Activities in East Java

Indonesia is included in the WPS Index by the Georgetown Institute for Women, Peace and Security and Peace Research Institute Oslo Centre on Gender, Peace and Security. It scores and ranks countries across three dimensions of women's experiences – Inclusion (economic, political, and social), Justice (gender equality in formal laws and informal discrimination), and Security (women's safety at home, in the community, and in society). In the 2023/24 edition, Indonesia ranked 82nd out of 177 countries assessed, and it had an overall score of 0.70 on a scale of 0 to 1, where 1 is the ideal. Figure 10 depicts the breakdown of WPS Index data for Indonesia across the dimensions of inclusion, justice, and security.[353]

In 1984, the government ratified the UN Convention on the Elimination of All Forms of Discrimination against Women (CEDAW). Indonesia received 60 recommendations in the constructive dialogue with the CEDAW Committee in 2021, and the Law and Human Rights Ministry has since strengthened coordination with other ministries or agencies and issued several policies, one of which is the inclusion of women in the 2020-2024 NAP for Human Rights as a target group. The Government of Indonesia also reaffirmed its commitment to implementing CEDAW through the 2022 ratification of the Law on the Crimes of Sexual Violence, and it is drafting seven derivative regulations that include providing victims with financial assistance and other efforts to prevent sexual violence cases.[354]

			INCLUSION					JUSTICE				SECURITY			
WPS Index rank 2023	Country	WPS Index score 2023	Education (years) 2016–2021[a]	Financial inclusion (%) 2021	Employment (%) 2018–2022[a]	Cellphone use (%) 2022	Parliamentary representation (%) 2023	Absence of legal discrimination (score) 2023	Access to justice (score) 2022	Maternal mortality ratio (deaths per 100,000 live births) 2020	Son bias (number of sons born per 100 girls) 2022	Intimate partner violence (%) 2018	Community safety (%) 2020–2022[a]	Political violence targeting women (events per 100,000 women) 2022	Proximity to conflict (%) 2021–2022
82	Indonesia	.700	8.2	52.3	58.7	71.0	21.6	70.6	2.281	172.9	106.1	9.0	73.0	0.000	14.3

Figure 10: Women, Peace and Security Index Data for Indonesia

CONCLUSION

Indonesia faces a wide variety of natural hazard challenges related to its geography, in terms of both its archipelagic nature and its location near the equator and within the Pacific Ring of Fire. Floods and landslides are the most frequent disasters. Earthquakes, volcanic eruptions, and tsunamis are not uncommon and tend to cause an outsized number of human fatalities and economic losses when they do. Drought and wildfires, less common but still significant, can have widespread regional impacts when they occur.

Indonesia has built significant DM capacity over the past two decades. The 2004 Indian Ocean tsunami is well-cited as a huge turning point for regional disaster response, particularly in Indonesia, which bore the brunt of fatalities with more than 160,000 lives claimed.[355] Indonesia comprehensively overhauled its DM framework to better incorporate risk identification, risk reduction, assessment, and planning.[356] Nonetheless, as the environment changes, the DM institutions and practices built over the past 20 years will also be adapting. The country already sees more extreme hydrometeorological events than just two decades ago, according to historical records, and BMKG reports significantly more "extreme rain days" in the past 40 years. These events combine with shifts in the built environment – unregulated building, deforestation, and land-clearing. The impact on Indonesia's people and material assets is stark with more flooded communities, more landslides that bury villages, roads, and utilities networks, and more disruptions to livelihoods, health systems, and education.

One key way that Indonesia is working to bolster its own DM capacity while ensuring that regional hazards do not become catastrophes is through ASEAN. Indonesia has robustly contributed to ASEAN's collective DM strategies and plans. These collective actions were strongly impelled by the many Southeast Asian states simultaneously reforming their DM approaches after the 2004 tsunami. ASEAN has been a crucial mechanism for strengthening regional collaboration, and Indonesia has played an important role in the region's multilateral efforts. It hosts the AHA Centre, co-located with the BNPB, and has deployed many personnel as part of ASEAN-ERAT teams,[357] including in the wake of the March 2025 Myanmar earthquake.

Indonesia has also taken steps to increase local participation and input into disaster planning and response. As of March 2023, 34 out of 38 provinces had established their BPBDs to work in coordination with the national BNPB.[358] Following the 2018 earthquake and tsunami in Sulawesi, the Government of Indonesia enabled greater participation of local responders and a particularly robust role for the ASEAN-ERAT to facilitate regional and international coordination. This effort to shift toward localization of disaster response puts Indonesia squarely within the global community of humanitarian and disaster response practice by ensuring that affected communities and their compatriots are key players in addressing hazards and disaster impacts.

Looking forward, Indonesia faces increased climate risks. Its extensive coastline is susceptible to rising sea levels, and the country is projected to face high exposure to all types of flooding and extreme heat. With increased capacity but also mounting challenges, Indonesia continues efforts to build local, national, and regional partnerships to ensure readiness.

APPENDICES

DoD DMHA Engagements in the Past Five Years (FY 2020-2025)

The list below describes the DMHA Engagements that the U.S. DoD has had with Indonesia in the last five years.

Multilateral Naval Exercise Komodo — February 2025

The Multilateral Naval Exercise Komodo (MNEK) opened on 16 February 2025 in Bali, Indonesia, where the U.S. Navy joined more than 20 navies for the opening ceremony. Hosted by the Indonesian Navy (TNI-AL), the international, joint exercise took place in the vicinity of Bali and emphasized multilateral maritime cooperation and disaster response protocols. The exercise encouraged coordination to strengthen international disaster response and humanitarian assistance, establish civil-military linkages, and enhance mutual understanding and interoperability toward affected regions. A 6-day harbor phase included international military workshops on infrastructure repairs and emergency medical response, as well as community outreach and cultural exchanges. A subsequent sea phase included ships and aircraft coordinating maneuvering and search-and-rescue training. At least 38 nations participated or observed the exercise. Komodo 2025 was the fifth iteration of the exercise, which was first held in 2014.[359]

U.S. Indo-Pacific Commander Visits Indonesia — September 2024

Admiral Samuel J. Paparo, commander of USINDOPACOM, visited Indonesia from 30 August to 1 September 2024 to reaffirm the importance of the U.S.-Indonesia Comprehensive Strategic Partnership during discussions with senior leaders and observation of Exercise Super Garuda Shield 2024. Admiral Paparo met with Indonesia's Deputy Minister of Defense, Muhammad Herindra, Commander of the TNI General Agus Subiyanto, Chief of Staff of the Indonesian Navy Admiral Muhammad Ali, and U.S. Ambassador to Indonesia Kamala S. Lakhdhir. In his discussions with Indonesian partners, Paparo highlighted the U.S. commitment to support the modernization of Indonesia's defense forces, enhanced cooperation in maritime security, disaster response and humanitarian aid, peacekeeping, and bilateral or multilateral military exercises.[360]

Super Garuda Shield 2024 — August–September 2024

Super Garuda Shield 2024 officially kicked off on 26 August at Indonesia's Juanda Naval Air Base, Surabaya.[361] The joint multinational exercise ran through 6 September and focused on enhancing interoperability among the U.S., Indonesia, and a coalition of other participating nations. In addition to the U.S. and Indonesia, service members from Australia, Canada, France, Japan, New Zealand, Singapore, South Korea, and the United Kingdom (UK) participated, and an additional 12 nations observed.[362] The exercise also included engineering projects, medical exchanges, and other community-focused initiatives.[363] One such initiative between the U.S. Army and TNI provided aid by building roads that enable local farmers to have better transportation access.[364] In another initiative, the two armies worked together to rebuild a public elementary school in Palagan, an area prone to seasonal monsoon flooding.[365]

Cooperation Afloat Readiness and Training (CARAT) 2024 — May 2024

The U.S. Navy and Marine Corps conducted Exercise CARAT Indonesia 2024 with TNI-AL and Indonesia's Marine Corps (KORMAR RI) in Bandar Lampung, Indonesia, during the period 13-20 May 2024. The joint, bilateral maritime exercise, which took place ashore in Bandar Lampung and in the Java Sea, included subject

matter expert exchanges, jungle training, casualty care and evacuation, public health promotion and education, amphibious operations, and community relations. Exercise goals included promoting regional security cooperation, strengthening maritime partnerships, and enhancing interoperability. "Training side-by-side across a variety of skill areas makes us a stronger, integrated force, better prepared to provide multi-national response to any natural disaster or crisis," said U.S. Marine Corps Colonel Sean Dynan, commanding officer of the 15th Marine Expeditionary Unit.[366] CARAT 2024 marked the 30th iteration of the exercise and 75 years of diplomatic relations between Indonesia and the U.S.[367]

Super Garuda Shield 2023 — September 2023

Super Garuda Shield 2023 was conducted from 31 August to 13 September at multiple training locations, including Surabaya and Banyuwangi. Military services from Australia, France, Indonesia, Japan, Singapore, the UK, and the U.S. participated, and observing nations included Brazil, Brunei, Canada, Germany, India, Malaysia, Netherlands, New Zealand, Papua New Guinea, the Philippines, South Korea, and Timor-Leste.[368] The exercise included an operational staff exercise, a command-and-control simulation, amphibious and airborne operations, and other field training activities intended to boost interoperability. Events included U.S. Army soldiers from 412th Theater Engineer Command and TNI soldiers from the 12th Construction Battalion working together to aid the local community by finishing a school restoration project and celebrating with a ribbon-cutting ceremony on 10 September in Situbondo.[369] The completed school construction work included replacing a damaged roof, strengthening electrical infrastructure, replacing water-damaged walls, building culverts to mitigate flooding, and adding water towers to provide running water.

Defense Threat Reduction Agency – September 2023 – present

Since September 2023, the U.S. DoD's Defense Threat Reduction Agency (DTRA) has supported Indonesia's Cooperative Threat Reduction Program, which focuses on bio-surveillance and biosecurity operations, activities, and investments with TNI and POLRI medical experts. Aimed at identifying and mitigating new and emerging biological threats, the DTRA Bio-surveillance and Security Program conducts training on epidemiology, biological emerging threats, and laboratory work from basic to advanced levels. Selected TNI and POLRI individuals become instructors. These Programs also provide grant assistance for laboratory equipment and renovation upgrades to select TNI and POLRI hospitals, including the medical laboratory at the Indonesian Defense University (Universitas Pertahanan – UNHAN). The first tranche of laboratory equipment arrived at the University in January 2025, and Sandia National Laboratories personnel were on-hand to initiate renovations and equipment installations.[370]

Multilateral Naval Exercise Komodo — June 2023

From 4 to 8 June 2024, MNEK was conducted in and around Makassar, South Sulawesi, Indonesia. The U.S. Navy and more than 20 other navies participated in the exercise supporting multilateral cooperation in the maritime environment across the Indo-Pacific. Under the theme of "Partnership to recover and to rise stronger," the TNI-AL invited participating nations to work together to respond to humanitarian problems and address potential natural disasters in the region. "A multilateral relief effort doesn't just happen. It is cultivated through exercises, exchanges, conferences, and dialogues. During efforts like Komodo, relationships between navies are forged such that during times of adversity our linkages will bear the strain - whenever and wherever it may occur," said Vice Admiral Karl Thomas, Commander U.S. 7th Fleet, during the exercise. "One of the

U.S. Navy's primary missions is to ensure that these sea lanes remain free and open, that they continue to connect nations and serve as the lifeblood of a vibrant global economy... after a disaster, those same sea lanes serve as a conduit by which lifesaving aid is delivered to remote and often inaccessible locations." The exercise included a shore phase with engineering and medical civic action programs, international maritime security symposium, community outreach, military sports engagements, and an international fleet review. This iteration marked the first time the exercise had been held since 2018 due to the COVID-19 pandemic.[371]

Super Garuda Shield 2022 — August 2022

The inaugural Super Garuda Shield was hosted by TNI and USINDOPACOM from 1 to 14 August 2022 at various locations across Indonesia, including the Natuna Islands region. Between 2007 and 2022, the exercise was conducted as Garuda Shield, an annual bilateral military exercise between Indonesian and U.S. armies. The 2022 iteration was replaced with Super Garuda Shield, Southeast Asia's largest multinational military exercise.[372] This shift reflected the enlarged scope and scale of the exercise, which involved more than 4,000 combined forces personnel participating in support of the exercise. To improve joint readiness, training events included an amphibious exercise, maritime security training, military operations in an urban terrain training, air defense exercise, airborne operations, airfield seizure exercise, and command post exercises. First-time participants included Australia, Japan, and Singapore, and other participating nations included Canada, France, India, Malaysia, New Zealand, the South Korea, Papua New Guinea, Timor-Leste, and the UK.[373]

Gema Bhakti 2022 — September 2022

Exercise Gema Bhakti (GB) opened on 9 September 2022 in Jakarta, Indonesia, and ran through 16 September. The staff exercise among members of TNI, USINDOPACOM, and the Hawaii National Guard (HING) aimed to improve joint, operational-level staff planning and processes. Based on a fictional scenario, U.S. forces and the TNI worked together to conduct operational-level planning for a crisis response that also involved the humanitarian aid community. Exercise objectives included improving coordination of military capabilities with civilian agencies and humanitarian actors, organizing and integrating into a combined task force to execute military operations, and enhancing professional development. Approximately 110 U.S. military and interagency personnel and 30 personnel from TNI and Indonesian non-military organizations practiced combined operations planning,[374] which was centered around TNI's regional joint commands and emphasized developing a response plan. The HING and TNI are linked through the U.S. National Guard's State Partnership Program (SPP), and both prepare for military as well as disaster response missions. The HING brings the experience of having built Joint Staffs to respond to volcanic eruptions, floods, and the COVID-19 pandemic.[375] GB, whose name translated to "Echo of Good Deeds" in Indonesian, originated in 2013.[376] Many past iterations have focused on planning for military support to disaster response and humanitarian assistance, with recent years seeing a more complicated operational-level planning exercise.

