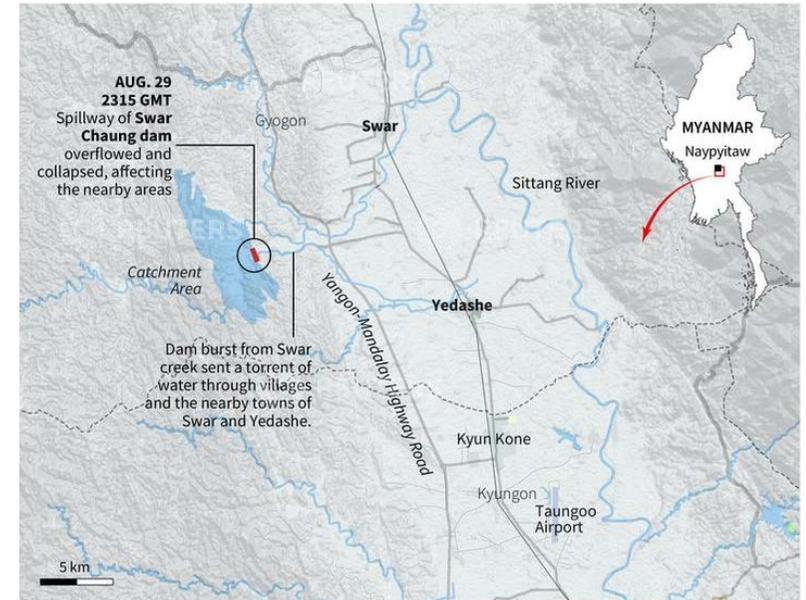
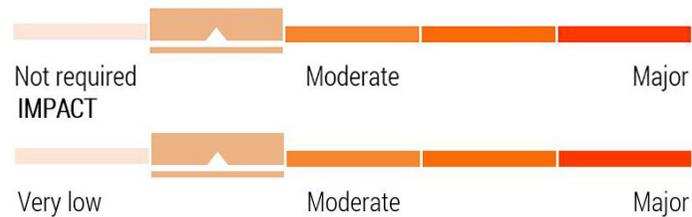


# MYANMAR

## Floods in Yedashe, Taungoo, Oktwin and Kyaut Gyi Townships, Bago Region

On 29 August, damage to Swar Chaung dam in Myanmar's Bago Region led to flooding across four townships: Yedashe, Taungoo, Oktwin and Kyaut Gyi. Flooding affected at least 85 villages and by 7 September, some 78,500 people from the four townships had to leave their homes. Hundreds of houses were damaged or destroyed, and more than 60,000 acres of farmland were flooded. As of 6 September, flooding had led to the closure of 325 schools, as infrastructure and materials were damaged.

### NEED FOR INTERNATIONAL ASSISTANCE



Source: Reuters; Ministry of Agriculture, Livestock and Irrigation

### Anticipated scope and scale

The areas most affected by the flooding were Yedashe, Taungoo, Oktwin and Kyaut Gyi. More than 78,500 people were reportedly evacuated, although the total number of people affected is likely to be higher. Some 600 acres of farmland were destroyed, but more than 60,000 acres were flooded and damaged to some degree. This is likely to affect the livelihoods of local people, most of whom live in rural areas and rely on agriculture as their main source of livelihood. Heavy rains are forecast for the next week, which are likely to hamper response.

### Key priorities



**+78,500 people displaced**



**+60,000 acres of farmlands flooded**



**325 schools closed temporarily in Bago Region**

### Humanitarian constraints



Travel by road remains difficult due to the high water level, so the main mode of travel is by boat. People living in remote areas were reportedly not accessible to aid workers.

#### Limitations

There is a lack of information regarding the precise needs of the affected. Local media sources in Myanmar interchange the figures of affected people with the number of people displaced.

Local and international organisations have not issued recent reports on their crisis response, if any.

