

## Flooding in northern and central states and regions

### CRISIS IMPACT OVERVIEW

From 29 June, Myanmar's monsoon season brought heavy rainfall that caused fluvial flooding in the north of the country. The most extensive flooding has occurred Kachin state, where the Ayeyarwady, Malikha, and N'mai rivers flooded low-lying communities in Bhamo, Hpakant, Mogaung, Myitkyina, and Waingmaw townships. Flooding has also affected communities in Hkamti, Homalin, and Pyaungbin townships in the neighbouring Sagaing region (ECHO 04/07/2024; AHA 03/07/2024 and 04/07/2024; The Irrawaddy 05/07/2024; MIMU/UNDP 07/07/2024). Between 2 and 11 July, floods submerged an estimated 75% of Hkamti town (The Irrawaddy 11/07/2024).

By 11 July, flooding had also occurred in unspecified townships in Magway region; in Myingyan, Nganzun, Pyinoolwin, and Tada-U townships in Mandalay region; and in Kyaukme, Lashio, Mongmit, and Muse townships in northern Shan state (WFP 01/07/2024; The Irrawaddy 11/07/2024; The Sunday Examiner 10/07/2024). There is limited information on flooding and its humanitarian impacts in Magway, Mandalay, and Shan.

By 11 July, news sources, citing Myanmar's Department of Disaster Management, reported that at least 31,000 people were evacuated because of floods in Kachin state and Sagaing, Magway and Mandalay regions (Vietnam Plus 11/07/2024; Xinhua 10/07/2024; The Sunday Examiner 10/07/2024). On 4 July, the European Civil Protection and Humanitarian Aid Operations reported 26,400 affected people, only some of whom had been evacuated (ECHO 04/07/2024).

By 11 July, the floods killed at least one child in Hkamti, Sagaing, and five people in Myitkyina, Kachin (The Irrawaddy 11/07/2024). Another source reported that there were no flood-related deaths and injuries (Vietnam Plus 11/07/2024; The Sunday Examiner 10/07/2024). Significant access challenges because of ongoing flooding, rainfall, and pre-existing conflict may explain these discrepancies in reporting.

There is limited information on humanitarian needs. The rain and flooding have damaged and destroyed homes, roads, and cropland, which has likely increased shelter, NFI, and food security needs among affected communities and disrupted access to WASH infrastructure, health services, and livelihoods.

### Anticipated scope and scale

- On 10 or 11 July, Myanmar's Department of Meteorology and Hydrology published flood alerts for 18 townships in Kachin state and Mandalay, Magway, and Sagaing regions. On this date, in Sagaing, the Chindwin river water level was dangerously high in Hkamti, Homalin, Kalewa, Kani, Mawleik, Mingin, and Monywa towns. The Ayeyarwady river was dangerously high in Bhamo and Shwegu towns, Kachin state; Katha and Sagaing towns, Sagaing region; Thabeikkyin, Mandalay and Nyaung-U towns, Mandalay region; and Pakokku, Magway region (The Irrawaddy 11/07/2024). On 7 July, the ASEAN Specialised Meteorological Centre predicted a 'moderate' chance of increased rainfall in northern Myanmar between 7–14 July (ASEAN 08/07/2024). This rain and associated fluvial flooding may cause additional displacement, damage, and increased humanitarian needs in the coming days.
- There is a risk of landslides in affected areas of Kachin, particularly around mines, where earth is more unstable. Kachin's Special Region 1, which hosts a large number of rare earth mines, is close to southern townships affected by June–July flooding (The Irrawaddy 27/05/2024; Global Witness 23/05/2024). In May–June, rain, deforestation, and mining-induced earth fragmentation caused landslides in Pang War mine, killing at least 35 people (RFA 21/06/2024; CNA 02/07/2024).
- Myanmar's mid-May–October southwest monsoon season increases the risk of further flooding in coming months (WB accessed 08/07/2024). The World Meteorological Organisation predicts a 40–50% chance of above-normal rainfall across Myanmar from July–September (WMO accessed 08/07/2024). This may increase the intensity of monsoons.

### Humanitarian constraints

- By 4 July, floods had destroyed roads along the Malikha River in Kachin state and blocked the highway linking Myitkyina and Putao towns, also in Kachin state (RFA 04/07/2024). A fuel shortage in Myitkyina prevented responders from using motor boats to reach people trapped in their homes (CNA 02/07/2024).
- By 2 July, the rain had caused power and communication outages in parts of Myitkyina town (Crisis24 02/07/2024; CNA 02/07/2024). By 10 July, it remained unknown whether power and communication networks had been restored.
- The floods rendered Myitkyina airport inaccessible and all flights have been cancelled (UNICEF 10/07/2024). By 10 July, it was unknown whether flights had resumed.