Gema Bhakti 2021 — September 2021

USINDOPACOM and TNI held Joint Exercise GB21 in Jakarta during the period 21-28 September 2021. The goal of the exercise was to improve joint operational-level staff planning and processes during crisis response. The scenario involved forces from the U.S. and Indonesian militaries and civilian and humanitarian actors, including the UN WFP, USAID, and components of the International Red Cross and Red Crescent Movement. Approximately 40 USINDOPACOM and U.S. interagency personnel, 30 TNI personnel, 20 Hawaii National Guardsmen, and additional representatives from non-military organizations participated, while adhering to COVID-19

protocols.[377] The exercise was preceded by a 4-day operational design workshop that started on 16 September between TNI and HING to lead into GB21 as a peace operation and humanitarian assistance exercise.[378]

Garuda Shield 2021 — August 2021

The 15th iteration of the Garuda Shield exercise between the U.S. Army and TNI was conducted 4-14 August 2021 at Baturaja Training Area, Amborawang, and Makalisung. The two-week joint exercise, sponsored by the U.S. Army and hosted by Indonesia, aimed to improve interoperability and strengthen relationships. It provided training and educational opportunities through the command post, field training, live fire, aviation exercises including paratrooper jumps, and medical exercises,[379] for approximately 1,000 U.S. and 850 Indonesian soldiers. Academic exchanges and professional development workshops focused on humanitarian assistance and disaster response and unconventional and hybrid threats. The command post exercise focused on UN PKO staff tasks in a combined military setting.[380]

Gema Bhakti 2020 — September 2020

GB20 was held via videoconference due to the COVID-19 pandemic. Briefings and breakout sessions were held in the continental U.S., Hawaii, and Indonesia the last week of August 2020. Participants shared presentations and documents on a secure file share and planned for disaster response. The combined staff from C1 (Personnel) to C9 (Civil Affairs) were tasked to plan responses to a humanitarian disaster during a global pandemic.[381] In 2020, participation was significantly reduced due to personnel responding to the COVID-19 pandemic, but the online exercise still enabled fruitful discussions and connections.[382]

International/Foreign Relations

President Prabowo Subianto has taken an active approach and global focus to Indonesia's foreign policy. As President-elect (and sitting Defense Minister), he visited most fellow AMS and actively participated in the ASEAN Defence Ministers' Meetings. The month following his inauguration, in November 2024, he embarked on a high-profile, multi-nation tour to the PRC, the U.S., Peru for the Asia-Pacific Economic Cooperation Summit, Brazil for the G20 Summit, as well as the UK and United Arab Emirates. Priorities include advocating for a resolution to the Israel-Gaza conflict, as Indonesia has long supported the Palestinian cause and does not recognize Israel, as well as accelerating Indonesia's climate goals with the aim to achieve its Intended Nationally Determined Contributions for carbon emissions by 2050, which is significantly earlier than the previously declared 2060 target.[383]

U.S.-Indonesia relations have become increasingly important in recent decades. The two countries initiated a Comprehensive Partnership in 2010 to foster consistent high-level engagement on issues of common interest. The bilateral relationship was upgraded in 2015 to a Strategic Partnership, extending cooperation to issues of regional and global significance,[384] and upgraded again in 2023 to a Comprehensive Strategic Partnership.[385] U.S. Secretary of State Rubio and Indonesian Foreign Minister Sugiono met on 16 April 2025, following the U.S. announcement on 2 April of 32% tariffs on Indonesia and subsequent reduction to a flat 10% tariff on most countries' imports.[386] They discussed potential economic policy revisions while also recognizing the importance of the U.S.-Indonesia Comprehensive Strategic Partnership.[387] Bilateral security cooperation has increased with dozens of annual engagements around border security, counter proliferation, cybersecurity, counterterrorism, maritime security, maritime domain awareness, PKO, and disaster response.[388] Indonesia's total trade with the U.S. increased 17.9% year-over-year to US$9.4 billion in 2024, and this share accounted for 7% of Indonesia's total trade value. Exports to the U.S. reached US$7.2 billion, while imports from the U.S. grew to US$2.3 billion.[389] In May

2025, Indonesia pledged to maintain "balanced and constructive" ties with both PRC and the United States.[390]

PRC-Indonesia relations have increased across economic cooperation, security collaboration, and cultural diplomacy, and the two countries have developed an increasingly interdependent trade relationship. China is Indonesia's largest trading partner, and in 2024, total trade reached US$37.9 billion, a 13.4% year-over-year increase, and accounted for 28.2% of Indonesia's total trade value. Exports to China increased to US$17.7 billion, while imports from China rose to US$20.3 billion.[391] PRC investment in Indonesia totaled US$7.4 billion, making PRC the country's second-largest foreign investor after Singapore. PRC's investments focus on industries like nickel processing for electric vehicles and infrastructure projects such as the Jakarta-Bandung high-speed railway, which is a significant Belt and Road Initiative (BRI) project.[392] PRC's extensive claims in the South China Sea (SCS) overlap with Indonesia's exclusive economic zone near the Natuna Islands. In November 2024, during President Prabowo's visit to Beijing, Indonesia and PRC issued a joint statement committing to development in disputed areas of the SCS, although Indonesia subsequently clarified it does not recognize PRC's "9-dash-line" claims in the SCS and that joint development areas had yet to be identified.[393] Also during Prabowo's visit, PRC and Indonesia signed deals worth US$10 billion, spanning food, new energy, technology, biotechnology, and other sectors.[394]

Australia-Indonesia relations have grown increasingly close and robust. The bilateral relationship was elevated in 2018 to a Comprehensive Strategic Partnership, which focused cooperation around the five areas of enhanced economic and development partnership, connecting people, securing each other's and the region's shared interests, maritime cooperation, and contributing to Indo-Pacific security and prosperity. Maritime cooperation is driven by the two countries sharing the world's longest maritime boundary and includes maritime border protection, combatting illegal, unreported, and unregulated fishing, information sharing to combat transnational crime, improved shipping, and other issues. The 2006 Lombok Treaty was a milestone in security cooperation, and the two countries reaffirmed their commitment to it in 2014 with a Joint Understanding that provided an agreed approach to enhancing intelligence cooperation. Bilateral security ties were further strengthened in August 2024 with the signing of the Australia-Indonesia Defence Cooperation Agreement, which allowed for enhanced cooperation and interoperability between the two defense forces in various areas.[395] The Indonesia-Australia Comprehensive Economic Partnership Agreement entered into force in 2020 and paved the way for closer bilateral economic engagement by opening new markets and opportunities. In 2023, Australian investment in Indonesia totaled US$1.27 billion, and Indonesian investment in Australia totaled US$2.22 billion. Australia's development partnership with Indonesia, which was AU$353.7 million (US$225.9 million) in 2024-2025, supports equitable and sustainable economic transformation, climate-resilient communities, and strong institutions.[396]

Multilateral relations are an important part of Indonesia's foreign policy, as seen with Indonesia's robust participation in ASEAN, the G20, and UN, and its recent joining of BRICS.

ASEAN — Collectively, AMS comprise Indonesia's second-largest trade bloc, with trade reaching US$21.4 billion in 2024 (15.8% of Indonesia's total trade). Exports to ASEAN rose 18.5% year-over-year to US$12.5 billion, and imports also climbed 16.6% year-over-year to US$8.9 billion, reflecting deeper regional trade integration.[397] Indonesia was a founding member of ASEAN along with Malaysia, the Philippines, Singapore, and Thailand in 1967, after which ASEAN was also joined by Brunei, Vietnam, Laos, Myanmar, and then Cambodia. ASEAN has been a trailblazer in regional disaster response. In 2005, it adopted the AADMER, which was the world's first legally binding regional disaster response guidelines, and passed subsequent five-

year AADMER work programs to facilitate AMS' implementation of DRR and climate adaptation initiatives. Indonesia hosts the secretariat of the AHA Centre in Jakarta.

BRICS — In January 2025, Indonesia joined BRICS as the first Southeast Asian nation to do so. BRICS is an intergovernmental organization comprised of 10 countries, as of April 2025. Members, in chronological order, are Brazil, Russia, India, China, South Africa, Egypt, Ethiopia, Iran, the United Arab Emirates, and Indonesia; the name BRICS derives from the initials of the first five member states. BRICS promotes collaboration among developing nations and moving away from the U.S. dollar, and it is often seen as a counterpoint to Western-dominated global institutions.[398]

G20 — In 2022, Indonesia held the G20 Presidency and emphasized the need for a transition to clean energy at the global level. It also developed a framework for accelerating an equitable, affordable, and inclusive energy transition based on G20 Energy Transition Working Group priorities. The Indonesian G20 presidency also focused on digital financial inclusion, advocated for a stronger multilateral system, and established a new financial intermediary fund for pandemic prevention, preparedness, and response.[399] Approximately 75% of international trade and 85% of global GDP are accounted for by G20 members – Argentina, Australia, Brazil, Canada, France, Germany, India, Indonesia, Italy, Japan, Mexico, PRC, Republic of Korea, Russia, Saudi Arabia, South Africa, Turkey, the UK, the U.S., the European Union, and the African Union.[400]

Participation in International Organizations

Indonesia 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:

ASEAN Regional Forum (ARF), Asia-Pacific Economic Cooperation (APEC), Asian Development Bank (ADB), 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), D-8 Organization for Economic Cooperation, East Asia Summit (EAS), Extractive Industries Transparency Initiative (EITI – compliant country), Food and Agriculture Organization of the United Nations (FAO), Group of Eleven (G-11), Group of Fifteen (G-15), Group of 20 (G20), Group of 77 (G77), Indian Ocean Rim Association (IORA), Institute of Catastrophe Risk Management (ICRM), Inter-American Development Bank (IDB), Inter-Parliamentary Union (IPU), International Atomic Energy Agency (IAEA), International Bank for Reconstruction and Development (IBRD), International Chamber of Conference (ICC-national committees), 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 - observer), International Organization for Standardization (ISO), International Telecommunications Satellite Organization (ITSO), International Telecommunications Union (ITU), International Trade Union Confederation (ITUC-NGOs), Melanesian Spearhead Group (MSG – associate member), Multilateral Investment Guarantee Agency (MIGA), Non-Aligned Movement (NAM), Organisation for Economic Co-operation and Development (OECD –

enhanced engagement), Organisation for the Prohibition of Chemical Weapons (OPCW), Organisation of Islamic Cooperation (OIC), Pacific Islands Forum (PIF – partner), United Nations (UN), United Nations Conference on Trade and Development (UNCTAD), United Nations Educational, Scientific, and Cultural Organization (UNESCO), United Nations Human Rights Council (UNHRC), 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 Trade Organization (WTO), World Tourism Organization (UNWTO)

UN peacekeeping missions that Indonesia is contributing personnel to, as of October 2024:[401]

- United Nations Mission for the Referendum in Western Sahara (MINURSO) – 3 experts on mission, 1 individual police officer
- United Nations Multidimensional Integrated Stabilization Mission in the Central African Republic (MINUSCA) – 2 experts on mission, 140-member formed police unit, 26 individual police officers, 10 staff officers, 240 troops
- United Nations Organization Stabilization Mission in the Democratic Republic of the Congo (MONOUSCO) – 5 experts on mission, 9 individual police officers, 7 staff officers, 1,025 troops
- United Nations Peacekeeping Force in Cyprus (UNFICYP) – 3 individual police officers
- United Nations Interim Force in Lebanon (UNIFIL) – 17 staff officers, 1,213 troops
- United Nations Interim Security Force for Abyei (UNISFA) – 2 experts on mission, 3 individual police officers, 2 staff officers
- United Nations Mission in South Sudan (UNMISS) – 2 experts on mission, 20 individual police officers, 1 staff officer
- United Nations Assistance Mission in Somalia (UNSOM) – 1 individual police officer

Force Protection/Pre-Deployment Information

The following information is provided for pre-deployment planning and preparations.[402] 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 Indonesia (*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

Visitors entering Indonesia must have a passport that has at least two blank pages and that is valid for at least six months beyond the date of arrival in Indonesia. If the passport does not meet these requirements, the traveler will be denied entry into Indonesia. The Government of Indonesia will not admit travelers holding the 12-page U.S. emergency passport, issued by U.S. embassies and consulates overseas.

