# **MYANMAR** Earthquake: Sagaing pre-crisis profile



## **OVERVIEW**

**On 28 March 2025, a 7.7-magnitude earthquake struck Sagaing region, Myanmar** (ECH0 28/03/2025; AJ 28/03/2025). Only 12 minutes after the earthquake hit, a powerful 6.4-magnitude aftershock was registered, worsening the destruction and causing additional damage in Mandalay and Sagaing regions, hindering rescue operations and increasing casualties. By 30 March, at least 13 aftershocks, with registered magnitudes of between 4.3–6.7, had been recorded (IFRC 30/03/2025 and 28/03/2025; Malteser 28/03/2025). Myanmar's military junta, known as the State Administrative Council (SAC), declared a state of emergency in six states and regions, including Bago, Magway, Mandalay, Nay Pyi Taw, Sagaing, and eastern Shan. By 31 March, reports indicated that upwards of 1,700 people had been killed, over 3,400 injured, and approximately 300 missing in central and northwestern Myanmar (0CHA 31/03/2025). These figures are expected to rise in the coming days as responders gain access to affected areas, and figures may only reflect casualties in areaaas under SAC control. The United States Geological Survey estimates that the death toll is likely to surpass 10,000 people (Reuters 29/03/2025; MSF 28/03/2025; HOPE 28/03/2025).

In Sagaing region, the most violent shaking occurred in Sagaing and Wetlet townships, with Ayadaw, Chaung-U, Monywa, Myaung, Myinmu, and Shwebo also exposed to very strong to severe shaking (ECHO 28/03/2025; WFP 28/03/2025; MIMU 31/08/2024). By 30 March, initial assessments highlighted that, in Sagaing township, over 70% of structures had sustained significant damage, with many residential buildings either completely collapsed or severely damaged (IFRC 30/03/2025). It is likely that people are staying in informal shelters and with relatives because Sagaing lacks enough shelter capacity (Reuters 28/03/2025; OCHA 28/03/2025; The Guardian 28/03/2025). The earthquake also destroyed the main bridge connecting Sagaing and Mandalay regions. Rubble and conflict-related communication blackouts in some of the worst affected areas have prevented information gathering and humanitarian access (IFRC 28/03/2025; MSF 28/03/2025). Official information from the SAC is also scarce, as several official websites – including the Ministry of Health and Ministry of Agriculture – are inaccessible (NYT 28/03/2025).

