

MYANMAR

Impact of Typhoon Yagi

CRISIS IMPACT OVERVIEW

On 8 September, Typhoon Yagi caused severe flooding and landslides in Myanmar, affecting more than 69 townships in nine central, eastern, and southeastern states and regions, namely Bago, Kayah, Kayin, Magway, Mandalay, Mon, Nay Pyi Taw, and southern and eastern Shan (UNICEF 18/09/2024; IFRC 18/09/2024).

Flooding has affected nearly 890,000 people, resulting in approximately 384 fatalities and 89 missing by 22 September (IFRC 18/09/2024; UNICEF 22/09/2024; AA 22/09/2024). As the situation continues to evolve and affected areas remain difficult to access as a result of damaged roads and widespread telecommunications and electricity disruptions, the number of those affected and dead are expected to rise (UNICEF 18/09/2024; IFRC 18/09/2024).

Until 9 June, prior to the flooding, there were already 18.6 million people (around one-third of the total population), including nearly six million children, in need of humanitarian assistance across Myanmar, including over 7.19 million in flood-affected areas (OCHA 09/06/2024; OCHA accessed 20/09/2024; IFRC 18/09/2024).

Table 1. Number of people in need in flood-affected states/regions by 9 June

STATE/REGION	NUMBER OF PEOPLE IN NEED
Magway region	1,857,000
Mandalay region	1,154,000
Bago region (east)	1,116,000
Kayin state	851,000
Shan state (south)	681,000
Mon state	549,000
Shan state (east)	360,000
Kayah state	322,000
Nay Pyi Taw capital city	307,000

Source: OCHA (09/06/2024); OCHA (accessed 20/09/2024)

About this report

Aim: this report analyses the multisectoral impact of Typhoon Yagi on affected states and regions in Myanmar, detailing pre-crisis needs and vulnerabilities where information is available. This report also anticipates developments in the coming two–three months and details humanitarian constraints and response capacity.

Methodology and limitations: this report is based on secondary data review. Significant access restrictions since the military coup in February 2021 and increased nationwide conflict in October 2023 limit the availability of information on Typhoon Yagi's impact and pre-crisis needs in Myanmar. There is minimal information disaggregated by state, region, and more specific geographic areas.

ANTICIPATED SCOPE AND SCALE

There is an 85% chance that La Niña will develop in Myanmar between September–November, which could result in above-average rainfall for the remainder of the year in the northern and northwestern regions of Bago, Kachin, Magway, Mandalay, Sagaing, and Shan, several of which were also affected by Typhoon Yagi (MPA 16/07/2024). Seasonal forecasts are consistent with this expectation, indicating a moderate (40–60%) likelihood of above-normal rainfall across the southeast of the country, including in Kayah state, from September–November 2024 (WMO accessed 18/09/2024; IRI accessed 18/09/2024). Prolonged heavy rainfall will aggravate the damage and associated needs caused by Typhoon Yagi and delay recovery.

HUMANITARIAN CONSTRAINTS

The typhoon has damaged infrastructure, including roads and bridges, and caused significant power and communication disruptions. By 15 September, approximately 200 roads and bridges, along with more than 80 telecommunications towers, had either been damaged or destroyed by flooding, creating significant obstacles for humanitarian access to typhoon-affected areas (Crisis24 16/09/2024; IFRC 18/09/2024; UNICEF 18/09/2024). Authorities anticipate continuing damage and disruptions even after the flooding recedes, as they work to clear debris (Crisis24 16/09/2024).

Conflict-related communications blackouts have been frequent in Kayah state in particular throughout 2024, complicating humanitarian operations (OCHA 16/08/2024).

Armed conflict between resistance groups and the Myanmar Armed Forces (MAF) affects all states and regions, posing significant security-related access constraints (OCHA 16/08/2024). By mid-August 2024, conflict and associated access constraints had blocked all transportation routes in the southeast, disrupting supply chains and causing significant shortages of basic goods, including humanitarian supplies (OCHA 16/08/2024). By mid-June, conflict in Mon had caused the destruction of multiple bridges, impeding road transportation and the transport of essential goods and supplies between Yangon and southern states and regions (OCHA 09/06/2024). It is unknown whether bridges had been repaired prior to Typhoon Yagi.

By mid-August 2024, bureaucratic restrictions on movement, including the denial of travel authorisations and increased checkpoints and road closures, had affected Magway, Mon, and southern Shan in particular (OCHA 16/08/2024).

