CFE-DM

ASEAN

Disaster Management Reference Handbook

February 2026



CENTER FOR EXCELLENCE IN DISASTER MANAGEMENT & HUMANITARIAN ASSISTANCE
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Acknowledgements

CFE-DM would like to thank the following people for their knowledge and support in developing this resource:

The Leadership and Staff of the ASEAN Coordinating Centre for Humanitarian Assistance on disaster management (AHA Centre);

Dr. Alistair D. B. Cook, Senior Research Fellow; S. Nanthini, Associate Research Fellow; and Keith Paolo Landicho, Associate Research Fellow, Humanitarian Assistance and Disaster Relief Programme at the Institute for Defence and Strategic Studies, S. Rajaratnam School of International Studies (RSIS);

Nidhirat Srisirirojanakorn, Associate Humanitarian Affairs Officer, United Nations Office for the Coordination of Humanitarian Affairs (OCHA), Regional Office for Asia and the Pacific (ROAP)

Front Cover

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Other references may cite this publication using the following format:
CFE-DM. Title. Year. Date Accessed. URL

ISBN 978-1-955429-72-6

Published February 11, 2026 (20260211v4.0)

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Letter from the Director

Over the past two decades, since the 2004 Indian Ocean "Boxing Day" tsunami, the Association of Southeast Asian Nations (ASEAN) has made significant strides in disaster management (DM). The 11 ASEAN Member States (AMS) have been at the forefront of multilateral disaster risk reduction, and they continue to extend their expertise and skills to build global capacity.

As Southeast Asia continues to navigate an increasingly complex and dynamic disaster risk landscape, it will benefit immensely from ASEAN's work to institutionalize DM and operationalize the ASEAN Agreement on Disaster Management and Emergency Response (AADMER) through the ASEAN Coordinating Centre for Humanitarian Assistance on disaster management (AHA Centre). ASEAN and the AMS stand poised to demonstrate solidarity through DM activities and to meet the objectives of ASEAN Vision 2045 – Our Shared Future. Indeed, the AHA Centre has responded to over 50 disaster events across the region since 2011.

The Center for Excellence in Disaster Management and Humanitarian Assistance (CFE-DM) has a long history of engaging at regional and national levels across Southeast Asia. Staff members of both the AHA Centre and CFE-DM participate side-by-side in events and training. Together, we facilitate learning on issues surrounding civil-military coordination in disaster response. In the coming years, we look forward to sustaining and expanding programs in collaboration with the AHA Centre and each AMS, as we build toward greater regional and global resilience.

This updated ASEAN Disaster Management Reference Handbook provides decision makers, planners, researchers, and practitioners insight into ASEAN's DM policies, frameworks, tools, and programs in order to enhance regional civil-military coordination across preparedness, response, and recovery. This publication is intended to support civilian or military stakeholders who are planning or executing a DM activity alongside ASEAN agencies or multiple AMS.

Sincerely,

Joseph D. Martin, SES
Director

About the Center for Excellence in Disaster Management & Humanitarian Assistance

Overview

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

EXECUTIVE SUMMARY

The Association of Southeast Asian Nations (ASEAN) was founded in 1967 and has, since then, expanded in membership, partnerships, and ambition. As of December 2025, the 11 ASEAN Member States (AMS) are Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic (PDR), Malaysia, Myanmar, Philippines, Singapore, Thailand, Timor-Leste, and Viet Nam.

Of the 14 countries affected by the 2004 Indian Ocean "Boxing Day" tsunami, 4 of those directly affected were AMS – Indonesia, Malaysia, Myanmar, and Thailand. Of the 230,000 people killed, more than 182,000 of them were in these countries, where displacement and economic damage were also massive and widespread. In the immediate aftermath of the disaster, ASEAN declared that it would take collective action to strengthen emergency response.

By July 2005, the Foreign Ministers of the AMS signed the ASEAN Agreement on Disaster Management and Emergency Response (AADMER), which entered into force in 2009. This legally-binding document committed the signatories not only to respond collectively to disasters but also to reduce regional vulnerabilities and build collective capacity across the disaster management (DM) cycle – prevention, mitigation, preparedness, response, and recovery.

Due to ASEAN's emphasis on collective action to ensure regional security and prosperity, the AMS have been at the forefront of multilateral disaster risk reduction (DRR). In the past two decades, this action has matured, and AMS increasingly extend their expertise and skill not only to respond to emergencies in non-ASEAN countries but also to help neighbors and global partners build capacity.

To support ASEAN's vision for the future, in 2025, ASEAN and its agencies launched a new cycle of work plans and programs to enhance the solidarity shown by each AMS in delivering DM activities in the region. The overarching vision is laid out in ASEAN 2045 – Our Shared Future, a vision made up of the Kuala Lumpur Declaration on ASEAN 2045 and its accompanying documents:

- ASEAN Political-Security Community (APSC) Strategic Plan
- ASEAN Economic Community (AEC) Strategic Plan
- ASEAN Socio-Cultural Community (ASCC) Plan
- ASEAN Connectivity Strategic Plan
- ASEAN Community Vision 2045: Resilient, Innovative, Dynamic, and People-Centred ASEAN

The ASEAN Coordinating Centre for Humanitarian Assistance on disaster management (AHA Centre) was established in 2011 to operationalize the AADMER. Since then, it has become the hub for regional DM, under the guidance of the ASEAN Committee on Disaster Management (ACDM), which brings together the leaders of the national disaster management organizations (NDMO) of the 11 AMS.

The AHA Centre, as the bloc's hub for all aspects of DM, is working to ensure that ASEAN and the AMS have access to climate projections and artificial intelligence (AI), among other tools, to build out their early warning, mitigation, and preparedness capacities long before a disaster strikes. As the region – and the world – confront increasingly severe and frequent disasters, this drive toward solidarity and a resilience mindset will allow the AHA Centre to continue to actively engage with international partners, ranging from United Nations (UN) agencies to individual countries, corporations, and non-governmental and civil society organizations (NGO and CSO, respectively). This centrality promotes the idea of harnessing disparate experiences and strengths to build a better outcome in a hazardous world.

ASEAN GOVERNING BODIES

ASEAN is a regional organization established with the signing of the ASEAN Declaration (Bangkok Declaration) on 8 August 1967 in Bangkok, Thailand. The founding members were Indonesia, Malaysia, Philippines, Singapore, and Thailand. In the intervening 60 years, ASEAN has expanded to include Brunei Darussalam (1984); Viet Nam (1995); Lao PDR and Myanmar (1997); Cambodia (1999); and Timor-Leste (2025). ASEAN's primary aim is to foster economic, political, and security cooperation among these countries.[1]

In 2007, the AMS adopted the ASEAN Charter, a constitutional document that provided the organization with legal status and an institutional framework. The Charter enshrines ASEAN's core principles, defines the requirements for membership, and sets out a blueprint for building ASEAN Community Councils across three pillars: the AEC, the APSC, and the ASCC. Each Community is responsible for the relevant ministerial bodies within its pillar. It coordinates their work and helps carry out strategic plans in line with the ASEAN Charter.[2]

Since the 2008 entry into force of the ASEAN Charter, ASEAN's work has been guided by the ASEAN Coordinating Council (ACC), comprising the Foreign Ministers of the AMS. The ACC oversees the development and implementation of key documents signed by ASEAN leaders. Before these documents are submitted to the ASEAN Summit for approval, the ACC consults with the three ASEAN Community Councils and seeks their input and agreement. The ACC coordinates and implements the mandate of ASEAN Leaders and all cross-pillar initiatives. Its responsibilities include:

- Prepare ASEAN Summit meetings
- Coordinate implementation of agreements and decisions of the ASEAN Summit
- Coordinate with the ASEAN Community Councils to enhance policy coherence, efficiency, and cooperation
- Coordinate reports of the ASEAN Community Councils to the ASEAN Summit
- Consider the Secretary-General's annual report on the work of ASEAN
- Consider the Secretary-General's report on the functions and operations of the ASEAN Secretariat and other relevant bodies
- Approve appointments and terminations of Deputy Secretaries-General upon the recommendation of the Secretary-General
- Undertake other tasks provided for in the Charter or such other functions as may be assigned by the ASEAN Summit[3]

The ASEAN Summit is ASEAN's highest policy-making body and comprises the Heads of State or Government of the AMS. It meets at least twice annually. The Summit is hosted by the AMS holding the ASEAN Chair. Under the ASEAN Charter, the ASEAN Summit deliberates on key issues, provides policy guidance, and makes decisions on matters of importance to ASEAN. It may also take appropriate action to address emergency situations affecting ASEAN and is responsible for appointing the Secretary-General.[4]

The ASEAN Chair is a position that rotates annually among the AMS based on the alphabetical order of the AMS' English names. The Chair is assisted by the ASEAN Secretariat, based in Jakarta, Indonesia.[5] An AMS holding the Chair leads the ASEAN Summit and related summits, the ACC, the ASEAN Community Councils, relevant ASEAN sectoral ministerial bodies and senior officials meetings, and the Committee of Permanent Representatives (CPR). The AMS holding the ASEAN Chair is responsible for actively promoting and advancing the interests and well-being of ASEAN. It builds the ASEAN Community through policy initiatives, coordination, consensus, and cooperation; represents ASEAN in strengthening and promoting closer relations with international partners; and carries out any other tasks and functions as may be mandated.[6]

Each AMS has an ASEAN National Secretariat, which serves as the national focal point (NFP), assisting in the coordination and implementation of ASEAN decisions at the national level. The National Secretariat organizes activities and manages the flow of information according to the three ASEAN Community Council pillars. It promotes and fosters ASEAN identity and community building at the national level and oversees national preparation and hosting of ASEAN meetings when the country holds the ASEAN Chair.[7]

ASEAN Secretariat

Established on 24 February 1976 by the AMS' Foreign Ministers, the ASEAN Secretariat, located in Jakarta, Indonesia, oversees ASEAN's daily operations. The Secretary-General and the ASEAN Secretariat serve as coordinators to facilitate effective decision-making within and among ASEAN bodies. In addition, each AMS appoints a Permanent Representative to liaise with the Secretary-General and Secretariat.[8]

The Secretariat comprises the Secretary-General, three Bureau Directors, a Foreign Trade and Economic Relations Officer, an Administrative Officer, a Public Information Officer, and an Assistant to the Secretary-General.

Under the Secretary-General, the Secretariat has a functional structure. One of the two Deputy Secretaries-General acts as Chief-of-Staff, responsible for corporate affairs and internal management. The other Deputy Secretary-General serves as Chief of Operations, assisting the Secretary-General with operations and policy matters. Corporate affairs cover administration, finance, human resources, public information, information technology, and special projects. Operational bureaus include the Task Force for Financial Cooperation and Macroeconomic Surveillance, economic and functional cooperation, trade, investment and services, program coordination, and external relations.[9] Figure 1 illustrates the ASEAN Secretariat organizational structure.[10]

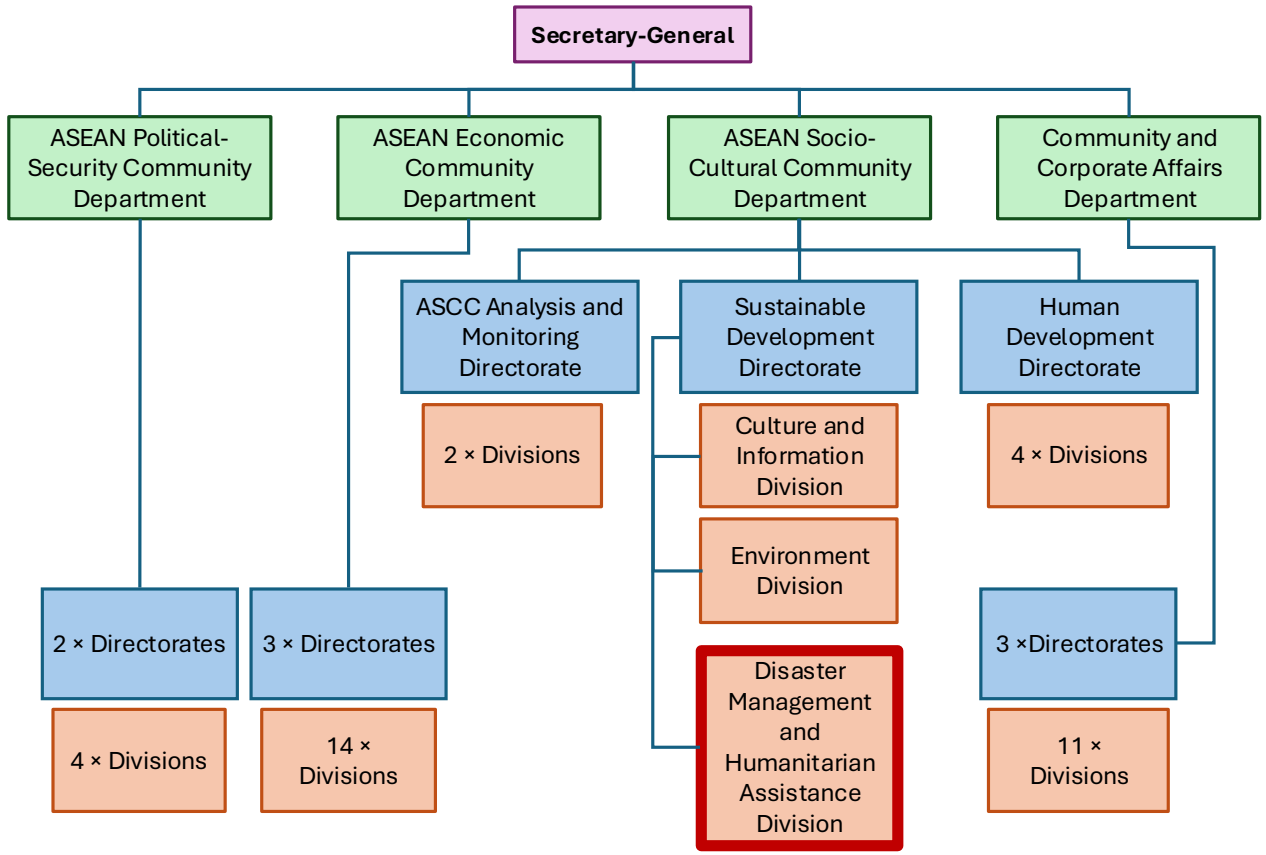


Figure 1: ASEAN Secretariat Organizational Structure

DMHA Division of the Secretariat

Under the Secretariat's ASCC Department, the Sustainable Development Directorate oversees the work of the Disaster Management and Humanitarian Assistance (DMHA) Division. The DMHA Division is responsible for managing ASEAN's cooperation in DM, supporting the ACDM, and monitoring implementation and operationalization of ASEAN's agreements on DM, including the AADMER, the AADMER Work Programmes, and the ASEAN Declaration on "One ASEAN, One Response: Responding to Disasters Within and Outside the Region" (OAOR).

The DMHA Division also supports the AHA Centre as the regional hub for DM information, knowledge, and collective response. The Division works closely with other ASEAN bodies, Dialogue Partners, UN system agencies, the International Red Cross and Red Crescent Movement, CSOs, the private sector, academia, and other regional organizations.[11]

Secretary-General – ASEAN Humanitarian Assistance Coordinator

In times of disaster, the Secretary-General may serve as the ASEAN Humanitarian Assistance Coordinator (SG-AHAC) and will ensure strategic-level coordination during response and recovery in the region. At all times, the Secretary-General serves as ASEAN's main contact for engaging with the global community – including the UN, donor countries, international financial institutions, and NGOs – on issues such as DM, climate change adaptation, and economic resilience.

Based on the OAOR Declaration, the SG-AHAC can be activated either when a disaster-affected AMS requests assistance or with the consent (or absence of objection) of the affected AMS when an offer of assistance is made by the Secretary-General. Once these conditions are met, the SG-AHAC will:

- Communicate with the Head of State of the affected AMS to offer assistance
- Report to the ASEAN Chair at the level of Head of State on the disaster situation and status of overall ASEAN response
- Call for support from ASEAN Leaders to mobilize resources to support the affected AMS
- Seek guidance from the ASEAN Chair on resource mobilization, which may include convening a special high-level meeting
- Coordinate and mobilize resources from ASEAN sectors and mechanisms, including the ASEAN Development Fund
- Coordinate and mobilize resources from ASEAN Dialogue Partners, international organizations, and other partners
- Raise public awareness on ASEAN's overall response to the disaster
- Coordinate the monitoring and evaluation of ASEAN's overall response to the disaster[12]

The SG-AHAC function is not activated for every disaster affecting an AMS. Most recently, the SG-AHAC was activated in response to two disasters impacting Myanmar – Cyclone Mocha in 2023 and the 7.7-magnitude earthquake in March 2025. The SG-AHAC managed political and diplomatic complexities surrounding ASEAN's participation in response and recovery activities due to conflict considerations.[13]

ASEAN Committee on Disaster Management

The ACDM, established in 2003, promotes regional cooperation in addressing DM challenges. It is a subsidiary body of the ASEAN Ministerial Meeting on Disaster Management (AMMDM) under the ASCC. It serves as the main body that oversees the implementation of the AADMER. The ACDM meets at least once annually and comprises the heads of the NDMOs of the 11 AMS. Main roles include:

- To provide leadership and guidance towards fulfilling the goals and objectives of AADMER
- To initiate, direct, and oversee development, monitoring, and implementation of the AADMER Work Programme and other initiatives implemented by the respective working groups
- To strengthen coordination with relevant ASEAN bodies

- To collaborate with ASEAN Dialogue Partners, multilateral agencies, NGOs, and the private sector[14]

The ACDM also serves as the governing board for the AHA Centre.[15]

As the ASEAN lead for DM, the ACDM coordinates its work with other relevant ASEAN bodies through the ASEAN Disaster Resilience Platform (ADRP), formerly the Joint Task Force (JTF) on Humanitarian Assistance and Disaster Relief (HADR). The ACDM also works with various partners and stakeholders to ensure that implementation of the AADMER is inclusive and comprehensive. Its work is guided by AADMER and the AADMER Work Programmes, the ASCC Blueprints, the ASEAN Vision 2045 on DM, and the OAOR Declaration.[16]

The ASEAN Secretariat provides support to the ACDM on policy, program development, advocacy, resource mobilization, and monitoring and evaluation. ACDM's place within the ASEAN institutional structure for DM is shown in Figure 2.[17]

AHA Centre

Established on 17 November 2011, the AHA Centre serves as the operational engine for implementing the AADMER[18] across disaster monitoring, preparedness and response, and capacity building. Based in Jakarta, Indonesia, the AHA Centre houses an emergency operations center (EOC), which functions as the regional hub for both disaster monitoring and coordinating ASEAN's collective disaster response efforts, especially mobilization of the ASEAN Emergency Response and Assessment Team (ASEAN-ERAT) and use of the Disaster Emergency Logistics System for ASEAN (DELSA).

As an intergovernmental organization established by the AMS, the AHA Centre works closely with the AMS' NDMOs. It reports to the ACDM, comprised of the NDMOs' heads, who serve as the Governing Board of the AHA Centre. The AHA Centre's role as the primary regional coordinating body for DM and emergency response is guided by the OAOR Declaration, the ASEAN Vision 2045 on DM, and the AADMER Work Programmes.[19]

Under the OAOR Declaration, the AHA Centre is designated as the primary ASEAN regional coordinating agency for DM and emergency response. In this role, the AHA Centre focuses on the operational aspects

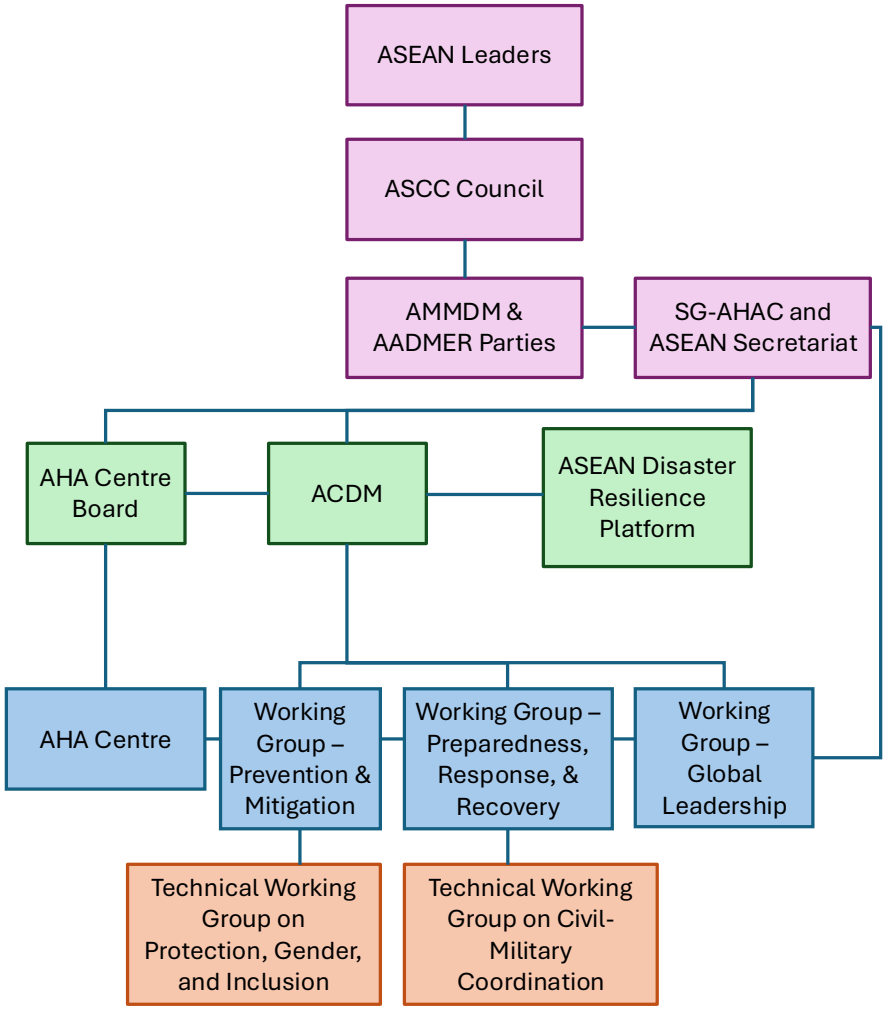


Figure 2: ASEAN's Disaster Management Institutional Structure

of implementing OAOR. During disaster situations, the AHA Centre has five mission objectives that reflect the principles and goals of both AADMER and OAOR:

- Objective 1: Collecting, analyzing, and disseminating information on disaster risks in the affected AMS
- Objective 2: Supporting the AMS' disaster response operations
- Objective 3: Facilitating and coordinating humanitarian relief assistance from AMS, ASEAN partners, and humanitarian actors outside the affected AMS
- Objective 4: Delivering immediate relief assistance to the affected AMS through the NDMO
- Objective 5: Projecting ASEAN solidarity[20]

In every disaster in the region, the AHA Centre initiates a response and immediately focuses on delivering mission objectives 1, 2, and 5. If needed, the AHA Centre will also address the other mission objectives, particularly those related to facilitating and coordinating humanitarian assistance. The specific mission objectives applied in each disaster vary, and the AHA Centre's Executive Director determines those objectives based on the needs of the affected AMS.[21]

Figure 3 illustrates the AHA Centre's core functions.[22]

At the strategic level of a disaster response, the AHA Centre works closely with the ASEAN Secretary-General in their role as the SG-AHAC, if activated. This activation is most common when a disaster is very large, multi-country, or in a politically sensitive geographic area.[23] In addition to working with AMS' NDMOs, the AHA Centre partners with international organizations, the private sector, and civil society groups, including the AADMER Partnership Group (APG). It has also established multilateral cooperation arrangements with ASEAN partners such as Australia, the European Union (EU), Germany, Japan, New Zealand, People's Republic of China (PRC), Switzerland, and the United States.[24]

In preparation for or immediately after a disaster, the AHA Centre may deploy an In-Country Liaison Team (ICLT) to coordinate with the affected country at the central government level. The ICLT collects information from the affected government and other humanitarian actors operating in the affected area and shares this information with the AHA Centre's EOC. This coordination can serve as the foundation for follow-on assessment teams, particularly the ASEAN-ERAT, a rapid deployment force comprised of trained personnel.[25]

The AHA Centre also hosts a Military Representative (MILREP) from the Ministry of Defense of the AMS holding the ASEAN Chair. The MILREP serves as a focal point for AMS and non-ASEAN partners to coordinate military-related matters through the AHA Centre and can convey requests to their national military. However, the MILREP does not serve as the focal point for overall civil–military coordination within the AHA Centre.[26]

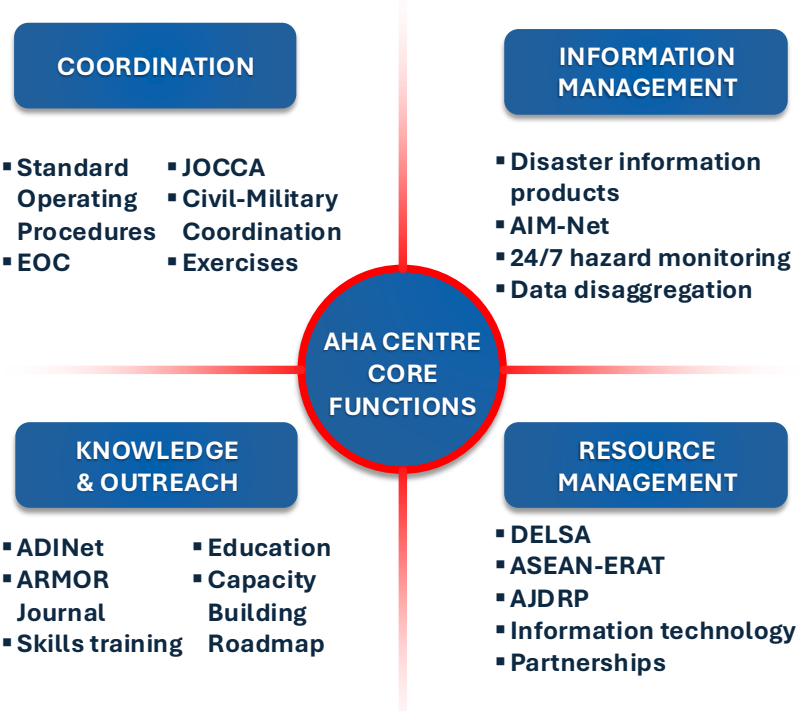


Figure 3: AHA Centre Core Functions

AHA Centre Responses within ASEAN

As of 16 December 2025, the AHA Centre has responded to 54 disasters across all AMS except Brunei Darussalam, Singapore, and Timor-Leste. In the past decade (2015-2025), it activated emergency response mechanisms for more than 40 hazard events across the region.[27] The following narratives cover 10 years of responses that involved human or material deployments rather than monitoring and information management.

