ONE ASEAN
ONE RESPONSE

# SITUATION UPDATE

## M7.7 EARTHQUAKE IN MYANMAR AND THAILAND

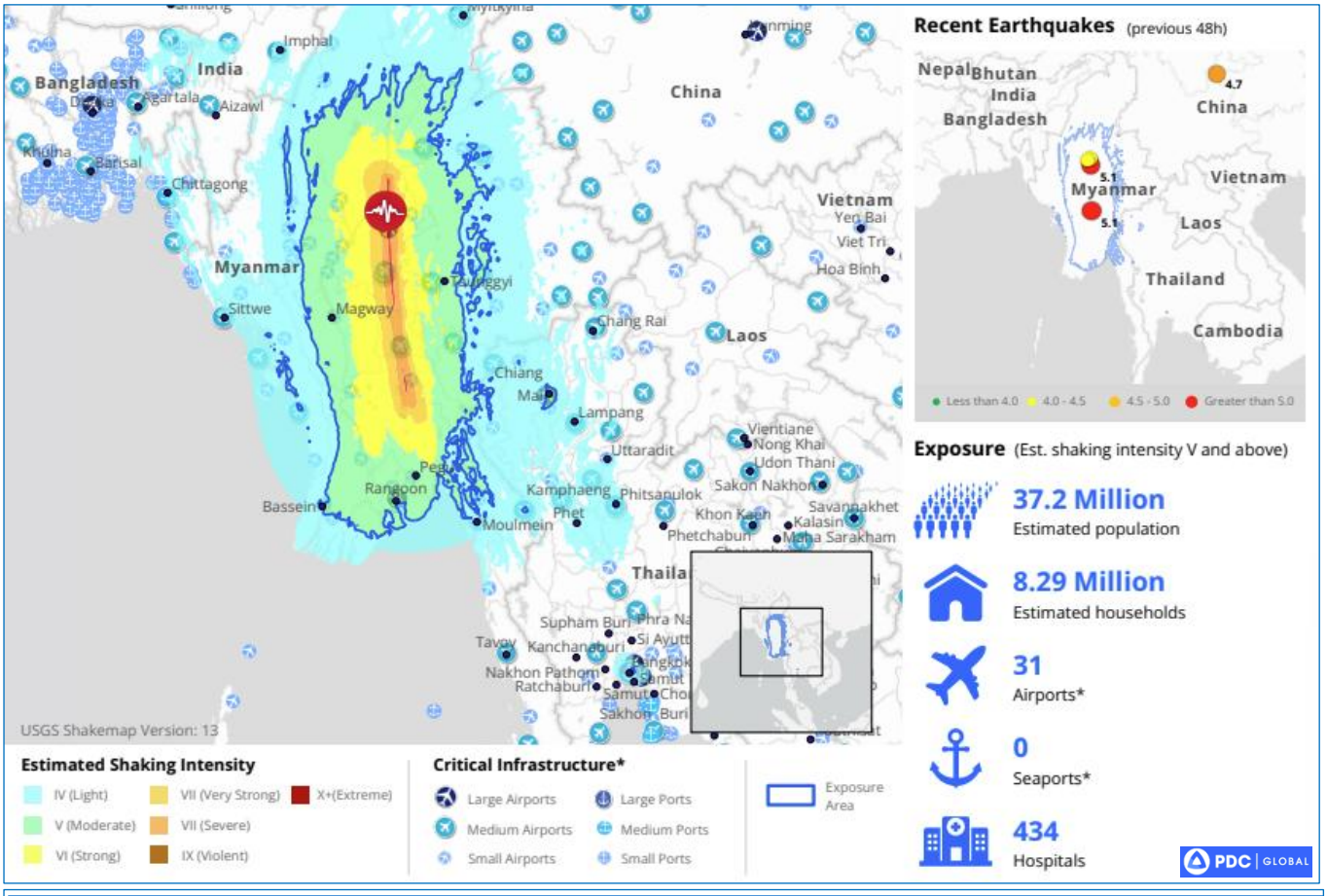
**Monday, 31 March 2025, 2300 HRS (UTC+7)**

No. **2**

*This Situation Update is provided by the AHA Centre for use of the ASEAN Member States and relevant stakeholders. The information presented is collected from various sources, including but not limited to ASEAN Member States' Government Agencies, UN, IFRC, NGOs, Humanitarian and Dialogue Partners, and News Organisations.*

