

Global Impacts



Climate change will have different impacts around the world.

In general, the faster the climate changes, the greater will be the risk of damage. One-third of the world's population (1.7 billion people) already faces water scarcity; this figure could double over the next 25 years as climate change leads to greater water shortages. As well, increased temperature will exacerbate the loss of 10-15 per cent of the world's species in that same time period. Other effects could include an increase in global precipitation and more frequent and severe weather events.

The Earth is getting warmer, and scientists tell us that around the world, average temperatures could increase by anywhere from 1.4 to 5.8 degrees Celsius over the coming century.

- The impact of climate change on agricultural regions will vary: some regions will benefit from longer growing seasons and more rain, but poorer soil conditions and reduced water resources will make it more difficult to feed growing populations in poorer areas. Droughts and related impacts on agriculture could lead to the migration of millions of people to other countries around the world. Global warming of more than 2.5 degrees Celsius could reduce global food supplies and contribute to higher food prices.
- Millions of people around the world will be affected by storm surges, which will become more severe as sea levels rise an average 40 cm over the next 80 years. The potential costs resulting from damages in coastal areas from sea level rises is projected to be tens of billions U.S. dollars for individual countries, such as Egypt, Poland, and Vietnam.
- Diseases such as malaria and dengue, which currently affect countries with 40-50 per cent of the world population, could spread to new areas.
- The frequency and duration of heat waves will increase, which, combined with greater humidity and urban air pollution, will cause a greater number of heat-related illnesses and deaths.



While the effects of climate change are going to be felt most strongly in the polar regions of the world, there is no place that will remain unaffected. Human suffering is expected to be greatest in the poorest areas of the world.

- Africa will probably feel the effects most of all – reductions in crop yields, particularly in drought-prone areas, could lead to more malnutrition. The famed snows of Mount Kilimanjaro could disappear – already 82 per cent of the ice field that existed there in 1912 has melted – and this means that rivers and streams that depend on the mountain's snow melt could go dry. Disease levels could shoot up, especially in the crowded cities of the coast.
- In the Middle East, where fresh water is already a scarce resource, there could be conflicts around who has access to water resources.
- Asia could face more frequent forest fires and increased risk of infectious disease.
- Melting glaciers in the Himalayas, which feed river systems providing water to about 500 million people, could cause flooding and then water shortages.



"Projected climate changes during the 21st century have the potential to lead to future large-scale and possibly irreversible change in Earth systems, resulting in impacts on continental and global scales." Climate Change 2001: Impacts, Adaptation and Vulnerability, [Intergovernmental Panel on Climate Change](#)