

TOGETHER NOW FOR THE FUTURE OF OUR PLANET
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GLOBAL WARMING ISSUE



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WHAT IS GLOBAL WARMING?

WHY IS IT IMPORTANT FOR US?

Global warming is the long-term heating of Earth's climate system observed since the pre-industrial period (between 1850 and 1900).

Increased heatwaves, droughts and floods are already exceeding plants' and animals' tolerance thresholds, driving mass mortalities in species such as trees and corals. These weather extremes are occurring simultaneously, causing cascading impacts that are increasingly difficult to manage.

Climate change can affect our health, ability to grow food, housing, safety and work. Some of us are already more vulnerable to climate impacts, such as people living in small island nations and other developing countries. Conditions like sea-level rise and saltwater intrusion have advanced to the point where whole communities have had to relocate, and protracted droughts are putting people at risk of famine.

WHY DOES IT OCCUR?

It is happening because of several causes. These causes are both natural as well as manmade. The natural causes include the release of greenhouse gasses which are not able to escape from earth, causing the temperature to increase. The main gasses responsible for the greenhouse effect include carbon dioxide, methane, nitrous oxide, and water vapor (which all occur naturally), and fluorinated gasses (which are synthetic). Greenhouse gasses have different chemical properties and are removed from the atmosphere, over time, by different processes. Carbon dioxide, for example, is absorbed by so-called carbon sinks such as plants, soil, and the ocean. Fluorinated gasses are destroyed only by sunlight in the far upper atmosphere. Further, volcanic eruptions are also responsible for global warming since they release tons of carbon dioxide.

After that, the excessive use of automobiles and fossil fuels results in increased levels of carbon dioxide. In addition, activities like mining and cattle rearing are very harmful to the environment. One of the most common issues that are taking place rapidly is deforestation.

GREENHOUSE EMISSIONS

Since the start of the Industrial Revolution and the advent of coal-powered steam engines, human activities have vastly increased the volume of greenhouse gasses emitted into the atmosphere. It is estimated that between 1750 and 2011, atmospheric concentrations of carbon dioxide increased by 40 percent, methane by 150 percent, and nitrous oxide by 20 percent. In the late 1920s, we started adding man-made fluorinated gasses like chlorofluorocarbons, or CFCs, to the mix.

In recent decades we've only picked up the pace. Of all the man-made emissions of carbon dioxide—the most abundant greenhouse gas released by human activities, and one of the longest-lasting—from 1750 to 2010, approximately half were generated in the last 40 years alone, in large part due to fossil fuel combustion and industrial processes. And while global greenhouse gas emissions have occasionally plateaued or dropped from year to year (most recently between 2014 and 2016), they're accelerating once again. In 2017, carbon emissions rose by 1.6 percent; in 2018 they increased by an estimated 2.7 percent.

SOLUTION

By restoring degraded ecosystems and effectively and equitably conserving 30 to 50 percent of Earth's land, freshwater and ocean habitats, society can benefit from nature's capacity to absorb and store carbon, and we can accelerate progress towards sustainable development, but adequate finance and political support are essential.

Switching energy systems from fossil fuels to renewables like solar or wind will reduce the emissions driving climate change. But we have to start right now. While a growing coalition of countries is committing to net zero emissions by 2050, about half of emissions cuts must be in place by 2030 to keep warming below 1.5°C. Fossil fuel production must decline by roughly 6 percent per year between 2020 and 2030.

WHAT CAN YOU DO?

Save energy at home

Much of our electricity and heat is powered by coal, oil and gas. Use less energy by lowering your heating and cooling, switching to LED light bulbs and energy-efficient electric appliances, washing your laundry with cold water or hanging things to dry instead of using a dryer.

Walk, cycle or take public transport

The world's roads are clogged with vehicles, most of them burning diesel or petrol. Walking or riding a bike instead of driving will reduce greenhouse gas emissions – and help your health and fitness. For longer distances, consider taking a train or bus. And carpool whenever possible.

Eat more vegetables

Eating more vegetables, fruits, whole grains, legumes, nuts and seeds, and less meat and dairy, can significantly lower your environmental impact. Producing plant-based foods generally results in fewer greenhouse gas emissions and requires less energy, land and water.

Consider your travel

Aeroplanes burn large amounts of fossil fuels, producing significant greenhouse gas emissions. That makes taking fewer flights one of the fastest ways to reduce your environmental impact. When you can, meet virtually, take a train or skip that long-distance trip altogether.

Throw away less food

When you throw food away, you're also wasting the resources and energy that were used to grow, produce, package and transport it. And when food rots in a landfill, it produces methane, a powerful greenhouse gas. So use what you buy and compost any leftovers.

Reduce, reuse, repair & recycle

Electronics, clothes and other items we buy cause carbon emissions at each point in production, from the extraction of raw materials to manufacturing and transporting goods to market. To protect our climate, buy fewer things, shop second-hand, repair what you can and recycle.

Change your home's source of energy

Ask your utility company if your home energy comes from oil, coal or gas. If possible, see if you can switch to renewable sources such as wind or solar. Or install solar panels on your roof to generate energy for your home.

Switch to an electric vehicle

If you plan to buy a car, consider going electric, with more and cheaper models coming on the market. Even if they still run on electricity produced from fossil fuels, electric cars help reduce air pollution and cause significantly fewer greenhouse gas emissions than petrol or diesel-powered vehicles.

SOURCES

<https://www.un.org/en/climatechange/what-is-climate-change>

<https://www.ipcc.ch/report/ar6/wg2/resources/press/press-release/>

<https://www.un.org/en/climatechange/science/causes-effects-climate-change>

<https://www.germanwatch.org/en/21110>

<https://climatechange.chicago.gov/climate-change-science/future-climate-change>

<https://scied.ucar.edu/learning-zone/climate-change-impacts/predictions-future-global-climate>

