

Possible Impacts of Climate Change

The earth's temperature is predicted to increase from 1.5^oC to 4.5^oC by the year 2100 if we do not change our current habits and adopt 'Green" practices.

- Due to increased temperatures and the melting of continental glaciers, sea levels would rise, possibly as much as two feet , by 2100 . This is a major concern for Guyana as our coastal zone will be directly affected .
- Rising Temperatures could lead to changes in regional wind systems which would influence global rainfall distribution and lead to the re-distribution and frequency of floods and droughts
- Climate Change would create suitable conditions for growth in insect populations. This would likely to affect agriculture and human health and result in the spread of malaria and other diseases .



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Climate Change and Greenhouse Gases



The Difference Between Greenhouse Effect , Global Warming and Climate Change.

Those terms are often times used to describe the same problem but actually relate to cause and effect or problem and consequence. The "Advanced" Greenhouse Effect is the cause and Global Warming and Climate Change are the consequences.

The Greenhouse Effect: causes an accumulation of heat in the atmosphere. The World's climate is then forced to adjust to deal with the extra build-up of energy and these adjustments result in Global Warming and changes in the climate.

Global Warming: causes the temperature of the lower atmosphere to increase

Climate Change: is created as a result of the long term changes to regional climatic events such as rainfall patterns, evaporation and cloud formation .

Human Activities and Greenhouse Gases

Many greenhouse gases occur naturally such as water vapour, carbon dioxide, methane, nitrous oxide and ozone. Others such as hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and Sulphur hexafluoride (SF₆) result exclusively from industrial processes.

Think of the atmosphere as a heat-trapping "net" surrounding the earth. Carbon dioxide and other greenhouse gasses are the "ropes," while nitrogen and oxygen are the open spaces between the ropes.

When infrared energy hits an open space, it escapes into outer space and dissipates; but when it hits a rope, the rope heats up and reradiates some portion of the energy back toward the planet, raising its overall temperature.

Human Activities add significantly to the level of naturally occurring greenhouse gases :

Carbon Dioxide : is released into the atmosphere by the burning of solid waste, wood and wood products and fossil fuels (oil, gas, etc.)

Nitrous Oxide : emissions occur during various industrial and agricultural processes and when solid waste or fossil fuels are burned

Methane : is emitted when organic waste decomposes in landfills, from livestock and manure.

Fun Fact

GREENHOUSE GASES SUCH AS METHANE AND NITROUS OXIDE ARE MUCH MORE POTENT THAN CO₂, BUT STAY IN THE ATMOSPHERE ONLY FOR 12 AND 114 YEARS RESPECTIVELY; WHERE AS CO₂ CAN REMAIN IN THE ATMOSPHERE FOR THOUSANDS OF YEARS.