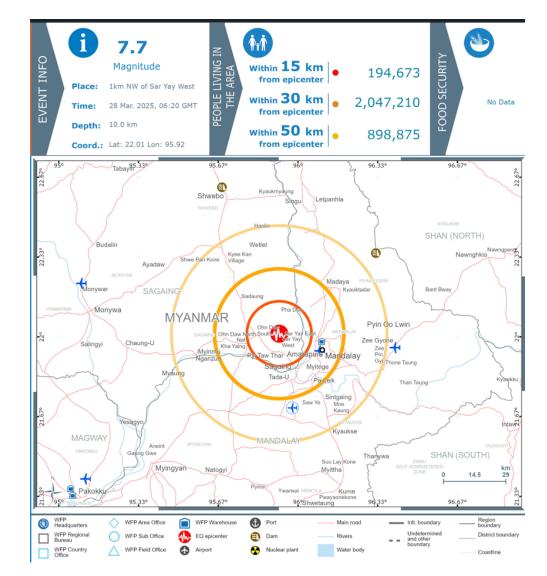
# **KEY MESSAGES: SAGAING REGION**

- Sagaing has been severely affected by the conflict between the Myanmar Armed Forces (MAF) and armed resistance groups, experiencing the highest recorded number of aerial, shelling, and other explosive attacks nationwide since the February 2021 coup, when the MAF seized power from the elected ruling party. By 29 March, according to the Armed Conflict Location and Events Database, nearly 5,000 incidents had been recorded in Sagaing region. Between February 2021 and March 2025, Sagaing's earthquake-affected townships of Monywa, Sagaing, and Shwebo experienced the highest number of conflict-related incidents (ACLED accessed 29/03/2025).
- In 2025, prior to the earthquake, Sagaing region had the highest number of people in need of assistance (2.7 million) of all of Myanmar's states and regions. Prior to the earthquake, 14 of Sagaing's 37 townships, including Wetlet and Shwebo, were already experiencing the highest category of needs severity (5/5 catastrophic) in 2025 (DFS 28/03/2025; OCHA 13/12/2024).
- Needs are particularly high among the 1.25 million IDPs in Sagaing, which hosts the highest number of IDPs across all of Myanmar's states and regions (UNHCR 25/03/2025). Many IDPs in Myanmar live in the jungle and other open spaces, with minimal access to shelter and assistance (0CHA 15/12/2023 and 18/12/2023).
- Hospitals in Sagaing have reported a lack of capacity to treat all injured people and are struggling to cope with the influx of injuries from the earthquake (OCHA 29/03/2025). The health sector was already weak before the earthquake, as it has been systematically targeted in the conflict, with health workers regularly forced to flee and even makeshift clinics being destroyed. The number of incidents against healthcare facilities has been increasing in Sagaing region, from 17 in 2022 to 52 in 2023 to 39 in 2024 (Insecurity Insight 14/03/2025).
- Sagaing is currently going through its dry season, with temperatures rising above 40° C (104° F). Daily highs have reached up to 44° C (111° F), increasing health risks such as heat stroke for both affected communities and responders (IFRC 30/03/2025).

# **ANTICIPATED SCOPE AND SCALE**

- There is a significant risk that large-scale dams have been affected by the earthquake, potentially disrupting water access for nearby communities. The Sagaing region is home to several dams, including the Thaphanseik and Zi Chaung dams. By 28 March, no alerts or public assessments had been issued on the conditions of the dams (Reuters 28/03/2025; The Nri Nation 28/03/2025).
- Earthquake-affected areas, including Myaung township, have been affected by intense fighting in recent weeks (The Irrawaddy 28/03/2025). Intense fighting in Kale township, which is further from earthquake-affected areas, has caused civilian casualties and displaced thousands of people within the township since February 2025 (OCHA 28/03/2025; Myanmar Now 03/02/2025; RFA 03/02/2025). While there is no updated assessment of how existing IDPs across Sagaing have been affected by the earthquake and associated damage, the earthquake will likely divert already minimal resources and response capacity from the response to conflict-affected communities across Sagaing region.
- The earthquake may have displaced or disturbed landmines and exploded remnants of war (ERW). As a result of the conflict, there is widespread landmine and explosive ordnance contamination across conflict-affected areas of Myanmar. After Shan state, Sagaing is the second-most affected area, with 106 incidents and 186 casualties (17% of the nationwide total) in 2024. IDPs, who mainly live in temporary shelters and may be unfamiliar with landmine and ERW locations, are particularly vulnerable in this regard (UNICEF 28/03/2025; OCHA 13/12/2024; Landmine and Cluster Munition Monitor accessed 30/03/2025).
- Sagaing's dry season occurs between March–May and often causes water shortages. By 30 March, the Sagaing region was facing extreme heat, with temperatures soaring above 40° C (104°F) (IFRC 30/03/2025). In April 2024, at least 1,500 people died from heatrelated causes. In 2025, up to 41° C temperatures are expected until mid-April, alongside forecasted precipitation in April (BBC accessed 29/03/2025; IRI accessed 29/03/2025; OCHA 28/03/2025; FM 22/05/2024). Combined with the damage to WASH infrastructure, this heightens the risk of heat stroke and waterborne disease.

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



Source: WFP (28/03/2025)

# **SAGAING REGIONAL CONTEXT**

### Conflict

Conflict between the MAF and armed resistance groups, including ethnic armed organisations and PDFs (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).

**Conflict in Sagaing escalated rapidly in November 2023,** when a coalition comprising the Kachin Independence Army, Arakan Army, All Burma Students' Democratic Front, and local PDFs attacked MAF bases in several Sagaing townships (0CHA 09/11/2023). Sagaing experiences diffused and fragmented armed resistance activity, with up to 1,700 armed groups operating in the region since the February 2021 coup. In southern Sagaing, closest to the earthquake's epicentre, hundreds of PDFs and other local armed resistance groups have operated largely independently, occasionally clashing over resources and public support (ACLED 26/11/2024). The MAF receives financial and military support from the pro-SAC militia known as Pyu Saw Htee across Myanmar's states and regions, including in Sagaing (PVM 07/11/2024).

## **Climate hazards**

Sagaing is affected by recurrent flooding during the May–October southwest monsoon season (OCHA 24/05/2024). Severe flooding and heavy rainfall in Sagaing in June–July 2024 created high shelter, WASH, livelihood, and other basic needs, diminishing communities' capacity to cope with geological shocks such as the earthquake (IFRC 31/01/2025). By 18 July 2024, flooding had affected 11 townships, including earthquake-affected Myaung (ECH0 18/07/2024; MIMU/UNDP 15/07/2024 a and 15/07/2024 b). The total number of people affected in Sagaing specifically and recovery rates are unknown.