Viet Nam Monsoon and Tropical Cyclones – 2025

Between mid-September and October 2025, Tropical Cyclones Bualoi and Matmo, together with an intensified southwest monsoon, caused widespread flooding and landslides in Viet Nam. According to the Viet Nam Disaster and Dyke Management Authority (VDDMA), as of 5 October, these events resulted in over 70 fatalities, 15 missing persons, and 180 injured, with more than 400,000 houses damaged and estimated economic losses exceeding US$700 million. Subsequently, during October and November, severe flooding and landslides in central Viet Nam led to hundreds of deaths and reports of missing persons, thousands of houses damaged or destroyed, and estimated economic losses of more than US$600 million. In response, and in close coordination with VDDMA, the AHA Centre mobilized relief items from the DELSA Regional Warehouse in Subang, Malaysia, to support affected communities in northern Viet Nam in October and central Viet Nam in November.[28]

Lao PDR Monsoon and Tropical Cyclone – 2025

Heavy rains related to the southwest monsoon and Tropical Cyclone Wipha impacted Lao PDR during July 2025. More than 58,000 people were affected across 10 provinces. Nine people were killed. There was significant damage to schools, homes, roads, bridges, farmland, and livestock operations, with estimated losses of around US$13 million. The country's Social Welfare Department led the national response through the Central Disaster Management Committee. At the request of the government, in early August, the AHA Centre deployed three ASEAN-ERAT members with expertise in rapid assessment and information management to assist with the Joint Needs and Early Recovery Assessment.[29]

Philippines Monsoon and Tropical Cyclones – 2025

From July into August 2025, the southwest monsoon and Tropical Cyclones Wipha, Francisco, and Co-May affected Philippines. Flooding was widespread. A total of 254 cities and municipalities declared a state of calamity. Damages were estimated at US$334 million. The AHA Centre, in coordination with the country's National Disaster Risk Reduction and Management Council (NDRRMC), dispatched relief items from the DELSA stockpiles at Camp Aguinaldo, Quezon City, Philippines; relief items delivered from DELSA included personal hygiene kits, shelter toolkits, and family kits.[30]

Myanmar Earthquake – 2025

On 28 March 2025, a 7.7-magnitude earthquake struck Myanmar and Thailand. ASEAN and the other AMS responded swiftly to support affected communities and coordinate a response, with a focus on Myanmar, through the country's EOC. The earthquake caused at least 3,768 deaths and injured thousands. In Myanmar, an estimated 281,000 people were displaced, and the country's economic losses were estimated at US$1.6 billion. Significant infrastructure damage was reported around Mandalay, and Myanmar requested international assistance. Through the AHA Centre, ASEAN deployed urban search and rescue (USAR) teams, emergency medical teams, and the ASEAN-ERAT, with team members from all other AMS. As shown in Photo 1, the ASEAN-ERAT carried out rapid assessments and coordinated relief in areas such as Sagaing, Mandalay, and Nay Pyi Taw.[31]

Relief supplies, including kitchen sets, tarps, and jerry cans, were sent from the DELSA stockpiles in Subang, Malaysia, and Camp



Photo 1: ASEAN-ERAT Conducting Rapid Assessment Following the Mandalay Earthquake

Aguinaldo, Philippines, and support came from all AMS, as well as other foreign governments and international organizations. The AHA Centre also received help from Singapore's Changi Regional HADR Coordination Centre (RHCC), the Republic of Singapore Air Force, the Royal Malaysian Air Force, the Armed Forces of the Philippines, and Myanmar Airways International to transport relief supplies. Coordination and information management were supported by UN agencies, the International Federation of the Red Cross (IFRC), the International Committee of the Red Cross (ICRC), the Myanmar Red Cross Society, and other regional and international partners.[32]

Philippines Tropical Cyclones – 2024

Six successive tropical cyclones – Trami (Kristine), Kong-rey (Leon), Yinxing (Marce), Toraji (Nika), Usagi (Ofel), and Man-yi (Pepito) – impacted Philippines over the course of 100 days between mid-October and the first week of December 2024. Tropical Cyclone Trami (Kristine) brought heavy rains that triggered widespread flooding and landslides across much of the country, and it affected nearly 8 million people. The storm caused significant displacement, with hundreds of thousands of people forced from their homes, and it resulted in at least 141 deaths. The response was complicated by the arrival of Super Typhoon Kong-rey (Leon), which impacted areas still recovering from Trami. In close coordination with the Philippines' NDRRMC, the AHA Centre dispatched relief items from the DELSA stockpile in Camp Aguinaldo for distribution to affected communities. Additionally, Philippines accepted offers of military air support from Brunei Darussalam, Malaysia, and Singapore.[33]

Multi-Country Tropical Cyclone – 2024

From mid-September into October 2024, Tropical Cyclone Yagi, exacerbated by the southwest monsoon, caused widespread and severe impacts across multiple Southeast Asian countries, including Lao PDR, Myanmar, Philippines, Thailand, and Viet Nam. Heavy rainfall and flooding affected millions of people, and hundreds of people were killed. There were large-scale displacements and extensive damage to homes, schools, hospitals, roads, bridges, agriculture, and critical infrastructure

throughout the region. In Lao PDR and Myanmar, entire communities and livelihoods were disrupted, while Philippines and Thailand experienced significant flooding, casualties, and economic losses. Viet Nam suffered particularly high human and agricultural losses, with mass evacuations and widespread destruction of housing and farmland. The AHA Centre maintained the EOC at the highest level of alert throughout the period to support national authorities. Relief supplies were released from DELSA stockpiles and distributed to Lao PDR, Myanmar, Philippines, and Viet Nam. Finally, two ICLTs deployed, one to Lao PDR and one to Myanmar, to coordinate with those countries' NDMOs.[34]

Philippines Tropical Cyclones – 2024

During July 2024, enhanced southwest monsoon conditions combined with tropical systems Prapiroon and Gaemi to deliver sustained rainfall to parts of Philippines, where flooding became widespread. Although the tropical cyclones did not make landfall in the country, their interaction with the monsoon significantly intensified rainfall impacts. In response to a request from the Philippines' government, the AHA Centre elevated its emergency preparedness level, coordinated closely with the NDRRMC, and prepared the mobilization of relief supplies from the DELSA stockpile at Camp Aguinaldo. Thousands of hygiene kits were distributed from the stockpile to affected communities.[35]

Philippines Tropical Cyclones – 2023

Tropical Cyclone Doksuri (Egay) made landfall in Philippines on 26 July 2023. It dropped significant amounts of rain in northern areas of the country. An estimated 2.9 million people were affected, and 27 people were killed. The government, through the NDRRMC, in coordination with the AHA Centre, mobilized emergency relief from DELSA stockpiles at Camp Aguinaldo. Relief dispatched from the warehouse included personal hygiene kits, shelter repair kits, family kits, tarps, and water filtration units to support the immediate needs of the affected communities.[36]

Myanmar Tropical Cyclone – 2023

Cyclone Mocha struck Myanmar on 14 May 2023. Rakhine State was impacted by extreme winds, heavy rainfall, and storm surge. Upwards of 100 people were killed, hundreds were injured, and entire communities and critical infrastructure were destroyed, leaving hundreds of thousands of people without shelter. In response, the AHA Centre activated regional coordination mechanisms, issued an ASEAN-ERAT deployment alert, deployed an ICLT to work closely with Myanmar's Department of Disaster Management, and coordinated logistics with Thailand and Malaysia to mobilize relief supplies. Working alongside national authorities and international partners, the AHA Centre supported emergency operations and helped strengthen coordination and response efforts before, during, and after the cyclone.[37]

Thailand Drought – 2023

In January 2023, the AHA Centre responded to a request for support from Thailand's Department of Disaster Prevention and Mitigation (DDPM) to assess drought conditions in the country's northeast. The assessment was conducted in two phases across several provinces, and it combined fieldwork with remote technical support from the AHA Centre's Disaster Monitoring and Analysis Unit. The AHA Centre also trained DDPM teams to use DAKO, the digital data collection and analysis platform, which enabled real-time monitoring, live dashboards, and visual data analysis. Initial findings were presented to Thai authorities at the end of January and later published, providing a baseline to inform national drought risk management strategies.[38]

Philippines Tropical Cyclone – 2022

Tropical Cyclone Nalgae (Paeng) made landfall five times across the Philippines from 28 to 31 October 2022. It affected about 4 million people, with the most severe effects in Visayas, Southern Luzon, and the Bangsamoro Autonomous Region in Muslim Mindanao. Heavy rainfall triggered widespread flooding and landslides. At least 154 people were

killed, and more than 200,000 families were displaced amidst extensive damage to homes and agriculture. Losses neared US$49 million, and 164 local government units declared a state of calamity. At the request of the government, in-country ASEAN-ERAT members mobilized to support damage assessments in areas hard hit by the storm. The AHA Centre coordinated with NDRRMC, monitored the situation, and realigned its course of action on how to best aid the country. Among the AHA Centre services were provision of relief items stored at the DELSA stockpile in Camp Aguinaldo. The AHA Centre provided family kits, tarps, shelter repair kits, hygiene kits, and a mobile storage unit (MSU).[39]

Philippines Typhoon – 2021

On 16 December 2021, Typhoon Rai (Odette) struck the Philippines. It brought heavy rains, strong winds, landslides, and storm surges to a wide swath of the country. About 1.95 million people were affected, and some 40,300 were forced into long-term displacement. In response, the AHA Centre and partners mobilized relief items from the DELSA stockpile at Camp Aguinaldo. Relief items included shelter repair kits, family tents, family kits, and rolls of plastic sheeting, all of which were transported to the affected regions with the help of the Philippines' Office of Civil Defense (OCD). The AHA Centre monitored the typhoon and activated its EOC to coordinate closely with the NDRRMC and other ASEAN partners, and it deployed an ICLT to support coordinated efforts.[40]

Philippines Typhoon – 2020

In late October and early November 2020, Philippines was hit by six tropical storms and typhoons, including Super Typhoon Goni (Rolly) on 1 November. Goni affected over 2 million people, displaced 85,000 people, damaged nearly 200,000 homes, and destroyed agricultural land and infrastructure. All six of the storms brought severe winds, flooding, storm surges, and landslides. The AHA Centre, working with the government and NDRRMC, had been monitoring the situation for weeks. It facilitated coordination with the OCD to support relief efforts. DELSA relief items were mobilized in two shipments that included rolls of plastic sheeting, shelter repair kits, kitchen sets, mosquito nets, family kits, jerry cans, outdoor tents, and indoor tents.[41]

Viet Nam Flooding – 2020

On 11 October 2020, Tropical Storm Linfa hit Viet Nam; it was followed by Tropical Storm Nangka on 14 October. While Cambodia and Lao PDR experienced heavy rains and flooding, Viet Nam was hardest hit, with 800,000 people affected, 66,000 people evacuated, and over 160,000 homes damaged. Central provinces saw major damage to infrastructure and agriculture, with over 460,000 heads of livestock lost. Before the storms, the AHA Centre and VDDMA closely monitored the situation. On 15 October, the AHA Centre briefed ASEAN leaders, AMS, diplomatic missions, and humanitarian partners to coordinate responses. Relief items from the DELSA stockpile in Subang, Malaysia, were airlifted to Danang, Viet Nam, on 20 October. Relief items included kitchen sets and shelter repair kits, which were distributed by VDDMA and local partners.[42]

Multi-Country Pandemic – 2020-2022

On 15 May 2020, the AHA Centre's Governing Board provided MSUs, distributed over 5,000 hygiene kits, and delivered prefabricated offices to AMS for use during the Coronavirus Disease 2019 (COVID-19) pandemic. These relief items were made available upon request from NDMOs to support their national responses.

In the second half of 2020, the AHA Centre supported Cambodia, Malaysia, and Philippines with additional relief items from stockpiles. The AHA Centre also worked with Thailand's DDPM to mobilize about 2,900 hygiene kits and an MSU from ASEAN's warehouse in that country; they were distributed to Cambodia for use in their national pandemic response. In addition, the AHA Centre supported Malaysia's National Disaster Management Agency to mobilize an MSU and a prefabricated office

from the DELSA stockpile in Subang, Malaysia. Finally, in collaboration with the Philippines' OCD, the AHA Centre supported local efforts via the DELSA stockpile at Camp Aguinaldo.

In late 2020, Thailand requested help responding to a COVID-19 outbreak in Samut Sakhon Province, where over 4,000 immigrant workers were quarantined. The AHA Centre sent family tents, mosquito nets, and hygiene kits from the DELSA stockpile in the country. In January 2021, it also sent hygiene kits to support a field hospital in Nonthaburi Province.[43]

Indonesia Flooding – 2020

On 1 January 2020, Jakarta experienced widespread flooding after heavy rains. The Indonesian government requested support from the AHA Centre, which sent four ASEAN-ERAT members to assist in managing an evacuation center at a warehouse owned by Indonesia's National Disaster Management Authority (BNPB). Based in BNPB's Jakarta office, the AHA Centre team worked alongside BNPB staff; they provided data and information and communication technology (ICT) support to monitor the situation through mid-January. By the time the floodwaters receded, over 500,000 people had been affected, 19,000 people were displaced, and 60 people had died.[44]

Myanmar Displacement – 2019

Between 2017 and 2019, the AHA Centre supported humanitarian relief for people displaced by conflict in Myanmar's Rakhine State.[45] In October 2017, a small team from the AHA Centre and one local ASEAN-ERAT member met with parties to the on-going conflict to facilitate relief deliveries, and they provided tents, hygiene kits, boats, and generators to people from 99 villages.[46] In January 2018, the AHA Centre augmented its assistance. For two weeks, ASEAN-ERAT personnel deployed alongside personnel from Myanmar's Disaster Management Department to monitor distribution of relief items and support government information efforts regarding relief distribution.[47] By March 2019, the AHA Centre worked alongside authorities on a Preliminary Needs Assessment to inform repatriation efforts, and after an official request, the AHA Centre deployed a team to support repatriation efforts. An ASEAN-ERAT team – comprising 10 members from Indonesia, Malaysia, Myanmar, Singapore, Thailand, the AHA Centre, and the ASEAN Secretariat – worked with the Myanmar Disaster Management Department to assess and strengthen reception and transit centers, information sharing, and basic service provision for returnees.[48]

Lao PDR Flooding – 2019

From late August into September 2019, Lao PDR was hit by three weather systems – Tropical Storm Podul, a large low-pressure area, and Tropical Depression Kajiki. The storms brought heavy rains that drove flooding across six provinces. The floods damaged infrastructure, inundated 274,000 hectares (677,000 acres) of farmland, killed 500,000 head of livestock, affected over 660,000 people, displaced 40,000 people, and killed 18 people. At the request of the government, the AHA Centre deployed an ICLT to coordinate the response. The ICLT's tasks included information management, rapid needs assessments, and distribution of relief items from DELSA stockpiles. Aid included family kits, hygiene kits, kitchen sets, mosquito nets, and jerry cans, delivered by the Royal Malaysian Air Force from the stockpile in Subang, Malaysia. The AHA Centre managed data visualization and information in support of government and civil society representatives, and it worked with local ASEAN-ERAT members to develop and adapt assessment tools for use in affected communities.[49]

Indonesia Earthquake and Tsunami – 2018

On 28 September 2018, a 7.7-magnitude earthquake struck Central Sulawesi, Indonesia. The tremor triggered a tsunami and ground liquefaction that killed thousands of people and severely damaged infrastructure, especially in Palu, Donggala, Sigi, and Parigi Moutong. The Indonesian government welcomed international

assistance, and the AHA Centre supported coordination among humanitarian responders. Working with BNPB, the AHA Centre facilitated briefings in Jakarta, established an on-site coordination center in Palu, tracked incoming international aid through Balikpapan, East Borneo, released relief items from DELSA stockpiles, and coordinated the distribution of large volumes of assistance to affected areas.[50]

At the Indonesian government's request, the AHA Centre coordinated ASEAN support for recovery through the creation of an ASEAN Village in Tondo, Palu City. In August 2019, the Village began to take shape, with the AHA Centre coordinating support through the local Housing and Settlement Department. Elements of the support came from Brunei Darussalam, Philippines, and extra-regional players. Funds delivered by the Brunei Darussalam Government were a result of crowdfunding sourced directly from the people of Brunei Darussalam, and this outreach marked the first time AMS citizens directly provided funding to an AHA Centre project.[51] The village was handed over in phases, with 75 homes delivered in April 2020 and additional houses, a mosque, and a health center completed and transferred to the Palu City Government by April 2021.

Philippines Typhoon – 2018

Typhoon Mangkhut struck Cagayan Province in Philippines on 15 September 2018. Due to early warnings and preparedness by the government and partners, NDRRMC evacuated communities in the storm's path before it arrived. An ICLT arrived within hours of the storm's landfall, and it began direct communications with NDRRMC in Manila and affected areas. The AHA Centre also delivered rice, generators, and tarps to affected communities. Overall, the typhoon affected 2.6 million people, damaged 200,000 homes, and caused 52 deaths.[52]

Indonesia Earthquake – 2018

On 29 July 2018, a 6.4-magnitude earthquake struck Indonesia's Lombok Island. In August, strong aftershocks hindered recovery. The disaster caused significant damage and killed 515 people, injured 8,000 people, displaced over 430,000 people, and damaged 100,000 homes. In total, it affected more than 3.5 million people. For about one month, the AHA Centre supported Indonesia's BNPB by deploying ASEAN-ERAT members who helped with delivery of relief items such as tents and hygiene kits, supported information management on the ground and from the EOC, and shared assessment findings across ASEAN.[53]

Lao PDR and Myanmar Flooding – 2018

In late July 2018, Tropical Storm 11 (Son Tinh) drove severe flooding across Lao PDR and Myanmar. On 23 July, Lao PDR's Xe Pien-Xe Nam Noy dam failed. Some 1.5 million people across 13 provinces were affected, as villages were obliterated, and farmland was inundated. The AHA Centre activated its EOC in Jakarta and deployed an ICLT to Lao PDR, where it provided logistical support, information management, and management of distribution of relief items like boats, tents, and hygiene kits. In Myanmar, the AHA Centre delivered 12,000 solar-powered lanterns and supported DM efforts with an additional ICLT to aid Myanmar's NDMO.[54]

Myanmar Landfill Fire – 2018

On 21 April 2018, fires broke out at landfills in Western Yangon, Myanmar. The difficulty of extinguishing the fire meant that it burned for days and sent smoke and haze into nearby areas. The haze and particulate caused severe respiratory problems among residents and disrupted livelihoods. On 27 April, Myanmar's government requested AHA Centre support, and ASEAN-ERAT deployed to Yangon to provide technical support to authorities and deliver assistance to 800,000 affected people. The ASEAN-ERAT assessed the situation, recommended fire control measures, and addressed environmental and public health concerns. They worked alongside national authorities and received technical firefighting support from the Singapore Civil Defence Force (SCDF).[55]

Viet Nam Typhoon – 2017

Typhoon Damray struck southern Viet Nam on 7 November 2017. It affected over 4 million people in 14 provinces, killed at least 110 people, and damaged 139,000 homes. The AHA Centre coordinated the delivery of relief items, including hygiene kits, shelter repair kits, and a boat for flood-affected areas. This response marked only the second time the AHA Centre responded to a disaster in Viet Nam. The first time had been just months earlier, in August, when heavy rains brought flooding and landslides to northern areas of the country.[56]

Myanmar Displacement – 2017

In October 2017, the AHA Centre delivered 80 tons of relief supplies to displaced communities in Rakhine State, Myanmar. These supplies, including tents, hygiene kits, kitchen sets, boats, and generators, arrived in Sittwe between 15 and 17 October. The Myanmar Ministry of Social Welfare, Relief, and Resettlement, along with the AHA Centre, coordinated a distribution plan to ensure the relief items reached displaced communities without discrimination, in line with ASEAN's humanitarian principles. AHA Centre representatives, along with Myanmar officials, observed the distribution at three remote locations in Rakhine, as shown in Photo 2.[57]

Viet Nam Flooding and Landslide – 2017

In early August 2017, flash floods and landslides brought significant damage to northern Viet Nam. The government, through the Central Steering Committee for Natural Disaster Prevention and Control, responded swiftly, but the disaster killed 27 people and destroyed more than 200 homes, with 425 more houses damaged. Agricultural land, roads, and irrigation systems were also severely impacted. The AHA Centre mobilized relief supplies, including hygiene kits, shelter repairs, and generators. Additionally, two AHA Centre staff members were already in Ha Noi and coordinated relief efforts with the Department of Natural Disaster Prevention and Control.[58]



Photo 2: ASEAN-ERAT Facilitates Relief for Displaced Communities in Rakhine State

Philippines Conflict – 2017

On 10 July 2017, the Government of Philippines requested humanitarian assistance for nearly 300,000 people displaced by fighting between security forces and militants in Marawi, Mindanao. In response to direct requests from Philippines authorities, the AHA Centre provided family tents, hygiene kits, kitchen sets, and water filtration units from in-country DELSA stockpiles. Malaysia also contributed by providing an A-400M aircraft to help deliver the relief items.[59]

Philippines Typhoon – 2016

Tropical Cyclone Nock-Ten (Nina) made eight landfalls in Philippines during the last week of December 2016. The storm brought heavy rains and strong winds. Authorities activated tropical cyclone warning signals, and NDRRMC reported that about 87,059 families were evacuated. Flooding and maritime incidents were reported, and 13 roads and 3 bridges were blocked by debris. The National Response Cluster conducted regular meetings to coordinate the response effort. One in-country ASEAN-ERAT member deployed to coordinate with the NDRRMC EOC.[60]

Indonesia Earthquake – 2016

On 7 December 2016, a 6.5-magnitude undersea earthquake struck off of Sigli City, Aceh, Indonesia. It prompted mass evacuations due to fears of a tsunami, but one did not materialize. The main quake and more than 100 aftershocks killed 104 people, damaged nearly 19,000 homes, and displaced over 85,000 people. The AHA Centre activated emergency monitoring, deployed ASEAN-ERAT personnel and staff to assess needs, coordinated closely with BNPB and local authorities, and delivered relief items from the DELSA stockpile in Malaysia.[61]

Philippines Typhoon – 2016

Typhoon Haima struck Philippines on 19 October 2016. It caused eight deaths, mostly due to landslides in Cordillera Administrative Region, and it damaged nearly 14,000 homes and drove flooding in 119 local communities. Early evacuation orders had ensured that over 380,000 people moved out of the affected region ahead of the storm. The NDRRMC activated its Disaster Response Cluster and deployed advance teams to Cagayan Province to provide support to preparedness and emergency response measures. The AHA Centre closely monitored the storm, coordinated with the NDRRMC, deployed staff and ASEAN-ERAT members for assessments and coordination in Manila, and provided eight generators to support response efforts.

During the entirety of the response, the AHA Centre deployed an In-Country Coordination Team (ICCT), consisting of two AHA Centre staff members and two ASEAN-ERAT members from Philippines; one AHA Centre staffer and two national ASEAN-ERAT members joined the NDRRMC Composite Rapid Damage and Needs Assessment Teams, while one AHA Centre staffer remained stationed at the NDRRMC Headquarters until 26 October to gather information from Cluster meetings and coordinate with the AHA Centre headquarters in Jakarta.[62]

Philippines Typhoon – 2015

In 2015, Typhoons Koppu (Lando) and Melor (Nona) struck Philippines in October and December, respectively. Typhoon Koppu made landfall in Casiguran, Aurora Province, on 16 October with wind speeds of 175 kilometers per hour (kph; 108 miles per hour [mph]) and gusts of up to 210 kph (130 mph). Additionally, Typhoon Koppu caused 48 deaths and brought severe flooding to Pangasinan, Ilocos Norte, Isabela, Nueva Vizcaya, Tarlac, Bulacan, Pampanga, Zambales, Vagayan, and Benguet. The NDRRMC reported four landslides and 479 flooding incidents with some villages submerged in up to 3 meters (9.8 feet) of water. The AHA Centre deployed staff and ASEAN-ERAT members to coordinate with the NDRRMC, conduct damage assessments, restore communications, and deliver relief supplies from DELSA.

Typhoon Melor made first landfall on 14

December and made four subsequent landfalls before finally weakening and dissipating on 19 December. The storm caused 42 deaths and damaged or destroyed nearly 280,000 houses, with major impacts in Oriental Mindoro, Sorsogon, and Northern Samar. A series of Pre-Disaster Risk Assessment meetings were conducted to coordinate the response. Prior to landfall, at least 742,991 people were pre-emptively evacuated to safer areas. The AHA Centre deployed two staff members to liaise with NDRRMC and maintained daily situation briefings from its EOC in Indonesia.[63]

Myanmar Flood – 2015

In June and July 2015, torrential rains from Cyclone Komen caused floods in 13 states in Myanmar. On 31 July, four areas were designated as natural disaster-affected areas. On 10 August, the government formed the Recovery Coordination Centre to implement the recovery strategy and plan, and on 14 August, the Vice-President revealed the national recovery coordination structure, coordination mechanisms, and guiding principles for reconstruction. By 15 August, 110 people had been killed, more than 330,000 people were displaced, and upwards of 1.6 million people were affected. The AHA Centre deployed an ICCT, including ASEAN-ERAT members from Brunei Darussalam, Indonesia, the AHA Centre, and partners; they supported Myanmar's Relief and Resettlement Department's data collection, logistical arrangements, and disaster assessments. Relief items were mobilized from DELSA, and the Australian Defence Force used a C-17 to deliver the relief items from the DELSA stockpile in Malaysia to Yangon. ASEAN-ERAT also conducted a flood impact assessment and set up two MSUs to facilitate relief efforts. The AHA Centre's Mission Team Leader coordinated with the national government and international organizations in Nay Pyi Taw and provided remote situational analysis.[64]

Malaysia Flood – 2015

From late December 2014 to early January 2015, heavy rainfall from the northeast monsoon caused flooding in five states in Malaysia. The waters peaked on 30 December with over 247,000 people displaced. Tropical Depression Jangmi extended the flooding into Sabah, and by 9 January the National Security Council of Malaysia (MKN) reported that 17 people had died and nearly 20,000 people remained displaced. Malaysia's Army operated four Flood Aid Collection Centres, while 100 Special Malaysia Disaster Assistance and Rescue Team personnel were deployed. MKN, the Malaysian Armed Forces, and other governmental stakeholders provided a swift emergency assessment in addition to evacuation and relief support. The AHA Centre deployed three ASEAN-ERAT members, mobilized tents, hygiene kits, and kitchen sets, and coordinated relief efforts with MKN.[65]

Period 2012 – 2014

During the period from 2012 to 2014, the AHA Centre responded to a total of 12 disaster events across the ASEAN region. These responses included not only Emergency Response Missions but also Preparedness and Assessment Missions. During this period, the AHA Centre responded to six disasters caused by tropical cyclones, three flooding events, and three earthquakes; these responses covered Cambodia, Indonesia, Lao PDR, Myanmar, Philippines, and Viet Nam.