# M7.7 Earthquake in Myanmar and Thailand

**Disclosure(s): Figures are the updates from DDM Myanmar and DDPM Thailand Report on 31 March 2025**




## IMPACT TO POPULATION

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **1.7K** DEAD in Myanmar | **3.5K** INJURED in Myanmar | **284** MISSING in Myanmar | **18** DEAD in Thailand | **34** INJURED in Thailand | **78** MISSING in Thailand |

## IMPACT TO INFRASTRUCTURE

| | | | | | |
|---|---|---|---|---|---|
| **5.5K** HOUSES in Myanmar | **2.2K** BUILDINGS* in Myanmar | **168** SCHOOLS in Myanmar | **591** RESIDENTIAL Buildings in Thailand | **185** BUILDINGS in Thailand | **58** SCHOOLS in Thailand |

**Including government buildings, offices, and worship places*

## 1. SUMMARY

At 1320 hrs (UTC+7) on 28 March 2025, an earthquake with magnitude 7.7 and depth of 10 km struck about 19 km north-west of Mandalay, Myanmar. At 1332 hrs (UTC+7), a major aftershock with magnitude 6.4 and depth of 10 km struck and intensified the impacts of the powerful earthquake. USGS PAGER estimates that up to 7K people were exposed to violent shaking, up to 2.9M people to severe shaking, and up to 10.2M exposed to strong and very strong shaking. As of 0500 hrs today, there have been 20 magnitude 3 or higher aftershocks, which are strong enough to be felt nearby, and 3 magnitude 5 or higher aftershocks, which are large enough to do damage.

In Myanmar, catastrophic impacts are being reported, including loss of many lives and severe damage to property and infrastructure. A state of emergency is in effect in six of the worst affected areas: Mandalay, Sagaing Magway, Shan State, Naypyidaw, and Bago. Impact assessments reveal collapsed built up areas and damaged roads across the affected regions.

In Thailand, according to the assessment of the Department of Disaster Prevention and Mitigation, the situation has been severe, causing extensive damage and posing significant risks to lives, physical well-being, and the property of affected population over a wide area. Ground-shaking from the M7.7 earthquake were felt across 63 provinces, with significant impacts reported in 18 provinces and Bangkok. The affected provinces include Chiang Mai, Chiang Rai, Phayao, Lamphun, Lampang, Mae Hong Son, Phrae, Nan, Phetchabun, Phitsanulok, Sukhothai, Phra Nakhon Si Ayutthaya, Pathum Thani, Nonthaburi, Samut Prakan, Samut Sakon, Chai Nat, Ang Thong. The earthquake caused varied levels of impacts, including damage to residential buildings, hospitals, schools, temples, and government facilities.

Damage assessments and relief efforts are ongoing, with DDM Myanmar and DDPM Thailand coordinating the national response and supporting affected populations.

### Preparedness and Response

As of 31 March, the AHA Centre maintains its EOC alert level to at **RED** – Day 4.

The AHA Centre continues to maintain close coordination with the EOCs of Myanmar and Thailand as well as with the assisting ASEAN Member States and partners to ensure a coordinated and effective disaster response.

The AHA Centre has engaged with Singapore, Malaysia, and Indonesia for USAR efforts in Myanmar. In addition, Lao PDR, Thailand, Viet Nam, and the Philippines indicated the deployment of respective USAR, EMT, and relief resources.

The AHA Centre deployed Disaster Emergency Logistics System for ASEAN (DELSA) relief items from the regional warehouse in Subang, Malaysia. Two commercial flights transporting DELSA relief items worth USD 181,660.28, supported by the Japan-ASEAN Integration Fund (JAIF), France, and Swiss Agency for Development and Cooperation (SDC) arrived at Yangon International Airport on 30 March.

Arrival of ASEAN Relief items in Myanmar on 30 March

AHA Centre Executive Director, Mr. Lee Yam Ming, and Director of Operations, Dr. Sithu Pe Thein, together with the AHA Centre In-Country Liaison Team (ICLT), are in Nay Pyi Taw to coordinate closely with Myanmar authorities and other partners, as well as facilitate regional disaster response efforts.

AHA Centre in discussion on Search and Rescue Operations with Singapore Operation Lionheart, DDM, and the Ministry of Social Welfare, Relief and Resettlement

AHA Centre meeting with Ambassador of India to Myanmar

AHA Centre meeting with UN Resident Coordinator/Humanitarian Coordinator for Myanmar and WFP Country Director

The AHA Centre coordinated the deployment of twenty-one (21) ASEAN Emergency Response and Assessment Team (ASEAN-ERAT) members from Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam to support field-level operations in the affected areas, including rapid assessment, coordination, and facilitation of incoming relief assistance.