Visa-on-Arrival: Visitors who meet the requirements can apply for a visa on arrival at some international airports, seaports, or land crossings. To apply for the visa on arrival, the traveler must have an ordinary (non-emergency) passport with at least six months of validity from the date of entry and the date of planned departure from Indonesia as well as a return or onward flight booking to another country. There is an Rp 500,000 fee (US$35). The visa on arrival is valid for up to 30 days and may be extended once at the immigration office one week before it expires for an additional 30 days for a maximum of 30 additional days, for another Rp 500,000 (US$35).

Permissible Visa-On-Arrival activities include:

- Tourism
- Official visit or government duties

- Business meeting
- Procurement of goods
- Official meeting
- Transit

Electronic Visa-On-Arrival: Some visitors may also apply for an electronic Visa on Arrival (e-VOA) in advance if entering Indonesia at Soekarno-Hatta International Airport in Jakarta or Ngurah Rai International Airport in Bali. Check the e-VOA requirements from Indonesian Immigration before applying. To apply for an e-VOA see https://molina.imigrasi.go.id/.

Visa: Travel for more than 30 days and travel for non-VOA purposes, including employment and journalism, requires that the appropriate visa be obtained from an Indonesian embassy or consulate before arrival. Visitors traveling on an emergency passport must obtain a visa before arrival in Indonesia.

Visitors who overstay their visa are subject to a fine of Rp 1 million (US$70) per day and may be detained and deported. U.S. citizens have been jailed for visa overstays or entering the country on the wrong visa class for their purpose of travel. Travelers coming to Indonesia for non-tourism purposes are strongly encouraged to consult Indonesian Immigration's website. Travelers should generally carry a copy of their passport with them whenever possible to establish their identity and proof of Indonesian visa.

Visitors must exit Indonesia using the same passport as that used to enter. If this passport is replaced for any reason before departure from Indonesia, affected visitors must apply with Immigration to obtain a "special pass" (exit permit) in the new passport prior to departing.

Safety and Security

Earthquakes and Tsunamis: There are approximately 4,000 earthquakes per year in Indonesia. While most earthquakes are mild, some cause significant destruction and can trigger tsunamis. Tsunami warning systems may not be operable, or reports of tremors and tsunamis may be delayed. Local construction standards are lower than in the United States, and many structures including hotels and malls are prone to damage or collapse in an earthquake. Access to disaster-affected areas is often difficult and assistance from the U.S. Embassy may be limited. If a major earthquake or landslide occurs close to shore, follow the instructions of local authorities, bearing in mind that a tsunami could arrive within minutes. The Indonesia Tsunami Early Warning Centre (https://rtsp.bmkg.go.id/publicbull.php) issues tsunami warnings when a potential tsunami with significant impact is imminent or expected.

Terrorism: Terrorist groups and those inspired by such organizations are intent on attacking U.S. citizens abroad. Terrorists are increasingly using less sophisticated methods of attack – including knives, firearms, and vehicles – to target crowds. Frequently, their aim is unprotected or vulnerable targets, such as:

- High-profile public events (sporting contests, political rallies, demonstrations, holiday events, celebratory gatherings, etc.)
- Hotels, clubs, and restaurants frequented by tourists
- Places of worship
- Schools
- Parks
- Shopping malls and markets
- Public transportation systems (including subways, buses, trains, and scheduled commercial flights)

Extremists in Indonesia aspire to carry out violent attacks against Indonesian and foreign targets, and police have arrested more than 1,200 individuals on terrorism-related charges since 2018. Extremists may target both official and private establishments, including government offices, hotels, bars, nightclubs, shopping areas, restaurants, and places of worship.

Currently, travel by U.S. government personnel to the provinces of Central Papua (Papua Tengah) and Highland Papua (Papua Pegunungan) is restricted to mission-essential travel that is approved in advance by the Embassy.

Crime: In the last year several U.S. citizens were victims of violent and serious crimes in Indonesia, particularly in Bali. As with any major tourist destination, U.S. citizens traveling in Indonesia are especially encouraged to always remain vigilant of their surroundings and read the following advisories carefully. Take sensible measures to protect yourself and your belongings. Closely monitor bags and luggage and carry only essential items. Take particular care of your passport and bank cards and avoid traveling alone.

Police presence and responsiveness is less than it is in the United States, making it more difficult to report crimes quickly and receive police attention. U.S. citizens often cite language barriers as a major hindrance when reporting crimes.

Pickpocketing, sexual assault, vehicle theft, armed carjacking, snatch and grab robberies of mobile phones and purses, and residential break-ins are common. Avoid traveling to isolated areas late at night. Be aware of your surroundings, particularly vehicles or individuals that might be following you.

Use a reputable taxi company or hire a taxi either at a major hotel or shopping center and ensure the driver's identity card is visible. If you are booking a car via a mobile app, always ensure that the driver is the same as the person on the app, share your journey with a friend via the in-app option, and know the contact information for the app's security center. Be aware of drivers falsely claiming to be registered with online ride hailing apps.

Credit card fraud is a common problem in Indonesia. Criminals have "skimmed" credit/debit cards to access and drain bank accounts. Use an ATM in a secure location, such as a major bank branch, and check the machine for evidence of tampering. Monitor your account statements regularly.

Tourists and Indonesians have suffered from serious illness and have even died from "drink-spiking" and drink poisoning incidents, particularly in clubs and nightspots in urban and tourist areas. There have been reports of sexual assaults and drink spiking in Bali, Lombok, and the Gili Islands. Make sure drinks are prepared in your sight and be careful about accepting drinks from strangers at clubs and parties or leaving drinks unattended. Tourists have also been robbed after taking visitors to their hotel rooms, and in some cases have found that their drinks were spiked. There have also been deaths and serious illnesses caused by drinking alcoholic drinks contaminated with methanol. These cases have occurred in bars, shops, and hotels in popular tourist areas like Bali, Lombok, the Gili Islands, and Sumatra.

Demonstrations are very common in Jakarta, Surabaya, and other large cities, but less common in Bali. Avoid demonstrations and other mass gatherings, since even those intended to be peaceful can become violent. U.S. citizens have been detained for participating in protests.

Demonstrations occur frequently. They may take place in response to political or economic issues, on politically significant holidays, and during international events. Demonstrations can be unpredictable. Check local media for updates and traffic advisories.

Victims of Crime: For a criminal investigation to be initiated by the police, the victim must make a full statement to the local police, in person. Local authorities are responsible for investigating and prosecuting crime. The U.S. Embassy can:

- Help find appropriate medical care
- Assist in reporting a crime to the police
- Contact relatives or friends with the victim's written consent
- Explain the local criminal justice process in general terms
- 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. Follow this link for more information
- Help find accommodation and arrange flights home
- Replace a stolen or lost passport

Emergency Contact Information

Local police: 112

U.S. Embassy Jakarta

Jl. Medan Merdeka Selatan No. 3 - 5
Jakarta 10110, Indonesia
Tel: 62 21 5083-1000
Emergency Tel: 62 21 5083-1000 ext. 0 (operator)
Fax: 62 21 385-7189
Email: *JakartaACS@state.gov*
Website: *https://id.usembassy.gov*

Currency Information

Indonesian Rupiah – IDR or Rp
IDR 16,246 = US$1.00 or IDR 1.00 = US$0.00006
(as of 30 January 2025)

Travel Health Information

The CDC provides guidance that all travelers to Indonesia should be up to date on routine vaccinations. The following are additional recommendations for travel to Indonesia. The information in Tables 7 and 8 is taken directly from the CDC website under the Travelers Health Section (*https://wwwnc.cdc.gov/travel/destinations/list/*).[403]

Health Alerts for Indonesia: At the time of writing this handbook (January 2025), there are two health risk alerts:

Global Polio, Level 2 – Practice Enhanced Precautions – Indonesia is among the countries with circulating poliovirus. Before international travel, be up-to-date on polio vaccines; adults who completed the full, routine polio vaccine series may receive a single, lifetime booster dose.

Global Measles, Level 1 – Practice Usual Precautions – Indonesia is among the countries reporting increased numbers of measles cases. Travelers who have not been fully vaccinated are at risk. All international travelers should be fully vaccinated with the measles-mumps-rubella (MMR) vaccine. Travelers who develop a rash, high fever, cough, runny nose, or red, watery eyes should seek medical help immediately.

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 Indonesia. 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*.

Avian / Bird Flu	Bird Flu can be contracted by being around, touching, or working with infected poultry, including visiting farms or live-animal markets. To avoid infection, avoid domestic and wild poultry.
Chikungunya	Chikungunya can be contracted by the bite of an infected mosquito. To avoid exposure, avoid bug bites.
Dengue	Dengue can be contracted by the bite of an infected mosquito. To avoid exposure, avoid bug bites.
Hantavirus	Hanta can be contracted by breathing in air or accidentally eating food contaminated with the urine, droppings, or saliva of infected rodents, by being bitten by an infected rodent, or by being around someone wick with hanta. To avoid infection, avoid rodents and where they live, and avoid sick people.
Leptospirosis	Leptospirosis can be contracted by touching urine or other body fluids from an aminol infected with leptospirosis, swimming or wading in urine-contaminated fresh water, contact with urine-contaminated mud, or drinking water or eating food contaminated with animal urine. To avoid infection, avoid contaminated water and soil, and avoid flood waters.
Schistosomiasis	Schistosomiasis can be contracted by wading, swimming, bathing, or washing in contaminated freshwater streams, rivers, ponds, lakes, or untreated pools. To avoid infection, avoid contaminated water.
Tuberculosis (TB)	TB can be contracted by breathing in TB bacteria that is in the air from an infected person coughing, speaking, or singing. To avoid infection, avoid sick people.
Zika	Zika can be contracted by the bite of an infected mosquito or passed from a pregnant woman to her unborn baby. To avoid exposure, avoid bug bites.

Table 7: CDC Advice for Non-Vaccine-Preventable Diseases in Indonesia

Routine Vaccines	All travelers should be up-to-date with all routine vaccinations before every trip. These vaccines include: • Chickenpox (varicella) • Diphtheria-Tetanus-Pertussis • Flu (influenza) • MMR • Polio • Singles
COVID-19	All eligible travelers should be up-to-date with COVID-19 vaccines.
Chikungunya	There has been evidence of chikungunya virus transmission in Indonesia within the last five years. Chikungunya vaccination may be considered for the following: • Travelers over 65 years of age and/or with underlying conditions and who may spend at least two weeks in areas where mosquitoes are present • People planning to stay in Indonesia for six months of more
Hepatitis A	Recommended for unvaccinated travelers one year of age or older. Unvaccinated travelers over 40 years of age, who are immunocompromised or have chronic medical conditions, and who are planning to depart in fewer than two weeks should get an initial dose of vaccine and receive immunoglobulin.
Hepatitis B	Recommended for unvaccinated travelers of all ages traveling to Indonesia.
Japanese Encephalitis	Recommended for travelers who: • Are moving to an area with Japanese encephalitis to live • Spend long periods in areas with Japanese encephalitis • Frequently travel to areas with Japanese encephalitis Consider vaccines for travelers who: • Are spending less than one month in an area with Japanese encephalitis but who will be doing activities in rural areas, hiking or camping, or staying in places without air conditioning, screens, or bed nets • Going to areas with Japanese encephalitis and who are uncertain of their activities • Not recommended for travelers planning short-term travel to urban areas or to areas with no clear Japanese encephalitis season.
Malaria	CDC recommends that travelers going to certain areas of Indonesia take prescription medicine to prevent malaria.
Polio	Poliovirus has been identified in Indonesia in the past year. Travelers are at increased risk of exposure.
Rabies	Dogs infected with rabies are commonly found in Indonesia. If rabies exposures occur while in Indonesia, 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 exposures, and 2) might have difficulty getting prompt access to safe post-exposure prophylaxis.
Typhoid	Recommended for most travelers, especially those staying with friends or relatives or visiting smaller cities or rural areas.

Table 8: CDC Advice for Vaccine- and Prophylaxis-Preventable Diseases in Indonesia

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.[404] The Sendai Framework is the successor instrument to the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters.[405] 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.[406]

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.[407]

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 11 shows the Sendai DRR Framework.[408]

In March 2023, Indonesia released its Voluntary National Report for the Midterm Review of the Implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030; the review covered progress in the four priorities for action:[409]

Priority 1: Understanding disaster risk

The majority of the population lives on a few main islands, especially Sumatra, Java, and Bali, which have been the center of agriculture, trade and government, but which are also prone to natural hazards due to the country's location within the Ring of Fire. According to BNPB's Catalog of Disaster-prone Villages, more than 53,000 villages are vulnerable to hazards — 45,973 villages prone to earthquake; 5,744 to tsunami; 2,160 to volcanic eruptions; 34,716 to landslides; 41,236 to drought; 47,430 to flooding; and 37,497 villages prone to forest and land fires. Only 15% had EWS, 9.5% had evacuation signs and routes, and 11% had tsunami EWS.