ASEAN COMMON FRAMEWORKS

The ASCC Strategic Plan 2026-2035 builds on a decade of work on governance, human rights, social development, environmental sustainability, and regional resilience to disasters and emerging threats. It introduces strategic goals related to human security and DM capabilities, while promoting sustainable growth and narrowing the development gap. The AADMER, adopted in 2005, remains the foundation for regional cooperation in DRR and emergency response. The 2026-2030 AADMER Work Programme outlines priorities across risk assessment, mitigation, preparedness, response, and resilient recovery. Meanwhile, ASEAN's Vision 2045, adopted in 2025, envisions the region as a global leader in DM. Other strategic initiatives further strengthen ASEAN's disaster response capacities and position ASEAN to address pressing challenges.

ASCC Strategic Plan

With the completion of the period led by the ASCC Blueprint 2025, the ASEAN Community Vision 2045 and ASCC Strategic Plan are the frameworks guiding efforts to realize a resilient, inclusive, relevant, sustainable, innovative, dynamic, and people-centered ASEAN. The ASCC Strategic Plan 2026-2035 was adopted on 26 May 2025 as part of ASEAN 2045: "Our Shared Future" (ASEAN Community Vision 2045).

The ASCC Strategic Plan has 12 strategic goals, comprising 10 strategic goals that reflect the ASEAN Community Vision 2045 vision statement for socio-cultural community and 2 cross-pillar strategic goals that focus on narrowing the development gap and sustainable growth and development. Key DM-oriented goals are:

- Strategic Goal 4 – ASEAN entities focus on achieving a resilient community that promotes human security and increases people's resilience in responding to future health emergencies, crises, disasters, and impacts from environmental hazards
- Strategic Goal 6 – ASEAN aims to orient toward becoming a global leader in DM
- Strategic Goal 11 – ASEAN entities will work to enhance national and local capacity for measures to prevent, mitigate, prepare for, respond to, and recover from disasters and emergencies

This Strategic Plan builds on the ASCC Blueprint 2025, which was adopted in 2015 and served as a comprehensive framework for propelling socio-economic development in the region by implementing and supporting initiatives to achieve a beneficial, inclusive, sustainable, resilient, and dynamic ASEAN Community.[66]

ASEAN Agreement on Disaster Management and Emergency Response

Signed on 26 July 2005 and in force since 2009, AADMER is the official regional agreement that outlines ASEAN's commitment to reduce disaster losses, respond to disasters together, and build resilience through cooperation, coordination, technical assistance, and resource mobilization in all aspects of DM. In addition to regional strategies, AADMER supports initiatives by AMS and enhances their national DM capacities. The implementation of AADMER involves 5-year work programs that gradually improve ASEAN's ability to provide early warning, monitor risks, prepare for disasters, respond effectively, and reduce disaster risks.

In line with international best practice, AADMER institutionalizes the leadership of affected states during emergency responses within their territories. Affected AMS may request assistance either directly from a fellow AMS or via the AHA Centre. Assisting states will submit their acceptance of the overall direction, control, coordination, and supervision of the affected state during the response within legal bounds. AADMER does recognize the

role of regional military forces in DM, and AMS agree that military personnel involved in a response may wear their uniforms while conducting official duties.[67]

The first AADMER Work Programme was developed in 2010 to translate the spirit of AADMER into more practical actions and chart the priorities of the ACDM. The Work Programmes outline the key initiatives of ASEAN in strengthening the regional mechanisms for joint response and DRR.

Building upon two decades of achievements under AADMER and lessons learned from previous Work Programmes, the AADMER Work Programme 2026–2030 integrates strategic foresight, sustainable resilience methodologies, and innovation. It leverages the operational expertise of the AHA Centre and the development and implementation of national initiatives to ensure effective implementation of key tools and mechanisms, and the cultivation of broader partnerships essential for advancing DM across ASEAN.[68]

In alignment with ASEAN Vision 2045, the AADMER Work Programme 2026-2030 is supported by five priority programs, 15 outcomes, and 44 outputs (including 13 cross-sectoral outputs). To ensure the AADMER Work Programme is inclusive, sustainable, and forward-looking, the framework is guided by four key principles: institutionalization and communication; financing and resource mobilization; partnership and innovation; and protection, gender, and inclusion (PGI). Table 1 illustrates the results framework structure to achieve the vision of the AADMER Work Programme 2026–2030.[69]

The ACDM formulates and implements the AADMER Work Programme through its three working groups (WG):

- WG on Prevention and Mitigation – oversees Priority 1 (Risk Management, Monitoring, and Early Warning) and Priority 2 (Prevention and Mitigation) – co-chairs: Lao PDR, Philippines, Thailand
- WG on Preparedness, Response, and Recovery – manages Priority 3 (Preparedness and Response) and Priority 4 (Resilient Recovery) – co-chairs: Malaysia, Myanmar, Singapore
- WG on Global Leadership – responsible for Priority 5 (Global Leadership) – co-chairs: Indonesia, Singapore, Viet Nam

The WGs comprise representatives from the NDMOs of all 11 AMS, with the heads of the NDMOs serving as the NFPs. The WGs carry out regular monitoring, review, and evaluation of the implementation of their respective priority programs, outputs, and activities, based on an agreed set of indicators. This process includes input from the ASEAN Secretariat and other technical experts. To promote collaboration across sectors, the ACDM uses several platforms and mechanisms, such as the ADRP, the Technical Working Group on Civil-Military Coordination (TWG on CIMIC), and the Ad-hoc Technical Working Group on Protection, Gender, and Inclusion (TWG on PGI).

The ASEAN Secretariat coordinates implementation of the AADMER Work Programme, provides policy support, and ensures implementing agencies and ACDM partners maintain policy coherence. The AHA Centre continues to serve as the operational engine for AADMER and as ASEAN's primary regional coordinating agency for DM and emergency response.

The implementation of the Work Programme mobilizes resources and support from the AMS, ASEAN Dialogue Partners, Sectoral Dialogue Partners, Development Partners, UN agencies, the International Red Cross and Red Crescent Movement, other international and regional organizations, civil society, the private sector, and additional stakeholders.[70]

ASEAN Vision 2045 on Disaster Management

ASEAN Community Vision 2045: "Our Shared Future" is the new long-term vision for ASEAN, succeeding Vision 2025: "Forging Ahead Together." Under Vision 2045, ASEAN aims to position itself as a global leader in DM.

Priority Program	Outcome	Outputs
Priority Program 1: Risk Assessment, Monitoring, and Early Warning	**1.1:** A risk-informed ASEAN society is progressively supported by high-quality, harmonized risk assessments and climate projections, strengthened data and information sharing, and inclusive and strategic communication.	**1.1.1:** Regional risk and vulnerability assessment profiles, integrating climate projections and addressing transboundary, cascading, and compounding disaster risks, are available and utilized [cross-sectoral]. **1.1.2:** National and sub-national risk profiles and capacities of AMS are enhanced. **1.1.3:** Climate projection and modelling are effectively integrated into ASEAN's disaster risk management tools and decision- making processes. **1.1.4:** Regional and national disaster risk monitoring systems and databases are strengthened with quality data, interoperability, analytics capability, and effective dissemination to key stakeholders. **1.1.5:** Expanded and context-specific disaster risk communication products, incorporating innovative technologies and inclusive approaches, are made available collaboratively with AMS and widely.
	1.2: Strong and harmonized regional multi-hazard end-to-end early warning system (EWS) in ASEAN is enabled by innovative technologies, close coordination with relevant stakeholders, seamless national-regional integration, and clear anticipatory action mechanisms.	**1.2.1:** Early warning capabilities across ASEAN are enhanced and feature improved real-time monitoring, integrated data streams, advanced analytics, interoperable dissemination platforms, and clearly defined anticipatory action triggers. **1.2.2:** EWS from relevant national agencies, ASEAN Sectoral Bodies, and other relevant institutions are identified, harmonized, and integrated through dialogue and collaboration on systems improvement [cross-sectoral].
Priority Program 2: Prevention and Mitigation	**2.1:** Risk governance in ASEAN is strengthened through the integration of DRR and climate change adaptation within a cohesive policy framework and institutional structure.	**2.1.1:** Climate change adaptation is effectively integrated into ASEAN's regional and national DRR strategies, with strong institutional support.
	2.2: DM in ASEAN is strengthened through the integration of inclusive DRR practices, localization, social protection, and an anticipatory approach.	**2.2.1:** Use of broader social innovations, advanced technologies, and inclusive Community-Based Disaster Risk Management and localization are promoted and substantially replicated. **2.2.2:** PGI approaches in DM are substantially promoted through innovative solutions, sharing of best practices, facilitating dialogue exchanges, and capacity building. **2.2.3:** Anticipatory actions through multi-level actors in mitigating the impacts of disasters are promoted.
	2.3: ASEAN NDMOs and wider stakeholders in the region have access to broader and effective risk transfer and financing mechanisms, tools, and products.	**2.3.1:** The collaboration among DM sector and businesses, economic sectors, and priority economic areas in the region is strengthened [cross-sectoral]. **2.3.2:** Disaster risk financing, insurance mechanisms, and other mechanisms are strengthened, including climate financing and anticipatory-action financing protocols [cross-sectoral].
	2.4: ASEAN's human settlement and critical infrastructure is strengthened through DRR mainstreaming and cross-sectoral collaboration.	**2.4.1:** Disaster-related knowledge products and reference documents in cross-sectoral collaboration for mainstreaming DRR in resilient human settlement and critical infrastructure are produced and promoted [cross-sectoral].

Table 1: AADMER Work Programme 2026-2030 Result Framework Structure

Priority Program	Outcome	Outputs
Priority Program 3: Preparedness and Response	**3.1:** ASEAN is equipped with a high level of preparedness against large-scale disasters due to comprehensive and diverse disaster contingency planning encompassing various scenarios, including trans-boundary, cascading scenarios and new compounding risks.	**3.1.1:** Disaster preparedness planning, coordination mechanisms, and processes are enhanced by integrating anticipatory approach [cross-sectoral]. **3.1.2:** Collective response preparedness, including through institutionalized anticipatory actions and increased standby arrangements and partnerships for all disaster scenarios is enhanced [cross-sectoral]. **3.1.3:** Capacities of stakeholders at both national and sub-national levels to prepare for large-scale disasters and to contribute effectively to regional disaster response efforts are bolstered.
	3.2 Full expression/ manifestation of ASEAN solidarity and collaboration using ASEAN tools and mechanisms in large-scale disasters.	**3.2.1:** Preparedness exercises for response to large-scale disasters are enhanced [cross-sectoral]. **3.2.2:** Regional humanitarian supply chain management, including through DELSA, is strengthened and more innovative [cross-sectoral]. **3.2.3:** Capabilities of ASEAN-ERAT to respond to disasters effectively is strengthened. **3.2.4:** ASEAN EOC network is robust through enhanced regional assessment capabilities, effective information management, and continuous digital transformation. **3.2.5:** ASEAN's Emergency Telecommunication Network readiness is enhanced through integrated policy framework, capacity building, readily available equipment, and services, supported by strategic enabling factors [cross-sectoral].
	3.3: Increased readiness to respond to large-scale disasters outside the region contributes to global solidarity and serves as learning opportunity in enhancing the region's resilience.	**3.3.1:** Frameworks, tools, and mechanisms for ASEAN responding outside the region are established. **3.3.2:** Preparedness to respond outside the region is well tested.
Priority Program 4: Resilient Recovery	**4.1:** Recovery framework and mechanism at the ASEAN level adequately reflect the needs of the disaster-affected areas to achieve the goal of "build back better."	**4.1.1:** Capacity building program on recovery needs assessment is enhanced. **4.1.2:** Toolkits for recovery needs assessments are updated [cross-sectoral]. **4.1.3:** Regional strategies and mechanisms for supporting the conduct of post-disaster needs assessments (PDNA) are developed.
	4.2: ASEAN is a reliable resource for evidence-based recovery planning by AMS at national and local levels.	**4.2.1:** Knowledge products creation, forum for information / knowledge sharing on recovery are strengthened. **4.2.2:** Regional knowledge hub for recovery is established.
	4.3: ASEAN is effectively prepared to recover from large-scale disasters through strategic coordination and the implementation of "build back better" approach.	**4.3.1:** Pre-arrangements on recovery between ASEAN and its partners are established [cross-sectoral]. **4.3.2:** Regional strategies for resource mobilization on recovery are established. **4.3.3:** Recovery assistance mechanisms and/or facilities to support the implementation of the "build back better" approach are established.

Table 1: AADMER Work Programme 2026-2030 Result Framework Structure (cont.)

Priority Program	Outcome	Outputs
Priority Program 5: Global Leadership	**5.1:** ASEAN NDMOs and wider stakeholders utilize knowledge products on DM produced by ASEAN as their reference in policy formulation or decision-making related to DM as a result of sustainable nurturing of knowledge culture.	**5.1.1:** Knowledge products containing ASEAN's experience, good practices, and lessons learned in DM are consistently produced. **5.1.2:** Knowledge products on DM in ASEAN are widely disseminated. **5.1.3:** The AHA Centre as Regional Knowledge Hub on DM is materialized.
	5.2: ASEAN DM has been equipped with a greater number of qualified human resources; more innovation and advanced technologies; and increasingly receives expertise and resources from private sector.	**5.2.1:** Capacity building efforts on DM in ASEAN are strongly coordinated and synergized. **5.2.2:** Access to training/capacity building materials are enhanced. **5.2.3:** Certification for DM professionals in ASEAN is advanced. **5.2.4:** Program/projects for utilization of innovation and advanced technology in DM are strengthened. **5.2.5:** Mechanisms for strengthening collaboration with private sector in DM are established.
	5.3: ASEAN's experience, knowledge, and views are substantially reflected in global and other/wider regional frameworks, policies, or mechanisms in DM.	**5.3.1:** Strategic policy dialogues and knowledge exchange initiatives targeting DM practitioners, experts, and decision makers within and beyond the region are strengthened. **5.3.2 :**Collaborative events with other regional organizations, in the form of inter-regional dialogue or joint capacity building initiatives, are promoted. **5.3.3:** ASEAN's DM knowledge, experience, and good practices are documented and properly channeled to contribute to the development of other/wider regional and global frameworks related to DM, such as for post-Sendai framework/policies.

Table 1: AADMER Work Programme 2026-2030 Result Framework Structure (cont.)

To achieve this goal, ASEAN will continue to strengthen the professional capacity of its DM sector, showcase its expertise and achievements at the global level, and build strategic partnerships with international institutions to enhance cooperation in DM.[71]

ASEAN Vision 2045 proposes to guide the region toward a resilient, innovative, and people-centered future. The shared vision emphasizes political cohesion, economic integration, social responsibility, and adherence to rules-based and people-oriented work. It consists of a compendium of six documents:

- The Kuala Lumpur Declaration on ASEAN 2045: Our Shared Future
- ASEAN Community Vision 2045 "Resilient, Innovative, Dynamic, and People-Centered ASEAN"
- ASEAN APSC Strategic Plan
- ASEAN AEC Strategic Plan 2026-2030
- ASEAN ASCC Strategic Plan
- ASEAN Connectivity Strategic Plan[72]

Vision 2045 strengthens regional cooperation to achieve the UN Sustainable Development Goals and aligns with the UN's 2030 Agenda for Sustainable Development.[73] Key updates involve implementing strategic plans that cover a spectrum from maintaining peace and security through digitization, AI, the green economy, and reducing vulnerability.

Under the Kuala Lumpur Declaration on ASEAN 2045, the AMS agreed that the Initiative for ASEAN Integration Work Plan V (2026–2030) is an integral part of ASEAN Vision 2045. The AMS shall implement ASEAN Vision 2045 through ASEAN organs and bodies in a timely and effective manner. They shall also ensure seamless coordination across ASEAN pillars and sectors for the identified cross-

pillar and cross-sectoral strategic measures and encourage relevant stakeholders to support and contribute to the shared vision.

ASEAN Ministers and respective ASEAN organs and bodies, supported by the Secretary-General and the ASEAN Secretariat, will mobilize resources from AMS and external partners to implement ASEAN Vision 2045. The ASEAN Community Councils and the ACC shall coordinate the review and update the ASEAN Vision 2045 Strategic Plans.[74]

One ASEAN, One Response

ASEAN Leaders signed the OAOR Declaration in September 2016. The Declaration is inspired by the ASEAN Charter's vision of One Vision, One Identity, and One Caring and Sharing Community.

The Declaration laid out strategic and political commitments to achieve faster disaster response, mobilize greater resources, and strengthen coordination during collective disaster responses. These efforts aim to increase speed, scale, and solidarity in responding to disasters, with coordination led by the AHA Centre as ASEAN's primary regional coordinating agency, together with the SG-AHAC, when activated.

The Declaration affirms the AHA Centre's role as the main regional coordinating body for DM and emergency response. ASEAN Leaders also tasked the AHA Centre with putting OAOR into action by developing the necessary protocols, measures, procedures, and standards, as well as strengthening engagement with relevant sectors and stakeholders across ASEAN. The objectives of OAOR are:

- To swiftly provide all required support and resources to the affected country upon receiving the request for assistance or acceptance of the offer of assistance from the NDMO of the affected country
- To respond in a scale appropriate to the needs of the affected population and support requested by the NDMO by mobilizing assets and capacities within the AHA Centre, AMS, and network of partners
- To make ASEAN's presence and compassion felt and seen by the affected population and where all assisting partners converge to a common objective to respond to the needs of the affected country

At the strategic level, OAOR defines the roles of the ASEAN Secretary-General, ASEAN sectoral bodies, ASEAN ministerial bodies, and ASEAN Leaders. The ACC is responsible for ensuring the effective implementation of OAOR, with support from the Secretary-General. The AMMDM and the Conference of the Parties to AADMER (AADMER COP) provide strategic guidance to the AHA Centre on implementing OAOR. They are also tasked with establishing a forum to promote dialogue among relevant ASEAN ministerial bodies to support the realization of the Declaration. In addition, OAOR assigns the Secretary-General the responsibility of supporting the ACC in overseeing the implementation of the Declaration. It also formalizes the Secretary-General's role as the SG-AHAC during times of disaster.

The seven key principles of OAOR are:

- One Policy Framework (AADMER)
- One Standard Operating Procedure (Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations [SASOP])
- One Response Plan (ASEAN Joint Disaster Response Plan [AJDRP])
- One Policy Body (ACDM)
- One Point of Contact (NDMOs)
- One Regional Coordinating Agency (AHA Centre)
- One Field Coordination Center (Joint Operations and Coordination Centre of ASEAN [JOCCA])[75]

ASEAN Framework on Anticipatory Action in Disaster Management

Anticipatory action is a key part of managing disaster risk. The ASEAN Framework on Anticipatory Action in Disaster Management

aims to ensure that early warnings lead to effective actions that reduce the negative effects of disasters across the region. This Framework defines "anticipatory action" as actions taken when a hazard is likely to happen, based on a forecast, early warning, or risk analysis, before a disaster. These actions are carried out by individuals and organizations before a disaster strikes and aim to reduce its impact on people, property, and infrastructure. There are three main features of anticipatory action in DM:

1. They are time-sensitive
2. They aim to protect people and assets
3. They are based on pre-agreed triggers informed by risk assessments

The Framework consists of three building blocks:

1. Risk information, forecasting, and EWS
2. Planning, operations, and delivery
3. Pre-arranged finance

In aligning disaster risk management systems to deliver anticipatory action, AMS and regional bodies should ensure the three building blocks are at the core of their policy and implementation.

The 2021-2025 Plan of Action outlined 12 regional target actions with indicators to track progress in implementing the three key building blocks. It also included five actions for monitoring, evaluation, and learning focused on anticipatory action. The plan emphasized coordination among regional and national actors, as well as external partners, to enhance anticipatory action in ASEAN. It built on the principles of collaboration and aligned anticipatory actions with existing disaster risk management policies and programs in the region.[76]

ASEAN Regional Framework on Protection, Gender, and Inclusion in Disaster Management

PGI is one of the five priority programs of the AADMER Work Programme 2026-2030. Priority Program 2 on Prevention and Mitigation commits ASEAN to focus on strengthening risk governance for DRR and climate change adaptation, enhancing localization and whole-of-society approaches, and strengthening PGI. It aims to enhance DM by addressing the unique needs of vulnerable groups, consolidating regional commitments across sectors for achieving inclusive DM, identifying entry points for collaboration on gender and social inclusion issues, and supporting AMS in setting priorities, indicators, and targets for measuring progress in PGI.[77]

The ASEAN Regional Framework on Protection, Gender, and Inclusion in Disaster Management 2021-2025 aligned with the OAOR Declaration and aimed to articulate a common vision for promoting PGI in DM in the ASEAN region. The Framework aimed to support the implementation of the AADMER Work Programme and other regional declarations and plans by:

- Consolidating regional commitments across sectors on target actions for achieving inclusive DM
- Identifying entry points for collaboration between NDMOs and other organizations working on gender and social inclusion issues
- Supporting AMS in setting priorities, indicators, and targets for measuring progress in PGI at the national level, while establishing indicators and a baseline for measuring progress at the regional level[78]

At the regional level, the Framework serves as the main PGI strategy for all ACDM WGs in the implementation of the AADMER Work Programme 2026-2030 and for ASEAN sectoral bodies in cross-sectoral collaborations to address these issues in the context of DM. It will form the basis of annual progress reports on PGI for ASEAN platforms.[79]

Cross-sectoral collaboration, synergy, and a whole-of-ASEAN approach are being promoted through the TWG on CIMIC, the Ad-hoc TWG on PGI, and the ADRP, which consists of 13 ASEAN Sectoral Bodies from three pillars of the ASEAN Community and the AHA Centre.[80]

ASEAN DISASTER MANAGEMENT RESOURCES

With AADMER as the policy backbone for AMS action to enhance collective efforts in DM, there are a range of ways ASEAN entities implement it. Plans, programs, projects, tools, and mechanisms build national and regional DM institutions, expand available pools of funding and resources, enhance intra-ASEAN and international partnerships, and support innovations to entrench skills and capacities across the community of DM practice. Broadly, these resources are tied to the AHA Centre's four core functions as well as to the strategic leadership of the AMS Heads of State and government and the ASEAN Secretariat.

The entities and platforms for assisting a disaster-affected AMS are visualized in Figure 4, updated with the 2025 suite of options.[81]

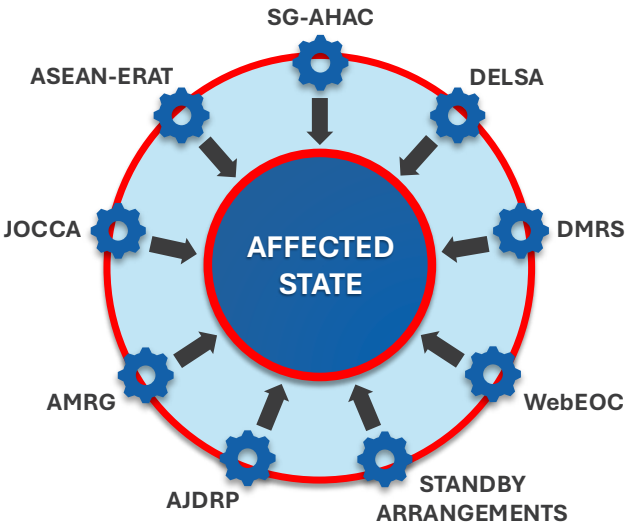


Figure 4: ASEAN Mechanisms Available to Assist Affected States

Strategic Leadership

ASEAN Defence Ministers' Meeting (ADMM)

The ADMM is the highest-level defense consultation and cooperation mechanisms for ASEAN. The annual meeting focuses on all aspects of defense and security, and, since its first meeting in 2006, the ADMM has maintained an initiative on HADR. This initiative ensured inclusion of Chapter VI of the SASOP, "Use of ASEAN Military Assets and Capacities in HADR," and it drove establishment of the ASEAN Militaries Ready Group (AMRG) on HADR and the development of the Standard Operating Procedures on the Multinational Coordination Centre (MNCC SOP).[82]

The ADMM Plus, which integrates several ASEAN Dialogue Partners, is described in the "International Partnerships" section of this handbook.

ASEAN Disaster Management and Emergency Relief (ADMER) Fund

The ADMER Fund underpins implementation of AADMER. It is administered by the ASEAN Secretariat under the guidance of the AADMER COP and serves as a pool of resources for: 1) implementation of the AADMER Work Programme; 2) response in emergencies in AMS; and 3) operational activities of the AHA Centre. The Fund is open to voluntary contributions by AMS and other public and private sources.[83]

ASEAN Ministerial Meeting on Disaster Management (AMMDM)

The AMMDM is an annual meeting that serves to provide oversight to the ACDM. It also facilitates dialogue among the AMS' ministries that oversee DM programming as well as between these ministries and other ministerial-level bodies. The AMMDM reviews, refines, and sets policy direction, and the meeting serves as a venue for endorsing successive 5-year AADMER Work Programmes.[84]

Strategic Policy Dialogue on Disaster Management (SPDDM)

Launched in 2015 to consider the strategic direction of work toward AADMER implementation, the annual SPDDM has evolved. It now brings together thought leaders from various international and regional

organizations to share views and knowledge on DM issues,[85] and the emphasis has shifted to DRR, resilience, and regional cooperation. The SPDDM falls under the ACDM's direction and is co-organized by the SCDF, the ASEAN Secretariat, and the AHA Centre.[86] Under Priority Programme 5: Global Leadership, Sub-Priority 5.2 (Outcome 5.2.1, Output 5.2.1.4) of AADMER Work Programme, the ACDM WG on Global Leadership and Singapore are the implementing agencies.[87]

Coordination

Located in Jakarta, Indonesia, the AHA Centre houses ASEAN's DM EOC, the central location for monitoring disasters and coordinating the ASEAN collective response. The AHA Centre is also the hub for preparedness and ensuring cooperation and collaboration across civilian-humanitarian, civilian-civilian, and civilian-military DM activities, including deployable coordination systems, exercises, SOPs, and working groups.

ASEAN Militaries Ready Group (AMRG)

Since 2016, the militaries of the AMS have worked together to coordinate preparations for a disaster response within the region. The AMRG on HADR is intended to provide ASEAN bodies and AMS with a means of quickly deploying military forces to affected areas. The AMRG works under the coordination of the AHA Centre and in cooperation with other regional and international DM partners.[88]

Based on its SOP, the AMRG on HADR may be activated and deployed at the request of the affected state(s). The deployed forces include only those AMS military forces that agree to participate in any given response. Participation is flexible and voluntary and does not preclude an AMS delivering military support to an affected neighbor in a bilateral fashion. The military assets and personnel linked to the AMRG on HADR remain under their own national command and control in support of the affected state(s) throughout the disaster response.

