

Global warming is the gradual increase in Earth's average temperature, primarily driven by human activities that release greenhouse gases into the atmosphere. These gases—mainly carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O)—trap heat from the sun, creating a “greenhouse effect” that warms the planet. The primary sources of these emissions are the burning of fossil fuels like coal, oil, and natural gas, along with deforestation, agriculture, and industrial processes. As a result, global temperatures have risen significantly since the late 19th century, with the past few decades seeing the most dramatic changes.

The impacts of global warming are widespread and severe. Glaciers and ice caps are melting, leading to rising sea levels that threaten coastal communities. Weather patterns are becoming more extreme and unpredictable, resulting in more intense heatwaves, floods, droughts, and hurricanes. Ecosystems are being disrupted, endangering plant and animal species and threatening biodiversity. Additionally, food and water security are at risk in many regions.

Combatting global warming requires immediate and sustained efforts at the global level. Solutions include reducing greenhouse gas emissions, transitioning to renewable energy sources, improving energy efficiency, and protecting forests. International cooperation and strong environmental policies are essential to mitigate its effects and secure a livable planet for future generations.