

Myanmar is one of the world's most affected countries in terms of natural disasters, and among the most vulnerable to new disasters in the years to come.

A 2018 report found that 90 million Bangladeshis (56 percent of the population) live in "high climate exposure areas," with 53 million subject to "very high" exposure. Population: 53,582,855 (2017)

Surface area: Myanmar - 676,570 km2; of which water: 3,06%, Bangladesh - 148.460 km²; of which water: 15 %

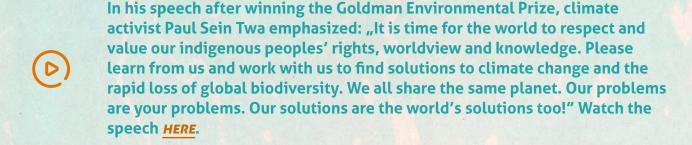
Climate: Tropical monsoon climate (in both countries)

GDP: combined the countries have a GDP of about \$480 billion, of which Myanmar 65 billion USD (2021) and Bangladesh 416 billion USD (2021)

Economy: Myanmar: Agriculture: about 50 %, industry, construction: about 20 %, service sector: about 30 %; **Bangladesh:** Service sector 56 %, industry: 28 %, agriculture: 16 %

CLIMATE CHANGE IMPACTS

- Severe **flooding** in Myanmar began in July 2015 and continued into September, affecting 12 of the country's 14 states, resulting in about 103 deaths and affecting up to 1,000,000 people.
 - In Myanmar, 2008's disastrous Nargis cyclonic storm has affected the lives of millions of locals and caused over 100,000 deaths. The deadly tropical cyclone was deemed as the worst natural disaster recorded in Myanmar's history.
- Rising seas are a growing threat to people all around Bangladesh. That's because a staggering two-thirds of the country is less than 15 feet above sea level.
- Just like in Myanmar, cyclones also pose a huge risk in Bangladesh. The Bay of Bengal narrows towards its northern shore where it meets the south coast of Bangladesh. This "funneling" can both direct cyclones towards Bangladesh's coast and make them more intense. These effects combined with the fact that most of Bangladesh's territory is low, flat terrain can make storm surges absolutely devastating.



- The bamboo huts and log cabins were all swept away by the flood water and the crops are also gone. We badly need food as well as building materials to rebuild our homes," reported one of the flood victims in 2015. Watch a report on the flooding <u>HERE</u>.
- Nyein Chan recalls his family's experience of Cyclone Nargis: "First, I carried my grandfather and two sons to a big tree, then I went back to get my wife and other children. On the way, I was hit by strong waves and was carried further away. I eventually came to a big tree and climbed up it. I had no longyi [traditional sarong] and I stayed in that tree the whole night." Read his and another story about the cyclone HERE.
- Throughout her lifetime, Hosnera Begum has witnessed the problem of rising sea-levels worsen and the impact this has on the fresh water supply. "In my childhood the problem was not so severe. Now the situation is getting worse every day. There are only a couple of ponds protected from getting mixed with salt water ... providing drinking water to thousands of us." Read more on the problem of rising sea levels in Bangladesh HERE.



CLIMATE PROJECTIONS

Extreme weather patterns
Higher temperatures
Sea level rise





After the 2022 cyclone in Bangladesh that downed trees and brought widespread panic to the southern island of Maheshkhali after power and telecoms were cut, a resident of Maheshkhali, Tahmidul Islam reported about the experience: "Such was the power of the wind we could not sleep in the night because of the fear that our homes will be destroyed. Snakes entered many homes. Water also inundated many homes." Find more on the devastating cyclone in Bangladesh HERE.

KEY CLIMATE IMPACTS

Reduced agricultural productivity

Salinization

Drought

Floods

Human health

- The number of extremely hot days is projected to increase in Myanmar from one day a month to between four and 17 by 2041. This will cause serious health problems to the locals, damage ecosystems, crops and infrastructure.
- In Myanmar's Irrawaddy delta, the midlevel projection for sea-level rise is up to 40 cm by 2050.

- Agriculture is the main economic activity in Myanmar. Crop productivity could decline, as some crops are especially vulnerable to temperature increases. Drought incidence would likely increase as well, affecting agriculture, livestock, wildlife and communities alike that struggle with declining water availability resulting from increased evaporation.
- Rising seas are threatening to inundate the Sundarbans — the mangrove forest in southern Bangladesh. This is a doubly dangerous effect, given that this coastal forest doesn't just sustain biodiversity and livelihoods, but also shields Bangladesh from the worst of the region's many cyclones.
- Water salinization in Bangladesh threatens the drinking water supplies of tens of millions of people in coastal communities. Consuming this salty, contaminated water can expose populations to health problems like cardiovascular diseases. Overall, salinity in the country's soil has increased by about 26% over the past 35 years.



Climate change presents a threat to political and social stability, especially in already fragile states like Myanmar and Bangladesh. Environmental changes put pressure on financial and natural resources, obstructing a government's ability to maintain power and prevent conflict. <u>READ MORE</u> about the impact of climate change on the Rohingya community that is forced to flee from Myanmar to Bangladesh due to the political and climate crisis.



CLIMATE CHANGE AND FORCED MIGRATION IN MYANMAR AND BANGLADESH

Climate migration has been a reality in both Bangladesh and Myanmar for a while and the problem is only going to get more severe in the future. This is true for local, but also international migration.

- In 2015, there were already 9 million internal migrants in Myanmar coming mostly from the Dry-zone and Ayeyarwady region. Destinations of those current growing migrations are currently big cities such as Yangon and Mandalay.
- As people lose their land, experience a drop in crop productivity and struggle

with declining water availability, many in Myanmar's rural or coastal areas are migrating to the cities. Outmigration is also high, with more than 4 million Myanmar migrants working in Thailand alone.

- Bangladesh may lose approximately 11% of its land by then, and up to 18 million people may have to migrate because of sea-level rise alone.
- By one estimate, up to 50% of those now living in Bangladesh's urban slums may be there because they were forced to flee their rural homes as a result of riverbank flooding.



Myanmar's internal migrations are heavily driven by the effects of climate change. Being one of the most vulnerable countries in the world to climate change, Myanmar is going to face much more internal and external migration in the very near future. Read more on climate migrations in Myanmar HERE.