The AHA Centre is monitoring the mobilisation of USAR teams, EMT, and other first responders deployed to Myanmar by coordinating with DDM Myanmar, including from those coming from outside the ASEAN region through UNOCHA and VOSOCC.

The AHA Centre remains fully committed to close collaboration with respective NDMOs and humanitarian partners to ensure the timely and effective delivery of assistance.

## 2. ASSESSMENT OF IMPACT AND HUMANITARIAN NEEDS

### Impacts in Myanmar – as of 31 March 2025

a. As of 31 March 1230 hrs GMT+6.5, the magnitude 7.7 earthquake resulted to 1,659 deaths, 3,534 injuries and 284 missing as validated by DDM Myanmar.
b. Validated report on damaged infrastructure are as follows:
    - 5,460 houses
    - 512 buildings, 168 schools, and 722 offices
    - 47 roads and 25 bridges
    - 10 dams and 150 brick walls
    - 544 religious buildings and 463 pagodas
    - 11 electric poles, 2.48 miles (4 km) of 11KV cable lines, and 3.76 miles (6 km) of 400V cable lines
c. The earthquake also caused collapsed bridges and significant structural damage to transportation routes and facilities such as the Old Sagaing Bridge, the Dotehtawadi Bridge on the Yangon-Mandalay Expressway, and some portions of and around the Yangon Mandalay Expressway, causing several road closures along the route.
d. Severely affected areas are Mandalay, Sagaing, Magway, Shan State, Naypyidaw, and Bago.
e. Fire and liquefaction have been reported in affected areas
f. Widespread interruption of electricity and communication lines
g. Data collection on impacts and damages is ongoing by the relevant government agencies in Myanmar.
h. As of 29 March, rapid impact assessments through comparative analysis of pre- and post-event satellite images indicate about 2.3K built up units (residential and non-residential buildings) and 10.2km of roads have been affected in the analysed areas of interest (Taungpyon, Kalamataung, Min Kun, Lamaing, Madaya, Sadaung, Kyaukse, Ywar Thit Gyi, Okhnebin, Yae Twin Gaung, Meiktila). Satellite-based impact assessment maps generated by eGEOS using Sentinel imagery are found in Annex 1.
i. Data collection and assessment are still ongoing.

### Impacts in Thailand – as of 31 March 2025

a. As of 31 March, the assessment from DDPM indicates that the M7.7 earthquake in Myanmar caused tremors felt across 63 provinces in Thailand. Bangkok has been the most severely affected and where all the earthquake-related fatalities have been reported. In addition to casualties and damages in Bangkok, DDPM also reports damage to houses and infrastructure across 18 provinces.
b. As of 0600 Hrs UTC+7, reported casualties are as follows: 18 fatalities (Bangkok), 34 injuries (33 in Bangkok, 1 in Nonthaburi), and 78 missing people (Bangkok).
c. Reported damages on infrastructure are the following:

- 591 residential buildings
- 92 hospitals
- 58 schools
- 66 temples
- 27 government facilities

d. Key incident in Bangkok was reported collapse of a 30-story building under construction in Chatuchak District resulting to casualties.
e. The National Disaster Prevention and Mitigation Command has downgraded the disaster management level to medium-scale (Level 2), which puts the incident management under the authority of the provincial governors.
f. Data collection and damage assessment are still ongoing

