

GLOBAL WARMING

Global Warming refers to the increase in the average temperature of the earth's near -surface air and oceans in recent decades and its projected continuation. It is part of natural heating and cooling global cycles which take place over thousands of years and cause rises and falls of sea levels and encroachment and retreat of glaciers and ice-caps. It may be minor temperature perturbations relative to those caused by the sun, they may result in changes to living conditions which could greatly effect the human population.

An effort which was predicted but never before proved, is now a reality. The northern hemisphere of the world is facing the effects generated by man-made global warming and if this continues to happen the earth could warm up by 1.5 to 4.5 degrees by the year 2050, with changes in global precipitation having the greatest consequences.

It took more than 20 years to broadly accept that mankind is causing global warming with the emission of green house gases. The drastic increase in the emission of CO₂, within the last 30 years caused by burning fossils fuels has been identified as the major reason for the change of temperature in the atmosphere. There are a number of natural factors responsible for climate changes are here are a few of the major culprits.

GREENHOUSE GASES

Radiative forcing by greenhouse gases is the primary cause of global warming. Gases like CO₂, CH₄ (Methane), Water Vapour & CFC's (Chloroflouorocarbons) trap heat and help in raising the temperature.

VOLCANOISM

A single eruption can impact climate, causing cooling. Volcanoes are part of the extended carbon cycle. If they eject large quantities of sulphur dioxide into the stratosphere, they generate more than 130times the amount of CO₂.

HUMAN CAUSES

The Industrial Revolution in the 19th century saw the large scale use of fossil fuels for industrial activities.

EARTH'S TILT

Changes in the tilt of the earth can affect the severity of the seasons - more tilt means warmer summers & colder winters, less tilt means cooler summers and milder winters.

OCEAN CURRENTS

Oceans cover about 71 % of the earth and absorb about twice as much of the sun's radiation as the land surface. Ocean currents move vast amount of heat across the planet. This phenomenon can have an impact on the climate.

The effects of this problem can be easily foreseen. Rapid extinction of species and greater frequency and scale of extreme weather conditions, eg: drought and flood are the effects. Along with this rise in the sea levels due to melting of polar ice and glacier is also there. These change the distribution of disease - bearing organism so that people, animals and crops are exposed to disease which were previously absent in that area.

As there is increasing evidence of human action influencing global warming. It's time for a change. To begin with, we can examine emerging world markets in carbon credits and create appropriate structures to enable our industry to take advantage of similar market opportunities secondly, opportunities for better use of by-products (such as GHG emissions). Thirdly, planning for cities, in particular coastal areas, needs to take into account impending possibilities a rise in sea-levels. Finally, by reducing pollution from vehicles and power plants. Using alternative and renewable sources of energy and by manufacturing more efficient appliances and conserving energy. So remember, follow these and clean future will follow you and this earth would become a much better place to live.