The breach of the Sa Mone Dam in Wundwin township, Mandalay region, submerged extensive agricultural land, flooding 12 villages and trapping many residents (IFRC 18/09/2024). Access to this area could be hampered.

CRISIS IMPACTS

WASH and health

There is no specific information on the extent of typhoon-related damage to WASH infrastructure. By 18 September, needs included safe drinking water, necessary hygiene products, and medicine in all flood-affected areas (UNICEF 18/09/2024).

In Myanmar, acute watery diarrhoea (AWD), dengue fever, malaria, cholera, and measles are pre-existing health concerns (UNICEF 18/09/2024). Flooding and damaged WASH infrastructure will increase the transmission risk of such diseases. Once floodwaters recede, backflow from drains combined with floodwaters can become trapped in exposed areas, creating stagnant pools. Such pools serve as fertile ground for mosquitoes and bacteria, contributing to insect and waterborne diseases (Crisis24 16/09/2024).

People who contract these diseases will struggle to obtain healthcare, as the Typhoon destroyed an unspecified number of health facilities across affected states and regions (UNICEF 18/09/2024). Conflict and economic pressures had already restricted access to healthcare across Myanmar.

Displacement and shelter

Typhoon Yagi damaged over 65,000 homes, including around 27,700 houses across ten townships in Mandalay region (IFRC 18/09/2024). Damage figures for other affected states and regions remained unavailable by 19 September.

Over 320,000 people have been displaced, more than 236,000 of whom were sheltering in 388 temporary relief camps by 18 September (IFRC 18/09/2024; Crisis24 16/09/2024; UNICEF 18/09/2024; AJ 18/09/2024). This includes the evacuation of approximately 7,000 people from 15 villages and IDP camps near Yaw Creek in Magway region and around 5,000 people from Taungoo township, Bago region. Evacuation and displacement figures for other affected states and regions were not available by 19 September.

Many evacuation sites are overcrowded and lack access to WASH facilities. Children, who were already experiencing limited services as a result of conflict, are among those displaced (IFRC 18/09/2024; Crisis24 16/09/2024; UNICEF 18/09/2024; AJ 18/09/2024).

In Kayah, Kayin, and Mon states, floods and landslides have affected low-lying areas, resulting in the flooding of IDP camps and likely aggravating pre-existing needs among the IDP population (IFRC 18/09/2024; UNICEF 18/09/2024). By 2 September, prior to Typhoon Yagi, there were nearly 3.1 million IDPs across Myanmar, including more than one million IDPs in flood-affected states/regions (UNHCR 05/09/2024).

Table 2. Number of IDPs in flood-affected states/regions by 2 September

STATE/REGION	NUMBER OF IDPS
Magway region	254,500
Kayin state	215,100
Bago region (east)	202,600
Shan state (south)	144,400
Kayah state	131,900
Mon state	81,900
Mandalay region	25,200
Shan state (east)	info gap
Nay Pyi Taw capital city	info gap

Source: UNHCR (05/09/2024)

Livelihoods and food security

By 18 September, flooding had caused the death of over 105,000 animals, including livestock (IFRC 18/09/2024). Flooding and landslides resulting from the overflow of water from the Moebye Dam in Kayah state killed livestock and damaged agricultural land and property (OCHA 16/09/2024). The breach of the Sa Mone Dam in the Mandalay region also submerged more than 40,000 acres of farmland. In southern Shan, flooding damaged tourism infrastructure (IFRC 18/09/2024).

Flood-affected townships across the country have experienced significant disruptions to crop cultivation, resulting in a cumulative impact on more than 643,000 acres of paddy and other crops (UNICEF 18/09/2024). This will disrupt the end of the rice and maize planting and growing season, which lasts through mid-October (ACAPS accessed 18/09/2024). Fighting between the MAF and armed resistance groups in Demoso township, Kayah, had already disrupted the growing of rice at the beginning of September (BNI 04/09/2024).

Disruptions to crop planting and harvesting, along with flood-induced displacement, may increase already high food insecurity levels across Myanmar (BNI 04/09/2024). While severe access constraints prevent comprehensive data-collection, the Food Security Cluster estimated that around 13.3 million people across the country were facing Crisis (IPC Phase 3) or above levels of food insecurity by August 2024. Data collected by the cluster in April–May indicated that Kayah state had one of the worst food security outcomes, alongside Chin, Rakhine, and Tanintharyi. By April/May, Mandalay and Kayin had seen a deterioration in food security from December 2023/January 2024 (OCHA 09/06/2024).