In 2008, the government launched a disaster database and information application called DIBI (*http://dibi.bnpb.go.id*) that focuses on disaster events and past disaster impacts. To complement DIBI, the government developed InaRISK (*https://inarisk.bnpb.go.id/*), which is a risk assessment portal using GIS and spatial data. The InaRISK portal presents information on hazard, vulnerability, and disaster risk for public

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 Understanding disaster risk	**Priority 2** Strengthening disaster risk governance to manage disaster risk	**Priority 3** Investing in disaster risk reduction for resilience	**Priority 4** 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 11: UN Sendai Framework for Disaster Risk Reduction 2015-2030

awareness and for local decision makers to use in drafting risk-sensitive development plans. Since 2011, BNPB has conducted risk assessments from the national down to the district/city level and published the results through InaRisk.

BNPB, BPS, and relevant ministries are working to develop a comprehensive disaster data platform to facilitate disaster data streamlining and sharing through One Disaster Data. This platform will contain data on disaster events and impacts, disaster risks, disaster financing, disaster countermeasures, and the other relevant disaster data based on the standard definitions and concepts of the UN-ESCAP's Disaster-Related Statistics Framework (DRFS) and guided by the rules of the Indonesian One Data platform, which was established to support inclusive and resilient post-disaster recovery in urban contexts.

The Government of Indonesia seeks to overcome poverty, which is the root cause of many disaster risks (e.g., vulnerability and exposure), through an Adaptive Social Protection (ASP) scheme. The ASP helps communities adapt their lives and livelihoods to hazards, manage potential risks, and overcome negative impacts of disaster. The government carried out three ASP priorities: increasing community capacity in disaster mitigation through Resilient Districts/Cities program; preparedness programs in hazard-prone locations; and realization of social protection for victims of social disasters.

Priority 2: Strengthening disaster risk governance to manage disaster risk

During 2015-2022, public policy, legislation, planning, and organization at the national and local level became increasingly aligned with the Sendai Framework. During this time, the government formulated legislation and policy on climate change, public health, water resources, risk-sensitive business permits, and other issues related to the management of the COVID-19 pandemic.

To operationalize the 2007 DM Law, some provinces, cities, and districts issued Provincial/Local Regulations or Governor/District Head/City Mayor Regulations on DM. The Government of Indonesia enacted Law No. 23 (2014) on Local Government, which was followed by subsidiary legislation, including Government Regulation No. 2 (2018) on Minimum Service Standards and Ministry of Home Affairs Regulation No. 101 (2018) on the Technical Standards for the Minimum Service Standards for Disaster Management. These regulations made it obligatory for local governments to provide certain basic services to local people and gave greater roles for local governments to manage their own disaster risks and fund DRR activities.

BNPB has developed several RENAS PB, the latest being for the period 2025-2029. Many provincial and district/city governments also formulated Local RPBs. The RENAS PB and local plans have increased DRR efforts at national and local levels in line with Sendai Framework goals and targets, despite only several ministries and local government offices being currently committed to integrating the national and local DM plans into their Strategic Plans and the Local Middle-term Development Plans.

The 2007 DM Law mandated not only the establishment of BNPB but also BPBDs. As of March 2023, 34 of 38 provinces established their BPBDs. Among the total of 514 districts and cities, 398 districts and 83 cities established their Local BPBDs. Data regarding DRR leadership in the government sector is not easy to obtain, as local BPBD leadership often changes.

Indonesia has made significant progress in requiring disaster risk assessment be considered in public decision making. The Ministry of Land and Spatial Planning has long made disaster risk assessment a prerequisite to the formulation of spatial plans. Neither government nor private sector building investments can be made in hazard-prone areas. Per a 2020 law, business permits must be based on risk assessment. A 2016 regulation requires a strategic environmental assessment be conducted for local government middle-term development plans to ensure sustainable development in plans, policies, and programs.

Civil society has established DRR platforms, including at least 25 DRR platforms at the provincial level and 50 at the district/city level. Representatives of DRR platforms have often assisted the local BPBDs in developing policies and DRR programs. Outstanding DRR leadership in the non-government sector has been internationally recognized. In 2021, one of the founders of U-INSPIRE – a youth and young professionals' platform in science, engineering, technology, and innovation for DRR – was awarded finalist in the Women's International Network for Disaster Risk Reduction Leadership Awards for the rising star category. In 2022, a local leader with special needs from Disaster-ready Disability Community received an award from the Asian Local Leaders Forum for Disaster Resilience during the Asia Pacific Ministerial Conference on DRR in Brisbane, Australia. Additionally, in 2018, the Unspoken Ministry, a national NGO, was also honored with the same award during the Asian Ministerial Conference on Disaster Risk Reduction in Ulaanbaatar, Mongolia.

Indonesia has implemented a moratorium in clearing of primary forest, and it has reduced deforestation and forest degradation with a focus on recovery of ecosystem functions and sustainable forest management through social forestry. Programs such as Village Forestry, Community Forestry, Community Forest Plantation, Indigenous People Forestry, and Partnership in Forest Management have included active participation of local governments, private sector, micro and medium enterprises, civil society, local and indigenous communities, and women.

Priority 3: Investing in disaster reduction for resilience

Investments in resilience through structural and non-structural measures have increased, although data remain scattered in national ministries and agencies and local government sectoral offices and budgets remain issues. Around 50 tsunami evacuation shelters have been built, out of a projected 2,000 evacuation shelters needed across the country.

For other mitigation infrastructure, Indonesia has built 205 dams (2021 data), 932 lakes (2020 data), 4,224 polders (2020 data), 631 units of coastal protection (344,786 m [214 mi] of groins, jetties, and breakwaters, 2019 data), and 646 Sabo Dams (2019 data). Central and local governments have made many more investments in structural measures for resilience, including river embankments to prevent flooding, landslide retaining walls, EWS infrastructure, etc.

Risk has been reduced through zoning regulations through spatial plans to set restrictions on the types of structures that can be built in various locations within the relevant jurisdictions. The government has also invested in expanding insurance coverage for government-owned buildings and facilities as a way of transferring disaster risks to external parties. Capacity building for disaster resilience has also been conducted with families living in hazard-prone areas through the Resilient Families program that includes awareness building, training and education, and development of family emergency plan.

The Government of Indonesia has two instruments to make investment more risk sensitive, i.e. the Disaster Risk Analysis (DRA) and the Strategic Environmental Assessment (SEA). The DRA is an instrument describing a comprehensive picture of the level of disaster risks in a province, district, or city by analyzing the level of hazard, vulnerability, and the capacity in the area. This instrument has been used mostly in the preparation of spatial plans that in turn will determine, among other things, development investments and business permits. It is also used as the basis for the development of local DM plans and can inform the preparation of the local middle-term development plans. SEA is used in the preparation of the middle-term development plans and other critical development investments.

The government has integrated DRR considerations and measures in fiscal instruments. During the COVID-19 pandemic, the government implemented some tax policies,

including tax deduction for those producing medical devices, restitution of income tax for taxpayers affected by and organizations providing aid for COVID-19, deduction of value added tax for people buying houses and vehicles for a certain period during the pandemic, and tax deduction for micro and medium-sized enterprises. Another fiscal instrument used was budget allocation, where the central government obliged the local governments to refocus and reallocate budget from their regular development posts for COVID-19 management.

Since 2015, more and more technical cooperation, technology transfer, and resources support initiatives for capacity building have been implemented through bilateral and multilateral cooperation. The BMKG collaborated with several foreign governments and institutions in meteorology, climate, and geophysics in the development of Maritime Meteorological Information System and scaling-up of BMKG Climate and Weather Service Capacity. The Kemen PU has long been engaged in collaboration with the Japan International Cooperation Agency on flood control and river basin management. Currently, they work together on urban flood control system improvement in several cities, coastal protection in Nusa Dua, Bali Province, and post-disaster reconstruction in Central Sulawesi Province. The Coordinating Ministry of Human Development and Culture, the Ministry of Home Affairs, the National Planning Agency, and BNPB cooperated with the Australian Department of Foreign Affairs and Trade to strengthen risk sensitive planning, disaster management strategy, disaster risk assessment, and disaster data at the national level and in East Java, Bali, West Nusa Tenggara, and East Nusa Tenggara Provinces. Since 2019, BMKG, BNPB, and the World Bank have implemented the Indonesia Disaster Resilience Initiatives Project. It aims to enhance the preparedness of central and selected local governments for future natural hazards through investments in an MHEWS platform and local emergency management systems.

Priority 4: Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation, and reconstruction

Since 2017, the government has designated 26 April as the National Day for Disaster Preparedness. Every year on this day, national and local governments organize disaster simulations and exercises to increase people's preparedness to respond to disaster. Outside the holiday, governments have also engaged NGOs, volunteers and volunteer organizations, community leaders, religious leaders, academics, and representatives of the private sector in conducting disaster simulations and exercises through numerous programs. To enhance preparedness for response, the government has also developed a plan for enhancing the MHEWS. Institutions responsible for managing specific hazards have developed their EWS by upgrading technology, adding more monitoring instruments, building the capacity of people living in hazard-prone areas to respond to warning signs, and exchanging knowledge and technology with foreign partners.

More funding has been allocated for response and recovery. The Ministry of Finance allocated disaster management reserve funds that can be used at times of emergency response (on-call funds) or for post-disaster rehabilitation and reconstruction through grants from the central government to the local governments. The allocation of natural disaster management reserve funds from 2016 to 2020 ranges from IDR 3.8 trillion to IDR 8.8 trillion (US$229 million to US$531 million), with an average budget realization of IDR 5.789 trillion (US$350 million) or about 91.3% of the allocation. Although the allocated budget is growing, the total figure is still short of what is needed, as direct losses attributed to disasters in the past 15 years have averaged more than IDR 20 trillion (US$1.2 billion) annually. In 2018, the World Bank provided a standby loan of up to US$1 billion for the relief and reconstruction efforts in areas of Central Sulawesi and West Nusa Tenggara that were affected by earthquakes and tsunami and subsequent disaster events. In 2021,

the government also secured a standby loan facility from the Asian Development Bank in the amount of US$500 million in anticipation of response and post-disaster rehabilitation and reconstruction needs.

The government has updated policies and regulations for post-disaster recovery. The latest regulations on this issue were Head of BNPB Regulation No. 5 (2017) on the Formulation of Post-Disaster Rehabilitation and Reconstruction Plan and Head of BNPB Regulation No. 6 (2017) on the Implementation of Post-Disaster Rehabilitation and Reconstruction. Those regulations focused on the need for building back better in rehabilitation and reconstruction. The government has updated financial regulation of recovery financing with the issuance of the Minister of Finance No. 224/PMK.07 (2017) on Grant Management from the Central Government to Local Governments for large-scale disasters. It has also improved post-disaster need assessment, through the formulation of a tailor-made Post-Disaster Needs Assessment, which combines the Damage and Loss Assessment (DALA) and Human Recovery Needs Assessment (HRNA). This combination not only assesses the need for physical rehabilitation and reconstruction, but it also appraises the needs for livelihoods recovery and other non-physical aspects of recovery, thus making post-disaster recovery more comprehensive and people centered.

Since 2004, the Kemen PU has developed Rumah Instan Sederhana dan Sehat (Risha) or Instant Simple and Healthy Houses. Risha is an earthquake-resistant structure utilizing prefabricated reinforced concrete for rebuilding houses damaged by earthquake, landslide, volcanic eruption, and other hazards. It has been used for post-disaster reconstruction of housing, schools, and health facilities since the 2004 Indian Ocean "Boxing Day" tsunami up through the 2022 Cianjur earthquake. It replaces non-engineered housing construction that is usually done at the community level. Anecdotal project reports from local governments and NGOs indicate there is increased participation in recovery efforts by different groups such as women, persons with disability, and youth, although this might not apply to all the regions of the country.

Country Profile

The information in the Country Profile section is sourced directly from the CIA World Fact book for Indonesia. 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.[410]

Background

The archipelago was once largely under the control of Buddhist and Hindu rulers. By around the 7th century, a Buddhist kingdom arose on Sumatra and expanded into Java and the Malay Peninsula until it was conquered in the late 13th century by the Hindu Majapahit Empire from Java. Majapahit (1290-1527) united most of modern-day Indonesia and Malaysia. Traders introduced Islam around the 11th century, and the religion was gradually over the next 500 years. The Portuguese conquered parts of Indonesia in the 16th century, but the Dutch ousted them (except in East Timor) and began colonizing the islands in the early 17th century. It would be the early 20th century before Dutch colonial rule was established across the entirety of what would become the boundaries of the modern Indonesian state.