## Crisis impact

On 29 August, Swar Chaung Dam in Bago region's Yedashe Township burst. (RFA 29/09/2018) Water from the dam on Swar Creek spilled into the Sittaung River and caused flooding across four townships: Yedashe, Taungoo, Oktwin and Kyaut Gyi, in Taungoo District. By 30 August, 85 villages from 17 village tracts across Taungoo District were inundated. (Eleven Myanmar 30/08/2018, Irrawaddy 31/08/2018). The precise impact is difficult to ascertain, however, as local sources interchange the figures of affected people with the number of people displaced. At least 10,000 people were reportedly taking refuge in relief camps by 31 August and by 7 September it was reported that flooding displaced at least 78,500 people: about 50,000 people in Yedashe, about 25,000 people in Taungoo, about 3,000 people in Oktwin and about 500 people in Kyaut Gyi. Although many were starting to return to their homes as the water level decreased. (RFA 29/08/2018, MM Times 31/08/2018) Four people had died and two were still missing by 7 September. (Eleven Myanmar 07/09/2018).

**Livelihoods:** Approximately 60,000 acres of farmlands were flooded in areas near Swar Chaung Dam. (Eleven Myanmar 30/08/2018) Many of the villagers grow crops for their livelihoods, as Bago is a rice-surplus area, producing rice for domestic trade. (Mizzima 01/09/2018, JICA 12/2013, Mol 28/04/2018) In Yedashe Township, floods affected around 32,900 acres of monsoon paddy fields in 18 village tracts as of 5 September. As floodwaters receded quickly, it was estimated that of those, only about 600 acres were destroyed. (Eleven Myanmar 05/09/2018) The Union Minister for Agriculture, Livestock and Irrigation said the 600 acres in Yedashe Township would be replanted within five or six days. (Eleven Myanmar 06/09/2018)

Nevertheless, the damage should be placed in the context of earlier flooding in the region that started in late July. By 6 August, nearly 140,000 acres of farmlands in six townships in Bago Region (Yedashe, Taungoo, Tantabin, Oktwin, Pyu and Kyaut Gyi) had been flooded and damaged to various degrees, with damage estimated at more than four billion kyats (USD 2.58 million) (Mizzima 06/09/2018)

**Food:** It is highly likely that, as during previous flooding in July/August, people affected will be in need of immediate food aid. (RFA 30/07/2018) People whose crops were destroyed in late July continue to rely on private food donations. Food distributions from the authorities are deemed to be largely insufficient. (The Guardian 29/08/2018)

**Education:** By 31 August, it was reported that 319 schools, affecting roughly 65,500 students, had to be temporarily closed (including 262 in Yedashe Township, 41 in Taungoo Township and one in Oktwin Township), according to Bago Region Education Office authorities. By 2 September, an additional 13 schools were closed temporarily in Taungoo Township, as some were used as relief camps for the displaced. This was not

the first instance when schools closed in Bago: 363 schools in 14 townships across Bago were closed in July. (Eleven Myanmar 02/09/2018)

On 4 September, it was announced that of the 772 schools that have been closed, 447 were open again. (Eleven Myanmar 05/09/2018)

**Shelter:** Flooding displaced at least 78,500 people: approximately 50,000 people from Yedashe Township, nearly 25,000 from Taungoo Township, about 3,000 from Oktwin Township and about 500 from Kyaut Gyi Township were evacuated from their homes. The overall level of damage and/or destruction to homes is yet to be ascertained.

