

Climate change is one of the most pressing issues of our time, impacting ecosystems, human health, and economies across the globe. The phenomenon refers to long-term shifts in temperatures and weather patterns, primarily due to human activities such as burning fossil fuels, deforestation, and industrial processes. These activities increase the concentration of greenhouse gases in the atmosphere, trapping heat and causing the Earth's average temperature to rise—a process commonly referred to as global warming.

One of the most significant consequences of climate change is the increased frequency and intensity of extreme weather events. Hurricanes, heatwaves, droughts, and heavy rainfall are becoming more common and severe, causing widespread destruction and displacing communities. For example, the 2020 Atlantic hurricane season was one of the most active on record, with 30 named storms, including 13 hurricanes. These events not only lead to loss of life and property but also strain emergency response systems and drain financial resources needed for recovery and rebuilding.

Rising global temperatures also contribute to the melting of polar ice caps and glaciers, leading to sea-level rise. This poses a severe threat to coastal communities and island nations, as higher sea levels increase the risk of flooding and erosion. The Intergovernmental Panel on Climate Change (IPCC) estimates that sea levels could rise by up to one meter by the end of the century if current trends continue. Such a rise would inundate low-lying areas, displacing millions of people and causing significant economic losses.

In addition to these direct impacts, climate change also exacerbates existing environmental and social issues. For instance, changing weather patterns can disrupt agricultural production, leading to food shortages and higher prices. Regions that rely heavily on agriculture for their livelihoods, such as sub-Saharan Africa and parts of Asia, are particularly vulnerable. As crops fail and water becomes scarce, communities may be forced to migrate, leading to increased competition for resources and potential conflicts.