## Anticipated Risks

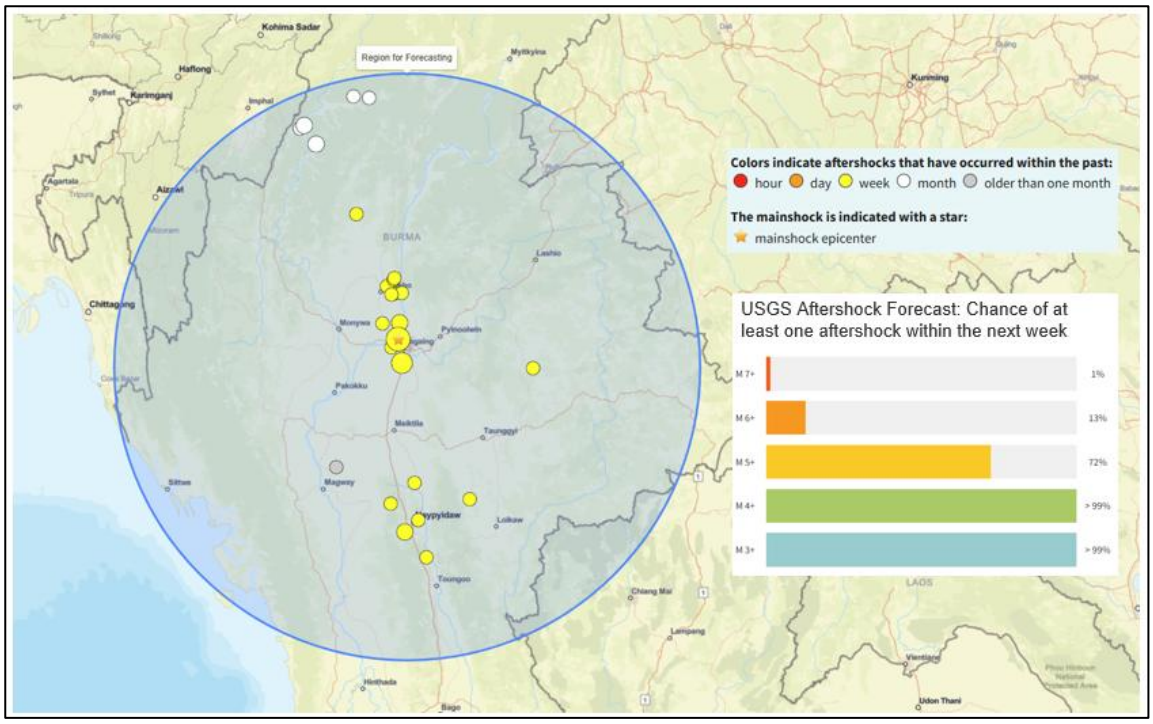
a. **Aftershocks**

Given the magnitude and shallow depth of the earthquake, aftershocks are still expected and may pose further risks to life, infrastructure, and rescue efforts. Damaged buildings, disrupted communication lines, and fires are anticipated to challenge emergency response efforts. According to the USGS aftershock forecast, there is 72% chance of one or more aftershocks that are higher than magnitude 5 within the next week, which can be damaging.

There will likely be smaller aftershocks within the next week, with up to 560 magnitude 3 or higher aftershocks. Magnitude 3 and higher aftershocks are large enough to be felt nearby. The number of aftershocks will decrease over time, but a large aftershock can temporarily increase the number of aftershocks.

According to the latest update, as of 31 March at 0522 hrs UTC+7, the USGS estimates the chance of more aftershocks within the next week until 6 April 2025 23:00 (UTC) as follows:

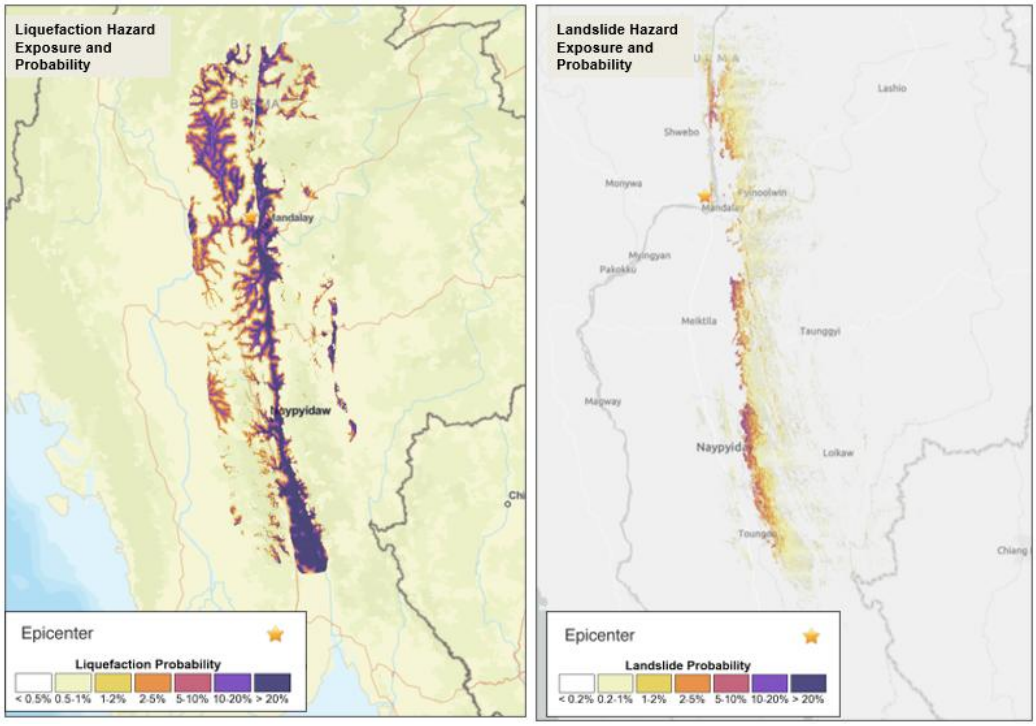
- There is a more than 99% chance of magnitude 3 and above aftershocks within the next week, and it is most likely that 21 to 460 of these will occur.
- There is a more than 99% chance of magnitude 4 and above aftershocks within the next week, and it is most likely that 2 to 45 of these will occur.
- There is a 72% chance of magnitude 5 and above aftershocks within the next week, and it is most likely that 0 to 5 of these will occur.
- There is a 13% chance of magnitude 6 and above aftershocks within the next week, and it is most likely that 0 to 1 of these will occur.
- There is a 1% chance of magnitude 7 and above aftershocks within the next week, such an earthquake is possible but with a low probability.
- There is a 1 in 300 chance (0.3%) that this earthquake becomes a foreshock to a larger earthquake (magnitude 7.7 or greater) in the next week, such an earthquake is possible but with a low probability.