- Since October 2023, conflict between the Myanmar Armed Forces (MAF) and armed resistance groups across Myanmar, including in northern states, has posed security and logistical humanitarian access constraints. By June 2024, fighting between the MAF and Kachin Independence Army (KIA) obstructed roads and waterways throughout Kachin state, isolating communities from assistance and basic services (OCHA 09/06/2024).
- The State Administrative Council, which came to power in a February 2021 coup, continues to impose restrictions on domestic movement, visas, banking, and humanitarian activities, hindering the humanitarian response across Myanmar (OCHA 09/06/2024).

## CRISIS IMPACTS

### Shelter and NFIs

The floods have destroyed an unknown number of homes, creating high shelter needs (RFA 04/07/2024). By 2 July, flood water had trapped some people in damaged homes in Myitkyina town, with many sheltering on rooftops (CNA 02/07/2024). These people are exposed to extreme weather and likely lack access to food, WASH facilities, and other basic goods and services.

By 4 July, around 17,900 people (3,700 families) were sheltering in 53 evacuation centres in Kachin state and Sagaing region (AHA 04/07/2024). By 11 July, the government established 128 shelters, with 73 in Kachin, 48 in Sagaing, four in Mandalay, and three in Magway (Vietnam Plus 11/07/2024; Xinhua 10/07/2024; The Sunday Examiner 10/07/2024). The shelters include schools, monasteries, churches, and other public or community buildings (AHA 04/07/2024). On 5 July, responders in Bhamo, Kachin state, reported that three of the shelters in this township could not accommodate all the flood-affected people (The Irrawaddy 05/07/2024). Shelters' conditions and capacities in other affected areas are unknown.

The flooding affected IDP camps, causing onward displacement of camp inhabitants (RFA 01/07/2024). This has likely decreased IDPs' NFI stocks, access to shelter materials, and other resources. Shelter needs were already high among IDPs in Kachin state, where escalating conflict since October 2023 has forced people to move frequently for safety, often to overcrowded host communities or unplanned settlements (OCHA 09/06/2024). By December 2023, around half the IDP population in Kachin lacked adequate shelter (OCHA 18/12/2023).

### Livelihoods and food security

The WFP estimates that rainfall had flooded over 115,000 hectares of cropland by 1 July, with the worst effects in Katha district, Sagaing region (37,000 hectares flooded); Mohnyin district, Kachin state (over 25,000 hectares flooded); and Pyinoolwin district, Mandalay region (around 22,500 hectares flooded) (WFP 01/07/2024). This may disrupt the May–September rice and June–September maize planting and growing seasons, affecting livelihoods in a country where most people rely on agriculture as their main source of income (ACAPS accessed 08/07/2024; ICRC 17/10/2023).

The floods have also decreased access to markets, as all markets in Myitkyina (Kachin) were forced to close, the central market in Hkamti (Sagaing) was flooded, and food stocks and other goods destroyed (Myanmar Now 02/07/2024; BNI 02/07/2024; The Irrawaddy 11/07/2024). This may increase food prices, aggravating existing food inflation resulting from conflict in Kachin and Sagaing, which has already disrupted local supply chains (WB 12/06/2024; OCHA 09/06/2024).

These livelihood and market disruptions are occurring during the June–August lean season, between the planting and harvesting of staple crops. In June 2024, the Food Security Cluster estimated that 13.3 million people, or around one-quarter of Myanmar's population, would experience Crisis (IPC Phase 3) or Emergency (IPC Phase 4) levels of food insecurity during the lean season (OCHA 09/06/2024). Specific figures for Kachin and Sagaing are not available.

### WASH

On 5 July, a responder in Bhamo, Kachin state, reported inadequate access to toilets in the township's flood evacuation shelters (The Irrawaddy 05/07/2024).

While there is no information available on the extent of damage to WASH infrastructure, it is likely that rain and river overflow have flooded and damaged sewers, water sources, latrines, and other WASH infrastructure, aggravating existing WASH needs. In December 2023, the WASH Cluster reported that an estimated 16% of households in Kachin (over 65,000 households, based on Kachin's population and mean household size) relied on unimproved drinking water sources (OCHA 18/12/2023; City Population accessed 09/07/2024; Govt. of Myanmar/UNFPA 12/2020). The methodological basis of this estimate is not reported, but it was developed prior to the October 2023 escalation in fighting and is likely higher in July 2024, as conflict and related displacement have worsened WASH access (OCHA 09/06/2024).