44 relief camps in Taungoo Township, 43 in Yedashe Township, 12 relief camps in Kyaut Gyi Township and seven in Oktwin Township were opened to shelter the displaced people. Flooding damaged more than 300 houses in Yedashe Township, where 185 houses were swept away. (Eleven Myanmar 05/09/2018)

**WASH:** Myanmar lacks infrastructure such as water storage tanks and water pumps. (Irrawaddy 31/08/2018) Many communities in Myanmar rely on ponds and shallow wells as their primary drinking water supply. As many of these are contaminated, the risk of the population contracting waterborne diseases increases significantly. (OCHA 21/07/2018, Irish Red Cross accessed 08/09/2018) Most residents in the region, whether displaced or not, will be in need of immediate WASH assistance, such as restoring or improving access to safe water, solid waste management and hygiene promotion. (IFRC 31/01/2017)

## Access

According to reports on 6 September, convoys of military trucks were transporting boats to the affected areas. Boats remain the main means of access for affected people as well as for relief workers. On 7 September, students were still forced to walk through high waters to get to school. (Ieyenews 04/09/2018, Eleven Myanmar 07/09/2018)

## Damage to critical infrastructure

On 30 August, it was reported that water released from the dam had flooded both highways of new Yangon-Mandalay and old Yangon-Mandalay. (Eleven Myanmar 30/08/2018) Railway lines were inundated between Swar and Yedashe, and railway services were temporarily closed. (AHACentre 30/08/2018) Traffic on the new Yangon-Mandalay highway was suspended, as water damaged Swar Creek Bridge. However, both lanes on the bridge were reopened for traffic after repairs at 7 pm on 31 August. The Yangon-Mandalay highway is one of the most important routes between Myanmar's two largest cities. (Ieyenews 04/09/2018, Eleven Myanmar 01/09/2018) On 6 September, the General Manager of Myanmar Railways stated that four miles worth of railway tracks had been damaged, and that repairs were expected to be completed "within days". (Eleven Myanmar 06/09/2018)

## Aggravating factors

### Type of housing

Bago is a largely rural, flatland region, where many residents live in bamboo and wooden houses. This means many houses in the area are particularly susceptible to flood damage. (Channel News Asia 31/08/2018) Monsoon season generally lasts from June to October, so it is likely that rains will affect more people in the coming months.

### Environmental factors

Deforestation, groundwater depletion and the disruption of regular weather patterns due to climate change disrupt efforts to improve disaster preparedness in Myanmar. (Irrawaddy 31/08/2018) In the region, the Bago River Basin is often particularly hard-hit by flooding, often resulting in loss of life and damage to households, property and services. (IJDRR 06/2018)

### Impact of the July floods

Flooding already affected Bago Region in July and August. By 1 August, at least 94,146 people across Bago were sheltering in 186 camps because of flooding of the Sittaung, Shwekyin and Bago rivers. (AHA Centre 01/08/2018) Approximately 7,800 people (1,772 households) had to move to the homes of their relatives, monasteries, offices or schools. (Myanmar Ministry of Information 30/07/2018, UNHCR 2014)

After being affected by the heavy rains in early August, Kyaut Gyi Township was again flooded on 20 August, when heavy downpours caused the water level in Myole creek to increase. 54 people had to be evacuated to a monastery. Due to the rains in late July, 37,009 acres of monsoon paddy plantations in Kyaut Gyi were flooded, of which about 17,000 acres were damaged, although the severity of the damage was not specified. (Adinet 21/08/2018)

### Agricultural dependency

About 78% of the population in Bago live in rural areas, compared to 70% nationally. People living in rural settings are far more likely to depend on agricultural output for food and livelihoods, and thus more likely to be affected by the monsoon floods and in need of assistance. Myanmar as a whole is largely an agricultural country, and the agricultural sector employs account for around 50% of total employment (although FAO has cited the figure of 70%). (Myanmar National Population Census 2014, RVO 2016, FAO 2016)

## Health risks

According to the latest national census, 49.7% of Bago's population used tube wells or boreholes as the main source of drinking water, in addition to 26.4% who used several unimproved sources. The contamination of water sources and expected damage to latrines are of concern during flood operations due to the high risk for waterborne diseases such as diarrhoea. In addition, poor environmental sanitation and stagnant floodwaters present favorable breeding grounds for mosquitos, which can spread diseases such as malaria and dengue. (IFRC 31/01/2017)