Aftershock forecast for the M7.7 earthquake for the period 31 March to 6 April 2025. (Source: USGS)

b. **Liquefaction and Landslide**

The risk of liquefaction and landslides remains high along the Sagaing Fault, particularly in densely populated areas near the fault line. Many regions along the fault, including Nay Pyi Taw and Mandalay, have a 20% or higher probability of experiencing these hazards. Ground movement caused by liquefaction or landslides could worsen the impact of the main shock, especially as the structural integrity of infrastructure in affected areas may already be significantly compromised. Any additional ground movement could trigger further damage. This could also cause severe consequences for roads, bridges, and railways, potentially disrupting emergency response and relief efforts.




Liquefaction and landslide hazard exposure remain extensive with 20% or higher probability in many areas along Sagaing Fault, including Naypyitaw and Mandalay. (Source: USGS)

c. **On-site Contaminants**

There is a risk of asbestos contamination in the earthquake-affected areas, especially in areas where old buildings have collapsed or are severely damaged. While assessments indicate that structures in earthquake zones are predominantly reinforced concrete or masonry, collapsed or severely damaged older buildings may contain asbestos materials.

The high temperatures (24-40°C) in the affected areas may increase the suspension of dust in the air, thus increasing the risk of inhalation. Cutting or moving debris without moisture suppression or containment measures can significantly amplify the dispersion of asbestos fibers.

d. **Rainfall Probability**

According to Myanmar's Department of Meteorology and Hydrology 2:00 PM Weather Bulletin on 31 March, there will be scattered showers and thunderstorms in Tanintharyi Region and scattered showers and thunderstorms in Kachin State, Mon State and Kayin State. The chance of rain is 80%. Meanwhile, Yangon Region, Sagaing Region, Ayeyarwady Region, Kayah State and Shan State will be partly cloudy.

## 3. ACTIONS TAKEN AND RESOURCES MOBILISED

### Response by Myanmar Authorities

a. Emergency operations efforts by Myanmar Authorities are underway to manage the situation and deliver assistance to affected areas.
b. Search and rescue operations, as well as relief efforts, are being carried out by the Myanmar Fire Services Department and relevant officials in the affected areas.
c. Myanmar Authorities are coordinating with international rescue teams to conduct search and rescue operations. Effective 1 April, Myanmar will no longer accept USAR teams, EMT, and other incoming personnel.
d. Myanmar Authorities have resumed regular operations at Nay Pyi Taw International Airport, including ground handling, air traffic, fuelling and maintenance for all types of international aircrafts.

### Response by the Government of Thailand

a. The National Disaster Prevention and Mitigation Command has assessed the situation and found that the situation has improved, including the impact on the people and the damage in the area that has been resolved, both in terms of basic public utilities and transportation routes, including the people's well-being, which has returned to normal. Relevant agencies have continuously provided assistance in various ways. In Bangkok, USAR operations are still ongoing for those trapped in the affected areas. The Bangkok Incident Command Center is able to operate at its full potential.
b. According to the latest report of DDPM, the National Disaster Prevention and Mitigation Command has therefore reduced the level of large-scale disaster management (Level 3) to medium-scale disaster management (Level 2), which is under the authority of the provincial governors. The Bangkok governor will be the one to give orders, control, and command in the provincial areas and in Bangkok as the provincial director and the Bangkok director, in accordance with the Disaster Prevention and Mitigation Act B.E. 2550 and the National Disaster Prevention and Mitigation Plan B.E. 2564 – 2570.