Per the SOP, the AMRG may be configured for two primary functions:

1. Coordination and cooperation – to facilitate information exchange through the focal points of the MILREP in the AHA Centre and the AMS' military liaisons deployed to the affected state's or states' coordination body
2. Provision of relief – to deliver goods and services as directed through respective national authorities[89]

ASEAN Public Health Emergency Coordination System (APHECS)

APHECS is a post-COVID drive to integrate existing coordination mechanisms from across the AMS and across sectors. The objective is to develop a single platform of EOCs, outbreak investigators, and the ASEAN-Plus Three Field Epidemiology Training Network that builds a whole-of-ASEAN approach for mitigating the impacts of cross-border public health emergencies. It builds upon the establishment of the ASEAN Centre for Public Health Emergencies and Emerging Diseases (ACPHEED).[90]

At the core of the APHECS, ACPHEED facilitates cooperation and coordination among AMS and relevant UN or other international organizations to prepare for and respond to public health emergencies. ACPHEED provides a focal point for any AMS that require assistance to cope with a public health emergency. That state may funnel its request for assistance through ACPHEED, while assisting AMS or other partners coordinate and offer assistance through it.

The AMS continue to develop the means to implement the APHECS, including the capacities to identify public health risks, monitor and assess them, launch public health EWS, surge responders, and identify and earmark standby relief arrangements. When ready, the APHECS SOP will describe communication protocols for stakeholders as well as the ways that AMS can allocate and deliver public health assets and capacities for use in an emergency.[91]

ASEAN Regional Disaster Emergency Response Simulation Exercise (ARDEX)

The ARDEX series comprises full-scale simulation exercises held every two years. They are intended to test, practice, review, and evaluate ASEAN's various emergency response and DM mechanisms. Each iteration is co-organized by the AHA Centre and a host AMS, with the host AMS and type of disaster scenario selected based on regional priorities and what processes are expected to be tested. Among the key targets for assessment during exercises are:

- Guides and templates for standby arrangements
- Cross-border mobilization of resources (material and human)
- Information sharing
- Processing requests for and offers of assistance
- ASEAN-ERAT assessments
- ASEAN command and control structures
- Communications
- Interoperability of response teams and affected or assisting AMS
- Casualty management

In addition to AMS agencies, ARDEX may include a variety of other organizations and observers from partner states.

Since 2005, there have been eight ARDEX iterations, hosted by six AMS. They have centered on scenarios ranging from earthquakes and floods through a focused test of ASEAN SOPs. The most recent iteration of ARDEX ran in 2025. ARDEX-25, hosted by Cambodia in Phnom Penh in July 2025, simulated large-scale flooding caused by super typhoons, and it required participants to mobilize ASEAN's standby assets, test DELSA logistics, and apply SASOP procedures.[92]

Joint Operations and Coordination Centre of ASEAN (JOCCA)

The JOCCA is an on-site coordination space to enhance ASEAN support to the disaster responses led by the government(s) of affected AMS. When requested by the affected state(s), the ASEAN-ERAT establishes the JOCCA to provide direct interface between an ASEAN response and the NDMO(s) or local emergency management authority/-ies (LEMA) of the affected state(s).

The JOCCA has three objectives:

1. Support the NDMO or LEMA to establish an on-site coordination system for receiving and coordinating incoming relief assistance in a large-scale emergency
2. Establish a physical space as a single point of service for state actors, civil society, the private sector, and other ASEAN responders involved in the operation
3. Establish a coordination platform at the ground level with relevant UN and other international organizations, including military entities[93]

At the field level, whenever possible, a JOCCA should be co-located with the LEMA that has jurisdiction over the affected area. If an affected state has accepted the establishment of both a JOCCA and a UN-led On-Site Operations and Coordination Centre (OSOCC), the AHA Centre and UN Office for the Coordination of Humanitarian Assistance (OCHA) are encouraged to explore co-location. JOCCA will primarily focus on facilitating international assistance from within the ASEAN region, while OSOCC will enhance the capacity of JOCCA, especially by facilitating international assistance from outside the ASEAN region.[94]

Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations (SASOP)

The SASOP, adopted by the ACDM in 2008, fulfills Article 9 of AADMER, which required that ASEAN establish standby arrangements for disaster relief and emergency response. As such, the SASOP details the means through which AMS and other partners can, on a voluntary basis, earmark assets and capacities that may be available and ready to mobilize for a response.[95] Moreover, it delivers an SOP to guide AADMER parties – i.e., AMS – and the AHA Centre in implementing the standby

arrangements, using military and civilian assets across international borders, and coordinating overall response operations.

The SASOP has gone through two substantial revisions since its initial development. Version three of the SASOP was released in 2022. Any changes to the SASOP are tested through the ARDEX.

The Annexes of the SASOP provide AMS' NDMOs with templates and forms through which they can fulfill their requirements under AADMER to identify and earmark assets and capabilities available for request by fellow AMS in case of a disaster that overwhelms the affected AMS' capacity to respond. These templates include breakouts of the capacities, agencies, and contact information an AMS can offer under the nine modules of the AJDRP.

On the issue of civil-military coordination and the use of foreign military assets during a disaster response, the SASOP delivers several principles:

- The sovereignty, territorial integrity, and national unity of States must be fully respected in accordance with the Charter of the UN and the Treaty of Amity and Cooperation in Southeast Asia. In this context, HADR shall only be provided upon the request or with the consent of the Receiving or Requesting Party.
- Foreign military assets involved in disaster response operations remain under their own national command and control. They must be relevant to the scope and scale of the disasters.
- The militaries of states assisting in disaster response operations shall not carry arms as well as vehicles and items or substances that are non-compliant with the customs, rules, and laws of the Receiving or Requesting Party.
- Humanitarian principles shall be adhered to in the provision of disaster relief; they are:
  - Humanity: Human suffering shall be addressed wherever it is found, with particular attention to the most vulnerable in the population, such as children, women, and the elderly. The dignity and rights of all victims must be respected and protected.
  - Neutrality: HADR shall be provided without engaging in hostilities or taking sides in controversies of a political, religious, or ideological nature.
  - Impartiality: HADR shall be provided without discrimination as to ethnic origin, gender, nationality, political opinions, race, or religion. Relief of suffering must be guided solely by needs, and priority must be given to the most urgent cases of distress.
  - Do No Harm: The militaries of Assisting Parties shall be aware of the possibility that the provision of HADR, which is intended to produce positive outcomes can have unintended negative effects. Assisting militaries shall strive to avoid harmful unintended consequences.
- Assisting Parties shall support purely immediate needs and shall avoid creating long-term dependence on foreign military assets by the Affected State's Requesting or Receiving Party's population and civilian humanitarian organizations because this may impact long term recovery and development.
- Assisting Parties shall pave the way for civilian agencies to take over following the initial critical phases of disaster response.

Annex P of the SASOP details a model for coordination of domestic and foreign military assets through use of an MNCC.[96]

Technical Working Group on Civil-Military Coordination (TWG on CIMIC)

The TWG on CIMIC is a subsidiary of ACDM's WG on Preparedness, Response, and Recovery. The TWG is co-chaired by its parent working group – led by Malaysia, Myanmar, and Singapore for the 2026-2030 period – and by the ASEAN Defence Senior Officials' Meeting Chair. The TWG meets annually.[97]

WebEOC

The WebEOC is hosted at the AHA Centre and is activated when a disaster response is

triggered.

The platform is a central digital location for monitoring and coordinating ASEAN's collective response. The NDMO(s) of the affected state(s) and AHA Centre field teams (e.g., ASEAN-ERAT) feed information into the WebEOC to describe the situation on the ground. The affected state(s) can use the platform to post requests for assistance, and other AMS NDMOs can monitor the situation and post offers of assistance.[98] The WebEOC has been loaded with important templates and checklists from the SASOP[99] and includes key tools for ASEAN-ERAT deployment procedures – NFP contact information, national EOC information, ERAT roster, and activation/stand-down notices.[100]

Accessible to the staff of all AMS NDMOs, the ASEAN Secretariat, and the AHA Centre across laptops, smart phones, and tablet devices, the WebEOC is intended to ensure informed decision-making at all levels. It also provides a space for documenting the details of a disaster response for later entry into a larger information management structure.[101]

Information Management

Various scientific and technical agencies feed detailed monitoring data into the AHA Centre's EOC on a 24-hour-a-day basis. The AHA Centre is responsible for ensuring that it delivers information products based on these data to the AMS and other stakeholders. To do so, it manages key information technology platforms and publishes regular situation reports.

AHA Centre Information Management Network (AIM-Net)

AIM-Net is a regional forum for EOC practitioners to coordinate and cooperate on capacity building, capabilities development, and practical skills to address the demands of disaster information management and information systems. The objective is to ensure professional and forward-thinking management of data and information to ensure they are available, of high quality, and accessible. The network seeks to achieve this aim through interoperable data and information management systems.

The AIM-Net brings together the focal points from across AMS' NDMOs' EOCs with three workstreams:

1. Develop and implement a Regional Disaster Information Management Strategic Framework
2. Share knowledge, experiences, expertise, best practices, and projects related to disaster information management and information systems interoperability
3. Develop and reach consensus on information management and information system interoperability taxonomy, specifications, standards, and protocols[102]

ASEAN Earthquake Information Centre (AEIC)

Established in 2000, the Jakarta-based AEIC's mandate is to disseminate information on earthquakes occurring in the AMS, conduct research and training programs for AMS' seismologists, and manage information on earthquake data for AMS' national seismological centers. The AEIC is managed by Indonesia's Meteorology, Climatology, and Geophysical Agency (BMKG) and disseminates information on large-magnitude earthquakes occurring in the territories of AMS.[103] The data repository for the AEIC rests on Indonesia InaTEWS early warning repository, and it displays a filterable dashboard at its home webpage, shown in Figure 5.[104]

ASEAN Specialized Meteorological Center (ASMC)

Since 1993, the ASMC has been hosted by the Meteorological Service Singapore. The ASMC supports the region's National Meteorological Services (NMS) by undertaking research and development to improve scientific understanding and prediction of weather and climate systems of significance to the region. ASMC also serves as the ASEAN regional center for monitoring and assessment of haze, forest fires, and wildfires, and it is tasked with providing early warning for transboundary haze.

It conducts regional capability development programs to enable ASEAN NMS to leverage advances in science and technology to support important economic sectors.[105]

ASMC has weather forecasting capability that utilizes geospatial analytical resources to contribute to hazard monitoring, with applications for early warning and risk communication.[106] Between 2024 and 2025, the ASMC delivered nearly 500 weather and haze assessments, over 1,000 hotspot graphs and charts, 8 haze warnings or alerts, and 26 sub-seasonal weather reviews and outlooks. It also continued to conduct workshops with its 20 regional and international collaborators through 9 conferences and 7 capability-building programs. Alongside the World Meteorological Organisation, the ASMC ran an inaugural Regional Forum in Singapore in September 2024; the event examined the development of more and better EWS to mitigate the impacts of extreme weather and climate events.[107]

Figure 6 shows the ASMC's weather homepage.[108]

DAKO Platform

The AHA Centre's data collection, survey, and analysis platform is intended to assist rapid damage and needs assessments. It is built on open-source code and tailored to allow real-time data analytics and an interactive dashboard, usable by ASEAN-ERAT and the AMS' NDMOs.[109] Among the information management tasks allotted to ASEAN-ERAT during a response is development of a standardized form to survey affected communities for imputing data into DAKO.[110] A 2023 study into the impacts of ASEAN capacity building found that use of DAKO by Lao PDR's NDMO during an episode of flooding meant that the country's responders did not need to request AHA Centre or ASEAN-ERAT support to conduct rapid damage and needs assessments. As the AHA Centre continues to roll out training to the AMS and other DM practitioners throughout the region,[111] the tool is expected to continue to develop.

Disaster Monitoring and Response System (DMRS)

The DMRS is a repository for regional hazard and relevant non-hazard data, and retrieval is open to AMS through a web interface. The DMRS was initially built as a custom ASEAN version of the DisasterAWARE platform of the Pacific Disaster Center (PDC).[112]

The DMRS is an AHA Centre tool that provides near-real-time information on hazards as they occur, and it supplements this information with hydrometeorological data – e.g., wind direction, speed, cloud cover, and sea temperature. Basic maps from the DMRS can be overlaid with additional data layers, such as population density, locations of airports and seaports, and major roads and infrastructure. The information generated from the DMRS can then be integrated with national data from AMS to create disaster information products that are robust and reflective of the entire region.[113]

The System has various uses depending on the stage of an emergency. When there is an imminent hazard event, the AHA Centre issues a flash update with information regarding the hazard as well as an estimate of impacts. When a disaster strikes, the AHA Centre starts producing situation updates with more detailed information about the situation, capacity of the affected AMS, needs assessment reports, and additional materials – e.g., maps, photos, and infographics.[114]

The DMRS is set for upgrading to integrate linkages with regional and national EWS to feed into predictive, multi-hazard monitoring that provides decision support tools based on impact assessments and anticipatory approaches.[115]

Resource Management

Decisive and transparent management of financial, human, and material resources before, during, and after a disaster response paves the way for improved readiness, efficient mitigation efforts, and stronger DM partnerships. Executing this management requires trained and ready personnel, a plan for response execution, and the logistical resources and expertise to deliver relief effectively. The AHA Centre

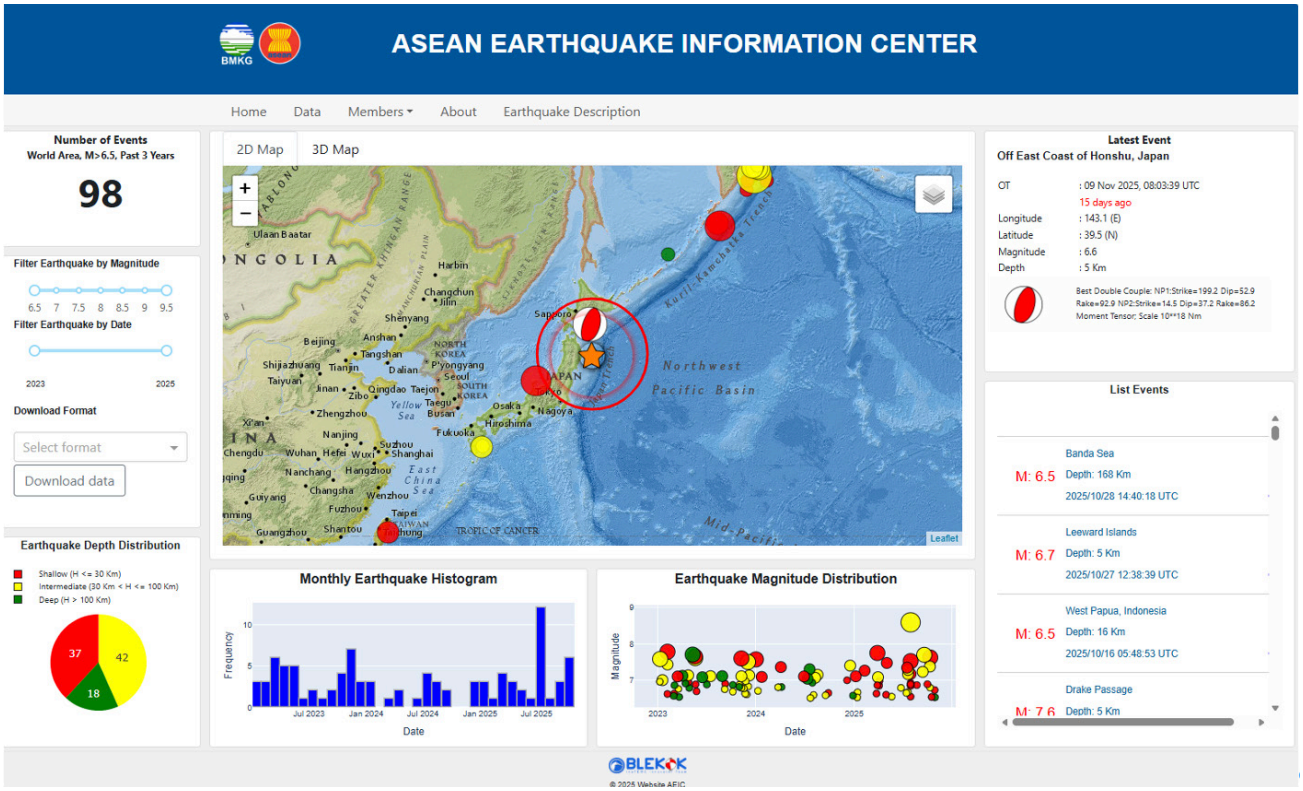


Figure 5: ASEAN Earthquake Information Center Dashboard

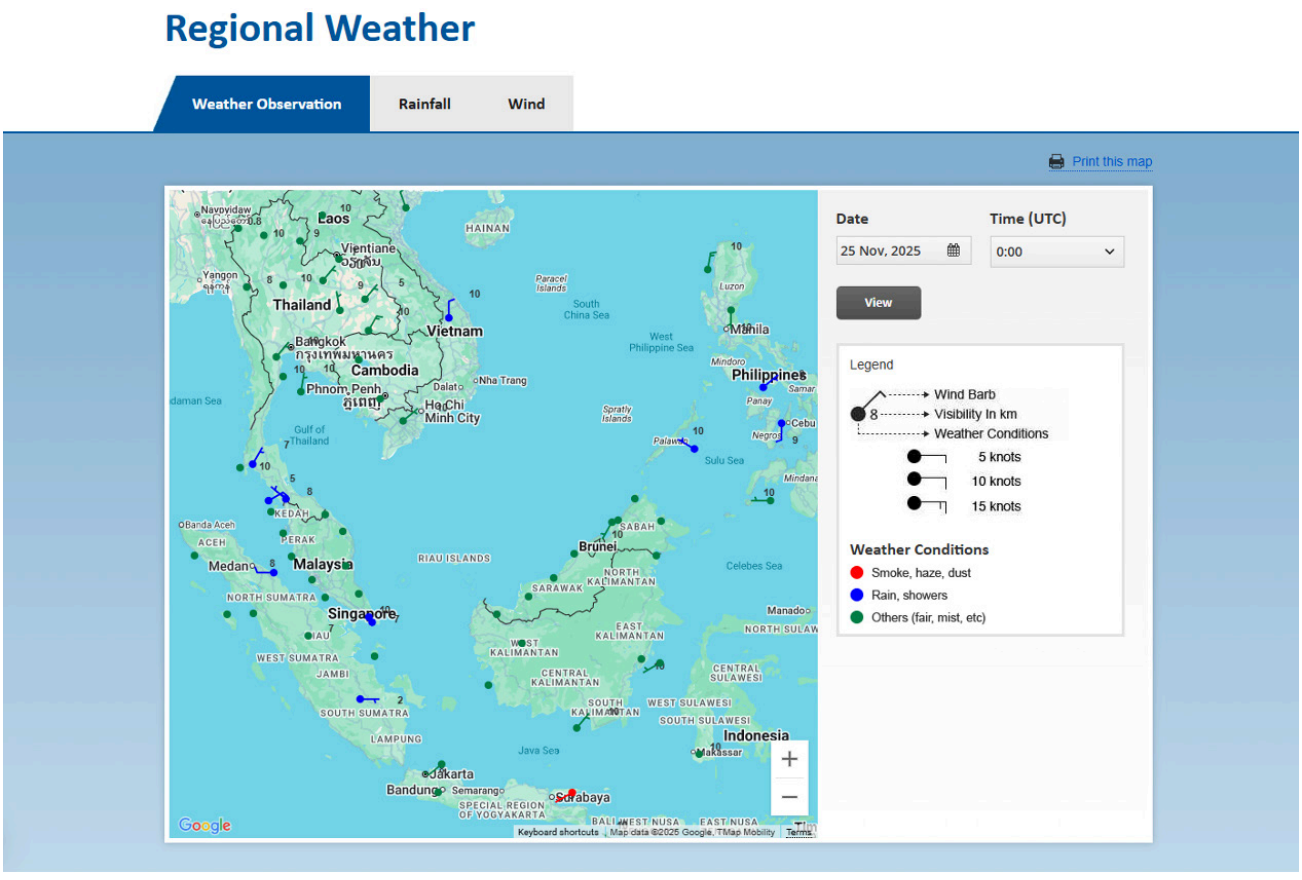


Figure 6: ASEAN Specialized Meteorological Center Regional Weather Dashboard

is the focal point for regional skills training, team building, scenario development, and communications skills for AMS' NDMOs.

ASEAN Emergency Response and Assessment Team (ASEAN-ERAT)

Developed in the mold of the UN Disaster Assessment and Coordination (UNDAC) framework, the ASEAN-ERAT came to fruition in 2008. By 2025, there were more than 450 fully trained ERAT responders, representing all AMS. ASEAN-ERAT members are ready to deploy to disasters within 48 hours of being notified[116] and are prepared to be in the disaster-affected area for up to two weeks.

The ASEAN-ERAT function is to support the NDMO of the affected AMS in the initial phases of a disaster. When deployed, ASEAN-ERAT may establish the JOCCA as a coordination space for all ASEAN agencies.

ASEAN-ERAT may deploy to an AMS ahead of a predicted hazard event to ensure that the resource is available immediately after impact. Figure 7 illustrates the ASEAN-ERAT mobilization process.[117]

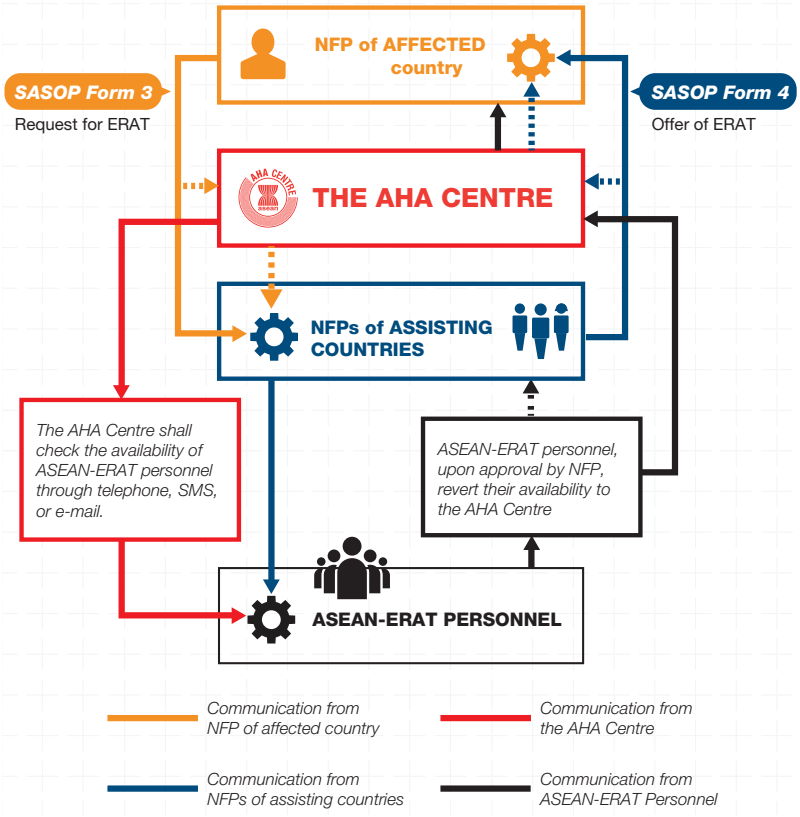


Figure 7: ASEAN-ERAT Mobilization Procedure

ASEAN Joint Disaster Response Plan (AJDRP)

The AJDRP was endorsed in 2015. It provides a common framework to deliver timely, at-scale, and joint responses through mobilization of required assets and capacities. Through four disaster scenarios, the Plan provides reference points that allow AMS to consider the types of assistance they would deliver to a disaster-affected fellow AMS as well as how they would coordinate this response.[118] From 2025, when the fourth scenario was added, the disaster scenarios for reference are: 1) a massive earthquake that strikes metropolitan Manila, Philippines; 2) a megathrust earthquake and tsunami impacting Indonesia; 3) a cyclone striking Myanmar's Ayeyarwady (Irrawaddy) Delta; and 4) large-scale, trans-boundary flooding across the Lower Mekong Basin.[119]

The AJDRP details working arrangements of all ASEAN mechanisms for anticipating a disaster situation and for strengthening engagement with other sectors and stakeholders as part of the overall ASEAN response to a large-scale disaster.[120] The Plan builds on the SASOP to provide a guide for mobilizing those assets that have been made available through standby arrangements. These assets are organized into a conceptual framework made up of nine modules, similar to the functional divisions made within the global humanitarian cluster system. The AJDRP identifies specific types of assets or capabilities that would be needed to support work within each module. Table 2 provides some of those identified assets and capabilities.[121]

The AJDRP also details key actions to be taken by various ASEAN entities in progressive phases of the AHA Centre's activation: Hazard Monitoring and Risk Analysis (Green), Standby (Yellow), and Active Response (Red). Table 3 provides an overview

of "Red" procedures and arrangements from the AJDRP as an indicator of what type of responders non-ASEAN foreign military assets might encounter when participating in a disaster response in the ASEAN region.[122]

Disaster Emergency Logistic System for ASEAN (DELSA)

DELSA provides ASEAN an emergency logistics system comprising a regional stockpile of relief items and pre-arrangements with potential suppliers and transporters. It is also crafted to enhance the capacity of the AHA Centre and AMS in disaster emergency logistics operations.[123] Nearly every year since its founding, DELSA has been used to deliver relief to at least one disaster-affected AMS.