Japan occupied the islands from 1942 to 1945. Indonesia declared its independence shortly before Japan's surrender, but it required four years of sometimes brutal fighting, intermittent negotiations, and UN mediation before the Netherlands agreed to transfer sovereignty in 1949. A period of sometimes unruly parliamentary democracy ended in 1957 when President SOEKARNO declared martial law and instituted "Guided Democracy." After an abortive coup in 1965 by alleged communist sympathizers, SOEKARNO was gradually eased from power. From 1967 until 1998, President SUHARTO ruled Indonesia with his "New Order" government. After street protests toppled SUHARTO in 1998, free and fair legislative elections took place in 1999 while the country's first direct presidential election occurred in 2004. Indonesia has since become a robust democracy, holding four direct presidential elections, each considered by international observers to have been largely free and fair.

Indonesia is now the world's third-most-populous democracy and the world's largest Muslim-majority nation. It has had strong economic growth since overcoming the Asian financial crisis of the late 1990s. By the 2020s, it had the largest economy in Southeast Asia, and its economy ranked in the world's top 10 in terms of purchasing power parity. It has also made considerable gains in reducing poverty. Although relations amongst its diverse population--there are more than 300 ethnic groups--have been harmonious in the 2000s, there have been areas of sectarian discontent and violence, as well as instances of religious extremism and terrorism. A political settlement to an armed separatist conflict in Aceh was achieved in 2005, but a separatist group in Papua continued to conduct a low-intensity conflict as of 2024.

Geography

Location
Southeastern Asia, archipelago between the Indian Ocean and the Pacific Ocean

Geographic coordinates
5 00 S, 120 00 E

Map references
Southeast Asia

Area
total: 1,904,569 sq km
land: 1,811,569 sq km
water: 93,000 sq km
comparison ranking: total 16

Area - comparative
slightly less than three times the size of Texas

Land boundaries
total: 2,958 km
border countries (3): Malaysia 1,881 km; Papua New Guinea 824 km; Timor-Leste 253 km

Coastline
54,716 km

Maritime claims
territorial sea: 12 nm
exclusive economic zone: 200 nm
measured from claimed archipelagic straight baselines

Climate
tropical; hot, humid; more moderate in highlands

Terrain
mostly coastal lowlands; larger islands have interior mountains

Elevation
highest point: Puncak Jaya 4,884 m
lowest point: Indian Ocean 0 m
mean elevation: 367 m

Natural resources
petroleum, tin, natural gas, nickel, timber, bauxite, copper, fertile soils, coal, gold, silver
note: Indonesia is the World's leading producer of nickel with an output of 1.6 million mt in 2022

Land use
agricultural land: 31.2% (2018 est.)
arable land: 13% (2018 est.)
permanent crops: 12.1% (2018 est.)
permanent pasture: 6.1% (2018 est.)
forest: 51.7% (2018 est.)
other: 17.1% (2018 est.)

Irrigated land
67,220 sq km (2012)

Major lakes (area sq km)
fresh water lake(s): Danau Toba - 1,150 sq km
note - located in the caldera of a super volcano that erupted more than 70,000 years ago; it is the largest volcanic lake in the World

Major rivers (by length in km)
Sepik (shared with Papua New Guinea [s]) - 1,126 km; Fly (shared with Papua New Guinea [s]) - 1,050 km
note – [s] after country name indicates river source; [m] after country name indicates river mouth

Population distribution
major concentration on the island of Java, which is considered one of the most densely populated places on earth; of the outer islands (those surrounding Java and Bali), Sumatra contains some of the most significant clusters, particularly in the south near the Selat Sunda, and along the northeastern coast near Medan; the cities of Makasar (Sulawesi), Banjarmasin (Kalimantan) are also heavily populated

Natural hazards
occasional floods; severe droughts; tsunamis; earthquakes; volcanoes; forest fires
volcanism: Indonesia contains the most volcanoes of any country in the world - some 76 are historically active; significant volcanic activity occurs on Java, Sumatra, the Sunda Islands, Halmahera Island, Sulawesi Island, Sangihe Island, and in the Banda Sea; Merapi (2,968 m), Indonesia's most active volcano and in eruption since 2010, 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; on 22 December 2018, a large explosion and flank collapse destroyed most of the 338 m high island of Anak Krakatau (Child of Krakatau) and generated a deadly tsunami inundating portions of western Java and southern Sumatra leaving more than 400 dead; other notable historically active volcanoes include Agung, Awu, Karangetang, Krakatau (Krakatoa), Makian, Raung, Sinabung, and Tambora; see note 2 under "Geography - note"

Geography - note
note 1: according to Indonesia's National Coordinating Agency for Survey and Mapping, the total number of islands in the archipelago is 13,466, of which 922 are permanently inhabited (Indonesia is the world's largest country comprised solely of islands); the country straddles the equator and occupies a strategic location astride or along major sea lanes from the Indian Ocean to the Pacific Ocean
note 2: Indonesia 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; 80% of tsunamis, caused by volcanic or seismic events, occur within the "Pacific Ring of Fire"
note 3: despite having the fourth largest population in the world, Indonesia is the most heavily forested region on earth after the Amazon
note 4: two major food crops apparently developed on the island of New Guinea: bananas and sugarcane

People and Society

Population
total: 281,562,465
male: 140,800,047
female: 140,762,418 (2024 est.)
comparison rankings: female 4; male 4; total 4

Nationality
noun: Indonesian(s)
adjective: Indonesian

Ethnic groups
Javanese 40.1%, Sundanese 15.5%, Malay 3.7%, Batak 3.6%, Madurese 3%, Betawi 2.9%, Minangkabau 2.7%, Buginese 2.7%, Bantenese 2%, Banjarese 1.7%, Balinese 1.7%, Acehnese 1.4%, Dayak 1.4%, Sasak 1.3%, Chinese 1.2%, other 15% (2010 est.)

Languages
Bahasa Indonesia (official, modified form of Malay), English, Dutch, local dialects (of which the most widely spoken is Javanese); note - more than 700 languages are used in Indonesia

Religions
Muslim 87.4%, Protestant 7.5%, Roman Catholic 3.1%, Hindu 1.7%, other 0.8% (includes Buddhist and Confucian) (2022 est.)

Demographic profile
Indonesia has the world's fourth-largest population. It is predominantly Muslim and has the largest Muslim population of any country in the world. The population is projected to increase to as much as 320 million by 2045.
A government-supported family planning program. The total fertility rate (TFR) – the average number of births per woman – from 5.6 in the mid-1960s to 2.7 in the mid-1990s. The success of the program was also due to the social acceptance of family planning, which received backing from influential Muslim leaders and organizations.

The fertility decline slowed in the late 1990's when responsibility for family planning programs shifted to the district level, where the programs were not prioritized. Since 2012 the national government revitalized the national family planning program, and Indonesia's TFR has slowly decreased to 2.3 in 2020. The government may reach its goal of achieving replacement level fertility – 2.1 children per woman – but the large number of women of childbearing age ensures significant population growth for many years.
Indonesia is a source country for labor migrants, a transit country for asylum seekers, and a destination mainly for highly skilled migrant workers. International labor migration, both legal and illegal, from Indonesia to other parts of Asia (most commonly Malaysia) and the Middle East has taken place for decades because of high unemployment and underemployment, poverty, and low wages domestically. Increasing numbers of migrant workers are drawn to Australia,

Canada, New Zealand, and the US. The majority of Indonesian labor migration is temporary and consists predominantly of low-skilled workers, mainly women working as domestics. Indonesia's strategic location between Asia and Australia and between the Pacific and Indian Oceans – and its relatively easy accessibility via boat – appeal to asylum seekers. It is also an attractive transit location because of its easy entry requirements and the ability to continue on to Australia. Recent asylum seekers have come from Afghanistan, Burma (Rohingyas), Iraq, Somalia, and Sri Lanka. Since 2013, when Australia tightening its immigration policy, thousands of migrants and asylum seekers have been stranded in Indonesia, where they live in precarious conditions and receive only limited support from international organizations. The situation for refugees in Indonesia has also worsened because Australia and the US, which had resettled the majority of refugees in Indonesia, have significantly lowered their intake.

Age structure
0-14 years: 23.8% (male 34,247,218/female 32,701,367)
15-64 years: 68.3% (male 96,268,201/female 95,961,293)
65 years and over: 8% (2024 est.) (male 10,284,628/female 12,099,758)

Figure 12 is the population pyramid for Indonesia for 2023.[411] 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.

Dependency ratios
total dependency ratio: 47.6
youth dependency ratio: 37.6
elderly dependency ratio: 10
potential support ratio: 10 (2021 est.)

Median age
total: 31.5 years (2024 est.)
male: 30.8 years
female: 32.3 years
comparison ranking: total 125

Population growth rate
0.73% (2024 est.)
comparison ranking: 120

Birth rate
14.8 births/1,000 population (2024 est.)
comparison ranking: 115

Death rate
6.8 deaths/1,000 population (2024 est.)
comparison ranking: 128

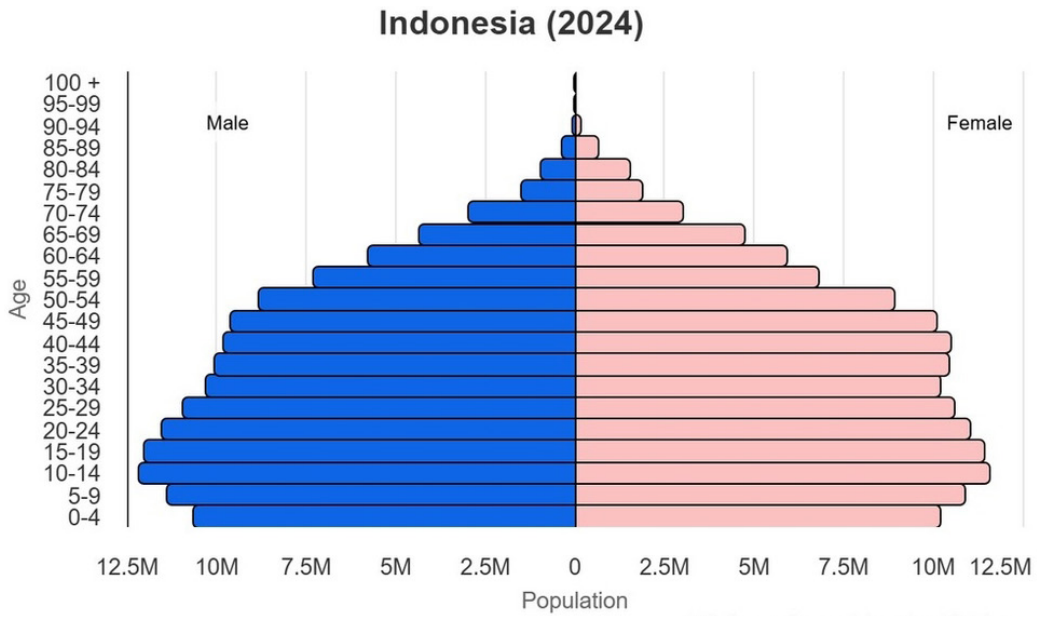


Figure 12: Population Pyramid, Indonesia (2023)

Net migration rate
-0.7 migrant(s)/1,000 population (2024 est.)
comparison ranking: 132

Population distribution
major concentration on the island of Java, which is considered one of the most densely populated places on earth; of the outer islands (those surrounding Java and Bali), Sumatra contains some of the most significant clusters, particularly in the south near the Selat Sunda, and along the northeastern coast near Medan; the cities of Makasar (Sulawesi), Banjarmasin (Kalimantan) are also heavily populated

Urbanization
urban population: 58.6% of total population (2023)
rate of urbanization: 1.99% annual rate of change (2020-25 est.)
total population growth rate v. urban population growth rate, 2000-2030

Major urban areas - population
11.249 million JAKARTA (capital), 3.729 million Bekasi, 3.044 million Surabaya, 3.041 million Depok, 2.674 million Bandung, 2.514 million Tangerang (2023)

Sex ratio
at birth: 1.05 male(s)/female
0-14 years: 1.05 male(s)/female
15-64 years: 1 male(s)/female
65 years and over: 0.85 male(s)/female
total population: 1 male(s)/female (2024 est.)

Mother's mean age at first birth
22.4 years (2017 est.)
note: data represents median age at first birth among women 25-49

Maternal mortality ratio
173 deaths/100,000 live births (2020 est.)
comparison ranking: 52

Infant mortality rate
total: 18.9 deaths/1,000 live births (2024 est.)
male: 21.3 deaths/1,000 live births
female: 16.4 deaths/1,000 live births
comparison ranking: total 80

Life expectancy at birth
total population: 73.6 years (2024 est.)
male: 71.3 years
female: 76 years
comparison ranking: total population 148

Total fertility rate
1.96 children born/woman (2024 est.)
comparison ranking: 110

Gross reproduction rate
0.96 (2024 est.)

