

Save Planet Earth

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Introduction

Global warming is an undisputable reality, which points out that our planet Earth has to be saved from the imminent danger of global warming. The Earth is warming up on account of population growth and consequent increase in human activities. However, the chances for ecosystems to adapt naturally are declining. This is considered as one of the greatest perils facing the Earth planet. The Copenhagen Conference on global warming convened recently to tackle the global warming danger has not achieved its objectives. The first Earth Day was celebrated in 1970 and the 20th anniversary celebration of Earth Day in 1990 have brought forward crucial environmental issues on the world stage laying foundation for the 1992 United Nations Earth Summit in Rio de Janeiro. To spread the notion of save our planet, the United Nations as well as all the world countries have been celebrating Earth Day

on April 22 and World Environment day on June 5 every year.

Global Warming and Climate Change
Global warming and climate change refer to rise in average temperatures. Human activities-induced factors and natural events such as volcano eruption and solar radiation contribute to increasing the global temperature caused mainly by greenhouse gases such as carbon dioxide, methane, water vapour and other gases. Global warming is a phenomenon where there is an increase in earth's surface temperature causing a change in global climate, melting of ice glaciers in arctic region and consequent increase in the sea level. Ozone depletion in the troposphere, which is the lowest part of the earth atmosphere, also contributed to warming of earth surface. Famous climatologist, H.H Lamb, has highlighted in his book 'Climate in the 1960's' that global warming takes place in the atmosphere between earth surface and the ozone layer which is about 50 km up in the atmosphere. Temperature tends to decline with distance from the surface of the earth. The existing ozone layer protects the world population from sun radiation. How-

ever, continuous increase in human activities on earth has led to an increase in green house gases and consequent depletion of ozone layer. The temperature level depends on a number of factors such as afforestation, oceans, moisture levels, topographic and wind movement factors.

The Inter-governmental Panel on Climate Change (IPCC) consisting of renowned scientists has been formed by the United Nations to study global warming and submit reports periodically. The committee, in its report, has concluded that most of the rise in temperature since the mid 20th century was likely caused by increasing concentrations of green house gases as a result of human activities such as fossil fuel burning and unlimited deforestation. The plants and trees separate carbon dioxide into carbon and oxygen during the process of photosynthesis reducing the level of green house gases. The above findings have been confirmed by a number of national academies of science and scientific societies.

IPCC report points out further that climate model projection indicates likely increase in surface global tempera-

ture from 1.1 to 6.4 degree Celsius in 21st century. Moreover, warming is expected to increase even after the year 2100 even if emissions are stopped due to the vast heat capacity of the oceans and the prolonged life time of carbon dioxide in the atmosphere. Increase in temperature will lead to a rise in the sea level and will change the amount and pattern of precipitation causing probably expansion of sub-tropical deserts.

Melting of Arctic ice cap: Melting of glaciers has resulted in the occurrence of extreme weather events causing species extinctions and negative changes in agricultural yields. Population explosion and the consequent industrial expansion have also increased green house gases. Fossil fuel burning has produced about 75 percent increase in carbon dioxide and the rest is due to deforestation in the last two decades.

Greenhouse effects & Greenhouse gases

The sun rays energy causes the atmospheric temperature to rise by heating the weather and climate. The earth sends back this energy into outer space, however atmospheric gases like

carbon dioxide and water vapor cover the atmosphere and trap some of the outgoing energy retaining heat just like glass panels of green house. That is why these gases are called green house gases and the effect is the rise in temperature on the earth.

Greenhouse effects in Nigeria

Increasing sea water level due to global warming is threatening people living in low lying coastal areas of Southern Nigeria, particularly in Lagos. Half of the population accounting nearly eight million people faces the danger of sea erosion in coastal region of Lagos. The natural protective system in the form of mangroves in the coastal area and wetland ecosystem in many parts of Lagos have been reduced considerably mainly due to human settlement and human intervention.

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