### Response by the ASEAN Member States

a. The **Singapore** Civil Defence Force (SCDF) / Operation Lionheart Contingent USAR team has conducted Search and Rescue operations in Nay Pyi Taw.
b. The Special **Malaysia** Disaster Assistance and Rescue Team (SMART) has conducted Search and Rescue efforts in Sagaing, Myanmar.
c. On 30 March, 55 military personnel from the Royal **Thai** Armed Forces arrived in Myanmar. The special task force provided emergency medical care, established a field hospital, and conducted search and rescue and damage assessment, and provided communication support.
d. **Indonesia** will deploy the Indonesia Search and Rescue (INASAR) team on 1 April and an EMT on 3 April, along with emergency relief items to Myanmar.

e. **The Philippines** will be deploying the Philippine Emergency Medical Assistance Team (PEMAT) and a composite team from the Armed Forces of the Philippines, Bureau of Fire Protection, Metro Manila Development Authority, and the private sector to support the ongoing response in Myanmar, on 1 April.

**Response by Partners and other Humanitarian Actors**

a. **AADMER Partnership Group (APG)** members including **Plan International, World Vision International, Help Age and Oxfam** are mobilising their emergency response mechanisms to understand and support the needs of affected communities in Mandalay either directly or through partners. This includes checking stocks, distribution of non-food items and drinking water as assessments take place. Public appeals to raise funds have also been launched.
b. **WHO** dispatched 3 tonnes of trauma kits, medical supplies, and multi-purpose tents to hospitals in Mandalay and Naypyitaw, and has launched a USD 8 million flash appeal.
c. **IFRC** has launched an emergency appeal that aims to provide relief, recovery, and rehabilitation assistance to affected households in Bago, South Shan, Magway, Mandalay, Naypyidaw, and Sagaing.
d. **China** delivered humanitarian relief supplies to Myanmar on 31 March, including 1,200 tents, 8,000 blankets, and more than 40,000 first-aid kits. China also pledged 100 million yuan (USD 13.8 million) in emergency aid to Myanmar.
e. The following USAR Teams have been deployed as of 31 March:
    - China Search and Rescue with 80 personnel and 3 canines; arrived 29 Mar 2024 in Yangon
    - Ramunion Rescue Brigade (Local NGO) form China with 24 personnel; arrived 29 Mar 2025 in Yangon
    - Shenzhen Rescue Volunteers Federation (SRVF) with 40 personnel and 1 canine; arrived 29 Mar 2025 in Yangon
    - The United Arab Emirates (UAE) USAR Team (IEC heavy) with 89 personnel and 7 dogs deployed on 31 March
    - The Green Boat Emergency Rescue Team, an NGO from China with 8 Search and Rescue personnel deployed on 31 March
    - The Guixing Rescue Team from East China deployed on 31 March

**Response by the AHA Centre**

a. The AHA Centre continues to maintain close coordination with the EOCs of Myanmar and Thailand as well as with the assisting ASEAN Member States and partners to ensure a coordinated and effective disaster response.
b. AHA Centre Executive Director, Mr. Lee Yam Ming, and Director of Operations, Dr. Sithu Pe Thein, together with the AHA Centre In-Country Liaison Team (ICLT) continue to coordinate closely with Myanmar authorities and other partners, as well as facilitate regional disaster response efforts.
c. On 30 March, the AHA Centre mobilised two (2) batches of relief items USD 181,660.28 from the DELSA Regional Warehouse in Subang, Malaysia, to Yangon.
d. In close coordination with DDM Myanmar, the AHA Centre is preparing for the further deployment of DELSA relief items on 1 April.

e. The AHA Centre is coordinating the deployment of ASEAN-ERAT members from Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam to support field-level operations in Myanmar.

## RECOMMENDATIONS AND PLAN OF ACTIONS

### Recommendations

a. General public and humanitarian partners are advised to monitor information on the hazards and disaster impacts from official government sources through the DDM Myanmar and DDPM Thailand.
b. Partners and the general public are advised to closely monitor information on the aftershock hazards and current environmental conditions from official sources, such as DMH Myanmar and TMD Thailand.
c. Response teams are advised to wear the prescribed protective gear to ensure safety, security, and protection from debris and potential health hazards.
d. Effective 1 April, Myanmar will no longer accept USAR and EMT. International USAR and EMT are recommended to keep contact with relevant agencies in Myanmar.
e. General public is advised to prioritise safety awareness by taking the following actions: inspecting buildings and residences for structural stability, ensuring protection from electrical hazards, and identifying potential risks from unstable trees or structures.
f. ASEAN Member States and humanitarian partners are advised to subscribe to the AHA Centre Situation Updates for official report.