Contraceptive prevalence rate
55.5% (2018)

Drinking water source
improved: urban: 98.2% of population
rural: 86.8% of population
total: 93.3% of population
unimproved: urban: 1.8% of population
rural: 13.2% of population
total: 6.7% of population (2020 est.)

Current health expenditure
3.4% of GDP (2020)

Physician density
0.62 physicians/1,000 population (2020)

Hospital bed density
1 beds/1,000 population (2017)

Sanitation facility access
improved: urban: 97.2% of population
rural: 86.5% of population
total: 92.5% of population
unimproved: urban: 2.8% of population
rural: 13.5% of population
total: 7.5% of population (2020 est.)

Obesity - adult prevalence rate
6.9% (2016)
comparison ranking: 162

Alcohol consumption per capita
total: 0.08 liters of pure alcohol (2019 est.)
beer: 0.06 liters of pure alcohol (2019 est.)
wine: 0.01 liters of pure alcohol (2019 est.)
spirits: 0.02 liters of pure alcohol (2019 est.)
other alcohols: 0 liters of pure alcohol (2019 est.)
comparison ranking: total 178

Tobacco use
total: 37.6% (2020 est.)
male: 71.4% (2020 est.)
female: 3.7% (2020 est.)
comparison ranking: total 9

Children under the age of 5 years underweight
17.7% (2018)
comparison ranking: 26

Currently married women (ages 15-49)
70% (2023 est.)

Child marriage
women married by age 15: 2%
women married by age 18: 16.3% (2017 est.)

Education expenditures
3.5% of GDP (2020 est.)
comparison ranking: 141

Literacy
definition: age 15 and over can read and write
total population: 96%
male: 97.4%
female: 94.6% (2020)

School life expectancy (primary to tertiary education)
total: 14 years
male: 14 years
female: 14 years (2018)

People - note
Indonesia is the fourth most populous nation in the World after China, India, and the United States; more than half of the Indonesian population - roughly 150 million people or 55% - live on the island of Java (about the size of California) making it the most crowded island on earth

Environment

Environment - current issues
large-scale deforestation (much of it illegal) and related wildfires cause heavy smog; over-exploitation of marine resources; environmental problems associated with rapid urbanization and economic development, including air pollution, traffic congestion, garbage management, and reliable water and wastewater services; water pollution from industrial wastes, sewage

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, Nuclear Test Ban, Ozone Layer Protection, Ship Pollution, Tropical Timber 2006, Wetlands
signed, but not ratified: Marine Life Conservation

Climate
tropical; hot, humid; more moderate in highlands

Land use
agricultural land: 31.2% (2018 est.)
arable land: 13% (2018 est.)
permanent crops: 12.1% (2018 est.)
permanent pasture: 6.1% (2018 est.)
forest: 51.7% (2018 est.)
other: 17.1% (2018 est.)

Urbanization
urban population: 58.6% of total population (2023)
rate of urbanization: 1.99% annual rate of change (2020-25 est.)
total population growth rate v. urban population growth rate, 2000-2030

Revenue from forest resources
0.39% of GDP (2018 est.)
comparison ranking: 71

Revenue from coal
1.06% of GDP (2018 est.)
comparison ranking: 5

Air pollutants
particulate matter emissions: 19.34 micrograms per cubic meter (2019 est.)
carbon dioxide emissions: 563.32 megatons (2016 est.)
methane emissions: 244.5 megatons (2020 est.)

Waste and recycling
municipal solid waste generated annually: 65.2 million tons (2016 est.)
municipal solid waste recycled annually: 4.564 million tons (2016 est.)
percent of municipal solid waste recycled: 7% (2016 est.)

Major lakes (area sq km)
fresh water lake(s): Danau Toba - 1,150 sq km
note - located in the caldera of a super volcano that erupted more than 70,000 years ago; it is the largest volcanic lake in the World

Major rivers (by length in km)
Sepik (shared with Papua New Guinea [s]) - 1,126 km; Fly (shared with Papua New Guinea [s]) - 1,050 km
note – [s] after country name indicates river source; [m] after country name indicates river mouth

Total water withdrawal
municipal: 23.8 billion cubic meters (2020 est.)
industrial: 9.14 billion cubic meters (2020 est.)
agricultural: 189.7 billion cubic meters (2020 est.)

Total renewable water resources
2.02 trillion cubic meters (2020 est.)

Geoparks
total global geoparks and regional networks: 10
global geoparks and regional networks: Batur; Belitong; Ciletuh - Palabuhanratu; Gunung Sewu; Ijen; Maros Pangkep; Merangin Jambi; Raja Ampat; Rinjani-Lombok; Toba Caldera (2023)

Government

Country name
conventional long form: Republic of Indonesia
conventional short form: Indonesia
local long form: Republik Indonesia
local short form: Indonesia
former: Netherlands East Indies (Dutch East Indies), Netherlands New Guinea
etymology: the name is an 18th-century construct of two Greek words, “Indos” (India) and “nesoi” (islands), meaning “Indian islands”

Government type
presidential republic

Capital
name: Jakarta; note - Indonesian lawmakers on 18 January 2022 approved the relocation of the country’s capital from Jakarta to a site on the island of Borneo between Samarinda City and the port city of Balikpapan; Nusantara (“archipelago”), the name of the new capital, was in development as of late 2024 and is expected to be completed in 2045
geographic coordinates: 6 10 S, 106 49 E
time difference: UTC+7 (12 hours ahead of Washington, DC, during Standard Time)
time zone note: Indonesia has three time zones
etymology: “Jakarta” derives from the Sanscrit “Jayakarta” meaning “victorious city” and refers to a successful defeat and expulsion of the

Portuguese in 1527; previously the port had been named "Sunda Kelapa"

Administrative divisions
35 provinces (provinsi-provinsi, singular - provinsi), 1 autonomous province*, 1 special region** (daerah istimewa), and 1 national capital district*** (daerah khusus ibukota); Aceh*, Bali, Banten, Bengkulu, Gorontalo, Jakarta***, Jambi, Jawa Barat (West Java), Jawa Tengah (Central Java), Jawa Timur (East Java), Kalimantan Barat (West Kalimantan), Kalimantan Selatan (South Kalimantan), Kalimantan Tengah (Central Kalimantan), Kalimantan Timur (East Kalimantan), Kalimantan Utara (North Kalimantan), Kepulauan Bangka Belitung (Bangka Belitung Islands), Kepulauan Riau (Riau Islands), Lampung, Maluku, Maluku Utara (North Maluku), Nusa Tenggara Barat (West Nusa Tenggara), Nusa Tenggara Timur (East Nusa Tenggara), Papua, Papua Barat (West Papua), Papua Barat Daya (Southwest Papua), Papua Pegunungan (Papua Highlands), Papua Selatan (South Papua), Papua Tengah (Central Papua), Riau, Sulawesi Barat (West Sulawesi), Sulawesi Selatan (South Sulawesi), Sulawesi Tengah (Central Sulawesi), Sulawesi Tenggara (Southeast Sulawesi), Sulawesi Utara (North Sulawesi), Sumatera Barat (West Sumatra), Sumatera Selatan (South Sumatra), Sumatera Utara (North Sumatra), Yogyakarta**
note: following the implementation of decentralization beginning on 1 January 2001, regencies and municipalities have become the key administrative units responsible for providing most government services

Independence
17 August 1945 (declared independence from the Netherlands)

National holiday
Independence Day, 17 August (1945)

Legal system
civil law system based on the Roman-Dutch model and influenced by customary law

Constitution
history: drafted July to August 1945, effective 18 August 1945, abrogated by 1949 and 1950 constitutions; 1945 constitution restored 5 July 1959
amendments: proposed by the People's Consultative Assembly, with at least two thirds of its members present; passage requires simple majority vote by the Assembly membership; constitutional articles on the unitary form of the state cannot be amended; amended several times, last in 2002

International law organization participation
has not submitted an ICJ jurisdiction declaration; non-party state to the ICCt

Citizenship
citizenship by birth: no
citizenship by descent only: at least one parent must be a citizen of Indonesia
dual citizenship recognized: no
residency requirement for naturalization: 5 continuous years

Suffrage
17 years of age; universal; married persons regardless of age

Executive branch
chief of state: President PRABOWO Subianto Djojohadikusumo (since 20 October 2024)
head of government: President PRABOWO Subianto Djojohadikusumo (since 20 October 2024)
cabinet: Cabinet appointed by the president
elections/appointments: president and vice president directly elected by absolute majority popular vote for a 5-year term (eligible for a second term); election last held on 14 February 2024 (next to be held in 2029)
election results:
2024: PRABOWO Subianto elected president (assumes office 20 October 2024); percent of vote - PRABOWO Subianto (GERINDRA) 58.6%,

Anies Rasyid BASWEDAN (Independent) 24.9%, GANJAR Pranowo (PDI-P) 16.5%
2019: Joko WIDODO reelected president; percent of vote - Joko WIDODO (PDI-P) 55.5%, PRABOWO Subianto Djojohadikusumo (GERINDRA) 44.5%
note: the president is both chief of state and head of government

Legislative branch
legislature name: House of Representatives (Dewan Perwakilan Rakyat)
legislative structure: unicameral
number of seats: 580 (all directly elected)
electoral system: proportional representation
scope of elections: full renewal
term in office: 5 years
most recent election date: 2/14/2024
parties elected and seats per party: Indonesian Democratic Party - Struggle (PDI-P) (110); Party of Functional Groups (Golkar) (102); Great Indonesia Movement (Gerindra) (86); National Democratic Party (NasDem) (69); National Awakening Party (PKB) (68); Prosperous Justice Party (PKS) (53); National Mandate Party (PAN) (48); Democratic Party (PD) (44)
percentage of women in chamber: 21%
expected date of next election: April 2029

Judicial branch
highest court(s): Supreme Court or Mahkamah Agung (51 judges divided into 8 chambers); Constitutional Court or Mahkamah Konstitusi (consists of 9 judges)
judge selection and term of office: Supreme Court judges nominated by Judicial Commission, appointed by president with concurrence of parliament; judges serve until retirement at age 65; Constitutional Court judges - 3 nominated by president, 3 by Supreme Court, and 3 by parliament; judges appointed by the president; judges serve until mandatory retirement at age 70
subordinate courts: High Courts of Appeal, district courts, religious courts

Political parties
Democrat Party or PD
Functional Groups Party or GOLKAR
Great Indonesia Movement Party or GERINDRA
Indonesia Democratic Party-Struggle or PDI-P
National Awakening Party or PKB
National Democratic Party or NasDem
National Mandate Party or PAN
Prosperous Justice Party or PKS

International organization participation
ADB, APEC, ARF, ASEAN, BIS, CD, CICA (observer), CP, D-8, EAS, EITI (compliant country), FAO, G-11, G-15, G-20, G-77, IAEA, IBRD, ICAO, ICC (national committees), ICRM, IDA, IDB, IFAD, IFC, IFRCS, IHO, ILO, IMF, IMO, IMSO, Interpol, IOC, IOM (observer), IORA, IPU, ISO, ITSO, ITU, ITUC (NGOs), MIGA, MINURSO, MINUSTAH, MONUSCO, MSG (associate member), NAM, OECD (enhanced engagement), OIC, OPCW, PIF (partner), UN, UNAMID, UNCTAD, UNESCO, UNHRC, UNIDO, UNIFIL, UNISFA, UNMIL, UNOOSA, UNWTO, UPU, WCO, WFTU (NGOs), WHO, WIPO, WMO, WTO

Diplomatic representation in the US
chief of mission: Ambassador (vacant); Chargé d'Affaires Ida Bagus Made BIMANTARA (since 30 November 2023)
chancery: 2020 Massachusetts Avenue NW, Washington, DC 20036
Tel: [1] (202) 775-5200
Fax: [1] (202) 775-5236
Email: *washington.kbri@kemlu.go.id*
Website: *kemlu.go.id*
consulate(s) general: Chicago, Houston, Los Angeles, New York, San Francisco

Diplomatic representation from the US
chief of mission: Ambassador Kamala Shirin LAKHDHIR (since 8 August 2024)
embassy: Jl. Medan Merdeka Selatan No. 3-5, Jakarta 10110
mailing address: 8200 Jakarta Place, Washington DC 20521-8200
Tel: [62] (21) 5083-1000
Fax: [62] (21) 385-7189
Email: *jakartaacs@state.gov*

Website: *https://id.usembassy.gov/*
consulate(s) general: Surabaya
consulate(s): Medan

Flag description
two equal horizontal bands of red (top) and white; the colors derive from the banner of the Majapahit Empire of the 13th-15th centuries; red symbolizes courage, white represents purity
note: similar to the flag of Monaco, which is shorter; also similar to the flag of Poland, which is white (top) and red