In December 2012, the first phase of DELSA launched, supported by the Government of Japan through the Japan-ASEAN Integration

Module	Assets and Capabilities
Search and Rescue	USAR Teams (Heavy and Medium) Confined space rescue Ground forest fire fighting Aerial fire fighting Flood rescue teams Hazardous Material (HAZMAT) detection and handling Flood pumps Chemical, Biological, Radiological, and Nuclear (CBRN) detection and handling
Water, Sanitation, and Hygiene (WASH) Services	High-capacity pumps Water treatment facilities and personnel Water tankering (tanks, bladders, and trucks) Mobile latrines and bathing facilities Equipment to repair existing water and sewerage pipes and to renovate wells Safe water and sanitation facilities in health facilities, learning centers, and early childhood sites
Health and Medical Services	Emergency Medical Teams (EMT) – Types 1, 2, and 3 Medical tents, health posts, and field hospitals Medical air evacuation Essential medicines and health kits Disaster Victim Identification (DVI) teams Body bags
Food Assistance	Ready-to-eat food
Non-Food Items	Immediate shelter items – tarps, plastic sheeting, ventilated tents, sleeping mattresses, bed sheets, blankets, sleeping maps, and cots Household kits – rope, kitchen utensils, clothing, cook stoves, and flood lights Shelter repair kits – shovel, pick, hand saw, nails, wire, and claw hammer Temporary shelter packs – iron sheets and prefabricated shelters
Early Recovery	Structural or civil engineers Specialized waste and debris management
Logistics	Generators Tents Mini-/micro-unmanned aerial vehicles (drones) Air transport Sea transport Warehouse managers Transport and fleet management Ground handling at airports Import and export (customs)
Emergency Telecommunications	Information technology officers Emergency telecommunications team and equipment
Expertise	Humanitarian coordination Incident Command System / Incident Support Team Information management Civil-military coordination Communications Camp Coordination and Camp Management, including family reunification

Table 2: Disaster Response Modules and Assets or Capabilities

Phase	Agency	Activities
Red (within 6 hours)	Affected AMS	• Updates on the situation, the impact of disaster, and the government's intent on international assistance • Inform AHA Centre of required assets and capabilities • MNCC liaison officers coordinate with the AHA Centre's ICLT at the national level and JOCCA at the field level
	SG-AHAC	• Letter to the Head of State of the affected AMS with: a. expression of condolence b. offer of assistance c. suggestion on the activation of SG-AHAC d. intention to visit the affected country • Letter to the ASEAN Chair reporting on the situation
	AHA Centre	• Letter to the head of the NDMO of the affected AMS with: a. expression of condolence b. offer of assistance • Share info on ASEAN Standby Arrangements (i.e. assets and capacities) and provide recommendations to the affected AMS • Assess potential needs for using foreign military and civil defense assets (with support of AMRG) • Press release expressing condolence and ASEAN stands ready to assist (with support of Secretariat) • Coordinate with UN OCHA and IFRC via liaisons on initial response plan
	Secretariat	• Multi-Sectoral Coordination Group activated to support SG-AHAC
Red (within 48 hours)	Affected AMS	• Multi-Sectoral Coordination Group activated to support SG-AHAC
	AHA Centre	• Facilitate and adjust Emergency Response Action Plan • Organize video conference call with all NDMOs and ASEAN Secretariat to update on: situation, ASEAN's response, ASEAN Emergency Response Action Plan, and required standby assets and capabilities • Situation updates issued daily to relevant stakeholders • Assess the need for increased allocation of ADMER Fund and request change if required • Coordinate with Ministries of Foreign Affairs and NDMOs on humanitarian assistance from assisting AMS • Coordinate with liaisons from affected AMS to receive resources from outside the country, including support for Customs, Immigration, and Quarantine • Coordinate with mechanisms in-country • First executive briefings conducted with CPR and defense attaché, followed by press conference (with support of Secretariat) • If warranted, coordinate with affected AMS mechanisms for military assets (e.g. MNCC and Humanitarian-Military Operations Coordinating Centre [HuMOCC]) (with support of AMRG) • Coordinate with UN OCHA and IFRC liaisons on progress of initial response and assessment results
	Assisting AMS	• Fill in Form 4 of SASOP – offer of assistance
	SG-AHAC	• Call for support from ASEAN Leaders • Coordination with other ASEAN mechanisms and bodies conducted (with support of AHA Centre) • First executive briefings for ASEAN Dialogue Partners, followed by press conference (with support of AHA Centre)
	ASEAN-ERAT	• Rapid damage and needs assessment started • JOCCA established for coordinating aid delivery • Coordinate closely with OSOCC
	Secretariat	• Updates to the CPR, National Secretariats, and AMS Permanent Missions in the UN on ASEAN's response

Table 3: ASEAN Entity Actions During Active Response

Phase	Agency	Activities
Red (after 72 hours)	ASEAN-ERAT	• Rapid damage and needs assessment report submitted
	AHA Centre	• Emergency Response Action Plan revised according to situation, communicated to all NDMOs • Daily media briefing on ASEAN response (with support of Secretariat)
	SG-AHAC	• Call for mobilizing resources within and outside ASEAN • Call to humanitarian network in non-affected AMS for in-country fundraising
	Secretariat	• Resource Management Group established to support convening Special High-level meeting and Pledging Conference
Red (beyond 1 week)	Secretariat	• SG-AHAC visit to affected AMS, when feasible • Decision to conduct evaluation on joint response • Evaluation of Joint Response begun
	SG-AHAC	• Convene Special High-Level ASEAN meeting, followed by session with partners (with support of AHA Centre) • Mobilization of resources for recovery support, after PDNA
	Affected AMS	• USAR medium and heavy teams exit 7-10 days after deployment • PDNA started
	AHA Centre	• Additional ADMER Fund disbursed, as necessary • ASEAN-ERAT demobilization plan, or second batch of ERAT mobilize • After-action review conducted (within 2 weeks of ICLT demobilization) • Final report on One ASEAN Response published to web (within one month after end of response)
	Humanitarian Partners	• Prepare demobilization plans for assessment teams

Table 3: ASEAN Entity Actions During Active Response (cont.)

Fund (JAIF). The centerpiece was the first DELSA stockpile in Subang, Malaysia, where it is co-located with the UN Humanitarian Response Depot (UNHRD) of the World Food Programme (WFP). In 2013, relief items from the warehouse were used almost immediately when AMS collectively responded to four disasters across the region.[124] This first DELSA phase also included the first iteration of the AHA Centre Executive (ACE) Programme.[125]

The launch of the second DELSA phase, in 2017, was accompanied by the release of the DELSA Relief Items Catalogue, intended to inform AMS and regional stakeholders of support available through DELSA.[126] This phase saw the opening of two additional DELSA warehouses, one in Philippines (Camp Aguinaldo) and one in Thailand (Chai Nat), both co-managed with the NDMO of their respective host AMS. At their opening in 2019, the warehouses joined the main warehouse in Subang to bring the full DELSA system capacity up to supporting 50,000 households at any one time. JAIF remained the primary financial backer in Phase II,[127] during which the AHA Centre also began developing a discussion forum for regional logistics experts.[128]

Phase III of DELSA, still funded by JAIF, launched in 2022 with a focus on information technology resources to support AHA Centre relief missions.[129] Finally, the fourth phase was approved in July 2023 and launched that October. Phase IV maintains the strong focus on information technology components – the Emergency Telecommunication Network and supply chain management – but also supports the replenishment of stockpiles at the three warehouses.[130]

Emergency Telecommunication Network (ETN)

The first pillar of ASEAN's ICT Roadmap in Disaster Management for 2025, the ETN was adopted in the AADMER Work Programme 2021-2025, and the AHA Centre began workshops toward implementation during DELSA Phase III. In 2024, work toward an ETN master plan began.[131] In April 2025,

Malaysia's National DM Agency, supported by JAIF, hosted the Validation Workshop on the ASEAN ETN.[132]

When fully operational, the ETN will bring together national, regional, and international stakeholders to improve emergency telecommunications readiness through coordination, policy, National Emergency Telecommunications Plans, standardized emergency telecommunications services, strategic prepositioning of emergency telecommunications equipment, capacity building, and leveraging of expertise and support partners, including the private sector.[133]

Knowledge and Outreach

Building, maintaining, and sharing DM knowledge is a key aspect of the AHA Centre's work. Through both ASEAN-only and multi-stakeholder programs and projects, it develops the technical basis for knowledge sharing, the professional network of regional DM professionals, and the skills of those professionals and their institutions. Although the focus is on the AMS, these programs also integrate NGOs, members of the International Red Cross and Red Crescent Movement, UN agencies, and extra-regional partners.

Among the key assets managed by the AHA Centre is its online learning management system (LMS: https://lms.ahacentre.org/index.php). The LMS allows the AHA Centre to deliver eLearning as a component of its various structured courses – i.e., ASEAN-ERAT induction, Incident Command System, and Project Management. Free to access, content is available in various languages to accommodate regional learners.[134]

ASEAN Disaster Information Network (ADINet)

ADINet is a repository of information on hazards and disasters that have occurred in the ASEAN region. Its records go back to 2012, when the network launched at the AHA Centre. ADINet is an open platform, to which the public can submit information that is subsequently validated by AHA Centre staff. The AHA Centre also supplements public information with its own data and information, as required and available.[135] Figure 8 shows the ADINet dashboard home screen with options for filtering data by date, country, and other elements.[136]

AHA Centre Executive (ACE) Programme

The ACE Programme is the AHA Centre's in-residence 4-6 month training course for regional DM and humanitarian professionals.[137] The objective is to ensure that each AMS – and ASEAN as a whole – have a cadre of trained leaders, managers, and responders who both share an understanding of regional DM and have familiarity with each other's national response options so they can collaborate on an effective response.[138] The Programme has top-level oversight by the ACDM's WG on Global Leadership, which integrates representatives of the Government of Japan, as one of ASEAN's key financial and diplomatic partners.[139]

During coursework at the AHA Centre in Jakarta, participants learn the intricacies of the DM systems of each of the AMS as well as international organizations – UN agencies, the International Red Cross and Red Crescent Movement, etc. Moreover, they visit Japan for familiarization with the DM structures and institutions used there;[140] some early cohorts had also visited New Zealand, but these visits were ended in 2020.[141] Experience with developing plans and processes and interaction with regional DM leaders are bolstered by practice undertaking DM coordination within the AHA Centre's EOC.[142]

After a redesign of the ACE Programme, the AHA Centre launched the AHA Centre Executive - Leadership in Emergency and Disaster Management Programme (ACE-LEDMP) in 2023. Its target audiences were Executives (NDMO staff with 3-5 years of experience) and mid-level managers (NDMO managers with more than 5 years of experience). The objective was to train independent leaders and collaborators not only within the AMS' NDMOs but also across ASEAN.

ACE-LEDMP competencies are aligned to the standard developed under the ASEAN

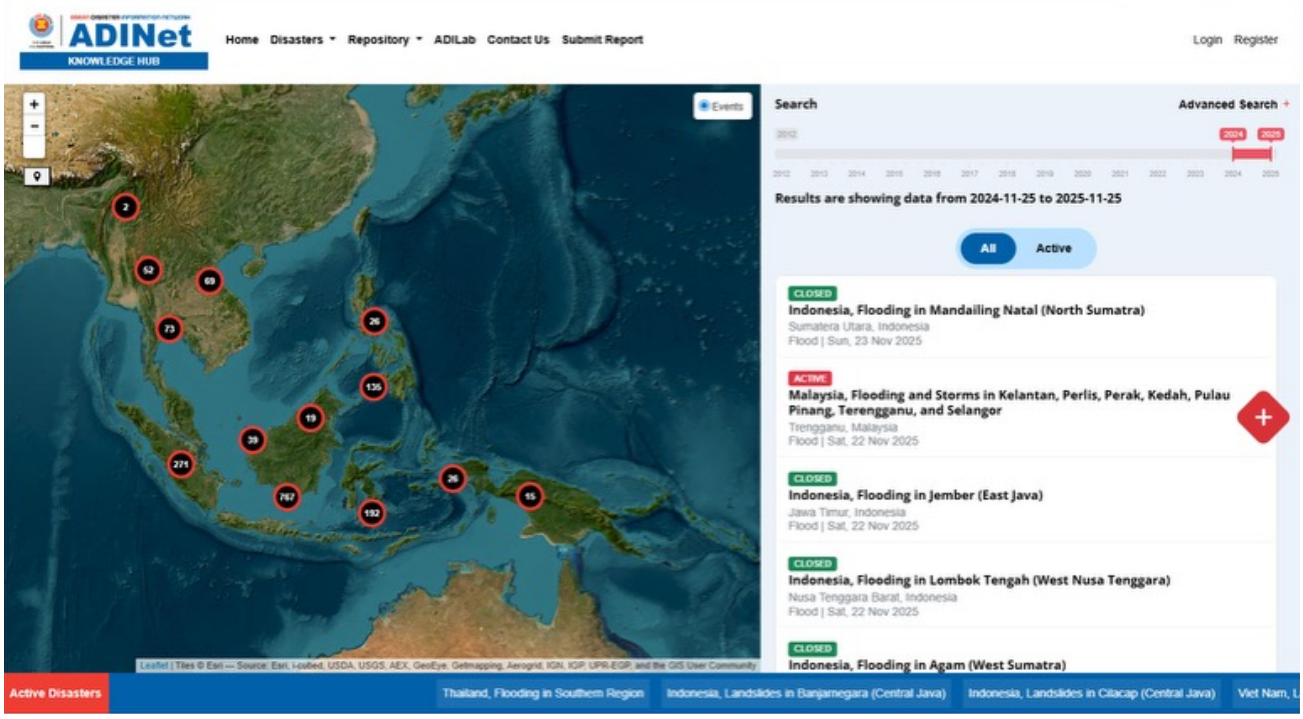


Figure 8: ADINet Home Dashboard, 24 November 2025

Standards and Certification for Experts in DM (ASCEND) program.[143]

ASEAN Capacity Building Roadmap 2025-2030 on Disaster Management

The 2025-2030 Roadmap on DM has the stated objective of building a disaster-resilient ASEAN community together. It is intended to deliver a strategic framework for AMS to collectively meet challenges and identify opportunities within the changing humanitarian and security landscapes. It is crafted for use by NDMOs, the ASEAN Secretariat, and the AHA Centre to develop and implement their own capacity-building programs with an eye toward ensuring coherence among the training, mentoring, technical assistance, and knowledge sharing activities they execute.

There are several targeted outputs in which the AMS and ASEAN entities work with partners from across the spectrum of regional DM stakeholders – e.g., individual national governments or militaries, international organizations, civil society, and the private sector. The outcomes and outputs of the roadmap are shown in Table 4.[144]

ASEAN Centre for Military Medicine (ACMM)

Hosted in Thailand, the ACMM's mission is to establish practical, effective, and sustainable cooperation among AMS' military medical services during both non-emergency and emergency periods. The ACMM also coordinates with the ADMM-Plus countries' military medical establishments, related agencies, and international organizations.[145]

The ACMM facilitates and coordinates efforts among AMS and ADMM-Plus countries to enhance military medicine capacities and support collaborative efforts. Among the key recent outputs of the ACMM is an updated ASEAN Military Emergency Response Team Guideline for Humanitarian Assistance and Disaster Relief Operations. More recently, the ACMM Work Plan 2024 focused on inter-regional cooperation in tropical medicine, as tropical diseases pose a persistent health threat to military operations in Southeast Asia. Furthermore, the 3-year work program (2024-2027) is constructed to adhere to the ADMM Work Programme.[146]

Pillar	Outcome	Output
1: Coordination of Capacity Building Efforts	**1.1:** Aligned efforts and a collaborative approach to capacity building that promote the sharing of knowledge, technology, and resources among key stakeholders within and beyond ASEAN are initiated.	**1.1.1:** A sustainable Disaster Management Training Institute network, which serves as a platform for long-term collaboration, fostering ongoing relationships between stakeholders, and promoting the continuous exchange of knowledge and information, is organized. **1.1.2:** A regional capacity-building coordination hub with a dedicated training secretariat at the AHA Centre is set up. **1.1.3:** Capacity-building programs for key stakeholders from other sectors, beyond NDMOs, such as those from other ministries, CSOs, and the private sector, are increased.
	1.2: ASEAN internal and external stakeholders share their content/resources and contribute to the AHA Centre electronic Learning Management System (eLMS).	**1.2.1:** The AHA Centre eLMS is optimized to host a database that includes information on available capacity-building initiatives, programs, and resources to foster collaboration and the exchange of best practices. **1.2.2:** Memoranda of Understanding/Intent/Engagement to expand collaboration and partnership are signed by all Parties.
2: Access to Knowledge and Information	**2.1:** Learning experience is enhanced through the AHA Centre eLMS platform.	**2.1.1:** The AHA Centre eLMS is enhanced and integrated with other learning/knowledge platforms to serve as the main platform for continuous learning. **2.1.2:** Various learning content covering a wide array of courses is available and hosted in the AHA Centre eLMS. **2.1.3:** Multilingual content and resources are developed for other spoken languages in the region. **2.1.4:** Comprehensive training of trainers and guidance materials on developing and managing learning content are developed. **2.1.5:** Effective communication strategies to increase outreach to target users for the AHA Centre eLMS are designed.
	2.2: Knowledge Management System including databases, repositories, and knowledge-sharing platforms is available.	**2.2.1:** AHA knowledge management guidelines and SOPs are continuously reviewed to ensure that knowledge is captured, stored, and disseminated effectively to facilitate easy retrieval of information. **2.2.2:** Information is transformed into knowledge products to support the development of programs and policies.
	2.3: Collaboration and knowledge sharing with partners is amplified.	**2.3.1**: Collaboration and knowledge sharing with NDMOs and partners from within and beyond the ASEAN region is enhanced.
3: Standardization and Certification System to Enhance Professionalism in DM	**3.1:** A higher number of highly skilled DM professionals in the region is achieved through comprehensive training programs and competencies.	**3.1.1:** Standards for training materials/modules and competencies for certification are in place. **3.1.2:** Types and levels of professions expanded.
	3.2: DM professionals are recognized through a certification program within and beyond the ASEAN region.	**3.2.1:** Certification programs are regularly conducted. **3.2.2:** Recognition of DM certification is entrenched. **3.2.3:** National and regional certification programs are harmonized.
	3.3: Comprehensive training standards/modules/ curriculum are developed for training providers.	**3.3.1:** Standards for training providers are in place. **3.3.2:** Regional Accreditation Programme for Training Providers is established.

Table 4: Objectives of the ASEAN Disaster Management Capacity Building Roadmap

Pillar	Outcome	Output
4: Impact of Capacity Building to Individuals and Organizations	**4.1:** Continuous evaluation is planned and systematized.	**4.1.1:** Evaluation plan and tools are standardized.
	4.2: A comprehensive learning intervention design that is learner-centered and meets the organization's specific needs, improves staff performance, and contributes to the overall success of the organization is developed.	**4.2.1:** Tailored and localized training programs are rolled out.
	4.3: Knowledge, skills, and capabilities of individuals, NDMOs, or organizations are built upon prior learning to deepen understanding of the subject.	**4.3.1:** A capacity building strategy that builds upon previously learned concepts or skills is rolled out.

Table 4: Objectives of the ASEAN Disaster Management Capacity Building Roadmap (cont.)

ASEAN Disaster Resilience Platform (ADRP)

Launched in 2014 in recognition that ASEAN needed to integrate various mechanisms and sectors to ensure disaster risk was better understood, predicted, managed, and leveraged to build resilience and development, the JTF on HADR, formally the "Joint Task Force to Promote Synergy with Other Relevant ASEAN Bodies on Humanitarian Assistance and Disaster Relief" was tasked with the following functions with reference to specific parts of the DM cycle:

- Exchange views on policy, strategy, and emerging issues on HADR within and beyond the region, as relevant to ASEAN (Disaster Response)
- Establish coordination among the relevant ASEAN bodies in HADR through activities, such as joint workshops, joint exercises, and information sharing sessions, to accelerate well-coordinated, more robust, and faster ASEAN response (Disaster Response)
- Develop mechanisms to mobilize quick deployment of resources from relevant ASEAN sectors in the event of major disasters, to ensure collective and robust response in the ASEAN region (Disaster Response)
- Develop strategies to further utilize the resources and mechanisms developed by other ASEAN-related mechanisms, in particular the East Asia Summit (EAS), ADMM Plus, and ASEAN Regional Forum (ARF), while maintaining ASEAN centrality (All phases of DM)
- Promote and disseminate ASEAN experiences and good practices in the area of HADR to the international humanitarian community and in relevant multilateral fora (Disaster Response)
- Provide advice to the relevant ASEAN ministerial bodies in promoting coordination and dialogue (All phases of DM)

The JTF on HADR served as the ACDM's venue for coordinating work on aspects of HADR with relevant ASEAN bodies. It comprised the Chairs of several ASEAN leadership bodies as well as the ASEAN Secretariat and the AHA Centre. It met annually, alongside regular ACDM meetings.[147]

In an effort to enable cross-community coordination to address institutional issues surrounding disaster risk, in 2022, the JTF on HADR transformed into the ADRP, comprised of 13 ASEAN sector bodies. The ADRP's biennial ASEAN Disaster Resilience Forum is intended to bring together the ACDM, ASEAN Secretariat, AHA Centre, and stakeholders from across the UN, international financial institutions, the private sector, and NGOs to

assess, review, and shape programs focused on resilience across science, technology, innovation, society, culture, economics, and financing.[148]

ASEAN Disaster Risk Communication Framework (ADRCF)

The development of the ADRCF was an objective under the AADMER Work Programme for 2021-2025. It is designed to support the strengthening of disaster risk communication across AMS throughout the DM cycle, with the objective of reducing risk through timely, reliable, understandable, actionable, and trusted information.[149] It lays out an inclusive approach in the expectation that ASEAN and non-ASEAN practitioners will play an active role in developing, using, and refining risk communication processes.

The Framework conceives disaster risk communication as a four-step process:

1. Collect, Analyze, and Inform: Gather and process data on hazards, exposure, and vulnerabilities; and disseminate this information to relevant stakeholders.
2. Decide: Make informed decisions about what to communicate, as well as when, how, and to whom.
3. Implement: Execute communication strategies and plans.
4. Monitor, Report, and Improve: Continuously monitor the implemented strategies' effectiveness, report outcomes, and make necessary adjustments to improve future risk communication efforts.[150]

To ensure ASEAN entities can meet the demands of risk communication, the ADRCF involves a six-step action plan:

1. Strengthen hazard monitoring coordination
2. Enhance existing regional guidelines for risk communication
3. Build capacity for effective delivery of disaster risk communication
4. Enhance data sharing between regional and national levels
5. Develop, refine, and apply indicators based on feedback and collected data
6. Share best practices and lessons learned from AMS[151]

Key ASEAN bodies already conduct actions addressed by the ADRCF. For example, the AHA Centre, ASMC, AEIC, and ASEAN Coordinating Centre for Transboundary Haze Pollution Control monitor disaster risks. Meanwhile, the DMRS, ADINet, Regional Haze Situation dashboard, and AEIC provide data analysis and dissemination.[152]

ASEAN Risk Monitor and Disaster Management Review (ARMOR)

In 2019, the AHA Centre launched ARMOR to fill three roles:

1. Authoritative publication providing risk information specifically for the ASEAN region
2. Critical analysis and synthesis to inform policymaking and DM operations
3. Regular showcase of best practice, trends, and innovations across ASEAN's DM landscape

As of 2025, ARMOR had opened a space for regional scientists, researchers, and practitioners to contribute to knowledge sharing and application of science to DM.[153]

ASEAN Standards and Certification for Experts in Disaster Management (ASCEND)

ASCEND is an initiative to certify ASEAN's DM professionals to global standards. ASEAN and the AMS' NDMOs initiated the establishment of ASCEND to elevate the expertise of DM professionals and ensure uniform competency standards across all disciplines within DM. It details a framework for technical skills and ethical conduct, and it is crafted for continuous evolution based on advancements and trends.

ASCEND has two parts: Standards and Certifications. The ASEAN Standards establish common competency benchmarks for various DM professions recognized across the 11 AMS. The ASEAN Certification process recognizes an individual's qualifications and competencies,

as validated by their NDMOs, according to ASCEND standards. For the 2025-2030 period, there is an initiative to build a continuing education program for nationally certified professionals to gain and maintain regional certification, if a regional certification body can be stood up.[154]

The types of professions certified under ASCEND are:

- Rapid Assessment – collect data for a clear understanding for needs and capacities of affected populations during the emergency response phase
- Humanitarian Logistics – plan, implement, monitor, and control the acquisition, storage, and transport of goods and materials from their origins to the disaster site
- Information Management – gather, share, and use data and information to inform a timely and effective response to disasters and humanitarian crises
- Water, Sanitation, and Hygiene – provide affected communities access to clean, potable water, adequate sanitation utilities, and good hygiene practices to reduce environmental health risks and prevent disease outbreaks
- Humanitarian Shelter and Settlements – provide financial, material, technical, and social assistance to meet shelter needs of affected communities[155]

Senior Executive Programme on Disaster Management (SEPDM)

The SEPDM is part of ASEAN's campaign to strengthen international recognition of the region's contributions to managing disasters and cultivating resilience. The course brings senior DM leaders from around the world together for two weeks to gain additional DM skills and knowledge.[156] By addressing the importance of leadership in DM, the course targets a shared language for considering strategy and policy.[157] Since 2015, Singapore has hosted the SEPDM annually at the Leadership in Emergency and Disaster Management (LEAD) Centre within the Singapore Civil Defence Academy.[158]

Train-Net

The AADMER Work Programme 2026-2030 targets formation and operationalization of a network of training institutes, capacity building programs, and DM professionals. "Train-Net" is intended to streamline access to up-to-date DM knowledge and skills training to strengthen the human resources base for DM in the region.[159] Leaders at the AMMDM in October 2025 noted that the network had been formed through the Strengthening of the Institutional Capacity of the AHA Centre for ASEAN Disaster Management Capacity Building Programme (SICAP), backed by New Zealand's Ministry of Foreign Affairs and Trade.[160] The launch of SICAP II (2026-2030) brings with it the task of operationalizing Train-Net during 2026 through workshops and networking events and resulting in training about the network for AHA Centre staff.[161]

ASEAN MEMBER STATES

The 11 AMS run the gamut from the city-state of Singapore to Indonesia's nearly 2 million square kilometers (km^2; 733,500 square miles [mi^2]) of territory across 17,500 islands. Their landscapes range from low-lying, urban centers to sparsely populated mountainous zones. Every one of them confronts a constellation of hazards, with nearly all exposed to both hydrometeorological and geophysical phenomena. In fact, one estimate finds that 75% of all residents of the ASEAN region live in coastal areas where they are exposed to flooding, storms, and sea level rise.[162]

The broad spectrum of political and socio-economic characteristics that exist across the AMS means that each country has developed its own ways of coping with the challenges the physical world has dealt it. Nonetheless, all of them contribute to ASEAN in ways that reflect their strengths and shore up their weaknesses in terms of institutions, information, or financial or human resources.

Brunei Darussalam

Download Brunei Darussalam Disaster Management Reference Handbook
https://www.cfe-dmha.org/brunei-darussalam-dmrh

ASEAN Accession: 7 January 1984

Brunei Darussalam is a sultanate on the northern coast of the island of Borneo, where it shares land borders with Malaysia's Sarawak State. Figure 9 shows a map of the country.[163]

Hazards, Exposure, and Vulnerability

Brunei's land area totals 5,765 km^2 (2,225 mi^2),[164] and its population was estimated at 462,700 in 2024.[165] An estimated two-thirds of the population lives in and around Bandar Seri Begawan, the capital, which is located along the Brunei River.[166] The urban population is thought to account for upwards of 78% of the total population (about 348,000 people). Meanwhile, as of 2022, an estimated 21% of the urban population (77,000 people) lived in slums or informal settlements.[167] Some 75% of the population lives in coastal areas.

