

### OVERVIEW: MARCH 2025 EARTHQUAKE

On 28 March 2025, a 7.7-magnitude earthquake struck Myanmar's Sagaing region, followed by a 6.4-magnitude aftershock in Mandalay region (ECHO 28/03/2025; AJ 28/03/2025). Myanmar's military junta, known as the State Administrative Council (SAC), declared a state of emergency in six affected states and regions: Bago, Magway, Mandalay, Nay Pyi Taw, Sagaing, and northeastern Shan state (Firstpost 28/03/2025). The earthquake exposed an estimated 7,000 people to violent shaking, around 2.87 million to severe shaking, and around 10.2 million to strong or very strong shaking (ECHO 28/03/2025). By 29 March, the SAC reported around 1,650 people killed and 3,410 injured (The Guardian 29/03/2025). **These figures are expected to rise in the coming days as responders gain access to affected areas, and may only reflect casualties in areas under SAC control.**

In Mandalay region, the most severe shaking affected the following townships: Amarapura, Aungmyaythazan, Chanayethazan, Chanmyathazi, Kyaukse, Madaya, Maha Aungmyay, Ngazun, Myittha, Patheingyi, Pyigyitagong, Pyinoolwin, Singu, Sintgaing, Tada-U, Thazi, and Wundwin (ECHO 28/03/2025; WFP 28/03/2025; MIMU 06/09/2023 and 17/05/2024). By 28 March, several high-rise buildings in Mandalay city had collapsed and a fire had broken out in parts of the city (Myanmar Now 28/03/2025; TOI 28/03/2025). The earthquake damaged bridges, including Ava Bridge linking Mandalay and Sagaing, along with the Yangon-Nay Pyi Taw-Mandalay expressway and Mandalay International Airport, which may affect humanitarian access (China Daily 28/03/2025; The Irrawaddy 28/03/2025; OCHA 29/03/2025).

### KEY MESSAGES: MANDALAY REGION

- **Continuing conflict had already contributed to high existing needs in affected Mandalay townships.** Since June 2024, an escalation in armed conflict between the Myanmar Armed Forces (MAF) and armed resistance groups had affected townships including Madaya, Patheingyi, and Pyinoolwin, which are all within 50km of the earthquake's epicentre (Insecurity Insight 18/03/2025).
- **Many earthquake-affected townships are still recovering from the heavy rainfall and flooding that occurred in June–October 2024** during the southwest monsoon and Typhoon Yagi. These events created severe shelter, WASH, livelihood, and other humanitarian needs (OCHA 20/09/2024 and 16/09/2024; MIMU/UNDP 06/10/2024; IFRC 20/11/2024; UNICEF 16/09/2024). Mandalay is still experiencing an acute watery diarrhoea (AWD) outbreak following the

flooding, which may be aggravated by earthquake-induced damage to WASH infrastructure (WHO 12/03/2025).