National symbol(s)
garuda (mythical bird); national colors: red, white

National anthem
name: "Indonesia Raya" (Great Indonesia)
lyrics/music: Wage Rudolf SOEPRATMAN
note: adopted 1945

National heritage
total World Heritage Sites: 10 (6 cultural, 4 natural)
selected World Heritage Site locales: Borobudur Temple Compounds (c); Komodo National Park (n); Prambanan Temple Compounds (c); Ujung Kulon National Park (n); Sangiran Early Man Site (c); Lorentz National Park (n); Tropical Rainforest Heritage of Sumatra (n); Cultural Landscape of Bali Province (c); Ombilin Coal Mining Heritage of Sawahlunto (c); Cosmological Axis of Yogyakarta and its Historic Landmarks (c)

Economy

Economic overview
one of the fastest growing economies and largest in Southeast Asia; upper middle-income country; human capital and competitiveness phase of its 20-year development plan; COVID-19 reversed poverty reduction trajectory; strengthening financial resilience

Real GDP (purchasing power parity)
$3.906 trillion (2023 est.)
$3.718 trillion (2022 est.)
$3.531 trillion (2021 est.)
note: data in 2021 dollars
comparison ranking: 8

Real GDP growth rate
5.05% (2023 est.)
5.31% (2022 est.)
3.7% (2021 est.)
note: annual GDP % growth based on constant local currency
comparison ranking: 50

Real GDP per capita
$13,900 (2023 est.)
$13,300 (2022 est.)
$12,800 (2021 est.)
note: data in 2021 dollars
comparison ranking: 127

GDP (official exchange rate)
$1.371 trillion (2023 est.)
note: data in current dollars at official exchange rate

Inflation rate (consumer prices)
3.67% (2023 est.)
4.21% (2022 est.)
1.56% (2021 est.)
note: annual % change based on consumer prices
comparison ranking: 72

Credit ratings
Fitch rating: BBB (2017)
Moody's rating: Baa2 (2018)
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: 12.5% (2023 est.)
industry: 40.2% (2023 est.)
services: 42.9% (2023 est.)
note: figures may not total 100% due to non-allocated consumption not captured in sector-reported data
comparison rankings: services 183; industry 24; agriculture 64

GDP - composition, by end use
household consumption: 54.4% (2023 est.)
government consumption: 7.4% (2023 est.)
investment in fixed capital: 29.3% (2023 est.)
investment in inventories: 1.2% (2023 est.)
exports of goods and services: 21.7% (2023 est.)
imports of goods and services: -19.6% (2023 est.)
note: figures may not total 100% due to rounding or gaps in data collection

Agricultural products
oil palm fruit, rice, sugarcane, maize, coconuts, cassava, bananas, eggs, mangoes/guavas, chicken (2022)
note: top ten agricultural products based on tonnage

Industries
petroleum and natural gas, textiles, automotive, electrical appliances, apparel, footwear, mining, cement, medical instruments and appliances, handicrafts, chemical fertilizers, plywood, rubber, processed food, jewelry, and tourism

Industrial production growth rate
5% (2023 est.)
note: annual % change in industrial value added based on constant local currency
comparison ranking: 50

Labor force
142.688 million (2023 est.)
note: number of people ages 15 or older who are employed or seeking work
comparison ranking: 4

Unemployment rate
3.42% (2023 est.)
3.46% (2022 est.)
3.83% (2021 est.)
note: % of labor force seeking employment
comparison ranking: 58

Youth unemployment rate (ages 15-24)
total: 13.9% (2023 est.)
male: 14.2% (2023 est.)
female: 13.6% (2023 est.)
note: % of labor force ages 15-24 seeking employment
comparison ranking: total 98

Population below poverty line
9.4% (2023 est.)
note: % of population with income below national poverty line

Gini Index coefficient - distribution of family income
36.1 (2023 est.)
note: index (0-100) of income distribution; higher values represent greater inequality
comparison ranking: 67

Average household expenditures
on food: 33.7% of household expenditures (2022 est.)
on alcohol and tobacco: 7.4% of household expenditures (2022 est.)

Household income or consumption by percentage share
lowest 10%: 3.3% (2023 est.)
highest 10%: 29.9% (2023 est.)
note: % share of income accruing to lowest and highest 10% of population

Remittances
1.06% of GDP (2023 est.)
0.99% of GDP (2022 est.)
0.79% of GDP (2021 est.)
note: personal transfers and compensation between resident and non-resident individuals/households/entities

Budget
revenues: $130.872 billion (2020 est.)
expenditures: $192.97 billion (2020 est.)

Public debt
45.34% of GDP (2022 est.)
note: central government debt as a % of GDP
comparison ranking: 120

Taxes and other revenues
11.6% (of GDP) (2022 est.)
note: central government tax revenue as a % of GDP
comparison ranking: 169

Current account balance
-$2.138 billion (2023 est.)
$13.215 billion (2022 est.)
$3.511 billion (2021 est.)
note: balance of payments - net trade and primary/secondary income in current dollars
comparison ranking: 162

Exports
$290.969 billion (2023 est.)
$315.746 billion (2022 est.)
$246.787 billion (2021 est.)
note: balance of payments - exports of goods and services in current dollars
comparison ranking: 31

Exports - partners
China 21%, US 10%, Japan 8%, India 8%, Malaysia 5% (2022)
note: top five export partners based on percentage share of exports

Exports - commodities
coal, palm oil, iron alloys, natural gas, steel (2022)
note: top five export commodities based on value in dollars

Imports
$262.746 billion (2023 est.)
$273.031 billion (2022 est.)
$217.579 billion (2021 est.)
note: balance of payments - imports of goods and services in current dollars
comparison ranking: 30

Imports - partners
China 31%, Singapore 10%, Japan 6%, Malaysia 5%, Thailand 5% (2022)
note: top five import partners based on percentage share of imports

Imports - commodities
refined petroleum, crude petroleum, vehicle parts/accessories, natural gas, plastics (2022)
note: top five import commodities based on value in dollars

Reserves of foreign exchange and gold
$146.359 billion (2023 est.)
$137.222 billion (2022 est.)
$144.908 billion (2021 est.)
note: holdings of gold (year-end prices)/foreign exchange/special drawing rights in current dollars
comparison ranking: 20

Debt - external
$237.223 billion (2023 est.)
comparison ranking: 3

Exchange rates
Indonesian rupiah (IDR) per US dollar -
Exchange rates:
15,236.885 (2023 est.)
14,849.854 (2022 est.)
14,308.144 (2021 est.)
14,582.203 (2020 est.)
14,147.671 (2019 est.)

Energy

Electricity access
electrification - total population: 100% (2022 est.)
electrification - urban areas: 100%
electrification - rural areas: 98.2%

Electricity
installed generating capacity: 69.706 million kW (2022 est.)
consumption: 312.423 billion kWh (2022 est.)
imports: 972.7 million kWh (2022 est.)
transmission/distribution losses: 25.71 billion kWh (2022 est.)
comparison rankings: transmission/distribution losses 192; imports 77; consumption 13; installed generating capacity 20

Electricity generation sources
fossil fuels: 79.9% of total installed capacity (2022 est.)
solar: 0.1% of total installed capacity (2022 est.)
wind: 0.1% of total installed capacity (2022 est.)
hydroelectricity: 8.1% of total installed capacity (2022 est.)
geothermal: 4.9% of total installed capacity (2022 est.)
biomass and waste: 6.8% of total installed capacity (2022 est.)
Coal
production: 659.357 million metric tons (2022 est.)
consumption: 202.283 million metric tons (2022 est.)
exports: 469.09 million metric tons (2022 est.)
imports: 12.396 million metric tons (2022 est.)
proven reserves: 34.869 billion metric tons (2022 est.)

Petroleum
total petroleum production: 865,000 bbl/day (2023 est.)
refined petroleum consumption: 1.728 million bbl/day (2022 est.)
crude oil estimated reserves: 2.48 billion barrels (2021 est.)
Natural gas
production: 57.41 billion cubic meters (2022 est.)
consumption: 36.061 billion cubic meters (2022 est.)
exports: 22.064 billion cubic meters (2022 est.)
imports: 1.027 billion cubic meters (2022 est.)
proven reserves: 1.408 trillion cubic meters (2021 est.)

Carbon dioxide emissions
684.926 million metric tonnes of CO2 (2022 est.)
from coal and metallurgical coke: 386.828 million metric tonnes of CO2 (2022 est.)
from petroleum and other liquids: 224.45 million metric tonnes of CO2 (2022 est.)
from consumed natural gas: 73.649 million metric tonnes of CO2 (2022 est.)
comparison ranking: total emissions 7

Energy consumption per capita
33.039 million Btu/person (2022 est.)
comparison ranking: 110
Communications

Telephones - fixed lines
total subscriptions: 8.424 million (2022 est.)
subscriptions per 100 inhabitants: 3 (2022 est.)
comparison ranking: total subscriptions 20

Telephones - mobile cellular
total subscriptions: 316.553 million (2022 est.)
subscriptions per 100 inhabitants: 115 (2022 est.)
comparison ranking: total subscriptions 4

Telecommunication systems
general assessment: Indonesia faces more than the usual number of obstacles in terms of enabling widespread access to quality telecommunications services for its population of more than 270 million; the geographical challenges have been further compounded by a variety of social, political, and economic problems over the years that have kept the country's wealth distributed very thinly; the fixed-line (fiber) and mobile operators have continued to expand and upgrade their networks across the country; Indonesia's 18,000 islands (many of which, however, are sparsely populated) makes the deployment of fixed-line infrastructure on a broad scale difficult; there has been renewed activity in fiber optic cable, but the bundling of fixed-line telephony with TV and internet services will see the country's teledensity stabilize; mobile subscriptions have reached more than 130% and is projected to exceed 150% by 2026; with 4G LTE universally

available, the major mobile companies have been busy launching 5G services in selected areas; the rollout of 5G will be hampered by the lack of availability of suitable frequencies; the 4G had to be reallocated from broadcasting services, and indications are that the same process is going to have to be followed in order to allow the expansion of 5G into its core frequency bands (3.3 to 4.2GHz) (2022)
domestic: fixed-line subscribership roughly 3 per 100 and mobile-cellular 134 per 100 persons (2021)
international: country code - 62; landing points for the SEA-ME-WE-3 & 5, DAMAI, JASUKA, BDM, Dumai-Melaka Cable System, IGG, JIBA, Link 1, 3, 4, & 5, PGASCOM, B3J2, Tanjung Pandam-Sungai Kakap Cable System, JAKABARE, JAYABAYA, INDIGO-West, Matrix Cable System, ASC, SJJK, Jaka2LaDeMa, S-U-B Cable System, JBCS, MKCS, BALOK, Palapa Ring East, West and Middle, SMPCS Packet-1 and 2, LTCS, TSCS, SEA-US and Kamal Domestic Submarine Cable System, 35 submarine cable networks that provide links throughout Asia, the Middle East, Australia, Southeast Asia, Africa and Europe; satellite earth stations - 2 Intelsat (1 Indian Ocean and 1 Pacific Ocean) (2019)

Broadcast media
mixture of about a dozen national TV networks - 1 public broadcaster, the remainder private broadcasters - each with multiple transmitters; more than 100 local TV stations; widespread use of satellite and cable TV systems; public radio broadcaster operates 6 national networks, as well as regional and local stations; overall, more than 700 radio stations with more than 650 privately operated (2019)

Internet country code
.id

Internet users
total: 167.4 million (2021 est.)
percent of population: 62% (2021 est.)
comparison ranking: total 5

Broadband - fixed subscriptions
total: 11,722,218 (2020 est.)
subscriptions per 100 inhabitants: 4 (2020 est.)
comparison ranking: total 17

Transportation

National air transport system
number of registered air carriers: 25 (2020)
inventory of registered aircraft operated by air carriers: 611
annual passenger traffic on registered air carriers: 115,154,100 (2018)
annual freight traffic on registered air carriers: 1,131,910,000 (2018) mt-km

Civil aircraft registration country code prefix
PK

Airports
513 (2024)
comparison ranking: 16

Heliports
24 (2024)

Pipelines
1,064 km condensate, 150 km condensate/gas, 11,702 km gas, 119 km liquid petroleum gas, 7,767 km oil, 77 km oil/gas/water, 728 km refined products, 53 km unknown, 44 km water (2013)

Railways
total: 8,159 km (2014)
narrow gauge: 8,159 km (2014) 1.067-m gauge (565 km electrified)
note: 4,816 km operational
comparison ranking: total 27

Roadways
total: 496,607 km
paved: 283,102 km
unpaved: 213,505 km (2011)
comparison ranking: total 13

Waterways
21,579 km (2011)
comparison ranking: 8

Merchant marine
total: 11,422 (2023)
by type: bulk carrier 160, container ship 219, general cargo 2,347, oil tanker 714, other 7,982
comparison ranking: total 1