The sultanate is popularly perceived as being among the region's countries least prone to the occurrence of natural disasters. However, the country regularly experiences flooding, driven by torrential rains, which can also trigger landslides along steep, inland slopes. Droughts also occasionally impact the country, and the hot, dry periods can drive forest fires. Total annual losses from all hazard occurrences top US$37.3 million, and total annual losses from flooding top US$31 million. While the annual cost of responding to recurring hazard events may not be high in regional terms, the cumulative impact on people, livelihoods, and property is costly due to frequent demands for repairs, as well as disruptions to health and education.[168]

The 2025 INFORM Risk Index ranked Brunei Darussalam as the world's 158th most at-risk country (of 191 countries assessed). Exposure to epidemic diseases is considered the hazard to which the greatest number of Bruneians are exposed and the hazard with the greatest potential to disrupt lives and



Figure 9: Map of Brunei Darussalam

livelihoods. Exposure measures for river and coastal flooding are also high, and there is some exposure to drought. Although exposure to earthquakes is minimal, the country's coastline and its tectonically active neighborhood translate into some exposure to tsunami.

INFORM also finds that Brunei's levels of formal vulnerability are low, although levels of inequality are considered a challenge.[169] With primary medical care and basic education delivered by the state, the people of Brunei enjoy quite high health standards and literacy rates.[170] Nonetheless, in recent years, the rate of informal (non-agricultural) employment has risen along with the formal unemployment rate, especially among people ages 15-24 years.[171] A combination of high urbanization rates and significant amounts of land exposed to flooding indicates a potential vulnerability among people living in flood-prone areas or in informal settlements where they do not have land tenure or household savings for repairs.

Coping Capacity

At the root of Brunei Darussalam's DM institutions, the Disaster Management Order, enacted in 2006, outlined the mandate of the National Disaster Council (NDC) and provided the basis for the Government to establish the National Disaster Management Centre (NDMC). The Order also provided the basis for the Disaster Management Strategic Policy Framework (DMSPF).

The NDC is responsible for the development of national DM policy and strategic direction.[172]

The NDMC, which falls under the Ministry of Home Affairs,[173] serves as the Secretariat of the NDC[174] and is the lead agency for whole-of-nation action across the full spectrum of DM. It is the lead coordinator during multi-agency disaster response operations[175] and is responsible for the provision of assistance to communities affected by disasters. Along with other duties, the NDMC Operations Unit tests and exercises national plans and procedures. The Disaster Command Centre (DCC), housed within the NDMC, is staffed 24 hours every day to support operations, planning, and logistics.[176]

The DCC is the national-level nerve center during emergencies. It works with districts, national leaders, and international partners, as required by the scope and scale of an emergency. The three tiers of response are:

- Tier 1 (District Level) - Requires resources at the district level managed by the District Disaster Management Committee (DDMC).
- Tier 2 (National Level) - Incident is beyond the capacity of the DDMC to manage, or the incident affects two or more districts, requiring resources at the national level to respond. The NDMC will assist the DDMCs by coordinating and mobilizing national resources to assist in managing the situation.
- Tier 3 (International Level) - Resources and expertise at the national level are insufficient, and assistance is required from other countries.[177]

Updated in October 2025,[178] the DMSPF articulates an all-hazard, whole-of-government approach to DM. It is a comprehensive plan of action aimed at building government and non-government capacity for DRR.[179] As such, it sets out DM objectives and guides implementation of DM policy. At the operational level, the country's response plan includes the National Standard Operating Procedures (NaSOP), which establishes the roles and responsibilities of all agencies involved in DRR.

The Royal Brunei Police Force (RBPF) provides support to the NDMC through last-mile early warning alerts for at-risk populations,[180] among other tasks. The RBPF and Fire and Rescue Department collaborate closely with the NDMC. The Royal Brunei Armed Forces play a supporting role.[181]

A partner of the NDMC, the Brunei Darussalam Meteorological Department is responsible for monitoring and forecasting weather and issuing warnings or advisories ahead of a potential emergency.

Brunei Darussalam has launched an initiative to establish the ASEAN Centre for Climate Change, aimed at strengthening regional coordination and cooperation on climate change through research and development of policymaking recommendations for the region.[182]

Cambodia

Download Cambodia Disaster Management Reference Handbook
https://www.cfe-dmha.org/cambodia-dmrh

ASEAN Accession: 30 April 1999

Located in mainland Southeast Asia, Cambodia shares borders with Thailand, Lao PDR, and Viet Nam. It has coastline on the Gulf of Thailand and hosts a long stretch of the Mekong River. Figure 10 shows a map of Cambodia.[183]



Figure 10: Map of Cambodia

Hazards, Exposure, and Vulnerability

Cambodia's 181,035 km^2 (69,900 mi^2) of territory[184] were home to an estimated 17.6 million people as of 2024.[185] The past century has seen increasing urbanization, but as of 2025, only about one-third of Cambodians live in an urban area. Phnom Penh, the capital, is the only city of over 1 million people. Rural, mainly agrarian settlements remain the most common communities.[186] All Cambodians – rural and urban alike – are vulnerable to disruption to their lives and livelihoods from flooding, drought, extreme heat, landslides, and earthquakes.

In the past 25 years, the country has experienced 35 major natural hazard events that delivered losses in both human and material terms. Twenty of these disasters were floods, and all but one were linked to seasonal monsoon weather patterns or other heavy rains; the outlier was an incident at a dam. Storms make up the next largest tranche of disasters; eight major storms brought high winds, torrential rains, lighting strikes, and coastal storm surges to Cambodia. Finally, there were four droughts, two disease outbreaks (not including COVID-19), and one extreme heat wave in the country between 2000 and 2025. Flooding and drought far outpace other types of hazards in terms of people affected by these events. Six events – five floods and one drought – affected more than 1 million people each; indeed, one flood in 2000 affected more than 3.4 million people, and one drought in 2016 affected more than 2.5 million people.[187]

Given the prevalence of hydrometeorological hazards and the toll they take, Cambodia's rural, agrarian communities along the Mekong River and Tonlé Sap are the most exposed and the most vulnerable, as poverty rates are generally higher in these areas.[188] The 2025 INFORM Risk Index ranked the country as the 62nd most at-risk country in the world. This "medium" risk evaluation is underpinned by moderate scores for Exposure to most hazards but somewhat high scores for Vulnerability, especially socio-economic vulnerabilities driven by lack of development, deprivation, and inequality.[189]

Coping Capacity

The Law on Disaster Management (2015) provides the legal framework and definitions of DM in Cambodia. It lays out the roles and responsibilities of ministries and other key stakeholders and mandates the development and implementation of hazard risk prevention programs on a national scale.

The National Committee for Disaster Management (NCDM) is responsible for the administration and coordination of DM activities nationally.[190] The NCDM has developed and overseen the implementation of successive National Action Plans for Disaster

Risk Reduction (NAP-DRR), the most recent of which covers the period 2024-2028. With the objective of minimizing the impacts of disasters on Cambodia's people, economy, and society, the NAP-DRR includes a disaster preparedness and emergency response plan, preparations for disaster rescue and protective equipment, and campaigns for public awareness about hazards.[191]

NCDM coordinates among national DM stakeholders, including the Royal Cambodian Armed Forces, the Cambodian Red Cross, and all national government agencies.[192] Below the national level, DM committees exist at the province or city, district or town, and commune. These subnational committees have responsibility for risk identification and analysis, contingency planning, and maintaining assets for disaster relief and emergency response. They are the first line of emergency responders.[193]

Among the key stakeholders for DM is the Ministry of Water Resources and Meteorology (MOWRAM), which is charged with predicting abnormal meteorological phenomena and with issuing alerts to enable people and agencies to prepare for hazard events. The Department of Meteorology under MOWRAM manages the country's meteorological stations and provides current weather information, warnings, and forecasts. One of the key avenues for information and warnings to reach the public is the country's "EWS 1294" service, which delivers multi-hazard early warning messages to mobile telephones via SMS.[194]

Indonesia

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ASEAN Accession: 8 August 1967

Indonesia is an archipelago stretching from the Malay Peninsula to the island of New Guinea and lying within the Indian and Pacific Oceans. It stretches along the Equator. Figure 11 shows a map of the country.[195]

Hazards, Exposure, and Vulnerability

The 17,500 islands[196] that make up Indonesia have a total of 1.9 million km^2 (733,500 mi^2) of land area.[197] The country is home to more than 283.5 million people,[198] all of whom share exposure to geophysical hazards – earthquakes, volcanoes, and tsunamis. Hydrometeorological hazards – drought, flooding, and landslides – also pose a threat to various areas of each island, depending on topography, proximity to coasts and rivers, and prevailing rainfall regime. Although more than 50% of the population are considered urban residents, most Indonesians maintain links to their home rural zones, derive some livelihood benefits from rural zones, and spend at least some of the year there.[199]

International databases record more than 400 major disasters in Indonesia in the past 25 years. This dataset includes more than 200 floods, 80 earthquakes, 58 land- or mudslides, and more than 30 volcanic eruptions, along with several periods of epidemic disease, wildfire, storms, and drought. The impacts of these events range from small landslides or river floods that disrupt a few households to a nation-wide drought that affected nearly 19 million people in 2023. Beyond that recent drought, in the past 25 years, four earthquakes have affected upwards of 2 million people each, and that total does not include the 2004 earthquake and tsunami that affected more than 500,000 Indonesians[200] and radically changed the way the country – and region – approach DM.

Commensurate with this significant exposure, Indonesia ranked 62nd of 191 countries assessed in the 2025 INFORM Risk Index. This ranking is significantly linked to the country's score of 7.4 (of 10, wherein 1 is least exposed and 10 is more exposed) in the Hazards Exposure component of INFORM's calculation. The country's Vulnerability dimension scores are more moderate, with gender inequality and "uprooted" people scores toward the higher end.[201] These scores reflect some socio-economic and political factors that exclude women, displaced people, or labor migrants from DM activities.



Figure 11: Map of Indonesia

Coping Capacity

Law Number 24 of 2007 Concerning Disaster Management was the first law in Indonesia to address aspects of DM. It established the country's national DM agency, BNPB,[202] from what had been the National Coordinating Board for DM. Since 2008, BNPB has been the national lead for coordinating and implementing DM.[203] At the subnational level, provincial and local DM agencies undertake all aspects of DM, including leading a response to a hazard event within their jurisdiction.[204]

The 2020-2044 Master Plan for Disaster Management is the country's underlying strategic DM framework, and it heavily focuses on DRR to safeguard economic growth and human development, as targeted in long- and medium-term development plans.[205]

Various national, provincial, and local agencies have stakes. While BNPB and the local agencies coordinate the overall inter-agency process, key agencies have specific mandates. For example, BMKG is responsible for data and information services in the fields of meteorology, climatology, and geophysics. It is tasked with delivering information and early warnings regarding meteorological, climatological, and geophysical hazard events. BMKG built and operates the impact-based weather prediction system, Signature, and the country's Earthquake and Tsunami Warning System, InaTEWS.

BMKG also undertakes regional responsibilities by operating the AEIC. Moreover, it performs the role of the tsunami service provider for countries in the Indian Ocean. Its monitoring and forecast data are used by its neighbors to support their hazard monitoring activities.

Separately, the Center for Volcanology and Geological Hazard Mitigation, under the Ministry of Energy and Mineral Resources, is tasked with conducting research, investigation, engineering, and services in the field of volcanology and geological disaster mitigation. It is also tasked with disseminating disaster-related information to the relevant government agencies. The Center developed MAGMA, Indonesia's monitoring system for volcanic activity.

BNPB's main website (https://bnpb.go.id/) contains links to the agency's in-house information and data centers. However, Indonesia enjoys access to a variety of other hazard data and historical disaster information systems. PetaBencana.id was developed as a crowdsourced multi-hazard reporting and alerting system, and the PDC built and customized BNPB's early warning and decision support tool, InAWARE.[206] As Jakarta hosts the AHA Centre at BNPB headquarters, many of ASEAN's information, data, and decision-support tools are available to BNPB and vice versa.

Lao PDR

Download Lao PDR Disaster Management Reference Handbook
https://www.cfe-dmha.org/lao-pdr-dmrh

ASEAN Accession: 23 July 1997
Landlocked Lao PDR shares borders with

the PRC, Viet Nam, Cambodia, Thailand, and Myanmar. The Mekong River runs the length of the country and is a key influence and resource. Figure 12 is a map of the country.[207]

Hazards, Exposure, and Vulnerability

Lao PDR's 236,800 km² (91,120 mi²) of territory[208] were home to 7.8 million people in 2024.[209] Laotians remain a mostly rural people, with agrarian village societies dominating lives and livelihoods. The importance of rivers and farmland for the country cannot be overestimated,[210] as subsistence agriculture and access to natural resources underpin the livelihoods and food security of huge swaths of society.[211]

Of 34 major disaster events in the past 25 years, floods account for 18 of them, storms for 8, epidemics for 3, and extreme heat, drought, and earthquake for 1 each. Flooding events have affected anywhere from 100 people to more than 500,000, while tropical storms that reach the country have affected anywhere from 1,000 people to more than 600,000 people.[212]

The 2025 INFORM Risk Index ranked Lao PDR in the "medium" risk category, at 89th most at-risk country in the world. The country's Exposure scores are dominated by river flooding and the potential for epidemic disease outbreaks. Socio-economic vulnerability, specifically deprivation and lack of development, drives the overall Vulnerability score upward. Vulnerabilities relate heavily to an underdeveloped health sector but are also linked to a lack of extension of critical infrastructure to rural areas.[213]

Coping Capacity

The 2019 Law on Disaster Management outlines the government's obligation for DM.

At the central government level, the National Disaster Management Committee (NDMC) is mandated to oversee the entire spectrum of DM efforts.[214] The NDMC is chaired by the Deputy Prime Minister and brings together various national-level cabinet ministries, provincial and local governments, and representatives of local communities. Moreover, it maintains cooperation with international partners.[215]

The NDMO, under the Ministry of Labour and Social Welfare's Department of Social Welfare (DSW), acts as the NDMC Secretariat.[216] The NDMO's mandate is to enhance disaster preparedness, mitigation, and response. The DSW acts as Lao PDR's representative on the ACDM.



Figure 12: Map of Lao PDR

The country does have an alternate pathway for executing aspects of DM – the special taskforce. A special taskforce, chaired by the Prime Minister or a designated Deputy Prime Minister, serves as a coordinating body to investigate causes of a disaster, find mitigation solutions, and enact precautions to prevent a recurrence. This taskforce can supervise military and police assets from the Ministries of National Defense and Public Security as they conduct search and rescue,

transportation, or logistics tasks.

Below the national level, there are provincial, district, and village DM committees, all tasked with ensuring locally-led DM that includes community members, especially vulnerable groups – women, youth, and elders. The provincial committee is a key focal point that allows stakeholders from the security forces, civil society, and the Lao Red Cross to come together, while lower-level committees focus primarily on response.[217]

Lao PDR's Flood and Drought Management and EWS is managed by the Department of Meteorology and Hydrology (DMH) under the Ministry of Natural Resources and Environment. Based on a 2017 law on meteorology and hydrology, the aim of this EWS is to prevent and reduce the impacts of natural disasters on lives and property. The Early Warning SOP, also developed in 2017, outlines the roles, responsibilities, and tasks to be undertaken by key early warning stakeholders.

The DMH primarily undertakes the technical aspects of early warning, including hydrometeorological data collection, analysis, and risk communication, and its National Early Warning Centre provides technology-based monitoring and forecasting for hazard events.[218]

Malaysia



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ASEAN Accession: 8 August 1967

Malaysia comprises two regions, Peninsular (or West) Malaysia between Thailand and Singapore, and East Malaysia on the northwestern side of the island of Borneo. They are separated by the South China Sea. Figure 13 shows a map of Malaysia.[219]

Hazards, Exposure, and Vulnerability

Malaysia covers approximately 330,800 km^2 (127,723 mi^2)[220] of land and is home to 34.2 million people,[221] who are unevenly distributed throughout the country. The rural interior of East Malaysia is sparsely populated, whereas the west coast of Peninsular Malaysia is densely settled.[222] The Klang Valley/Greater Kuala Lumpur metro area on the Peninsula's west coast is home to 8-9 million people,[223] over one-fifth of the national population.[224] This urban concentration in a low-lying area home to many rivers exposes large populations to natural hazards even as it reduces some vulnerabilities by ensuring access to infrastructure and services.

The 2025 INFORM Risk Index assessed Malaysia as being at "medium" risk, and the country stood as the 103rd most at-risk country of 191 assessed. Exposure to river floods drove the Hazard rating (107th of 191 countries), while "uprooted people" at 7.1 (out of 10, where 1 is least vulnerable and 10 most vulnerable) was the highest score in the Vulnerability dimension.[225] Key elements driving up Malaysia's total risk are the presences of at least 3 million foreign laborers[226] and more than 200,000 refugees or asylum-seekers,[227] mostly in urban areas and many in informal settlements that are highly exposed to flooding.

There were upwards of 80 major natural hazard-related disaster events in Malaysia in the past 25 years. Of these events, 65 were floods, 5 were storms, 4 were disease outbreaks, and 3 were landslides. An earthquake, a tsunami, a wildfire, and a drought were all also recorded. While flooding is the most common hazard event, the deadliest event between 2000 and 2025 was a dengue outbreak that killed 100 people; the second deadliest event was the 2004 Indian Ocean "Boxing Day" tsunami, which killed at least 68 people in Malaysia. Most hazard events are disruptive to lives and livelihoods but not deadly; flooding affects tens of thousands of people annually but rarely kills anyone.[228]

Coping Capacity

The National Disaster Management Agency (NADMA) oversees all facets of DM in Malaysia. In August 2024, NADMA Directive No. 1: National Disaster Management Policy and Mechanism comprehensively outlined DM and DRR mechanisms and roles at each level of



Figure 13: Map of Malaysia

government from federal down to local. Among other tasks, NADMA's responsibilities cover policy implementation, response coordination at home and overseas, advising all levels of government on needs and required assistance, information management through the National Disaster Command Centre, managing and mobilizing the Malaysian Special Search and Rescue Team (SMART), and coordination of DM education, training, and awareness.[229]

SMART members are drawn from the Malaysian Armed Forces, Royal Malaysia Police, and the Fire and Rescue Department. The team is an elite search and rescue squad that gained international certification in 2016 and that has deployed domestically and internationally to support large-scale disaster responses.[230]

NADMA and various other government and auxiliary partners collect and exchange information via an integrated platform at the National Disaster Command Centre, which monitors information and data received from the country's technical agencies to support identification of and early warning for hazard events.

The Malaysian Meteorological Department (Met Malaysia) is responsible for providing meteorological information and services. The Department of Irrigation and Drainage manages the country's flood risk through flood monitoring, early warning, and flood forecasting. The Malaysian National Tsunami Early Warning System delivers earthquake information to DM stakeholders and the public. The Malaysia Minerals and Geoscience Department assesses and monitors geophysical hazards, such as landslides, subsidence, and geological fault zones, to identify areas prone to potential risks, and it provides geohazard maps and information to relevant authorities, developers, and the public.[231]

For regional preparedness, Malaysia is home to the UNHRD, co-located with the main DELSA stockpile. During the 2004 tsunami, the humanitarian community had utilized Subang Airbase in Malaysia as a temporary logistics hub, and this use came just as the international humanitarian community had been seeking additional logistics capacity in the region. In February 2010, the Government of Malaysia and the WFP signed an agreement to host the UNHRD at Subang Airbase. The Government of Malaysia committed to financially support the UNHRD network with US$1 million annually from 2010, and it provides at least 12,000 square meters (129,000 square feet) of total surface area for the premises, which include a covered storage and space for office and training facilities.[232]

Myanmar

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ASEAN Accession: 23 July 1997

Myanmar sits on the eastern coast of the Bay of Bengal and shares borders with Bangladesh, India, the PRC, Lao PDR, and Thailand. Figure 14 shows a map of Myanmar.[233]

Hazards, Exposure, and Vulnerability

In 2023, Myanmar was estimated to be home to 57.2 million people on 676,570 km^2 (261,200 mi^2) of land.[234] Except for Yangon, Mandalay, and Mawlamyine, there are no large cities, and most people live in villages, where agrarian livelihoods and communal social systems remain dominant. Broadly, the country slopes from high mountains in the north and west, through a central and eastern plateau, and down to the coastal plains, much of which are formed by the deltas of the Ayeyarwady (Irrawaddy) and Sittang rivers.[235]

Myanmar was classified by the 2025 INFORM Risk Index as a country at "very high" disaster risk and ranked as the 16th most at-risk country in the world. Although the country does have a very high natural hazard Exposure score due to high exposure to earthquakes, river and coastal floods, tsunamis, tropical cyclones, and epidemics, it is also riven by intense conflict, which drives up the INFORM Risk Exposure score for anthropogenic hazards. Meanwhile, the country's score for Vulnerability is in the higher risk classifications due to deprivation and lack of development, uprooted people, and the impacts of poor health services and other public services.[236] Even before the March 2025 earthquake, the International Organization for Migration estimated that more than 3.4 million people were internally displaced due to conflict in Myanmar.[237]

International disaster databases record upward of 60 natural-hazard related disasters in the country between 2000 and 2025. They include 29 floods, 12 storms, 11 landslides, 5 earthquakes, 2 epidemics, and 2 heat waves. Of these events, five have affected more than 1 million people; Cyclone Nargis in 2008 affected 2.4 million people, while flooding in 2015 affected 1.6 million, the March 2025 Sagaing earthquake affected at least 1.3 million, and Tropical Cyclones Mocha and Yagi affected 1.2 million and 1 million in 2023 and 2024, respectively.[238]



Figure 14: Map of Myanmar

Coping Capacity

The Natural Disaster Management Law (2013) reflects the country's experience with Cyclone Nargis and government efforts to implement AADMER by establishing a DM apparatus and system. The subsequent Natural Disaster Management Rules (2015) designate the authorities responsible for specific DM actions.[239] Additional policy direction is found in the Myanmar Action Plan on Disaster Risk Reduction (2017), which provided DM targets through 2030, and the Standing Order on Natural Disaster Management (2022), which defined roles and responsibilities of national-level DM institutions.

The National Disaster Management Committee (NDMC) is the leading body for DM. It sets policies and issues guidelines and is charged with implementing data and information management programs to conduct research into DM globally. It also oversees the work of lower-level DM committees and may assign DM duties to relevant national-level ministries and agencies. Finally, the NDMC is the central focal point for international cooperation, both for DRR and for emergency response.[240] Meanwhile, the Department of Disaster Management (DDM), part of the Ministry of Social Welfare, provides coordination,[241] and its provincial and state offices deliver relief items to affected communities. Finally, DDM oversees rebuilding and recovery efforts.[242]

The Department of Meteorology and Hydrology under the Ministry of Transport and Communications is responsible for monitoring and providing warning services for hydrometeorological and geophysical hazards.[243]

Philippines

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ASEAN Accession: 8 August 1967

Philippines is an archipelago comprising more than 7,500 islands and islets bounded by the Philippine, Celebes, Sulu, and South China Seas. Figure 15 shows a map of the country.[244]

Hazards, Exposure, and Vulnerability

Across its 298,170 km^2 (115,125 mi^2) of land,[245] Philippines was home to 115.8 million people in 2024.[246] There are central mountain ranges on most of the larger islands, and at least 10 of the country's 50 known volcanoes are active. There are also steep valleys from which important rivers flow and where flooding can be a problem during the May-October rainy season. The June-December cyclone season also brings the threat of flooding, landslides on mountain



Figure 15: Map of Philippines

during the 2000-2025 period affected more than 1 million people each; of these storms, five affected between 5 million and 10 million people, one of them affected 10.6 million people, and one affected more than 16 million people.

Flooding can have a range of impacts – destroying homes and crops, washing out roads, disrupting communications, and leaving standing water that poses human health hazards. The human impacts of flooding in Philippines have ranged from 100 people affected to more than 4.5 million people affected by a single event. Nine flooding events have affected more than 1 million people each. The effects of earthquakes can also range from a few dozen people affected to upwards of 500,000 people affected, all depending on where the quake strikes. A 2013 temblor that struck the Visayas island group affected 3.2 million people and killed at least 230 people.[249]

Coping Capacity

The Philippine Disaster Risk Reduction and Management Act of 2010 is the foundational legislation for the country's all-hazard, multi-sectoral, interagency, and community-based approach to DM. It restructured and redefined the national DM philosophy and apparatus and established the NDRRMC as the central body for all aspects of DM. Under the leadership of the Department of National Defense, the NDRRMC comprises representation from 45 national government agencies, civil society, and the private sector.[250]

The OCD is the NDRRMC's implementing arm. It is charged with issuing disaster warnings and messages to the public through its 24-hour-a-day, 7-day-a-week EOC. It is also responsible for ensuring implementation of the National Disaster Risk Reduction and Management Plan, which currently runs for the period 2020-2030. The Plan provides a roadmap to achieve the goals and targets provided in the national DM framework. The Plan is joined by various preparedness, response, and recovery plans that promote national and local action.[251]

Below the national level, there are Regional Councils that bring together more localized leadership, and at the lowest administrative level, there are local plans, supported by the OCD and intended to facilitate the prevention and mitigation aspects of DM. All national and regional Councils are expected to deliver support to local government units, which are considered the first responders to any hazard event.[252]

With a seat on the NDRRMC, the Department of Science and Technology (DOST) leads the prevention and mitigation pillar. It has an overall national mandate for monitoring and forecasting hazard events. DOST's Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) provides hydrometeorological warnings, bulletins, and advisories, and it develops hazard and risk maps and assessments. Another DOST agency, the Philippine Institute of Volcanology and Seismology (PHIVOLCS) is mandated to provide monitoring, analysis, and warnings for geophysical events, and it undertakes risk assessments through its GeoRisk portal and other tools.[253]

The Philippines' OCD is an active proponent of regional DM cooperation through various ASEAN mechanisms. Of note, it contributes to the crafting and updating of the AJDRP, especially the regional plan for responding to a 7.2-magnitude earthquake in the vicinity of Philippines. Moreover, the country is an important resource provider during emergencies; it has trained ASEAN-ERAT personnel in dozens of national agencies and partner organizations, and it hosts one DELSA stockpile, a satellite warehouse at Camp Aguinaldo, Quezon City.[254]

Singapore



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ASEAN Accession: 8 August 1967

The city-state of Singapore lies across the Johor Strait from Peninsular Malaysia and across the Singapore Strait from Indonesia's

Riau-Lingga Archipelago. Figure 16 shows a map of Singapore.[255]

Hazards, Exposure, and Vulnerability

Singapore's land area is 718 km^2 (277 mi^2).[256] In 2024, the population stood at more than 6 million people.[257] The population is entirely urban, and an estimated 80% of people live in high-rise buildings. This urban density ensures easy access to public health services, education, transport infrastructure, and other government services. The land lies very low; two-thirds of it lies below 14 meters (50 feet) above sea level. Many short streams provide drainage, although they are commonly overwhelmed by heavy rains that drive frequent, localized flooding.[258]

Singapore ranked as the least at-risk country in the 2025 INFORM Risk Index. Its Exposure to hazards is dominated by potential disease outbreaks and coastal flooding, while any Vulnerability is linked to some socio-economic inequality, specifically among migrant laborers.[259] The two natural hazard events that have been counted as disasters in the country in the past 25 years are both epidemics – dengue (2016) and hand, foot, and mouth disease (2000).[260] The dataset that counts these outbreaks does not list pandemics, and, of course, Singapore also felt the effects of the COVID-19 pandemic, although its public health and social assistance programs mitigated many impacts.