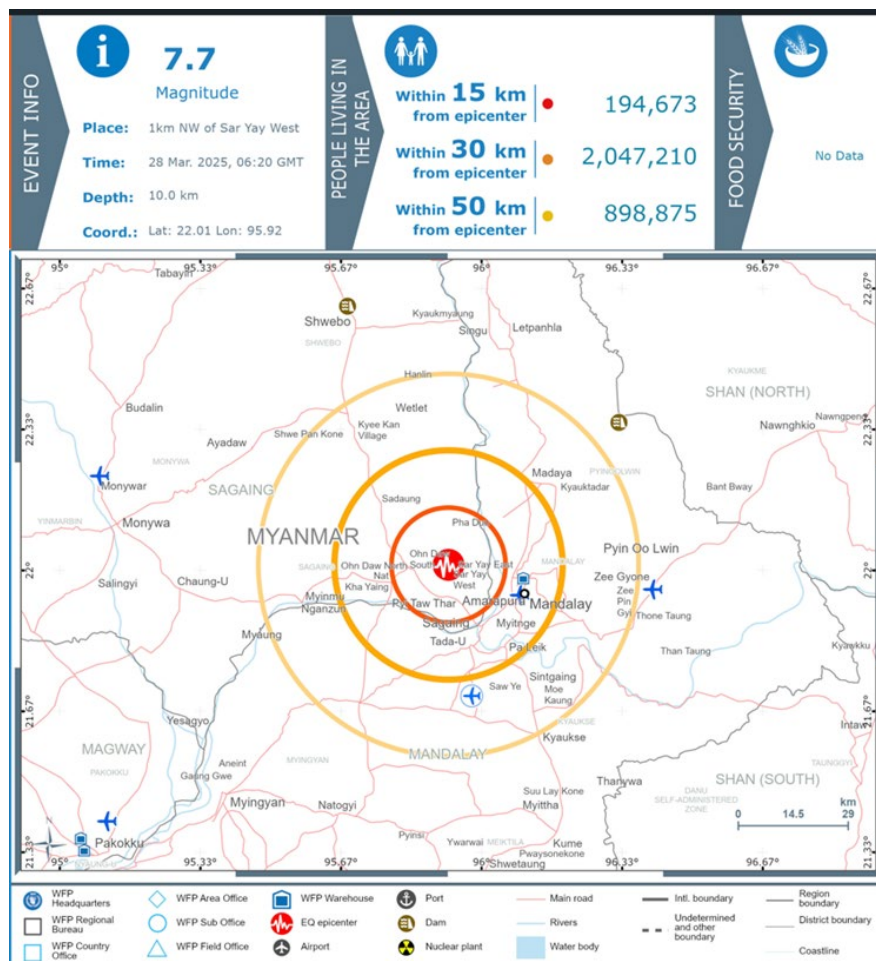
- **Mandalay has had a lower humanitarian presence than other states and regions** in Myanmar, partly because it was a relatively wealthier region prior to the February 2021 coup. The escalation in fighting in 2024 has significantly increased humanitarian needs, creating a substantial response gap (UNDP 11/04/2024; OCHA 09/06/2024). That said, as in most of Myanmar, community-based organisations and responders provide significant support to affected communities across Mandalay.
- **In total, Mandalay has the third-highest number of people in need in Myanmar in 2025, at 2.1 million.** Only 7% of these people (151,000) are targeted in the 2025 Humanitarian Needs and Response Plan (OCHA 13/12/2024). US funding cuts mean that the number of people reached will likely be lower, however, as the US has been Myanmar's primary humanitarian donor in recent years (FTS accessed 28/03/2025).

### ANTICIPATED SCOPE AND SCALE

- **Aungmyaythazan, Chanayethazan, Chanmyathazi, Maha Aungmyay, and Pyigyitagong townships are particularly densely populated** and will likely account for many of the casualties and much of the destruction identified in the coming weeks. See Table 1 in this report for the most recent population figures in affected townships.
- **Until May 2025, there is a high potential for extreme heat in urban Mandalay**, where people living in temporary, informal shelters are at particularly high risk of being affected by heat and associated shelter, water, and health needs (WB accessed 28/03/2025; IFRC 13/12/2024). Seasonal forecasts indicate a moderate (40–50%) likelihood of above-normal temperatures in Myanmar from March–May 2025 (IRI accessed 28/03/2025; WMO accessed 28/03/2025).
- **Earthquake-induced displacement, destruction to WASH infrastructure, and heat-induced water shortages may prompt a renewed increase in AWD and other waterborne diseases.** While Mandalay's AWD caseload had decreased to five by 2–9 March 2025, October–November 2024 saw hundreds of cases weekly (WHO 12/03/2025 and 06/11/2024; Health Cluster 02/12/2024).
- **Conflict and mixed territorial control will complicate the humanitarian response**, while insecurity and the presence of landmines and explosive remnants of war (ERWs) pose safety risks to responders in Mandalay (OCHA 18/03/2025; UNICEF 01/06/2024). Armed

resistance groups control parts of several earthquake-affected townships, including Madaya (Insecurity Insight 18/03/2025). There is a risk that the SAC will restrict assistance to any resistance-controlled areas (AI 28/03/2025). It is unclear how the earthquake will affect fighting in affected areas, but it is a significant concern for the response and recovery.