Ports
total ports: 123 (2024)
large: 3
medium: 6
small: 18
very small: 96
ports with oil terminals: 79
key ports: Belawan, Cilacap, Dumai, Jakarta, Kasim Terminal, Merak Mas Terminal, Palembang, Surabaya, Ujung Pandang

Military and Security

Military and security forces
Indonesian National Armed Forces (Tentara Nasional Indonesia, TNI): Army (TNI-Angkatan Darat (TNI-AD)), Navy (TNI-Angkatan Laut (TNI-AL), includes Marine Corps (Korps Marinir or KorMar)), Air Force (TNI-Angkatan Udara (TNI-AU)) (2024)
note 1: in 2014, Indonesia created a Maritime Security Agency (Bakamla) to coordinate the actions of all maritime security agencies, including the Navy, the Indonesian Sea and Coast Guard (Kesatuan Penjagaan Laut dan Pantai, KPLP), the Water Police (Polair), Customs (Bea Cukai), and Ministry of Marine Affairs and Fisheries
note 2: the Indonesian National Police, which reports directly to the president, includes a paramilitary Mobile Brigade Corps (BRIMOB) and Detachment 88 (Densus or Detasemen Khusus 88 Antiteror), a specialized counterterrorism force

Military expenditures
0.8% of GDP (2023 est.)
0.8% of GDP (2022 est.)
0.8% of GDP (2021 est.)
0.8% of GDP (2020 est.)
0.8% of GDP (2019 est.)
comparison ranking: 137

Military and security service personnel strengths
approximately 400,000 active-duty troops (300,000 Army; 60,000 Navy, including about 20,000 marines; 30,000 Air Force) (2023)

Military equipment inventories and acquisitions
the military's inventory is a wide mix of Chinese, Russian, and Western (including US) equipment; in recent years, major suppliers have included China, France, Germany, the Netherlands, South Korea, and the US; the TNI has been engaged in a modernization program for more than a decade; Indonesia has a growing defense industry fueled by technology transfers and cooperation agreements with several countries; in 2019, the Indonesian Government said that growing its domestic defense industry would be a national priority over the following decade (2024)

Military service age and obligation
18-45 years of age for voluntary military service for men and women, with selective conscription authorized (men, age 18), but not utilized; 24-month service obligation, with reserve obligation to age 45 (officers) (2024)
note: as of 2023, women comprised about 7% of the Indonesian military

Military deployments
225 (plus about 140 police) Central African Republic (MINUSCA); 1,025 Democratic Republic of the Congo (MONUSCO); 1,225 Lebanon (UNIFIL) (2024)

Military - notes
the military is responsible for external defense, combatting separatism, and responding to natural disasters; in certain conditions it may provide operational support to police, such as for counterterrorism operations, maintaining public order, and addressing communal conflicts; the TNI has undergone reforms since the 1990s to improve its professionalism and limit its involvement in internal politics
the Army is involved in counterinsurgency operations in Papua against the West Papua Liberation Army, the military wing of the Free

Papua Organization, which has been fighting a low-level insurgency since Indonesia annexed the former Dutch colony in the 1960s; the Army has also been assisting police in Sulawesi in countering the Mujahideen Indonesia Timur (MIT; aka East Indonesia Mujahideen), a local militant group affiliated with the Islamic State of Iraq and ash-Sham (ISIS)
the Navy is responsible for coastal defense and patrolling Indonesia's territorial waters where it faces such issues as piracy, transnational crime, illegal fishing, and incursions by Chinese vessels; Indonesia is not a formal claimant in the South China Sea, although some of its waters lie within China's "nine-dash line" maritime claims, resulting in some stand offs in recent years; since 2016, the Indonesian military has bolstered its presence on Great Natuna Island (aka Pulau Natuna Besar), the main island of the Middle Natuna Archipelago, which is part of the Riau Islands Province, and held military exercises in the surrounding waters (2024)

Space

Space agency/agencies
Indonesian Space Agency (INASA; formed 2022); National Research and Innovation Agency (BRIN; established 2021); Research Organization for Aeronautics and Space (ORPA; formed 2021) (2024)

Space launch site(s)
Stasiun Peluncuran Roket rocket launch facility (West Java); building a space launch facility/ spaceport on Biak, Papua (estimated completion date is 2025) (2024)

Space program overview
has had a space program since the 1960s that has focused largely on rocket development and the acquisition and operation of satellites; operates satellites; manufactures remote sensing (RS) satellites; has a sounding (research) rocket program geared towards development of an indigenous orbital satellite launch vehicle (SLV) and independent satellite launch capabilities; researching and developing a range of other space-related technologies and capabilities related to satellite payloads, communications, RS, and astronomy; has relations with several foreign space agencies and industries, including those of France, Germany, India, Japan, Russia, and the US (2024)

Terrorism

Terrorist group(s)
Terrorist group(s): Islamic State of Iraq and ash-Sham (aka Jemaah Anshorut Daulah); Jemaah Islamiyah
note: 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
refugees (country of origin): 5,684 (Afghanistan) (mid-year 2022)
IDPs: 72,000 (inter-communal, inter-faith, and separatist violence between 1998 and 2004 in Aceh and Papua; religious attacks and land conflicts in 2007 and 2013; most IDPs in Aceh, Maluku, East Nusa Tengarra) (2022)
stateless persons: 866 (2022)

Illicit drugs
major transit point and destination for illicit narcotics; a destination for methamphetamine, ecstasy, and other illicit drugs; methamphetamine production facilities within Indonesia

Acronyms and Abbreviations

°	degree(s) – of temperature (Celsius [C] or Fahrenheit [F]) or of latitude and longitude (North [N], South [S], East [E], and West [W])
$	dollar(s) – of Australia or the U.S.
AADMER	ASEAN Agreement on Disaster Management and Response
ACDM	ASEAN Committee on Disaster Management
AHA Centre	ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management
AIDS	Acquired Immuno-deficiency Syndrome
AJDRP	ASEAN Joint Disaster Response Plan
AMS	ASEAN member state
ASEAN	Association of Southeast Asian Nations
BAPPENAS	Kementerian Perencanaan Pembangunan Nasional / Ministry of National Development Planning
Basarnas	Badan Nasional Pencarian dan Pertolongan / National Search-and-Rescue Agency
BHA	Burean for Humanitarian Affairs (of USAID)
BMKG	Badan Meteorologi, Klimatologi, dan Geofisika / Meteorology, Climatology and Geophysics Agency
BNPB	Badan Nasional Penanggulangan Bencana / National Disaster Management Agency
BNPT	Badan Nasional Penanggulangan Terorisme / National Counter Terrorism Agency
BPBD	Badan Penanggulangan Bencana Daerah / Regional Disaster Management Agencies
BPS	Badan Pusat Statistik / Statistics Indonesia
BRICS	Brazil, Russia, India, China, South Africa (now including other countries)
CARAT	Cooperation Afloat Readiness and Training
CCS	Country Cooperation Strategy
CE	Common Era (formerly Anno Domini [AD])
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
CFE-DM	Center for Excellence in Disaster Management and Humanitarian Assistance (of the U.S. DoD)
COM	Chief of Mission
COVID-19	Coronavirus Disease 2019
CRED	Centre for Research on Epidemiology of Disasters
CSO	civil society organization
DELSA	Disaster Emergency Logistics System for ASEAN
DGCA	Directorate General of Civil Aviation
DHN	Declaration of Humanitarian Need
DM	disaster management
DoD	Department of Defense (of the U.S.)
DPD	Dewan Perwakilan Daerah / Regional Representative Council
DPF	Disaster Pooling Fund
DPR	Dewan Perwakilan Rakyat / People's Representative Council
DRM	disaster risk management

DRR	disaster risk reduction
DRTF	Disaster Response Task Force
DTRA	Defense Threat Reduction Agency
EOC	emergency operations center
ERAT	ASEAN Emergency Response and Assessment Team
EWS	early warning system
FAO	Food and Agriculture Organization
FETP	Field Epidemiology Training Program
ft	foot / feet
GDP	Gross Domestic Product
GW	gigawatt(s)
EM-DAT	international disaster database (of the CRED)
ha	hectare(s)
HCT	Humanitarian Country Team
HING	Hawaii National Guard
HIV	Human Immunodeficiency Virus
ICRC	International Committee of the Red Cross
ICS	incident command system
IDR	Indonesian rupiah
IFRC	International Federal of Red Cross and Red Crescent Societies
IHL	International Humanitarian Law
in	inch(es)
InaEEWS	Earthquake Early Warning System
INASAR	Indonesia SAR Team
InaTEWS	Tsunami Early Warning System
INSARAG	International Search and Rescue Advisory Group
IOM	International Organization for Migration
IOTWMS	Indian Ocean Tsunami Warning and Mitigation System
IRBI	Indeks Risiko Bencana Indonesia / Indonesian Disaster Risk Index
JKN	Jaminan Kesehatan Nasional / National Health Insurance Program
Kemen PU	Kementerian Pekerjaan Umum / Ministry of Public Works and Housing
KEMENKES	Kementerian Kesehatan / Ministry of Health
km / km^2	kilometer(s) / square kilometer(s)
m	meter(s)
MAGMA	Multiplatform Application for Geohazard Mitigation in ASEAN
MDMC	Muhammadiya Disaster Management Center
MHEWS	Multi Hazard Early Warning System
mi / mi^2	mile(s) / square mile(s)
mm	millimeter(s)
MNEK	Multilateral Naval Exercise Komodo

MoU	Memorandum of Understanding
MPR	Majelis Permusyawaratan Rakyat / People's Consultative Assembly
Mw	moment magnitude (earthquake strength)
NAM	Non-Aligned Movement
NAP	National Action Plan
NCC	national coordination center
NCD	non-communicable disease
NGO	non-governmental organization
OCHA	Office for the Coordination of Humanitarian Affairs (of the UN)
OFDA	Office of Foreign Disaster Assistance (of USAID, latterly BHA)
P/CVE	Preventing and Countering Violent Extremism that Leads to Terrorism
PBD	Disaster Response Management Post
PDC	Pacific Disaster Center
PKO	Peacekeeping Operations (of the UN)
PLHIV	people living with HIV
PMI	Palang Merah Indonesia / Indonesian Red Cross
POLRI	Kepolisian Negara Republik Indonesia / Indonesian National Police
PPRC	Pasukan Pemukul Reaksi Cepat / Quick Reaction Strike Force (of the TNI)
PRC	People's Republic of China
PTWS	Pacific Tsunami Warning System
PUSDALOPS-PB	Pusat Pengendalian dan Operasi Penanggulangan Bencana (national EOC)
PUSDIKLAT PB	BNPB Training Center
PVMBG	Pusat Vulkanologi dan Mitigasi Bencana Geologi / Centre for Volcanology and Geological Hazard Mitigation
Rakornas PB	Rapat Koordinasi Nasional Penanggulangan Bencana / National Coordination Meeting on Disaster Management
RCP	Representative Concentration Pathways
RENAS PB	National Disaster Management Plan
RIPB	Rencana Induk Penanggulangan Bencana / Master Plan for Disaster Management
Rp	Indonesian rupiah
RPB	provincial or local disaster management plan
RPJPN	Rencana Pembangunan Jangka Panjang Nasional / National Long-Term Development Plan
SAR	search and rescue
SASOP	Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations (of ASEAN)
SCS	South China Sea
SDG	Sustainable Development Goal
SKPDB	Sistem Komando Penanggulangan Darurat Bencana / Disaster Response Command System
SRC	Satuan Reaksi Cepat-Penanggulangan Bencana / Rapid Reaction Unit (of BNPB)
TB	Tuberculosis
TEU	Twenty-foot Equivalent Unit(s)

TNI	Tentara Nasional Indonesia / Indonesian Armed Force
TSP	tsunami service provider
U.S.	United States
UHC	universal health coverage
UK	United Kingdom
UN	United Nations
UNCT	United Nations Country Team
UNDP	United Nations Development Programme
UNDRR	United Nations Office of Disaster Risk Reduction
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commission on Refugees
UNICEF	United Nations Children's Fund
UNRC	United Nations Resident Coordinator
UNSCR	United Nations Security Council Resolution
USAID	United States Agency for International Development
USAR	urban search and rescue
USGS	United States Geological Survey
USINDOPACOM	United States Indo-Pacific Command (of the DoD)
VDAP	Volcano Disaster Assistance Program
W/m^2	watts per square meter
WFP	World Food Programme
WHO	World Health Organization
WPS	Women, Peace and Security

Endnotes

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Center for Excellence in Disaster Management & Humanitarian Assistance
456 Hornet Avenue, Building 76, Joint Base Pearl Harbor - Hickam, Hawaii 96860-3503
Telephone: 808.472.0518 | DSN: 315.472.0518
https://www.cfe-dmha.org
@cfedmha