# **PRE-CRISIS HUMANITARIAN NEEDS**

#### **Shelter and NFIs**

Sagaing region is not usually prone to earthquakes and, as such, its infrastructure is not built to withstand severe shaking (Reuters 28/03/2025). This is particularly true for the informal shelters housing many of Sagaing's 1.25 million IDPs.

Since the February 2021 coup, Sagaing has been the site of systematic and widespread MAF arson attacks, with nearly 39,000 homes burnt between February 2022 and January 2023 alone (OHCHR 03/03/2023; AI 31/05/2022; Shelter Cluster et al. 25/01/2024). As recently as mid-October 2024, there were reports of hundreds of houses being burnt down amid armed conflict in Sagaing (UNICEF 19/12/2024). This has likely led to high shelter needs even among non-displaced communities. The earthquake is likely to have further increased the number of people in need of shelter, local capacities are likely to be overstretched, and there could be further displacement to other regions.

**NFI prices in southern Sagaing rose by nearly 80% year-on-year by the end of 2024** (MIMU 28/03/2024 a). This has likely left earthquake-affected communities with fewer NFIs than needed to cope following the earthquake.

#### Protection

The conflict between the MAF and armed resistance groups poses a significant risk to civilians, exposing them to indiscriminate attacks, airstrikes, forced recruitment, arbitrary detention, gender-based violence, and fatalities from landmines and explosive ordnance. The MAF frequently clash with PDFs and various ethnic armed organisations, who have taken control of several towns, including Kawlin and Tamu (Protection Cluster 20/02/2025; OCHA 13/12/2024). The earthquake is likely to worsen protection needs, especially for IDPs without proper shelter or those in remote areas, making them more vulnerable to clashes and abuse by armed groups (OCHA 28/03/2025).

### **WASH and health**

The WASH Cluster classified WASH-related health needs in all of Sagaing's earthquakeaffected townships, classified at severity level 4/5 in 2025, which means people in the region face challenges accessing safe drinking water, adequate sanitation facilities, and reliable hygiene services (OCHA 13/12/2024). The price of hygiene and health products – such as soap, sanitary pads, and paracetamol – in southern Sagaing had risen by nearly 165% year-on-year by the end of 2024 (MIMU 28/03/2024 a). **Poor access to WASH in Sagaing has likely increased the prevalence of waterborne and vector-borne diseases.** While, by the end of March 2025, there had been no reported cases of acute watery diarrhoea in Sagaing, a lack of humanitarian access and conflict-related challenges to disease monitoring and surveillance may mean that cases are unrecorded. Dengue also remains endemic in the region (WH0 19/12/2024; Mizzima 20/07/2020).

In 2025, Sagaing has been experiencing the second-highest severity of health needs in Myanmar, classified as 4/5 in terms of severity in the earthquake-affected townships of Wetlet and Myinmu (0CHA 13/12/2024). Needs are aggravated in the northwest of the country, as displacement continues to strain WASH services, particularly in Sagaing, where only 17% of the affected population had received assistance by 13 December 2024 (0CHA 13/12/2024). Many health facilities, especially in Sagaing, were already non-functional before the earthquake, further limiting the humanitarian response. Current health needs are likely to include trauma and surgical care, blood transfusion supplies, anaesthetics, and essential medicines, making the restoration of these services a critical priority (WHO 30/03/2025).

### **Food security**

Prior to the earthquake, Myanmar was already facing a severe food crisis, with 15.2 million people – one in four – experiencing food insecurity (WFP 28/03/2025).

**Sagaing is one of the most food insecure regions of Myanmar,** accounting for a large number of the people facing Emergency (IPC Phase 4) levels of food insecurity by September 2024 (0CHA 13/12/2024). Conflict and associated movement restrictions and disruptions to supply chains have increased food prices, which had risen by 38% year-on-year by the end of 2024, with the highest increases seen in meat and fish products (44%) (MIMU 28/03/2024 a). Access to markets is worsened by insecurity in southern Sagaing, including in earthquake-affected townships (MIMU 28/03/2024 b).

While exact data on nutrition levels in Sagaing is unavailable, nationwide estimates indicate that the northwest of the country, which includes the Sagaing region, is seeing the highest nutrition needs (0CHA 13/12/2025).