Map 1. Earthquake exposure in Mandalay and Sagaing, 28 March 2025



Source: WFP (28/03/2025)

## MANDALAY: REGIONAL CONTEXT

### Conflict

Conflict between the MAF and armed resistance groups – including Ethnic Armed Organisations, People's Defence Forces (PDFs), and other local armed organisations, some of which are linked to Myanmar's parallel National Unity Government – has been escalating rapidly across Myanmar since October 2023 (OCHA 09/11/2023; CFR accessed 28/03/2025). By March 2025, the conflict had affected 13 of Myanmar's 15 states and regions (ACLED 12/12/2024; OCHA 13/12/2024; The Irrawaddy 21/01/2025).

**The armed conflict expanded to Mandalay in June 2024.** Fighting between the MAF, Mandalay PDF, Myanmar National Democratic Alliance Army, Ta'ang National Liberation Army, and other armed resistance groups has affected townships including Madaya, Mogoke, Myingyan, Natogyi, Ngazun, Patheingyi, Pyinoolwin, Singu, Taungtha, and Thabeikkyin, where shelling and aerial attacks have displaced thousands of people (OCHA 16/08/2024 and 13/12/2024; IISS 10/2024). From October 2024, fighting intensified around Mandalay city, in **Patheingyi and Madaya townships**, which have been heavily shelled by the MAF, killing and injuring unknown numbers of civilians (Jakarta Post 26/10/2024; The Irrawaddy 08/10/2024). Fighting also escalated close to Pyinoolwin town in November (The Irrawaddy 01/11/2024). By the end of November, armed resistance groups controlled large parts of northern Mandalay and had launched rocket attacks at MAF targets in Mandalay city (The Irrawaddy 26/11/2024; RFA 30/09/2024).

**Fighting has escalated further since 10 March 2025**, with active conflict and aerial attacks displacing an unknown number of people in **Madaya and Thakbeikkyin townships** (OCHA 28/03/2025 and 18/03/2025; DT 12/03/2025).

In April 2024, the SAC introduced military conscription for most men aged 18–35 and most women aged 18–27. Conscription rates have been particularly high in urban SAC-controlled areas, including Mandalay, prompting young people to flee and a general suppression of social and economic activity (The Irrawaddy 16/12/2024 and 26/03/2025).

### Climate hazards

Myanmar is highly vulnerable to climate and geological hazards, including earthquakes, tsunamis, and floods, with an INFORM Climate Change Risk Score of 6.2/10 (High) (EC accessed 28/03/2025).

**Mandalay experiences hot, dry weather from March–May**, with temperatures reaching a daily average of 30° C and an average maximum of 36° C (WB accessed 28/03/2025). This is followed by heavy rainfall and flooding during the May–October southwest monsoon season (ACAPS 27/08/2024).

**In September 2024, Typhoon Yagi, monsoon rains, and associated flash flooding affected at least 177,000 people in Mandalay, including in earthquake-affected Kyaukse, Sintgaing, and Tada-U townships.** The floods had killed around 230 people and destroyed 26,500 homes in Mandalay by mid-September. When the typhoon hit, Mandalay was already recovering from monsoon-related flooding in June–July, which caused the temporary evacuation of an unknown number of people in townships including Nyaung-U and Taungtha (IFRC 31/01/2025; ECHO 18/07/2024; MIMU/UNDP 15/07/2024). Mandalay was affected by further flooding in October, including in Sintgaing and Tada-U townships (OCHA 20/09/2024 and 16/09/2024; MIMU/UNDP 06/10/2024; IFRC 20/11/2024; UNICEF 16/09/2024). While, by March 2025, there was no recent information on needs in affected communities, it is likely that conflict and associated access constraints have prevented significant recovery from these repeated hazards.

