

Top Impacts of Climate Change in Bangladesh

The impacts of climate change will be disproportionately felt in Bangladesh. As the world's [eighth largest country](#) with nearly 165 million people, this may have severe consequences for the rest of the world – from economic issues to massive social fallout.

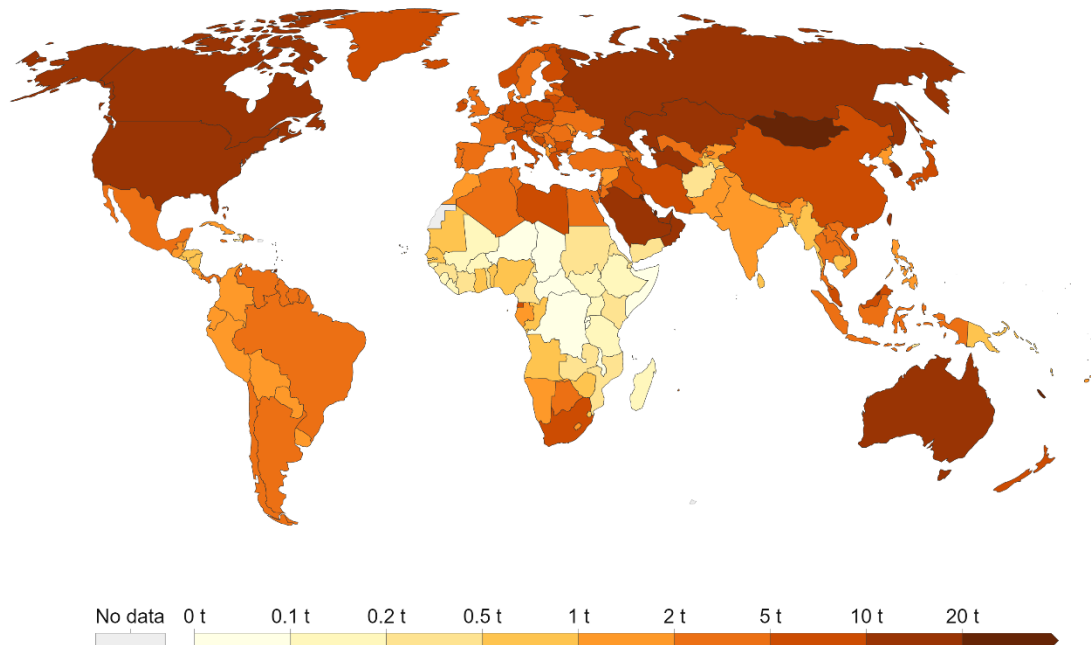
The country is one of the most [vulnerable](#) to climate change due to two main reasons. First are geographic factors, like regional position, landscape, and location of its population centres. This alone means over [50% of the country's population](#) lives in areas deemed highly vulnerable to climate impacts. The second is economics. While the country has the eighth largest population, it has the [46th lowest](#) per capita GDP globally. Not only will the climate impacts be severe, but the people living in Bangladesh are ill prepared to deal with them.

Many people view this as climate injustice. Bangladesh is set to be at the forefront of these global issues, but the country itself is not one of the main contributors to global carbon emissions. Bangladesh produces [0.56 tonnes](#) of CO₂ per capita, whereas the [United States](#) produces 15.52 tonnes and China produces 7.38 tonnes. Cases like this are one of the main reasons for a [growing call among](#) developing countries for the developed world to fund their energy transition efforts.

Per capita CO₂ emissions, 2020

Carbon dioxide (CO₂) emissions from the burning of fossil fuels for energy and cement production. Land use change is not included.

Our World
in Data



Source: Our World in Data based on the Global Carbon Project

OurWorldInData.org/co2-and-other-greenhouse-gas-emissions/ • CC BY

Source: [Our World in Data](#)

Even with the energy transition underway, climate impacts are already here. In Bangladesh, the top climate impacts include cyclones, flooding, and sea level rise.

Cyclones and Climate Change

One impact of climate change is more frequent and stronger extreme weather events, like tropical cyclones. The main threats from cyclones are increased rain, high wind speeds, and storm surges. In many countries, these concerns are only worrisome for low-lying coastal regions, but this is not the case for Bangladesh. Bangladesh is particularly vulnerable due to its large river deltas and flat landscape – the country's average elevation is less than [10 m above sea level](#). These conditions lead to large storm surges that travel hundreds of miles inland, flooding the surrounding countryside.