### The AHA Centre's Plan

a. The AHA Centre will continue to actively coordinate with DDM Myanmar on the mobilisation of ASEAN support.
b. The AHA Centre will continue to closely coordinate with ASEAN Members States and partners to facilitate support to Myanmar.
c. The AHA Centre will continue to facilitate the deployment of ICLT and ASEAN-ERAT in Myanmar to support field-level operations, including rapid assessment, information management, coordination, and humanitarian logistics.
d. The AHA Centre will continue to facilitate the mobilisation of DELSA and partners' relief items to Myanmar.
e. The AHA Centre will continuously update the impact information in the ASEAN Disaster Information Network (ADINet).

**Prepared by:**

The AHA Centre - Emergency Operations Centre (EOC)

## ABOUT THE AHA CENTRE

The AHA Centre - ASEAN Coordinating Centre for Humanitarian Assistance on disaster management - is an inter-governmental organisation established by 10 ASEAN Member States – Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam - to facilitate the cooperation and coordination among ASEAN Member

States and with the United Nations and international organisations for disaster management and emergency response in the region.

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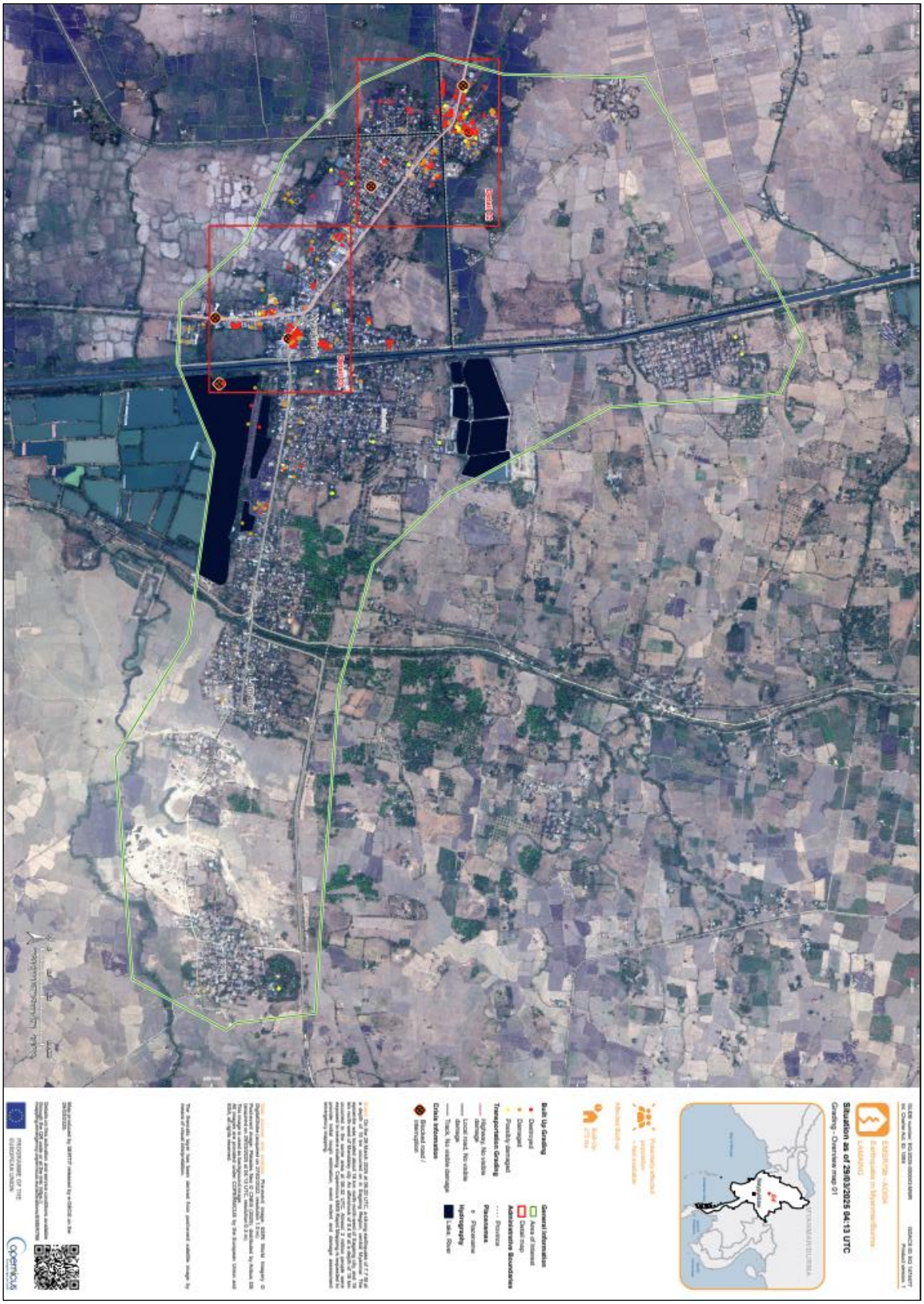
## ANNEXES