## PRE-CRISIS HUMANITARIAN NEEDS

### Shelter and WASH

- By 25 March 2025, there were an estimated 93,200 IDPs in Mandalay (UNHCR 25/03/2025). Many had likely been displaced repeatedly given the frequent climate hazards and spikes in conflict in Mandalay over the previous nine months. There is no information available on the shelter conditions and needs of IDPs, which are likely to be high given the minimal humanitarian access to the region.
- Both IDPs and non-displaced people are likely to be living in shelters damaged by the 2024 monsoon and Typhoon Yagi, which had destroyed 26,500 homes in Mandalay by mid-September (OCHA 20/09/2024 and 16/09/2024). The flooding also damaged at least 10,000 latrines (UNHCR 31/10/2024). It is likely that many of these remain damaged, given low community capacity to rebuild amid economic crisis, active conflict, and limited access to humanitarian assistance.
- The WASH Cluster classified WASH needs in Mandalay for 2025 at a severity level of 3/5, indicating significant challenges for affected communities' access to safe and clean water sources and adequate sanitation and hygiene facilities (OCHA 13/12/2024).

### Health

- **Violence and armed conflict since the February 2021 coup escalated in 2024, incapacitating Mandalay's healthcare system.**
- Prior to the outbreak of conflict, in 2019, there were seven general hospitals, 159 rural health centres, and 766 sub health centres in Mandalay (MIMU accessed 28/03/2025 c). Between February 2021 and December 2024, there were 21 incidents of health facilities

being damaged or destroyed by aerial, shelling, and improvised explosive device attacks in Mandalay. 22 health facilities were forcibly closed, 16 of which the MAF demolished (Insecurity Insight 18/03/2025).

- The MAF has occupied health facilities, seized supplies, and arrested around 220 healthcare workers, who have also been killed at high rates. Mandalay, Myingyan, and Pyinoolwin townships have been particularly affected by attacks on healthcare (Insecurity Insight 18/03/2025).
- **Myanmar's AWD outbreak had expanded to Mandalay by October 2024**, with 370 hospitalised cases reported between 20–27 October alone and 344 cases reported from 3–10 November (Health Cluster 02/12/2024; WHO 06/11/2024). An oral cholera vaccine campaign was extended to some Mandalay townships in November 2024 (UNICEF 19/12/2024).

## Food security and livelihoods

- **High poverty in Mandalay leaves communities with little capacity to cope with shocks such as the March 2025 earthquake.** Even before the 2024 escalation in fighting, over 40% of people in Mandalay lived below the national poverty line. A June–October 2023 survey of 1,150 respondents found frequent use of livelihood coping strategies in Mandalay, including 50% of survey respondents cutting NFI expenditure, 35% borrowing from family and friends, 25% eating less, and 24% selling assets (UNDP 11/04/2024).
- Flooding and Typhoon Yagi had damaged 70,323 acres of agricultural fields in Mandalay by the end of October 2024 (UNHCR 31/10/2024). This likely disrupted and destroyed corn, millet, and rice harvests across Myanmar, contributing to lost income and increased food insecurity, including in Mandalay (FAS accessed 28/03/2025). In 2023, farming provided the primary source of income for nearly 30% of people in Mandalay, following waged salary (40%) (UNDP 11/04/2024).
- Mandalay is home to several gold mines, including in Madaya (The Irrawaddy 19/11/2024). It is unknown whether these have been affected by the earthquake.
- Nearly one-third of Myanmar's population (15.2 million people) will face acute food insecurity in 2025 (ICRC 21/03/2025). Specific information on levels in Mandalay is not available.