## Health

Flood-induced water contamination and the accumulation of stagnant floodwater increase the likelihood of vector and waterborne disease transmission (Crisis24 02/07/2024). Diarrhoea – the most common seasonal illness in Myanmar – can spread easily in crowded evacuation shelters with minimal access to WASH facilities (UNICEF 10/07/2024).

Dengue and malaria, which are endemic to Myanmar, usually peak in June–September (Health Cluster 09/01/2024). These months see some of the highest precipitation and temperatures in northern Myanmar, creating conditions suitable for mosquito breeding (WB accessed 08/07/2024; WHO 30/05/2024). Between 1 January and 15 June, the Myanmar Ministry of Health recorded over 1,300 cases of dengue, which is lower than reported between 1 January and 15 May 2023 (Xinhua 26/06/2024 and 30/50/2023). This decrease may be explained by increased conflict since October 2023, which has impeded disease monitoring and surveillance (Insecurity Insight 14/02/2024).

In December 2023, Kachin was among the three states (along with Chin and Rakhine) with the worst access to healthcare in Myanmar, with cost cited as the main barrier. Both Kachin and Sagaing were among the three states/regions most in need of life-saving health services. This suggests the health system's lack of capacity to cope with disease outbreaks in coming months (OCHA 18/12/2023).

## DRIVERS OF THE CRISIS

### Monsoon season

Myanmar's southwest monsoon season typically occurs from mid-May–October, causing increased precipitation and associated flooding (WB accessed 08/07/2024).

## COMPOUNDING/AGGRAVATING FACTORS

### Climate and natural hazards

Myanmar has an INFORM Climate Change Risk Score of 6.2/10 (high) and a score of 6.4/10 for lack of coping capacity, indicating constraints in the state's response to climate hazards (EC accessed 08/07/2024). Myanmar is highly vulnerable to river, urban, and coastal floods, along with landslides, cyclones, extreme heat, and wildfires (ThinkHazard accessed 08/07/2024).

In May 2023, Cyclone Mocha affected northern and western Myanmar, including Kachin and Sagaing, where the cyclone caused extensive shelter damage (OCHA 17/05/2023; ECHO 17/05/2023). By June 2024, many shelters damaged by Cyclone Mocha remained unrepaired (OCHA 09/06/2024). The cyclone and other frequent natural hazards have likely decreased community capacity to cope with further storms and flooding.

### Political crisis, conflict, and displacement

In February 2021, MAF members staged a coup against the democratically elected government. The State Administrative Council, which has ruled Myanmar since the coup, violently repressed civilian dissent and implemented a six-month state of emergency that has been repeatedly extended, most recently until the end of July 2024 (CFR 31/01/2022; OCHA 09/06/2024).

Armed resistance groups, which operated throughout Myanmar both before and after the coup, escalated their anti-coup operations in October 2023 (UN News 08/12/2023). In Kachin, fighting intensified between the MAF and KIA. From March 2024, renewed fighting between the KIA and MAF caused displacement and casualties in Kachin townships, including Bhamo, Hpakant, Mansi, Momauk, Myitkyina, Putao, Sumprabum, Tanai, and Waingmaw. Many of these have also been affected by the June–July flooding (OCHA 09/06/2024 and 01/07/2024; UNHCR 03/07/2024). This has likely increased humanitarian needs while reducing people's coping strategies.

By July 2024, more than 80,000 people had been displaced in 11 of Kachin's 18 townships, mostly in Mansi, Momauk, Myitkyina, and Waingmaw (OCHA 01/07/2024).

## Landmine and explosive remnants of war contamination

In the 15 years between 2007–2022, Kachin state had the second-highest number of reported landmine and explosive remnants of war (ERW) casualties in Myanmar (following Shan state), accounting for 22% of casualties in this period (MIMU 08/09/2023). The June–July rain and floods have likely shifted mine and ERW locations, potentially increasing casualties as affected communities are unaware of new locations. Flood-displaced people moving to unfamiliar areas are also at risk of mine and ERW explosion.

