
GLOBAL WARMING AND ITS EFFECT

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Abstract : Global Warming is a phenomenon occurring due to emission of certain gaseous pollutants in the air which heat the atmosphere and cause the average global temperature rise. Global warming is the rise in the average temperature of Earth's atmosphere and oceans since the late 19th Century and its projected continuation. Warming of the climate system is unequivocal, and scientists are more than 90 % certain that it is primarily caused by increasing concentrations of greenhouse gases produced by human activities such as the burning of fossil fuels and deforestation. These findings are recognized by the national science academies of all major industrialized nations. The effects of global warming is seen on climate change, Bio-Diversity, Agriculture, Ecosystem, Glacier melting, Change in Sea Level, Flood & Drought & etc. These global warming effects are increasing day by day.

Introduction : Climate model projections were summarized in the 2007 Fourth Assessment Report (AR4) by the Intergovernmental Panel on climate Change (IPCC). They indicated that during the 21st century the global surface temperature is likely to rise a further 1.1 to 2.9^oC (2 to 5.2^oF) for their highest. The ranges of these estimates arise from the use of models with differing sensitivity to greenhouse gas concentrations. Global Warming is the average temperature of Earth's atmosphere and oceans since the late 19th century and its projected continuation. These findings are recognized by the national science academies of all major industrialized nations.

Study Objectives : The present study has the following objectives, i) To study the Discussion of Global Warming . ii) To understand the effects of global warming.

Data Base & Methodology : The data has been furnished from the related articles, research papers. Some data has furnished the websites & as well as time magazine.

Discussion of Global Warming And Its Effects : Rise in earth's temperature. Results from changes in the natural environment, Caused by too much carbon dioxide. It is the increased of earth's average surface

temp. due to the effect of green house gases such as CO₂ emissions from burning fossil fuels which trap heat that would otherwise escape from the earth this is type of green house effect.

Effects of Climate Changes :Climate changes can severely affect human societies, agriculture and the natural ecosystems. Terrestrial and aquatic ecosystems, which provide many goods and services on which we rely, would be severely affected. Organisms and human infrastructure will not be able to adapt quickly and sufficiently to changed climatic effects. Anomalous outcome of higher temperatures would be release of stores of methane hydrate now under permafrost in the Arctic. Combined with oxidation of high latitude peat lands, release of the carbon stores would add greatly to the CO₂ content in the atmosphere. Thus the effects of warming themselves would cause more warming.

Climate change can alter the local environment important ways by changing rainfall patterns are eroding coastline. Climate can change ice age has come and gone and life has evolved and persisted. Climate can change due to human activities. By the 20th Century scientists had rejected old tales of world catastrophe and were convinced that global climate could only gradually over many tens of thousands of years. But in the 1950s a few scientists found evidence that some changes in the past had taken only a few thousand years.

Effects of Melting of ice caps :As the temperature rises the polar ice caps have started melting. The floating western Antarctica ice sheet too begins to melt. According to one estimate, if all the ice caps on the earth melt then 200 feet of water would be added to earth surface means low lying coastal cities would be inundated.

Influence of Global Warming on the Sea level :Sea Level is a measure of the average height of the ocean's surface used as a standard in reckoning land elevation. MSL also plays an important role in aviation, where standard sea level pressure is used as the measurement datum of altitude at flight levels. Mean sea level rise trends along the Indian coasts are about 1030mm/yr. Return level estimates using storm surge model driven by RCM indicate higher flood risks associated with storm surges along the southern part of the east coast of India where tidal ranges are low.

Effects of Global warming on Agriculture :Climate change arises out of Global Warming decrease agricultural production. It reduced crop quantity and quality due to the reduced growth period following high levels of temperature rise reduced sugar content. Thus the main areas of productions changes the boundary and suitable areas for cultivation move towards different area. Evaporation from the soil accelerates when temperatures rise and plants increase transpiration that is lose more moisture from their leaves. Due to the expected increase in atmospheric moisture as CO₂ is continually rising because of green house effects that generally responsible for more rainfall.

Causes of Global warming :Global warming in recent times has resulted in heating up of the atmosphere not as result of the natural greenhouse effect but as a result of increase in the greenhouse gases CO₂ methane, nitrous oxide and ozone in the atmosphere as a result of human activities. What happens is that due to increase in greenhouses gases the infrared radiation that is absorbed from space as well as part of the outgoing energy that is absorbed and reemitted by the gases increase. So the atmosphere and surface warm up much more than they should. The outgoing energy and the incoming should equal but the balance is affected. The main greenhouse gases differ in their intensity of heat trapping and in their ability to affect the radiative balance of the Earth. Globally the most important industrial activity that has led to a great increase in CO₂ emissions is burning of liquids carbon dioxide released from the combustion of petroleum fuels in transportation and power reneration has been excessive. Then comes burning of solids like coal, mainly for generation of power. A large amount of CO₂ is emitted by many industries even cement In the manufacture of cement half a tonne of CO₂ is estimated to be released when one tonne of cement is produced.

Global warming and wild life :Increase of temperature also affects the wild life. Climate change is threatening the 22000 polar bears that are surviving across the world.

Conclusion: The climate changes as realized through trends of temperature rise and increased CO₂ concentration is a major concern. The impact of climat change and global warming , It is necessary to control the

compounds that all responsible for climate change and global warming. Increased carbon dioxide levels will affect biological systems independent of climat change.

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