## PRE-CRISIS HUMANITARIAN ACCESS AND RESPONSE CAPACITY

By August 2024, there were 54 documented humanitarian and development organisations operating in Mandalay (32 INGOs, nine national NGOs, nine UN and other international organisations, three Red Cross offices, and one community-based organisation). Most were operating in the health (22), protection (11), livelihoods (ten), education (nine), and agriculture (nine) sectors, with some operating across multiple sectors. There were few reported activities in the earthquake-affected townships of Kyaukse and Pyinoolwin (MIMU 31/08/2024).

Active conflict and violence have significantly limited access to conflict-affected parts of Mandalay, such as Madaya (OCHA 18/03/2025). Landmines and ERWs pose a danger to humanitarian responders and affected communities. 2024 saw landmine and ERW casualties in Mandalay's Kyaukse and Madaya townships, both of which have been affected by the earthquake (UNICEF 01/06/2024). Conflict has also compromised community trust in humanitarian responders and healthcare workers, who have been accused of using ambulances and other medical resources for conflict-related purposes (Insecurity Insight 18/03/2025).

Humanitarian responders in Myanmar face severe bureaucratic restrictions. In October 2022, the SAC introduced the Organisation Registration Law, requiring all organisations in Myanmar to register their presence and imposing fees, approvals, and other processes that hinder humanitarian operations (OCHA 18/12/2023; OHCHR 03/03/2023). Bureaucratic restrictions also prevent humanitarian travel into Myanmar and the import of key humanitarian supplies (OCHA 13/12/2024).

Flooding and Typhoon Yagi damaged an unknown number of bridges and roads in Mandalay during the second half of 2024 (UNHCR 31/10/2024). It is unknown whether this infrastructure has been repaired, although it is unlikely given significant conflict in the region.

US funding cuts may have already significantly affected the response in Mandalay. Local organisations, which are essential to reaching at risk and remote populations, have been disproportionately affected. Reports indicate that sudden funding reductions resulting from the suspension of US foreign aid have led to the loss of employment for hundreds of staff. These workforce reductions are significantly undermining organisations' capacity to carry out critical operations (OCHA 28/03/2025). For more information on the effect of the US funding cuts in Myanmar, see the ACAPS analysis 'Myanmar: Implications of the US funding freeze and cuts on humanitarian response and health needs' (ACAPS 24/03/2025).

Table 1. Key statistics for Mandalay

AREA SIZE	29,686KM <sup>2</sup>
Total population (2019)*	5.95 million
Population under 17 (2019)	1.87 million (32%)
Urban population (2019)	1.78 million (30%)
Rural population (2019)	4.17 million (70%)
People in Need (2024)	2.1 million (30%)
IDPs (March 2025)	93,600
Amarapura township population (2019)	200,800
Aungmyaythazan township population (2019)	189,300
Chanayethazan township population (2019)	148,000
Chanmyathazi township population (2019)	225,700
Kyaukse township population (2019)	243,100
Madaya township population (2019)	251,525
Maha Aungmyay township population (2019)	225,700
Ngazun township population (2019)	141,500
Myittha township population (2019)	197,900
Patheingyi township population (2019)	241,540
Pyigyitagon township population (2019)	159,000
Pyinoolwin township population (2019)	214,500
Singu township population (2019)	157,600
Sintgaing township population (2019)	136,800
Tada-U township population (2019)	144,800
Thazi township population (2019)	205,320
Wundwin township population (2019)	239,400

Source: ACAPS using data from MIMU accessed (28/03/2025 a); UNHCR (25/03/2025); OCHA (13/12/2024); UNFPA (12/2020)

\*Myanmar's most recent, comprehensive census was conducted in 2014. The data provided here is attributed to Myanmar's General Administrative Department from 2019. It is unknown how the data was collected. Population distribution may have changed significantly since conflict and displacement escalated following the February 2021 coup (MIMU accessed 28/03/2025 a; MIMU accessed 28/03/2025 b).