Since 2007 Bangladesh has experienced a cyclone every [two to three years](#), and experts predict that tropical storms will [increase in intensity](#) by up to 10% in the next several decades.



Source: [The Washington Post](#)

The most recent cyclone, [Cyclone Amphan](#), occurred in May 2020 and is one of the [strongest storms](#) ever recorded in the region. It killed 31 people, destroyed over 1.5 million hectares of agricultural land, and damaged over 83,000 structures. The [economic burden](#) of this event is estimated at USD 131 million. With increasing storm frequency and intensity, more events like Cyclone Amphan are all but certain.

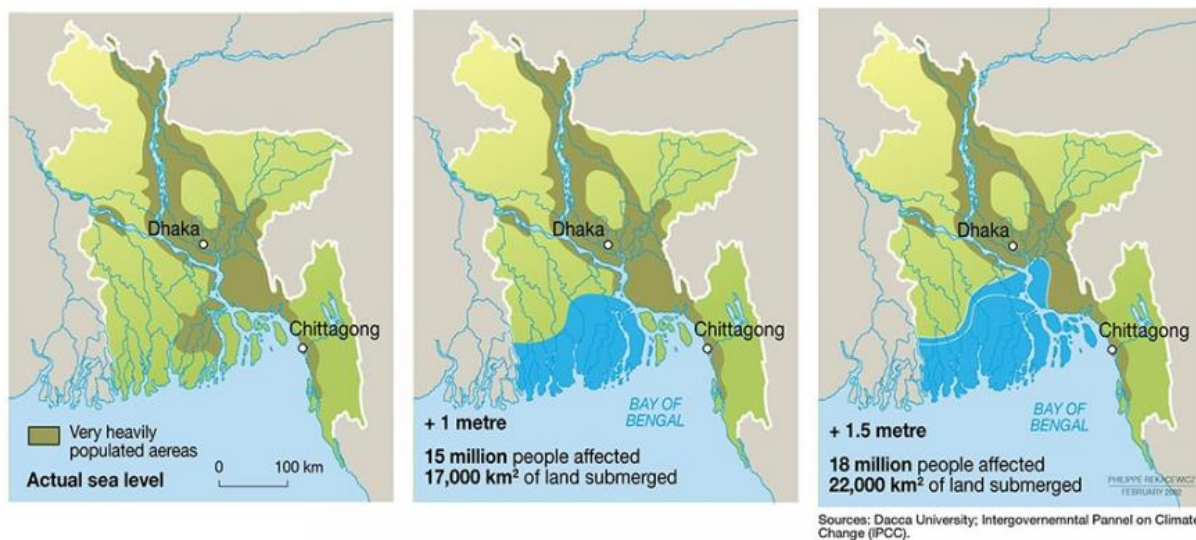
Flooding

Bangladesh's location where the Jamuna, Ganges, and Meghna rivers connect and enter the Bay of Bengal makes flooding a significant concern. Already, flooding is a yearly event, and scientists predict rainfall will increase by [10% to 15%](#) by the end of the century. For example, in [July of 2021](#), over 25% of Bangladesh was flooded, affecting at least a million homes and 4.7 million people.

Flooding damages infrastructure, ruins agriculture, and forces people to move. As a result, we see increasing migration to the population centre of Dhaka, where there is an influx of close to [500,000 people](#) every year. Dhaka is expanding exponentially, yet the infrastructure can't keep up. Many of these climate migrants live in slums that lack essential public services.

Sea Level Rise

Global sea levels are already rising at an alarming rate. Since 1880 global sea levels have increased [8 to 9 inches](#), and over one-third of that has occurred in the last three decades. Furthermore, scientists estimate that the coastal areas of Bangladesh will see sea levels rise between [0.4 to 1.5 meters](#) by the end of the century, displacing up to [30 million people](#).



Source: [UCAR](#)

While this alone seems severe, the impacts of sea level rise go beyond just destroying homes and displacing the population. It also leads to the [salinization](#) of agricultural land and drinking water resources. This will make some regions uninhabitable and land unfarmable. These initial impacts can cause a cascade of effects culminating in a decreasing food supply in the region and even more climate migrants.

Net-Zero Goals Are Needed

Bangladesh and other vulnerable nations will receive the brunt of the climate impacts caused by global warming. And they are being disproportionately affected compared to their own greenhouse gas emission rates. In order to limit these impacts, we need a united effort centered around reducing our emissions, particularly in developed countries, which create the lion's share of emissions. Net-zero goals are an essential milestone in this process and critical if we are going to meet the Paris Climate Agreement target of keeping global warming below 1.5 degrees Celsius.