

GLOBAL WARMING

Global Warming is defined as the increase of the average temperature on Earth. As the Earth is getting hotter, disasters like hurricanes, droughts and floods are getting more frequent.

Over the last 100 years, the average temperature of the air near the Earth's surface has risen a little less than 1° Celsius ($0.74 \pm 0.18^\circ\text{C}$, or $1.3 \pm 0.32^\circ\text{F}$ Fahrenheit).

It is responsible for the conspicuous increase in storms, floods and raging forest fires we have seen in the last ten years, though, say scientists.

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But it is not only about how much the Earth is warming, it is also about how fast it is warming. There have always been natural climate changes – Ice Ages and the warm intermediate times between them – but those evolved over periods of 50,000 to 100,000 years.

A temperature rise as fast as the one we have seen over the last 30 years has never happened before, as far as scientists can ascertain. Moreover, normally there never happened before, Earth should now be in a cool-down-period, according to natural effects like solar cycles and volcano activity, not in a heating-up phase.

The Most Important Things You Can Do about Rapid Global Warming

1. Understand the Problem

2. Do Something Today to Reduce Greenhouse Gas Emissions

The hard fact is that despite what many nations, companies, cities and people are starting to do to reduce their global warming emissions, the world is putting more CO₂ into the air than ever before. The current amount is 385 parts per million (ppm) -- higher than ever in the past 800,000 years.

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NASA says we already have too much CO₂ and other greenhouse gases in the air: "If humanity wishes to preserve a planet similar to that on which civilization developed and to which life on Earth is adapted CO₂ will need to be reduced from its current 385 ppm to at most 350 ppm."

What Is the Greenhouse Effect?

Global warming is perhaps the most important environmental problem in the world today. Levels of greenhouse gases are increasing in the atmosphere due to human activities, and are changing the composition of the atmosphere and global warming.

Climate scientists agree that human activities such as the burning of fossil fuels contribute to the problem. Scientists have predicted the phenomenon of global warming for decades. Unfortunately, some of the adverse effects of global warming, they have also predicted begin to occur throughout the world, including:

Impact of Global Warming

Increase in Sea level
Melting of glaciers due to global warming

Before

After

Pest infestation due to global warming

Direct manifestations of a widespread and long-term trend toward warmer global temperatures

Heat waves and periods of unusually warm weather

Ocean warming, sea-level rise and coastal flooding

Glaciers melting

Arctic and Antarctic warmingEvents that foreshadow the types of impacts likely to become more frequent and widespread with continued warming.

Spreading disease

Earlier spring arrival

Plant and animal range shifts and population changes

Coral reef bleaching

Downpours, heavy snowfalls, and flooding

Droughts and fires

1. Impact of climate change on agriculture

Shortage in grain production

Poverty impacts

Temperature potential effect on growing period

Potential effect of atmospheric carbon dioxide on yield

Effect on quality

Agricultural surfaces and climate changes

Erosion and fertilityEffect on quality

Agricultural surfaces and climate changes

Erosion and fertility

Potential effects of global climate change on pests, diseases and weeds

Glacier retreat and disappearance

Ozone and UV-B

ENSO effects on agriculture

2. Impact of agriculture on climate change

Land useLivestock

Source: <http://www.worldviewofglobalwarming.org/>

<http://www.ac-nancy-metz.fr/enseign/anglais/Henry/warming40.gif> (agri pic)