Annex 1. Satellite-Based Impact Assessments released by e-GEOS provided under Copernicus by the European Union and European Space Agency (ESA).



EMSR788 - AOI03
Earthquake in Myanmar
MAN KUN
Situation as of 29/03/2025 04:14 UTC
Grading - Overview map 01
MYANMAR/BURMA
Nay Pyi Taw
Mandalay
Naypyidaw
Built Up Grading
Destroyed
Damaged
Possibly damaged
Transportation Grading
Road, Damaged
Road, Possibly damaged
Railway, Damaged
Track, No visible damage
Railway, No visible damage
General Information
Area of Interest
Detail map
Placenames
Road
8.9 km
Railway
0.5 km
Built-Up
1,251 No.
Potentially affected population
- Not available
Affected Built-up and Transportations
Detail 02
Detail 03
Road 1
Road 2
WGS 84 / UTM Zone 46N
Map produced by ITHACA tasked by e-GEOS on the 29/03/2025.
Digital surface model (DSM) acquired on 29 March 2025 © Vexcel Imaging GmbH. Post-event image: Pléiades Neo © CNES (2025), distribution by Airbus DS. The image is used as background image.
The depicted data has been derived from post-event satellite image by means of visual interpretation.
Map produced by ITHACA tasked by e-GEOS on the 29/03/2025.
Details on the activation and service conditions available at: https://emergency.copernicus.eu/mapping/ems/emsr788-earthquake-myanmar
PROGRAMME OF THE EUROPEAN UNION
Copernicus

EMSR788 - AOI05
Earthquake in Myanmar/Burma
MADAYA
Situation as of 29/03/2025 04:13 UTC
Grading - Overview map 01
GLIDE number: EQ-2025-000043-MMR
IHL Charter Act. ID: 956
GDACS ID: EQ1174477
Printed version 1
MYANMAR/BURMA
Nay Pyi Taw
Mandalay
Taunggyaw
Potentially affected
Population > 1k
Not available
Affected Built-up and Transportations
Built-up
50.1 km²
Road
0.0 km
Railway
1.9 km
Crisis Information
Built Up Grading
Destroyed
Damaged
Transportation Grading
Road, Damaged
Highway, No visible damage
Main road, No visible damage
Secondary road, No visible damage
Track, No visible damage
Railway, No visible damage
General Information
Area of Interest
Detail map
Placenames
Placename
Hydrography
Watercourse
Event: On the 28 March 2025 at 06:20 UTC, a strong earthquake of 7.7 M at a depth of 10 km occurred on in Sagaing Region, Central Myanmar. The epicenter was located approximately 16 km (10 miles) northwest of Sagaing and 18 km north-west of Mandalay city. An aftershock of 6.4 M at a depth of 10 km occurred 12 minutes later. Rapid mapping is requested to exposed to severe shaking. Copernicus EMS Rapid Mapping is requested to provide a first estimation of the affected area, event extent and damage assessment emergency mapping.
Data sources and images:
Pre-event image: WorldView-3 © Maxar Technologies, Inc. (2025), (acquired PRODUCTION date: 2024-12-10), licensed to CNES (2025), distributed by Airbus DS (acquired on 29/03/2025 at 04:13 UTC, resolution 0.3 m).
This image is used as background image.
P.A. All rights reserved under COPERNICUS by the European Union and
The thematic layer has been derived from post-event satellite image by means of visual interpretation.
Map produced by GAF AG released by e-GEOS on the 29/03/2025.
Details on the creation and specifications available
Digital Twin Earth - Precise Earth monitoring for sustainable development
mapping emergency response evaluation #DigitalTwinEarth
PROGRAMME OF THE EUROPEAN UNION
Copernicus
WGS 1984 UTM Zone 47N
1:5,400
0 0.1 0.2 0.4 km