## Economic situation

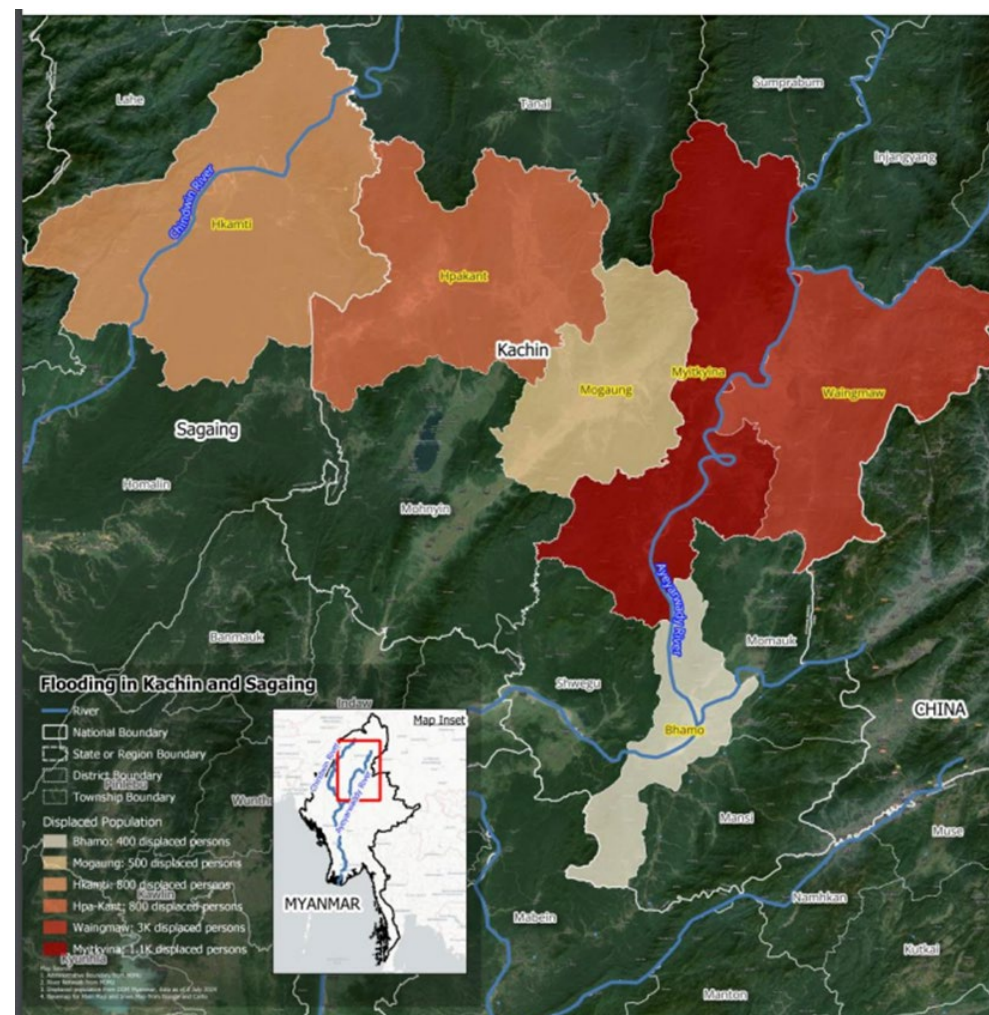
Fighting since October 2023 has blocked key transport routes, disrupting overland trade with China and Thailand, and domestic supply chains. High inflation, depreciation of the kyat (local currency), and limited access to world markets have decreased supplies of basic imported goods (WB 12/06/2024). A UNDP survey of over 12,600 people from across Myanmar's states and regions, conducted between June–October 2023, estimated that around 50% of the population lived below the poverty line. This represents an increase from 46% in 2022 and has likely increased further since the October 2023 escalation in fighting. Kachin and Sagaing had the third and fourth highest poverty rates, at around 64% and 61% respectively (UNDP 11/04/2024). The economic crisis is likely to constrain both community coping capacities and the state's response to monsoonal rains and flooding.

## FUNDING AND RESPONSE CAPACITY

The Kachin state government and national authorities have evacuated and provided assistance to affected communities (AHA 04/07/2024). On 10 July, local residents continued to report a lack of rescue workers and assistance (Myanmar Now 02/07/2024).

There is a lack of information on the presence and activities of UN agencies, INGOs, and NGOs. In general, international responders have highly limited access to Kachin and Sagaing because of insecurity and recurrent intense fighting (OCHA 09/06/2024).

Map 1: flood-affected districts in kachin and sagaing by 4 July



Source: AHA (04/07/2024)