Coping Capacity

In the past two decades, Singapore has solidified its whole-of-government DM framework into an all-hazards, multi-agency coordination system – the Homefront Crisis Management System (HCMS). The HCMS integrates top-level ministers, crisis management experts who are activated when an emergency occurs, and incident managers at the operational and tactical levels.[261]

The Ministry of Home Affairs (MHA) is responsible for DM policy and strategy. The SCDF, under MHA, is the main emergency manager for warning, protection, rescue, command and control, and communications.[262] The SCDF delivers firefighting, rescue, and emergency medical services; operates the island-wide public warning system; maintains and regulates civil defense shelters; and formulates and implements fire safety and civil defense regulations. It is also the lead agency in foreign disaster response operations. The Ministry of Defence and Singapore Armed Forces (SAF) may also play roles in support of MHA and SCDF, as requested.[263]



Figure 16: Map of Singapore

In 2014, Singapore launched Changi RHCC to provide a platform for military-to-military and civil-military coordination in disaster response. Changi RHCC, run by SAF, complements existing institutions – such as UN OCHA, and the AHA Centre. Its OPERA

Computer Information System fuses information on assessed needs, status of deployments, and key logistics movements to aid partners and the affected state in coordination and planning functions. Beyond fellow AMS, Changi RHCC partner-countries include Australia, Canada, France, India, New Zealand, PRC, Peru, the Russian Federation, South Korea, the United Kingdom, and the U.S., all which have attached International Liaison Officers or exchanged contact points for disaster relief.[264]

Operation Lionheart is SCDF's search-and-rescue contingent. It is a standing, 80-person USAR capability. Founded in 1990, it is focused on major international responses although it is available for local requirements. In 2008, Operation Lionheart received International Search and Rescue Advisory Group (INSARAG) classification as a Heavy USAR Team. In addition to rescuers, Operation Lionheart includes search dogs, civil engineers, and emergency medicine and trauma doctors.[265]

The Meteorological Services Singapore is the national authority on weather and climate. The National Environment Agency, under the Meteorological Services, is responsible for weather and climate services, timely dissemination of weather forecasts and hazard warnings, and contributing to climate adaptation efforts. Separately, the Public Utility Board is a statutory board under the Ministry of Sustainability and the Environment. It is mandated as the national water agency, tasked to lead and coordinate whole-of-government efforts to protect Singapore from the threat of rising seas and to oversee the holistic management of inland and coastal flood risks. It also provides information on flood-prone areas.[266]

As an active AMS, Singapore co-chairs two ACDM WGs – Preparedness, Response, and Recovery; and Global Leadership. During 2024-2027, Singapore is also co-chairing the ADMM-Plus EWG on HADR with New Zealand. Singapore has personnel active in ASEAN-ERAT.

The country is frequently a co-organizer and co-host of ASEAN DM training and exercise events. In February 2023, Singapore and the AHA Centre co-organized the Emergency Telecommunication Network Workshop and Training of Trainers on Emergency Telecommunication Systems for Disaster Response at SCDF premises. In April 2023, Singapore and the AHA Centre also co-organized and hosted two ASEAN-ERAT Level 2 courses; they were the ASEAN Humanitarian Logistics Training and the Civil Military Coordination Course. In August 2023, Singapore hosted the inaugural ASEAN Disaster Resilience Forum (ADRF), a biennial forum intended to provide a venue for ASEAN and non-ASEAN stakeholders to discuss topics related to disaster resilience in the region. The Forum was held back-to-back with the SPDDM in 2023. In addition, Singapore organizes the ASEAN SEPDM annually.[267]

Thailand

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ASEAN Accession: 8 August 1967

Thailand stretches from mainland Southeast Asia, down the Isthmus of Kra to the northern edge of the Malay Peninsula. The country borders Myanmar, Lao PDR, Cambodia, and Malaysia, and it has coastlines on the Gulf of Thailand and the Andaman Sea. Figure 17 shows a map of Thailand.[268]

Hazards, Exposure, and Vulnerability

Thailand is home to 71.1 million people[269] on its 510,890 km^2 (197,255 mi^2) of land.[270] The government estimates that one-third of Thai people are urban dwellers,[271] and the only major urban agglomeration is the greater Bangkok area. The municipality proper has a population of more than 8 million people, but some 15 million people live in the greater metropolitan area.[272] An historical, present, and long-term challenge is that communities have tended to build on flood plains, along rivers, and in coastal areas. Without planning and regulation,



Figure 17: Map of Thailand

these communities will continue to confront losses from flooding, sea level rise, and land subsidence.[273]

In 2025, INFORM ranked Thailand as the 68th most at-risk country in the world, and this ranking was fueled by the country's widespread exposure to river flooding as well as moderate exposure to coastal floods, droughts, epidemics, and tsunamis. High Exposure scores are mitigated somewhat by low Vulnerability scores, as the country scores well for high levels of development and low inequality.[274]

There were 134 major disaster events in the country between 2000 and 2025. Of these disasters, there were 75 floods, 37 storms, 8 droughts, 4 disease outbreaks, 3 earthquakes, 2 landslides, 2 extreme cold events, 1 wildfire, 1 extreme heat wave, and 1 tsunami. Droughts can be devastating; four major events have affected between 5 million and 12 million people each. However, they occur less frequently than other hazard events. Floods occur annually, and over the years, they have affected anywhere from a few hundred people to upwards of 9.5 million people. Meanwhile, storms regularly impact thousands, with 2011's Tropical Storm Nock-ten affecting at least 1 million people.[275]

Coping Capacity

Thailand has established clear DM roles and responsibilities, with government policy mandating the preparation of hazard, vulnerability, and capacity assessments for all agencies and across all regions of the country. The Disaster Prevention and Mitigation Act (2007) laid out the relationships among the national and provincial governments and prescribed development of relief stockpiles, training, planning, and evacuation processes.[276]

Led by the Prime Minister, the National Disaster Prevention and Mitigation Committee (NDPMC) is the lead on national DM policy development. Within the Ministry of Interior, the DDPM acts as the NDPMC's Secretariat and is the national lead coordinating agency.[277] DDPM operates the Central Disaster Prevention and Mitigation Coordination Center, which oversees non-emergency projects and becomes the national Emergency Response Coordination Center during disaster events. This structure is mirrored at the provincial, municipal, and district levels, where committees and coordination centers all operate, and it allows DDPM to be the national focal point for local, provincial, national, and international responders.[278]

The National Disaster Prevention and Mitigation Plan (2021-2027) provides strategic

guidance with a focus on digitalization, development of disaster-resilient infrastructure, and standardization of the national EWS. Under this plan, Thailand has established and manages a network of monitoring, surveillance, and hazard identification tools and services for hydrometeorological hazards. The National Disaster Warning Center, under DDPM, oversees risk detection, formulates early warnings, and liaises with other governmental and non-governmental entities for communication and warning dissemination.

The Thailand Meteorological Department (TMD) is responsible for real-time weather forecasts and dissemination of advisories for weather-related risks. TMD's Earthquake Observation Division monitors seismic activity with its network of automatic earthquake monitoring stations around the country. Additional water authorities – the Department of Water Resources and the Royal Irrigation Department – play instrumental roles in forecasting, monitoring, and disseminating early warnings for hydrological hazards.[279]

Thailand's success in building national capacity for domestic DM means that it is increasingly capable of conducting foreign disaster response operations. Under the 2015 National Disaster Risk Mitigation Plan, the Ministries of Foreign Affairs, Interior, and Defence, alongside other national agencies, were tasked with developing standards, operational plans, and a public relations handbook on providing DM support to foreign countries. With the Ministry of Interior and DDPM as the focal point, Thailand has been working to build specialized search-and-rescue teams capable of responding both at home and internationally.[280]

Along with its national capacities, Thailand is active in supporting development of ASEAN capacity. During the 34th ASEAN Summit in June 2019, Thailand, represented by DDPM, officially launched the DELSA Satellite Warehouse in Chai Nat Province. It serves as a stockpile for relief items to respond to emergencies in Cambodia, Lao PDR, Myanmar, Viet Nam, and Thailand. In 2020, the warehouse delivered 2,900 personal hygiene kits to support Cambodia's COVID-19 response, and in 2021, stocks of 500 family tents, 2,000 mosquito nets, and 1,500 personal hygiene kits were delivered within Thailand.[281]

Timor-Leste

Download Timor-Leste Disaster Management Reference Handbook
https://www.cfe-dmha.org/timor-leste-dmrh

ASEAN Accession: 26 October 2025

Timor-Leste occupies the eastern half of Timor Island, which it shares with Indonesia. Figure 18 is a map of the country.[282]



Figure 18: Map of Timor-Leste

Hazards, Exposure, and Vulnerability

The 1.34 million people of Timor-Leste[283] live on 15,000 km^2 (5,790 mi^2) of land, including the main part of the country, the Oecussi enclave and two offshore islands.[284] The people overwhelmingly reside in rural areas, with Dili, at 235,000 residents, being the most populous municipality.[285] This rural character means that most Timorese rely at least partially on their own small-scale farms for some household consumption. Droughts, storms, floods, or landslides can create significant loss of lives and livelihoods.[286] Meanwhile, flood-prone Dili continues to grow, and unplanned settlements are exposed to high flood risk.

Based on the 2025 INFORM Risk Index, Timor-Leste confronts "Medium" disaster risk and ranks as the 86th most at-risk country in the world. The country's scores for Hazard Exposure and Vulnerability are dominated by exposure to earthquakes and epidemics, low rates of development, and high rates of deprivation.[287] While there is no historic record of a damaging earthquake, the country's location in a seismically active zone and a lack of regulations to mitigate that exposure mean that a large quake in the region could have devastating impacts on Timor-Leste. Meanwhile, regular occurrences of flooding and landslides divert individual and community resources away from long-term resilience-building and toward emergency response.

In the past 25 years, 13 disaster events have been recorded. Of these events, five were floods, and three were epidemics. There were two droughts and two storms, as well as one earthquake.[288] Droughts tend to be the events that affect the greatest number of Timorese, with two El Niño-related droughts affecting some 120,000 (2016) and 240,000 (2024). Meanwhile, wind and rain from the passage of Tropical Cyclone Seroja in April 2021 affected more than 143,000 people and killed at least 41 people. All other events have affected fewer than 10,000 people, and the one 6.5-magnitude earthquake (2015) caused a few injuries but no deaths and little damage.

Coping Capacity

The Civil Protection Law (2020) is the basis for DM in Timor-Leste. At the national level, the National Civil Protection Council brings together government ministries, the fire service, national military and police, and the immigration service to direct DM policy.[289] However, the agency in charge of DM implementation is the Civil Protection Authority (CPA). It has drafted the National Civil Protection Emergency Plan (NCPEP) to align with the AJDRP, although the NCPEP remains in draft as of the writing of this publication.

The CPA maintains offices at the national, municipal, and village levels. It coordinates Civil Protection Agents' work as they intersect with the whole-of-society national security sector. As such, it conducts surveys, forecasts and assesses collective risk, organizes the national alert and warning systems, and supervises compliance with national security laws.

The CPA's National Operations Center is the hub for coordination and information management. It monitors early warning information and bulletins from local, national, regional, and international sources and disseminates that information to the appropriate public or community recipients. It also evaluates and quantifies data on the victims and damage caused by disasters, and it keeps a database to inform CPA leadership.[290]

Based on the NCPEP, there are three levels of emergency alert based on scale, severity, and scope, as well as the level of government authority in the lead. In a local (Level 1) emergency, municipal authorities are in the lead with support from the CPA's municipal and regional resources. When two or more municipalities are affected by a disaster (Level 2), the CPA will lead coordination, while CPA municipal and regional resources execute the response. Finally, in a calamity (Level 3), the President of the country will have oversight, the CPA will coordinate, and all of society will execute a response.[291]

For disaster communications, there are three key national agencies – the CPA, the

Directorate of Meteorology and Geophysics (DNMG) under the Ministry of Transport and Communications, and the Agriculture and Land-Use Geographic Information System under the Ministry of Agriculture and Fisheries. The CPA's Civil Protection National Operational Commander is responsible for disseminating early warning advisories to the public and all municipal-level civil protection agents. The National Operations Center receives data and warnings from the DNMG through WhatsApp, email, and Facebook,[292] and it disseminates that information to stakeholders across the government – national and municipal – and to its own staff through SMS, email, and WhatsApp.[293]

Viet Nam

Download Viet Nam Disaster Management Reference Handbook
https://www.cfe-dmha.org/viet-nam-dmrh

ASEAN Accession: 28 July 1995

Located on the east coast of the Indochina Peninsula, Viet Nam shares borders with the PRC, Lao PDR, and Cambodia. The country has a long coastline on the South China Sea. Figure 19 shows a map of Viet Nam.[294]



Figure 19: Map of Viet Nam

Hazards, Exposure, and Vulnerability

Viet Nam's 331,052 km^2 (127,820 mi^2) of territory[295] were home to 99.5 million people in 2024.[296] Slightly more than one-third of the population lives in urban areas, primarily in the country's two mega-cities – Ha Noi and Ho Chi Minh City.[297] Some three-quarters of the country is mountainous or highland with some steep slopes; moreover, the country has a dense network of major rivers. This combination of topography and drainage, along with the influence of monsoons and regular arrival of tropical storms, makes much of Viet Nam prone impacts from heavy rains, high winds, and storm surge, as well as flooding and landslides.

Viet Nam ranked 79th among 191 countries in the 2025 INFORM Risk Index. As a "Medium" risk country, its Hazard Exposure score was somewhat high and was dominated by exposure to river and coastal flooding. Nonetheless, the country's Vulnerability score mitigates this exposure somewhat; the country exhibits low rates of socio-economic vulnerability, as it is buoyed by relatively high rates of socio-economic equality – i.e., a poverty rate of below 5%.[298]

Between 2000 and 2025, data record 201 natural hazard-related disaster events in Viet Nam. They include 100 storms (of which 78

were tropical cyclones), 85 floods, 5 landslides, 5 droughts, 4 epidemics, 1 wildfire, and 1 heat wave. Storms and flooding have caused immense damage nationally and taken a huge human toll. Affected people can number anywhere from a few dozen to millions. Fifteen storms have affected more than 500,000 people each, and of these storms, seven have affected more than 1 million people. The four worst flood events in the 25-year period affected approximately 5 million people (2000), 2.13 million people (2013), 1.57 million people (2001), and 1.14 million people (2002). Meanwhile, each occurrence of drought can be immensely damaging, and individual droughts have affected from 266,000 to 1.75 million people.[299]

Coping Capacity

The Law on Disaster Prevention and Control (2013) and Amending Law No. 60 (2020) form the comprehensive law on DM. Various decrees provide direction and detail roles and responsibilities of key stakeholders.

The government coordinates DM policies and interventions at the national or central level through inter-ministerial committees, which are replicated at the provincial, district, and commune levels. The National Steering Committee for National Disaster Prevention and Control (NSCNDPC) is responsible for DM policy development and decision-making.[300] In 2023, a new Civil Defense Law mandated the formation of the Viet Nam Steering Committee for Civil Defense (VNCIVDEF), or National Steering Committee for Civil Defense, which combines the work of the NSCNDPC and the National Committee for Incident, Disaster Response, and Search and Rescue (VINASARCOM),[301] the central government's focal agency for search and rescue. The Standing Office of the NSCNDPC (and of the VNCIVDEF) is the Viet Nam Disaster and Dyke Management Authority (VDDMA).[302] The VDDMA is also the lead coordinator for natural disaster mitigation and response activities.[303]

The National Strategy for Natural Disaster Prevention and Control to 2030 with a Vision to 2050 articulates the country's long-term DRR goals, including the promotion of proactive initiatives to reduce risk. It promotes a decentralized approach to DM through the country's "four-on-the-spot" concept – leadership, human resources, materials, and logistics all "on-the-spot" when needed – in order to reduce damage, reduce loss of lives due to flooding and landslides, ensure safety, and have 100% of national, regional, and provincial administrations directing and operating DM agencies.[304]

The National Center for Hydro-meteorological Forecasting under the Ministry of Natural Resources and the Environment is responsible for forecasting hydrometeorological hazards. The Viet Nam Earthquake Information and Tsunami Warning Center under the Institute of Geophysics of the Viet Nam Academy of Science is mandated to monitor geophysical events and disseminate associated warnings to the public and to provide public awareness and education on geophysical hazard prevention and preparedness.[305]

Viet Nam is an active member of ASEAN. It has many ASEAN-ERAT members and, in December 2023, the VDDMA collaborated with the AHA Centre to organize a Training of Trainers course, hosted in Viet Nam. This initiative aimed to develop a cadre of trainers who would subsequently conduct localized ASEAN-ERAT training programs for provincial DM officials.[306]

ASEAN'S INTERNATIONAL PARTNERSHIPS IN DISASTER MANAGEMENT

As of 2025, ASEAN has formalized various types of partnerships: Dialogue Partners, Sectoral Dialogue Partners, and Development Partners. Table 5 lists countries with partnership status.[307] Of the 11 Dialogue Partners, 7 are Comprehensive Strategic Partners (CSP). Moreover, there are ASEAN Centres in Australia, Japan, the PRC, the Russian Federation, South Korea, and the U.S.

The DMHA Division is the focal point for ASEAN DM cooperation not only across ASEAN bodies but also with dialogue partners, UN system agencies, civil society, the International Red Cross and Red Crescent Movement, the private sector, academia, and other regional or international organizations. Various bilateral and multilateral donors deliver funding for the AHA Centre; these donors include the Asian Development Bank (ADB), Australia, Canada, the EU, France, Germany, India, Japan, the PRC, Romania, the Russian Federation, South Korea, Switzerland, the United Kingdom, and the United States.

ASEAN "Plus" Forums

ASEAN engages each of its Dialogue and Development Partners in an "ASEAN Plus One" way since each of these partners has specific reasons for engaging the bloc and the bloc has specific shared interests with each partner. However, "ASEAN Plus" any number of stakeholders has also become a way of building multilateral platforms and processes. Key security and economic events and organizations are anchored in ASEAN and integrate variable networks of partners and other stakeholders. Those summits or groups with specific DM elements are listed here.

AADMER Partnership Group (APG)

Launched in 2009, the APG is a consortium of seven international CSOs that deliver support to parties implementing AADMER. Through collaboration with the ACDM and its WGs, the AHA Centre, and the ASEAN Secretariat, the APG plays the role of representing the people of the AMS, and it engages AMS publics in awareness campaigns. As of 2018, representatives of ChildFund International, HelpAge International, Mercy Malaysia, Oxfam, PLAN International, Save the Children International, and World Vision International were undertaking APG work in Cambodia, Indonesia, Lao PDR, Myanmar, Philippines, Thailand, and Viet Nam.[308]

ASEAN Defence Ministers' Meeting (ADMM) Plus

The ADMM Plus integrates the defense ministers of several Dialogue Partners – Australia, India, Japan, New Zealand, PRC, the Russian Federation, South Korea, and the U.S. – alongside the ADMM. Since its first meeting in 2010, ADMM Plus has met annually to ensure that AMS and ASEAN are represented in efforts to build capacity to address shared security challenges. Across several EWGs, the ADMM Plus parties have worked to address a variety of practical issues, notably HADR. The execution of exercises – tabletop, staff, and communications – has allowed participants to work out best practices and build skills across the HADR problem set.[309] Singapore and New Zealand co-chair the ADMM Plus EWG on HADR for the period 2025-2027. Concurrent with the Malaysia-hosted 12th ADMM Plus, in late October 2025, Singapore hosted the most recent ADMM-Plus EWG on HADR conference and Timor-Leste workshop to continue building up common understandings and shared knowledge.[310]

ASEAN Plus Three (APT)

The APT dates to 1997, when ASEAN, Japan, the PRC, and South Korea held an informal summit in the wake of the 1997 financial crisis. APT was then formalized in 1999 for the purposes of deeper cooperation across

economic, social, political, and other sectors. The 2024 summit emphasized promoting an enabling environment for peace, stability, and prosperous development for all.

Various high-level APT meetings occur throughout the year. Those meetings with bearing on DM include:

- ASEAN+3 Finance Ministers' and Central Bank Governors' Meeting (AFMGM+3), where cross-border disaster risk financing initiatives are key topics
- APT Ministers on Agriculture and Forestry (AMAF+3), which focuses on food security, energy, sustainable forest management, climate change adaptation and mitigation, animal and plant health, information exchange, and research and development

Since 2011, the ASEAN Plus Three Emergency Rice Reserve (APTERR) has been an available mechanism to enhance food security, alleviate poverty, and eradicate malnutrition without disrupting normal trade.[311] Within the economic and financial cooperation workstream, this type of mechanism promotes integrated regional food security and regulation in the face of rising incidence of natural and anthropogenic hazard events that disrupt agriculture, fisheries, and food markets.

Work plans for the APT emphasize East Asian community building. The work plan for 2023-2027 addresses DM within the socio-cultural cooperation workstream. It calls for promoting cooperation in DM and emergency response through:

- Support for implementation of AADMER and its Work Programmes
- Support for realizing the ASEAN Vision 2025 on Disaster Management and OAOR Declaration and for implementing the AJDRP and ICT Roadmap on DM for 2025 and Beyond
- Enhance exchange of knowledge, best practices, and capacity-building on different aspects of disaster resilience, including EWS
- Promote science and technology cooperation among APT countries in disaster risk management (DRM), including through a knowledge sharing platform
- Enhance cooperation with international and regional organizations and UN agencies to facilitate further sharing of experience and best practices and improve regional DM capacity
- Utilize the expertise of the AHA Centre in preparing for and responding to natural disasters and emergencies[312]

ASEAN Regional Forum (ARF)

Established in 1994, the ARF is a political and security cooperation platform intended to foster dialogue on issues of common interest to the AMS, 10 Dialogue Partners (Australia, Canada, the EU, India, Japan, New Zealand, PRC, Russia, South Korea, and the United States); as well as Bangladesh, the Democratic People's Republic of Korea, Mongolia, Papua New Guinea, Pakistan, and Sri Lanka.

There are five ARF workstreams: Counter-Terrorism and Transnational Crime; ICT Security; Disaster Relief (DR); Maritime Security; and Non-Proliferation and Disarmament. Each year, there is a top-level Inter-Sessional Meeting (ISM) held for each workstream, but over the course of the year, work is conducted via various activities to support implementation of a multi-year work plan.[313] The 2020-2025 Ha Noi Plan of Action II (2020-2025) detailed targets for the DR area of cooperation:

- Support and contribute to implementation of the AADMER Work Programme and operationalization of the OAOR Declaration and the 2018 ARF Statement on Disaster Management Cooperation through concrete, practical, and enhanced activities
- Support civil-military coordination that enhances regional capacity and strengthens preparedness and response to provide effective and timely responses to major natural disasters, including through holding regular training/activities among ARF participants and promote participation of military officials in ARF ISMs on DR
- Support and promote tools such as regional protocols, a standby arrangement system,

a model legal arrangement for foreign assistance, common SOPs, best practices, a voluntary registration scheme of civilian and military capabilities, and innovative initiatives that ultimately create an effective regional disaster response framework complementary to internationally established guidelines
- Promote sharing of best practices and lessons learned with other international bodies dealing with DRR, disaster relief, public health emergencies, and climate change adaptation to encourage complementarity
- Promote cooperation, information sharing, and capacity building for an effective regional disaster response
- Utilize, where appropriate, the work of national and regional think tanks as well as ARF Experts and Eminent Persons (EEP) to assist the work of the ISM on DR to enhance cooperation
- Underline the importance of the ARF General Guidelines for DR Cooperation and ARF Work Plan on DR, and enhance their implementation to promote the continuity of works in this area of cooperation[314]

The first ARF Disaster Relief Work Plan ran for the period 2009-2011, and the annual ARF meeting has consistently promoted continuation of the work plans. The current plan runs 2024–2027 and is intended to ensure long-term coordination and comprehensive planning among ARF participants, assist in coordination of regional and sub-regional exercises and emergency response training, capture and build on shared experience and lessons learned, maintain and build on existing ARF government efforts in capacity-building, technical support, and information exchange, complement and coordinate with existing regional and global initiatives, strengthen existing government to government, regional, and global DM networks, and promote networks and partnerships between and among state and non-state actors.[315]

At the 23rd ARF ISM on DR, held in Sri Lanka in June 2025 and co-hosted by Bangladesh, Sri Lanka, and Viet Nam, participants pointed to increasingly frequent and intense disasters in the region. They reaffirmed commitment to regional collaboration. Various stakeholders who had participated in the response to the March 2025 earthquake in Myanmar also delivered presentations of how they conducted their work and coordinated relief.[316]

ARF stakeholders have, in the past, conducted exercises to develop capacity in various aspects of DM. The ARF Disaster Relief Exercise (ARF DiREx) is a regional bi-annual disaster response exercise, which incorporates the AMS and 17 partners. Because the ARF focuses on security issues, civil-military coordination is a key line of effort in the DiREx.[317]

East Asia Summit (EAS)

The EAS is an annual meeting for regional strategic cooperation. It includes the ASEAN Heads of State/Government along with the leaders of eight Dialogue Partners (Australia, India, Japan, New Zealand, PRC, Russia, South Korea, and the United States). At each EAS meeting, leaders discuss ongoing challenges and opportunities.