Climate hazards have also damaged crops, harming farmer livelihoods in Sagaing, where agriculture accounts for a large part of primary income (UNDP 11/04/2024). June–July 2024 monsoon rainfall affected at over 48,000 hectares of crop land in Sagaing, while flash flooding in September 2024 damaged crops in townships including Chaung-U, Myaung, and Myinmu (0CHA 20/09/2024; WFP 01/07/2024). From June–October (monsoon season), farmers in Sagaing practice subsistence agriculture based on the monoculture of rice, followed by a legume (usually some local variety of peas) in rotation; between April–June, hotter weather conditions tend to affect crops. In March, communities should be harvesting wheat, rice,

and maize, but it is unlikely that these areas have recovered from conflict-related attacks on crops, flooding in September 2024, high input prices, and minimal access to assistance. Prior to the November 2023 escalation of conflict in Sagaing, farmers in the region were already reporting a decline in income resulting from the existing conflict, landmines, ERW, rising fuel and input prices, and poor weather conditions (ACAPS accessed 29/03/2025; ASIA accessed 29/03/2025; UNDP 11/04/2024).

By October 2023, over 60% of people in Sagaing were living below the national poverty line, leading to the widespread use of livelihood coping strategies, including cutting NFI purchasing and eating less (UNDP 11/04/2024). Poverty levels and the associated use of coping mechanisms with potential harmful effects have likely increased since the escalation of fighting in November 2023.

## PRECRISIS HUMANITARIAN ACCESS AND RESPONSE CAPACITY

**By 13 December 2024, Sagaing had the highest number of townships (25) affected by severe access challenges, including earthquake-affected Ayadaw and Wetlet,** mostly resulting from active fighting, military operations, and bureaucratic and administrative obstacles to humanitarian operations (UNICEF 28/03/2025; OCHA 13/12/2024; IFRC 08/01/2025). Severe access restrictions – such as travel authorisations and heightened scrutiny at checkpoints – had been reported in Sagaing (OCHA 19/02/2025).

Mixed territorial control in affected parts of southern Sagaing will likely complicate humanitarian access following the earthquake. A large number of relatively independent armed resistance groups are operating in southern Sagaing, including various People's Defence Forces (PDFs) (ACLED 26/11/2024). The MAF's northwestern regional command is located in Monywa, west of the earthquake's epicentre, which has been affected by strong shaking (The Irrawaddy 03/01/2025). The unclear chain of command for many local armed resistance groups and their overlapping territorial claims will likely make it difficult for humanitarian organisations to guarantee security, identify needs, and coordinate assistance for communities (ACLED 26/11/2024).The MAF's northwestern regional command is located in Monywa, west of the earthquake's epicentre, which has been affected by strong shaking (The Irrawaddy 03/01/2025).

Freedom of the press has been severely restricted, with the SAC controlling most local radio, television, print, and online media. Combined with restrictions on the use of internet counrywide, this has resulted in limited information on humanitarian needs (The Guardian 28/03/2025; BBC 29/03/2025).

The humanitarian response in Sagaing is likely to be overstretched or fall short of what is called for in the 2025 Humanitarian Response Plan as result of US funding cuts, as the US has been Myanmar's primary humanitarian donor in recent years (OCHA accessed 28/03/2025). Local organisations' operations have been severely affected by the suspension of US humanitarian funding, disrupting critical aid to many in-need populations (OCHA 28/03/2025; ACAPS 21/03/2025). By March 2025, the number of United States Agency for International Development programmes in Myanmar had shrunk from 18 to three. Several NGOs and at least seven US-funded hospitals operating along Myanmar's border with Thailand have also shut down (The Conversation 29/03/2025).

The SAC has also imposed banking restrictions, limiting cash withdrawals, digital payments, and foreign banking services (IFRC 08/01/2025; The Irrawaddy 11/07/2024).

## Sagaing regional context

AREA SIZE	94,621KM <sup>2</sup>
Total population	6 million
Urban population	17%
Rural population	83%
People in need (2025)	2.7 million
IDPs (by March 2025)	1,249,400
Sagaing city population (2024)	307,194
Wetlet township population (2024)	210,677
Myinmu township population (2024)	117,722
Chaung-U township population (2024)	99,066
Myaung township population (2024)	108,132
Shwebo township population (2024)	409,339
Ayadaw township population (2024)	187,067
Monywa township population (2024)	238,394

Source: ACAPS using data from MIMU (accessed 29/03/2025); City Population (accessed 30/03/2025)