## Landslides

Flooding frequently causes landslides, particularly in mountainous areas. Pegu mountain range (Pegu Yoma) runs from north to south through the middle of Bago Region. During the 2015 floods, landslides caused extensive destruction to roads and homes in Chin State. In June 2018, heavy rain triggered landslides in Phakant Township, Kachin State, killing six people. (World Bank 11/2015, ECHO 25/06/2018)

## Key characteristics

	Bago (National Census 2014)	Myanmar (National Census 2014)
Population	4,867,373	51,486,253
Percentage of urban population	22.0%	30%
Nutrition levels	29% of children under 5 suffer from stunting at national level 7% of children under 5 suffer from wasting at national level	
Health statistics	The infant mortality rate for Bago Region is equal to the national level: 62 / 1,000. The under-5 mortality rate for Bago Region is equal to the national level rate: 72 /1,000.	
WASH statistics	26.4% Unimproved drinking water sources	30.5% Unimproved drinking water sources
Lighting and cooking sources	27.7% use electricity as main source of energy for lighting 9.4% use electricity as main source of energy for cooking	32.4% use electricity as main source of energy for lighting 16.4% use electricity as main source of energy for cooking

## Response capacity

### Local and national response

On 31 August, it was announced that the regional government had opened 85 relief camps for the displaced in Yedashe, Taungoo, Oktwin and Kyaut Gyi townships. (Irrawaddy 31/08/2018) According to reports on 1 September, donors were providing food supplies and other support in the camps. (Mizzima 01/09/2018) The Myanmar authorities, the Myanmar Red Cross Society, and local civil society organisations coordinated search-and-rescue efforts and provided assistance including food, cash, drinking water, temporary shelters, medical assistance and other relief items to affected people. (OCHA 03/09/2018)

In Yedashe Township, the local administrator announced on 5 September that the regional government had distributed rice, edible oil, canned fish and dry noodles to affected people from 2-4 September. For households that were destroyed, the Social Welfare, Relief and Resettlement Department was providing Ks-100,000 per household, while the Natural Disaster Management Central Committee was providing Ks-200,000 per household. (Eleven Myanmar 05/09/2018) Meanwhile, owners of partially affected houses received Ks-80,000. (Mizzima 06/09/2018) According to the Minister of Agriculture, Livestock and Irrigation, the ministry would help farmers replant the 609 acres of monsoon paddy that were destroyed. (Eleven Myanmar 06/09/2018)

### International response

According to the most recent 3W matrix in April 2018, at least 31 national and international organisations were running projects in Yedashe, Taungoo, Oktwin and Kyaut Gyi townships. While not confirmed, some of the organisations are probably participating in the recent relief efforts. (MIMU 11/04/2018)

## Information gaps and needs

There is no recent information on the type of government support to people affected in townships, except for Yedashe Township.

There is little information about damage to shelter, except for Yedashe Township.

There is little to no information available regarding more recent figures for people remaining in relief camps.

There is hardly any information available about the response from international organisations in the area.

There is very limited information on food and WASH needs as result of the floods.

There is no information on health needs as a result of the floods.

## Lessons learned

Lessons from 2015 Myanmar floods:

- Early warning (EW) information should be non-technical and should use demonstrative explanations
- EW information should be disseminated through local authorities, CSOs, community and religious leaders, mass media, communication channels
- Mutual trust and cooperation between the stakeholders and local community concerning EW information should be strengthened
- SOPs must be developed at all levels with regard to emergency communication and disaster relief
- Do-no-harm principle during relief and response operations to the affected communities should be respected
- Early recovery should focus on life-saving activities rather than infrastructure development
- Readiness of the local government and affected community in pre-, current and post-disaster period leads to success
- A standard format for data collection and reporting should be developed
- An authorised organisation for public information and communication during disaster relief should be formed (ASEAN 03/02/2016)

# Map: Bago Region District Map as of 23/10/2017



Source: MIMU 23/10/2017