Increased food prices as a result of conflict-induced damage to agriculture, infrastructure, and transport have contributed to rising food insecurity across Myanmar. The most recent data indicates that, between January–March 2024, Kayin saw the second-highest average food price increase (over 55%), while Kayah saw the sixth-highest (around 50%) (WB 12/06/2024).

Education

The typhoon and subsequent floods have had significant impact on education, causing damage to around 10,000 schools, the closure of many others, and the repurposing of some to be used as shelters, affecting thousands of children's access to education (UNICEF 18/09/2024).

DRIVERS OF THE CRISIS

Cyclone and monsoon seasons

Myanmar has two cyclone seasons, from mid-May to mid-April and from October–November (Govt. Myanmar accessed 19/09/2024).

Myanmar's southwest monsoon season typically occurs from mid-May–October, causing increased precipitation and associated flooding (WB accessed 08/07/2024). Tropical cyclones ('typhoon' is a regional name for tropical cyclones) increase the threat posed by the southwest monsoon period, intensifying rainfall and aggravating infrastructure disruptions already caused by the monsoon (Crisis24 13/05/2024).

Climate change

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 country's response to climate hazards (EC accessed 08/07/2024). Myanmar is highly vulnerable to cyclones, along with river, urban, and coastal floods (ThinkHazard accessed 08/07/2024).

While the impact of climate change on typhoons is complicated, climate change likely increases the strength of these hazards. Warmer air holds higher levels of precipitation, and typhoons gather additional energy from warmer ocean water, allowing them to maintain higher energy over a wider area (NCAS 16/09/2024; BBC 10/09/2024; EuroNews 11/09/2024).

COMPOUNDING/AGGRAVATING FACTORS

Political crisis and conflict

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).

Fighting since the end of June has been particularly severe in Mandalay region (also affected by Typhoon Yagi), Rakhine state, and northern Shan (OCHA 16/08/2024). Fighting in all typhoon-affected states and regions has decreased community coping capacities, particularly among IDPs and host communities. State and region-specific developments include the following.

In northern Shan, a January 2024 ceasefire agreement between the MAF and Three Brotherhood Alliance (an alliance of armed resistance groups) broke down in June, leading to intense fighting and prompting increased displacement to eastern and southern Shan (OCHA 16/08/2024).

Fighting also spiked in Mandalay region from late June, particularly in Madaya, Mogoke, Patheingyi, Pyinoolwin, Singu, and Thabeikkyin townships. Some people have fled to Mandalay city, where the MAF has limited humanitarian access, leaving needs unmet (OCHA 16/08/2024).

In Kayah, clashes between the Karenni Nationalities Defence Force (KNDF) and MAF escalated around the capital, Loikaw, from June–August, as the MAF successfully fought to retake the city from the KNDF. By the beginning of September 2024, the KNDF had lost Loikaw but claimed to have captured 65 MAF military camps and eight towns since launching its offensive (RFA 05/09/2024; The Irrawaddy 07/08/2024).

Displacement and associated needs

Shelter conditions are poor for many pre-existing IDPs, who live in the open or in ad hoc settlements. By June 2024, the Shelter Cluster estimated that around 72,000 IDPs in Kayah were in need of replacement tarpaulins and other shelter materials in unplanned settlements (OCHA 09/06/2024). Shelters in Bago, Kayin, Magway, Mon, and Tanintharyi experienced significant damage from monsoon flooding in July–August 2024, and had likely not been repaired by the time Typhoon Yagi hit, as there were significant access constraints and limited availability of shelter materials (IFRC 10/08/2024).

In southeastern states, including those affected by Typhoon Yagi, authorities have pressured IDPs to prematurely return to their communities, where they lack access to shelter and basic services and face protection risks from landmines, explosive remnants of war (ERW), and continued fighting (OCHA 16/08/2024). This includes IDP returns to Loikaw, Kayah state; Hsi Hseng, southern Shan state; and Kawkaireik, Kayin state (OCHA 09/06/2024). These IDPs may be particularly vulnerable to experiencing further needs as a result of Typhoon Yagi.