On issues of DM, in 2009, the Heads of State/Government signed the Cha-am Hua Hin Statement on EAS DM, which affirmed AADMER's centrality and declared support for a range of disaster response groups and mechanisms, including the AHA Centre, the SASOP, and ARDEX. In 2015, the EAS Rapid Disaster Response Toolkit was launched to support DM officials' decision-making.[318] The Toolkit responds to a need for regional countries to plan for and coordinate international disaster assistance. It has three components:
- Tool 1: National Focal Point Table – contact information for EAS participating countries' designated officials responsible for managing offers of and requests for international disaster assistance
- Tool 2: Guidance for Rapid Disaster Response – reference guide for DM decisionmakers ready for or executing a

disaster response; checklists, references, templates, and other documents
- Tool 3: EAS Country Disaster Response Arrangements – EAS participating countries' arrangements for rapid disaster response, especially reception and provision of relief or response capabilities[319]

The EAS Plan of Action (2024-2028) is intended to ensure practical coordination and cooperation, as well as implementation of the various EAS leaders' statements, declarations, decisions, and initiatives. Among the cooperation streams under the Plan of Action is "#7: Cooperation on Natural Disaster Management."[320]

ASEAN Partners

The stakeholders profiled below are only the most significant donors or partners in ASEAN's DM activities. Countries around the globe work with ASEAN in various ways, and 96 countries have had ambassadors accredited to ASEAN.[321]

Asian Development Bank (ADB)

Twenty years ago, the ADB set up the Asian Tsunami Fund to deliver emergency grants to countries impacted by the 2004 Indian Ocean "Boxing Day" tsunami. While the ADB had delivered funding to countries in Southeast Asia for over a decade before that event, the development of the Fund marked the first of its kind grant pool within an international financial institution.[322] More recently, the ADB's Asia Pacific Disaster Response Fund has become the institution's key mechanisms for delivering emergency grants to its developing member countries for immediate, life-saving assistance. Since 2009, disbursements of up to US$3 million per event have gone to:
- Cambodia (2011, flooding)
- Indonesia (2020, COVID-19; 2018, Sulawesi tsunami; 2009, West Sumatera earthquake)
- Philippines (2022, Typhoon Odette; 2020, COVID-19; 2013, Typhoon Haiyan; 2011, Tropical Storm Washi; 2009, Typhoon Ketsana)
- Thailand (2011, flooding)
- Timor-Leste (2021, flooding; 2020, COVID-19-related food insecurity)
- Viet Nam (2024, Typhoon Yagi; 2020, tropical storms; 2016, El Niño)[323]

The ADB's ability to deliver financing for ASEAN's DRR and DRM work is only now maturing. Among other programs, the ADB continues to finance sustainable development, including low-carbon infrastructure and utilities expansion, green economy systems, and poverty eradication initiatives across ASEAN.

During the AADMER Work Programme for 2021-2025, the ADB delivered a Knowledge and Support Technical Assistance project, partly funded by the Government of Canada, to enhance DRM by building cross-border cooperation on transboundary risk, introducing technology for cooperation, and advancing knowledge exchange. The project reflected a recognized need among AMS to close the regional digital divide through investment in digital readiness, including putting in place data and knowledge sharing protocols, storage mechanisms, and user-friendly and accessible applications.[324]

The outputs of the Knowledge and Support Technical Assistance project delivered a scenario and risk assessment on transboundary drought and cyclone risks to be used by the ACDM and AMS for follow-on planning. It also helped establish a DRM dialogue mechanism to link ASEAN with other regional inter-governmental organizations - Mekong River Commission, Pacific Community, Economic Cooperation Organization, Asian Disaster Reduction Center, Asian Disaster Preparedness Center, and Center for Emergency Situations and Disaster Risk Reduction. Finally, it developed guidelines for a shared, integrated DRM platform, which formed the basis of ADB funding for "ADINet 3.0."[325]

Australia

A member of ARF and a dialogue partner of ASEAN since 1974, Australia's government and civil society work with ASEAN agencies,

including the AHA Centre, to deliver support to DM initiatives and to respond to humanitarian crises. The Australia Assists program, overseen by Australia's Department of Foreign Affairs and Trade, provides AMS the opportunity to host humanitarian or DM specialists, contracted by and paid for by the Australian federal government.[326]

In 2021, ASEAN and Australia established a CSP that targets investment across all pillars of cooperation – political, economic, people-to-people, and security.[327] In 2010, the ASEAN-Australia Cooperation Arrangement began to solidify Australia's commitment to supporting ASEAN's disaster preparedness and response capacities by supporting AADMER implementation,[328] especially through supporting the AHA Centre. Most recently, Australia has been a financial supporter of ASEAN humanitarian assistance in Myanmar, as delivered by the AHA Centre.[329]

An agency under Australia's Department of Defence, the Australian Civil-Military Centre (ACMC) has established a partnership with the AHA Centre. This partnership allows Australian military and security practitioners to conduct training, exercises, and workshops on civil-military-police coordination in DM with ASEAN stakeholders.[330]

Canada

The ASEAN-Canada partnerships dates to 1977, and the two signed their strategic partnership in 2023. The relationship covers political and security issues, regional integration, economic and trade interests, transnational issues, and DM. Ottawa has expressed views that a deeper relationship with ASEAN is a critical component of Canada's overall Indo-Pacific Strategy.

ASEAN-Canada security collaboration covers non-traditional security threats. Under this rubric, Canada is an observer on the ADMM-Plus EWG on HADR, and it has collaborated with the ASEAN EOC Network. Separately, as part of official development assistance, Canada has delivered tens of millions of dollars to address societal vulnerabilities, sustainable economic development, and preparedness for natural disasters.

In line with ASEAN Community Vision 2045, two Canada-funded programs are key DM contributions: ASEAN Protection, Resilience and Inclusion for Multi-Hazard Emergencies (ASEAN-PRIME) and ASEAN Building Regional Resilience through Anticipatory Action and Civil Society Empowerment (ASEAN-BRACE). These initiatives enhance ASEAN capacity to increase gender equality and climate integration in DM governance, and they build ties with and among civil society to address regional preparedness for extreme hazard events.[331]

DHL Group

The logistics and global shipping company DHL operates a DM program called "GoHelp," which incorporates a Disaster Response Team (DRT) capability. There are DRTs in three global regions – the Americas, the Middle East/Africa, and Asia-Pacific, with the last based in Singapore. Established in cooperation with UN OCHA, the DRTs comprise some 1,000 DHL staff members who have been trained and who volunteer their time to participate in the DRT. When UN OCHA – or another UN entity – seeks DHL logistics support, a DRT can be on the ground and operational within 72 hours at an airport serving as a response hub. Their pro-bono logistics service activities include unloading palettized freight, managing warehouses, and inventory management for humanitarians. When DHL's DRT is mobilized, DHL and local, affected governments sign a Memorandum of Understanding (MoU) to regulate their cooperation during the disaster response.[332]

Since 2019, DHL and the AHA Centre have maintained a Memorandum of Intent (MoI) to collaborate and cooperate on disaster logistics. Extended in 2024 for a second 5-year period, the MoI allows DHL's DRTs to assist the AHA Centre during disasters by assigning the DRT primary responsibility for ground handling of humanitarian relief cargo at airports. Under the MoI, the DRT handles, sorts, inventories, and

stores incoming relief cargo at a designated point of entry; if requested by the AHA Centre or an AMS, they can also manage the customs processes associated with the humanitarian cargo. Since 2005, DHL DRTs have mobilized to assist in disaster responses in Indonesia, Myanmar, and Philippines.[333]

European Union (EU)

The EU became an ASEAN Dialogue Partner in 1977. The European bloc has been a significant donor to ASEAN's DM activities, including emergency funding for disaster relief and financing longer-term programs to build and enhance DM capacity across ASEAN at the local, national, and regional levels.

Since 2020, the EU and ASEAN have had a strategic partnership, and also in 2020, the EU's Emergency Response Coordination Centre (ERCC) launched the €10 million (US$11.5 million) "European Union's Integrated Programme in Enhancing the Capacity of AHA Centre and ASEAN Emergency Response Mechanisms" (EU-SAHA).[334] EU-SAHA was implemented through 2023 and coincided with work to build AHA Centre capacity through the "Leveraging ASEAN Capacities for Emergency Response" (LACER) project to build sustainability and regional use of AHA Centre operational capabilities.[335]

Most recently, 2024 saw the signing of an Administrative Arrangement between the AHA Centre and the European Commission Directorate-General for Civil Protection and Humanitarian Aid Operations (DG ECHO).[336] The agreement includes the ability to deploy and exchange experts, develop training programs, and share knowledge and best practices between the ERCC and AHA Centre,[337] which are operational counterparts for their respective regional inter-governmental organizations.

International Red Cross and Red Crescent Movement

Various activities link the AHA Centre with elements of the International Red Cross and Red Crescent Movement – the ICRC, the IFRC, and the National Red Cross or Red Crescent Society in each AMS. Movement elements work with the AHA Centre on delivering the ACE Programme / ACE-LEDMP, which builds the pool of trained DM experts in the region.[338] The past decade has also seen ever stronger cooperation between the AHA Centre and the AMS' National Societies, with a focus on sharing information on long-term projects as well as during emergency response operations.

A shared goal between the Movement and ASEAN is to ensure that Red Cross or Red Crescent response teams and the ASEAN-ERAT can implement coordination in an affected country during a response. The AHA Centre includes National Society staff in invitations to ERAT training, while Movement entities invite AHA Centre staff to their own skills training.[339] Additionally, the IFRC participates in the ARDEX, under the AHA Centre's leadership.[340] Based on the ability to cross-train, there have been efforts to ensure the compatibility of elements of the SASOP and Red Cross and Red Crescent field manuals.[341]

Japan

Japan and ASEAN entered formal dialogue in 1973. They held the first ASEAN-Japan Forum in 1977 and the first ASEAN-Japan Foreign Minister Meeting in 1978. Japan was also a part of the first ARF, APT, and EAS meetings in 1994, 1997, and 2005, respectively. Following the subsequent establishment of various Japanese funding mechanisms for ASEAN, the first ASEAN-Japan Plan of Action ran 2004-2010, and Japan's Mission to ASEAN opened in 2011, when the Bali Declaration for Enhancing ASEAN-Japan Strategic Partnership for Prospering Together and the second ASEAN-Japan Plan of Action were endorsed.[342] As of 2025, Japan-ASEAN relations focus on key aspects of regional security, environmental issues, and economic prosperity.

The Government of Japan is the single largest donor to the AHA Centre through the JAIF. Officially established in 2006, JAIF is a specific funding mechanism to support ASEAN's development, including in DM. JAIF's partnership with the AHA Centre supports

multi-year programs, most notably the DELSA warehouses in Philippines and Thailand. JAIF also supports the ACE Programme / ACE-LEDMP, ICT projects within the AHA Centre, and the ASEAN-ERAT.[343]

ASEAN-Japan collaboration has led to at least 40 practical projects that fall under successive ASEAN-Japan Work Plans on Disaster Management, the most recent for the period 2021-2025. They are monitored and evaluated by the ASEAN-Japan Ministerial Meeting on Disaster Management ("AMMDM Plus Japan") and the ACDM Plus Japan. As an example of the types of projects that can emerge, "Utilization of Satellite Image on Disaster Management" fostered collaboration between AMS-based experts in DM and experts in satellite imagery to develop ways to support DM practitioners through use of satellite imagery.[344]

People's Republic of China (PRC)

Beijing became a dialogue partner of ASEAN in 1996. The relationship was elevated to a Strategic Partnership in 2003 and a CSP in 2021. The PRC is part of the ARF, APT, EAS, and ADMM-Plus. Beijing participated in its first ACDM Plus China meeting in 2021, and the PRC and ASEAN launched the ASEAN-China Work Plan on Disaster Management 2021-2025 to identify priorities for cooperation and resource mobilization for DM collaboration.[345]

South Korea

Based on the "New Southern Policy," South Korea's relationship with ASEAN spans economic, security, and socio-cultural areas. In October 2025, the Korean President visited Kuala Lumpur, Malaysia, for the ASEAN Summit with South Korea, where the partners laid out a 5-year plan for the completion of an ASEAN-Korea CSP. The four pillars South Korea identified as priorities for the partnership are DM, cybersecurity, transnational crime, and maritime security.[346]

South Korea and ASEAN had launched a dialogue partnership in 1989, and Seoul's own foreign disaster response practices were indelibly marked by the 2004 Indian Ocean "Boxing Day" tsunami. In the wake of that massive response, South Korea's Overseas Emergency Relief Act (2007) provided the country with a legal basis for establishing the inter-agency Korea Disaster Relief Team (KDRT), intended to deliver rapid relief from the government of Korea to affected states. Several times since its founding, the KDRT has deployed to deliver humanitarian support after disasters within AMS.

To ensure that Seoul was working to support ASEAN solidarity in DM rather than simply responding to individual countries, in 2021, ASEAN and South Korea initiated a high-level dialogue on cooperation in DM, and this dialogue integrated the inaugural ASEAN Ministerial Meeting on Disaster Management plus Republic of Korea ("AMMDM plus ROK") in 2022. This meeting resulted in the ASEAN-ROK Work Plan on DM for 2021-2025. Since then, Seoul has used the Disaster Risk Management Capacity Building (D-CAB) program to introduce its Integrated Disaster Management (IDM) policies and provide disaster-specific training utilizing virtual simulators. South Korea also provides support for risk assessments related to specific disaster scenarios and the formulation of disaster response strategies.[347]

South Korea collaborates with the AHA Centre on the ASCEND project. Through the ASEAN-ROK Cooperation Fund, ASCEND operationalization has seen ASCEND delegates visit South Korea for programs co-organized by the Korean National Fire Agency and AHA Centre.[348] Finally, the AMS receive invitations to participate in the South Korea's annual K-Safety EXPO, which highlights cutting-edge DM technologies and products, and Seoul has committed to transferring to ASEAN advanced scientific DM techniques that incorporate internet-of-things sensors and AI for DM.[349]

United Nations

Since the 1970s, the UN and ASEAN have cooperated on various initiatives, generally with ASEAN and a specific UN system agency

undertaking a program on a specific theme. Table 6 describes some ASEAN projects that have enjoyed support from key UN agencies.[350]

Since the inaugural ASEAN-UN Summit in 2000, ASEAN has gained observer status at the UN General Assembly, and an MoU joined the UN and ASEAN in cooperation across political, security, economic, and socio-cultural pillars. A Comprehensive Partnership between the two inter-governmental organizations dates to 2011.

For successive 5-year periods, ASEAN and the UN have signed onto ASEAN-UN Joint Strategic Plans of Action on Disaster Management (JSPADM), which hew closely to the 5-year AADMER Work Programmes. The up-coming JSPADM runs for the period 2026–2030. The JSPADMs are targeted at building cooperation in DRR and DM.[351] At the 15th ASEAN-UN Summit in October 2025, UN OCHA, UNESCAP, UNDRR, and UNDP supported preparation of the 2026-2030 JSPADM, which was noted as cohering to the AADMER Work Programme for 2026-2030.[352]

United States

The U.S. has been an ASEAN partner since 1977, and the relationship was elevated to a CSP in November 2022.

The CSP covers all eight dialogue processes – foreign affairs, defense, economics, transportation, energy, environment and climate, health, and women's empowerment. At the 2023 U.S.-ASEAN Leaders Summit in Jakarta, Indonesia, the U.S. announced the intent to establish a U.S.-ASEAN Center in Washington, D.C., to facilitate official ASEAN engagements and support further exchange. The Department of State selected Arizona State University as its partner and officially opened the Center on 14 December 2023.[353]

More recently, the September 2025 inauguration of the ASEAN-U.S. Partnership Program Office[354] gave a physical presence to a new program. The ASEAN-U.S. Partnership Program (2024-2029) is a vehicle to advance engagement with the region in support of the CSP. Based at the ASEAN Secretariat, the program supports ASEAN's institutions and regional initiatives. It entails four activities:

- Facilitate trade through technical assistance for the ASEAN Single Window
- Expand regional digital economic opportunity
- Influence critical mineral development approaches through ASEAN's mineral strategy of diversifying investment and promoting secure supply chains
- Cooperate on transnational security challenges – e.g., cybercrime, health, and DM[355]

The AHA Centre has partnerships with various agencies and centers associated with the U.S. Government. One of the key agencies is the PDC, a government-funded center managed by the University of Hawaii. In April 2024, the AHA Centre and PDC renewed their MoI to advance DRR and humanitarian action in the ASEAN region.[356] The relationship between the AHA Centre and PDC dates to April 2004, when the ACDM and PDC agreed to collaborate on early warning and disaster monitoring technology. From then, PDC benefited from U.S. Government funding to help the AHA Centre develop AADMER Work Programmes, analyze ICT gaps, and implement the DMRS, which is based on the PDC's DisasterAWARE.[357] The 2024 renewed MoI focuses on expanding AHA Centre-PDC collaboration on risk analysis and multi-hazard impact assessments, early warning capacity development, and preparedness coordination.[358]

The U.S. DoD's Center for Excellence in Disaster Management and Humanitarian Assistance (CFE-DM) is also a partner of the AHA Centre. Staff from the CFE-DM participate in events alongside AHA Centre staff and in training and meetings hosted by the AHA Centre. Among those events are ADMM-Plus EWG on HADR meetings, ARDEX, dialogues on the ADJRP, and military exercises where staff from both centers facilitate learning on issues surrounding civil-military coordination in disaster response.

CONCLUSION

The 11 AMS form a regional bloc committed to building a stable and prosperous Southeast Asia. This objective requires engagement across political, economic, security, and community spheres and demands demonstrations of trust and solidarity among the AMS, not least in the way they support and deliver humanitarian relief to each other during emergencies.

Every AMS is exposed to a variety of hazards – earthquakes, floods, storms, etc. Meanwhile, every AMS has different vulnerabilities and coping capacities. Therefore, the level of disaster risk confronted varies across the bloc. In global indices, Myanmar and Philippines both rank among the 20% of countries at highest risk of disasters, while Brunei Darussalam and Singapore both rank among the 20% of countries at least risk. A dataset of disasters in the region reveals that, aside from the COVID-19 pandemic that impacted every AMS, several AMS have experienced zero to a few dozen hazard events that rise to the scale of a disaster in the past 25 years. Other AMS experienced hundreds of events during that period. Those countries left relatively unscathed have the opportunity to further reduce vulnerabilities and build coping capacity, while those countries dealing with multiple, concurrent, and compounding disasters experience consistent drains on their human, financial, and material resources.

To try to live up to the objective of regional security and prosperity, solidarity in the face of disasters is conceived as commitment to ASEAN-led relief operations and ASEAN-centric risk reduction initiatives that supplement AMS' bilateral arrangements and ensure a collective response in the region.

At the strategic level, the ASEAN Secretariat oversees the work of various divisions, agencies, and programs. The DMHA Division of the Sustainable Development Directorate of the Secretariat's ASCC Department mobilizes cross-ASEAN cooperation in all facets of DM, supports the work of the ACDM, and monitors implementation and operationalization of AADMER.

While AADMER sets the policy backbone for AMS action to enhance collective efforts in DM, there are a range of ways the AMS implement AADMER through 5-year work programs, the most recent being the AADMER Work Programme 2026-2030. The plans, projects, tools, and mechanisms developed through this work build national and regional DM institutions, expand the pools of funding and resources available, enhance intra-ASEAN and international partnerships, and support innovation in entrenching skills and capacities across the community of DM practice.

The regional hub for all DM work is the AHA Centre. To achieve its four core functions – coordination, information management, resource management, and knowledge and outreach – the AHA Centre combines the accumulated experience not only of the AMS but also of the global community of DM practitioners. Through its variety of programs for education and training, ICT, civil-military coordination, and strategic partnerships, the AHA Centre supports risk awareness, data and information analyses, planning, response execution, logistics, and evaluation of lessons identified and learned.

Dialogue partners are a key component of ASEAN's DM activities. The DMHA Division is the focal point for cooperation with dialogue and development partners, UN system agencies, civil society, the International Red Cross and Red Crescent Movement, the private sector, academia, and other regional or international organizations. ASEAN and the AHA Centre host resident advisors and liaisons from many partner countries and organizations to ensure clear communication and ease coordination.

APPENDICES

Acronyms and Abbreviations

°	degree(s) – of temperature or of latitude/longitude
$	dollar(s) – of the U.S.
AADMER	ASEAN Agreement on Disaster Management and Emergency Response
ACC	ASEAN Coordinating Council
ACDM	ASEAN Committee on Disaster Management
ACE	AHA Centre Executive
ACMM	ASEAN Centre for Military Medicine
ACPHEED	ASEAN Centre for Public Health Emergencies and Emerging Diseases
ACSS	ASEAN Socio-Cultural Community
ADB	Asian Development Bank
ADINet	ASEAN Disaster Information Network
ADMER	ASEAN Disaster Management and Emergency Relief
ADMM	ASEAN Defence Ministers' Meeting
ADRCF	ASEAN Disaster Risk Communication Framework
ADRP	ASEAN Disaster Resilience Platform
AEC	ASEAN Economic Community
AEIC	ASEAN Earthquake Information Centre
AHA Centre	ASEAN Coordinating Centre for Humanitarian Assistance on disaster management
AIM-Net	AHA Centre Information Management Network
AJDRP	ASEAN Joint Disaster Response Plan
AMMDM	ASEAN Ministerial Meeting on Disaster Management
AMRG	ASEAN Militaries Ready Group
AMS	ASEAN Member State
APG	AADMER Partnership Group
APHECS	ASEAN Public Health Emergency Coordination System
APSC	ASEAN Political-Security Community
APT	ASEAN Plus Three
ARDEX	ASEAN Regional Disaster Emergency Response Simulation Exercise
ARF	ASEAN Regional Forum
ARMOR	ASEAN Risk Monitor and Disaster Management Review
ASCEND	ASEAN Standards and Certification for Experts in DM
ASEAN	Association of Southeast Asian Nations
ASMC	ASEAN Specialized Meteorological Center
BMKG	Meteorology, Climatology, and Geophysical Agency (of Indonesia)
BNPB	National Disaster Management Authority (of Indonesia)

CFE-DM	Center for Excellence in Disaster Management and Humanitarian Assistance
CIMIC	Civil-Military Coordination
COP	Conference of the Parties
COVID-19	Coronavirus Disease 2019
CPA	Civil Protection Authority (of Timor-Leste)
CPR	Committee of Permanent Representatives
CSO	civil society organization
CSP	Comprehensive Strategic Partner
DCC	Disaster Command Centre (of Brunei)
DDM	Department of Disaster Management (of Myanmar)
DDMC	District Disaster Management Committee (of Brunei)
DDPM	Department of Disaster Prevention and Mitigation (of Thailand)
DELSA	Disaster Emergency Logistics System for ASEAN
DM	disaster management
DMH	Department of Meteorology and Hydrology (of Lao PDR)
DMHA	Disaster Management and Humanitarian Assistance
DMRS	Disaster Monitoring and Response System
DMSPF	Disaster Management Strategic Policy Framework
DNMG	Directorate of Meteorology and Geophysics (of Timor-Leste)
DOST	Department of Science and Technology (of Philippines)
DR	Disaster Relief
DRM	Disaster Risk Management
DRR	disaster risk reduction
DRT	Disaster Response Team (of DHL)
DSW	Department of Social Welfare (of Lao PDR)
EAS	East Asia Summit
EOC	emergency operations center
ERAT	ASEAN Emergency Response and Assessment Team
ERCC	Emergency Response Coordination Centre (of the EU)
ETN	Emergency Telecommunication Network
EU	European Union
EWS	early warning system
HADR	humanitarian assistance and disaster relief
HCMS	Homefront Crisis Management System (of Singapore)
ICCT	In-Country Coordination Team
ICLT	In-Country Liaison Team
ICRC	International Committee of the Red Cross
ICT	information and communication technology

IFRC	International Federation of the Red Cross
ISM	Inter-Sessional Meeting
JAIF	Japan-ASEAN Integration Fund
JOCCA	Joint Operations and Coordination Centre of ASEAN
JSPADM	Joint Strategic Plans of Action on Disaster Management
JTF	Joint Task Force
KDRT	Korea Disaster Relief Team
km / km^2	kilometer(s) / square kilometer(s)
LEMA	local emergency management authority
LMS	learning management system
MHA	Ministry of Home Affairs (of Singapore)
mi / mi^2	mile(s) / square mile(s)
MILREP	Military Representative
MKN	National Security Council of Malaysia
MNCC	Multinational Coordination Centre
MoI	Memorandum of Intent
MoU	Memorandum of Understanding
MOWRAM	Ministry of Water Resources and Meteorology (of Cambodia)
MSU	mobile storage unit
NADMA	National Disaster Management Agency (of Malaysia)
NAP-DRR	National Action Plans for Disaster Risk Reduction (of Cambodia)
NCDM	National Committee for Disaster Management (of Cambodia)
NCPEP	National Civil Protection Emergency Plan (of Timor-Leste)
NDC	National Disaster Council (of Brunei)
NDMC	National Disaster Management Centre (of Brunei) or National Disaster Management Committee (of Lao PDR) or National Disaster Management Committee (of Myanmar)
NDMO	national disaster management organization
NDPMC	National Disaster Prevention and Mitigation Committee (of Thailand)
NDRRMC	National Disaster Risk Reduction and Management Council (of Philippines)
NGO	non-governmental organization
NMS	National Meteorological Service
NSDNDPC	National Steering Committee for National Disaster Prevention and Control (of Viet Nam)
OAOR	ASEAN Declaration on “One ASEAN, One Response: Responding to Disasters Within and Outside the Region”
OCD	Office of Civil Defense (of Philippines)
OCHA	Office for the Coordination of Humanitarian Assistance (of the UN)
OSOCC	On-Site Operations and Coordination Centre
PDC	Pacific Disaster Center
PDNA	post-disaster needs assessments

PDR	People's Democratic Republic (Lao)
PGI	protection, gender, and inclusion
PRC	People's Republic of China
RBPF	Royal Brunei Police Force
RHCC	Changi Regional HADR Coordination Centre
SAF	Singapore Armed Forces
SASOP	Standard Operating Procedure for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations
SCDF	Singapore Civil Defence Force
SEPDM	Senior Executive Programme on Disaster Management
SG-AHAC	Secretary-General - ASEAN Humanitarian Assistance Coordinator
SICAP	ASEAN Disaster Management Capacity Building Programme
SMART	Malaysian Special Search and Rescue Team
SOP	Standard Operating Procedure
SPDMM	Strategic Policy Dialogue on Disaster Management
TMD	Thailand Meteorological Department
TWG	Technical Working Group
U.S.	United States
UN	United Nations
UNHRD	United Nations Humanitarian Response Depot
USAR	urban search and rescue
VDDMA	Viet Nam Disaster and Dyke Management Authority
VNCIVDEF	Viet Nam Steering Committee for Civil Defense
WFP	World Food Programme
WG	working group

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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