



Global Warming and Climate Change

Arpita Kanjilal
Assistant professor
Hooghly Mohsin College

Global Warming is the long term warming of the planet's overall temperature. Though this warming trend has been going for a long time, it has significantly increased in the last hundred years due to the burning of fossil fuels. As the human population has increased, so has the volume of fossil fuels burned.

So, Global Warming is a gradual increase in the earth's temperature generally due to the greenhouse effect caused by increased levels of carbon dioxide, CFCs, and other pollutants.

The major causes of Global Warming are two types. First one is, Man-made causes of Global Warming and secondly Natural causes of global Warming. There are many reasons which are included in the Man-made causes of Global Warming. There are like – Deforestation, use of vehicles industrial Development etc. And many reasons which are included in the natural causes of Global Warming, there are – volcanoes, Melting Permafrost, Forest Blazes etc.

So, we can see that Global Warming is a threat to the Ecosystem which has affected the coral reefs that can lead to the loss of plant and animal lives. This also leads to the change in climatic conditions. It also leads to a spread of diseases and ultimately high mortality rates.

So, finally we have to practice some uses in our daily life which can reduce the greenhouse gases and control global Warming.

Global Warming is the long term warming of the planet's overall temperature. Though this Warming trend has been going on for a long time, it has significantly increased in the last hundred years due to the burning of fossil fuels. As the human population has increased, the volume of fossil fuels burned also increased. So Global Warming refers to the rise in global temperature due mainly to the increasing concentrations of greenhouse gases in the atmosphere. It is the long term heating of earth's surface observed since the pre-industrial period (between 1850 and 1900) due to human activities, primarily fossil fuel burning, which increases heat-catching greenhouse gas levels in Earth's atmosphere.

Global Warming occurs when Carbon dioxide (CO₂) and other air pollutants collect in the atmosphere and absorb sunlight and solar radiation which is bounced in the earth's surface. Normally this radiation would escape into space, but these pollutants, which last for years to centuries in the atmosphere, catch the heat and cause the planet to get hotter. These heat-catching pollutants are specially Carbon-dioxide, methane nitrous oxide, and there are known as **greenhouse gases** and their impact on earth is called **the greenhouse effect**.

The green house effect is a process that occurs when gases in earth's atmosphere trap the sun's heat. This process makes earth much warmer.

A green house is a building with glass walls and a glass roof. Green houses are used to grow plants, such as tomatoes and tropical flowers. A green house stays warm inside, even during the winter. In the daytime, sunlight shines in to the green house and warms the plants and air inside. At night time, its colder outside, but the green houses stays pretty warm inside. That's because the glass walls of the green house trap the sun's heat. The green house effect works much the same way on Earth. Gases in the atmosphere such as Carbon – dioxide(CO_2), trap heat similar to the glass roof of a green house. These heat-trapping gases are called **green house gases**.

During the day, the sun shines through the atmosphere. Earth's surface warms up in the sunlight. At night, Earth's surface cools, releasing heat back into the air. But some of the heat is trapped by the green house gases in the atmosphere. That's what keeps our Earth a warm and cozy. 58 degrees Fahrenheit, on average.

Human activities are the main reason which changes Earth's natural green house effect. Burning of fossil fuels like coal and atmosphere. Nasa has observed increases in the amount of carbon- dioxide and some other green house gases in our atmosphere. Too much of these green house gases can cause Earth's atmosphere to trap more and more heat . This causes Earth warm up.

Following are the major causes of global warming.

1. **Man-made causes of Global Warming:-** Under this , there are many reasons which causes global warming. They are

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- i) Deforestation,
- ii) Use of vehicles,
- iii) Chlorofluoro carbon,
- iv) Industrial Development,
- v) Agruculture,
- vi) Overpopulation.

2. **Natural causes of Global warming:-**

- i) Volcanoes,
- ii) Water Vapour,
- iii) Melting permafrost,
- iv) Forest Blazes.

Effects of Global Warming:-

Following are the major effect's of Global Warming –

- i) **Rise in Temperature :-** Global Warming has led to an incredible increase in earth's temperature. Since 1880, the earth's twmperature has increased b 1 degrees.
- ii) **Threats to the Ecosystem:-** Global warming has affected the coral reefs that can lead to the loss of plant and animal lives.
- iii) **Climate Changes:-** Global Warming has led to change in climate conditions. There are droughts at some places and floods at some.
- iv) **Spread of Diseases:-** Global Warming leads to a change in The patterns of heat and humidity. This has led to carry and spread diseases.
- v) **High Mortality rates:-** Due to an increases in floods, tsunamis and other natural changes, the average death useally increases.
- vi) **Loss of Natural habitat:-** A global change in the climate leads to the loss of habitats of several plants and animals.

Difference between global warming and climate change –

Global warming refers to the rise in global temperatures due mainly to the increasing concentrations of green house gases in the atmosphere. In the other hand, climate change refers to the increasing changes in the climate over a long period of time. Including – temperature and wind patterns. S, that means, Though the two terms are sometimes used interchangeably but scientifically global warming refers only to increased surface warming , while climate change describes the totality of changes to Earth’s climate system.

Now The question is how can we solve the problem of global warming? The answer is that the primary way to solve global warming is to eliminate the role of fossil fuels in modern society wherever possible. This means transitioning to carbon – free energy sources such as solar , wind, and hydro which cause less than 3% of the green house gas emissions of fossil fuel energy sources. There are

- I) **Change a light:-** Replacing one regular light bulb with a compact fluorescent light bulb which will save 150 pounds of carbon-dioxide a year.
- II) **Drive less:-** Walk more, use by-cycle and you will save one pound of carbon dioxide for every mile you don’t drive.
- III) **Recycle more:-** You can save 2400 pounds of carbon dioxide per year by recycling just half of your household waste.
- IV) **Use less hot water:-** It takes a lot of energy to heat water. By using less hot water it saves 500 pounds carbon dioxide per year.
- V) **Avoid products with a lot of packaging:-** You can save a 1200 pound of carbon - dioxide if you reduce your garbage by 10 percent.
- VI) **Adjust your thermostat:-** Moving your thermostat down just 2 degrees in winter and up 2 degrees in summer could save about 2000 pounds of carbon dioxide per year.
- VII) **Plant a tree :-** A single tree will absorb one ton of carbon dioxide over its lifetime.
- VIII) **Turn off electronic devices:-** Simply turning off your television, DVD player and computer when you are not using them. |You will save thousands of pounds of carbon dioxide in a year.

The Intergovernmental panel on climate change is the international group formed by the United Nations to investigate climate change. It consists of hundreds of scientists around the world who pull together thousands of studies on climate, gases, atmospheric conditions etc. After 10 years research they conclude that, There is very little doubt that global warming will change our climate in the next century. So, what are the solutions to global warming? First, there must be an international political solution and second, funding for developing clean energy production must be increased, as all economic development is based on increasing energy usage.