Landmines and explosive remnants of war

The most recent data on landmine and ERW casualties, from January–March 2024, indicates that Shan state accounted for the highest number of casualties (25%, or around 85 of a total 340), with increasing incidents in the Hsi Hseng and Pinlaung areas of southern Shan. Bago accounted for the third-highest number (12%, or around 36) (UNICEF 10/07/2024). Typhoon-induced flooding may have shifted the location of landmines and ERW, and people displaced to new areas will be unfamiliar with such locations, increasing the risk of casualties in affected communities.

Other recent climate hazards

From the end of June to mid-August 2024, monsoon rains and fluvial flooding affected nearly 400,000 people across Myanmar, causing temporary displacement, disruption to livelihoods and education, and the destruction of shelters, infrastructure, and cropland. Effects included flooding in Kachin state in early July; Magway, Mandalay, and Sagaing regions around mid-July; Rakhine state since the end of July; and southeastern states and regions (Bago, Kayah, Kayin, Mon, and Tanintharyi) since the end of July. By mid-August, responders had provided emergency assistance to around 180,000 affected people, leaving around 220,000 without assistance as a result of security, bureaucratic, financial, and physical access constraints (OCHA 16/08/2024; IFRC 10/08/2024). Typhoon Yagi will compound needs and damage in areas already affected by monsoon flooding, including Bago, Kayah, Kayin, Magway, Mandalay, and Mon.

In mid-May 2023, Cyclone Mocha hit Ayeyarwady, Chin, Magway, Mandalay, Rakhine, and Sagaing states and regions, affecting over 1.1 million people and damaging more than 200,000 homes. The most recent information on recovery, from March 2024, indicates that communities in Rakhine state in particular were still recovering, partly because of highly restricted humanitarian access (OCHA 03/03/2024; IFRC 26/12/2023). While Typhoon Yagi did not hit Rakhine state, this prolonged recovery time indicates the impact of severe conflict and related access constraints across Myanmar.

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, conducted between June–October 2023, estimated that around 50% of the population lived below the poverty line, an increase from 46% in 2022. This percentage has likely increased even further since the October 2023 escalation in fighting. Kayah state has the lowest per capita income countrywide at around MMK 30,000 (approximately USD 14), the largest income decline (50%) since January 2023, and the highest reported job losses (58%) (UNDP 11/04/2024; Xe accessed 20/09/2024). The economic crisis is likely to constrain both community coping capacities and the State's response to the typhoon.

Education needs

By the beginning of 2024, conflict and related insecurity had left 3.7 million school-aged children without access to education (UNICEF accessed 20/09/2024). The education sector in Myanmar was also severely affected by the COVID-19 pandemic and 2021 military coup. The country's public schools were closed for a record 532 days between February 2020 and February 2022, the longest period of school closure in East Asia and the Pacific (WB 24/10/2024). By 8 July 2024, the conflict had forced the closure of approximately 13,700 of Myanmar's 48,753 public schools (RFA 08/07/2024).

Cholera outbreak

AWD cases have been increasing in Myanmar since the end of June, with cholera confirmed in Yangon region since early July and suspected in Rakhine state since the end of July. The most recent data shows that around 3,425 people were hospitalised for AWD in Yangon between 24 June and 25 August, and 235 were hospitalised in Rakhine between 4–25 August (OCHA 16/08/2024; WHO 11/09/2024). Although no data is available on AWD cases in states affected by Typhoon Yagi, it is likely that limited access to WASH and health facilities following the typhoon will increase the number of AWD cases. By 18 September, needs included safe drinking water, necessary hygiene products, and medicine in all flood-affected areas (UNICEF 18/09/2024).

RESPONSE CAPACITY

OCHA is coordinating the humanitarian response. By 18 September, several UN agencies were supporting OCHA to carry out needs assessments in unspecified areas (UNICEF 18/09/2024). The humanitarian response relies on community responders, many of whom have limited capacity to provide assistance, especially in the southeast (OCHA 16/08/2024).

By 16 September, the Myanmar Red Cross, Myanmar Fire Brigade, and regional authorities were conducting search and rescue efforts (OCHA 16/08/2024).

On 18 September, the WFP announced plans to initiate an immediate and rapid flood response operation in Myanmar to deliver urgent food aid to areas affected by Typhoon Yagi (WFP 18/09/2024).

Map 1. Typhoon-affected states and regions



Source: ACAPS using data from IFRC (18/09/2024)