

Effects of Global Warming

The term 'Global Warming' refers to an average increase in the earth's temperature, which in turn causes changes in the climate. Warming takes place because the amount of greenhouse gases in the atmosphere is rapidly increasing. The atmosphere acts like a blanket, trapping heat waves radiating off the earth. These heat waves feed back into air, land and sea, changing weather patterns. The most prevalent greenhouse gases are carbon dioxide, methane and nitrous oxide. Other atmospheric gases like oxygen and nitrogen do not have this solid waste, fossil fuels, wood and wood products are burnt. Human activities add to the levels of these gases, causing severe problems.

The earth goes through warm and cold periods, but the increase in carbon dioxide levels over the past 200 years is due to industrialization. Since the industrial Revolution, the amount of carbon dioxide in the atmosphere has gone up by 40 per cent. Eleven of the past twelve years rank among the 12 warmest years since 1850. Scientists claim that carbon dioxide level in the atmosphere is the highest now in 650,000 years. The worldwide consumption of fossil fuels has increased drastically; the world now burns at least five billion tons of fossil fuels each year. Deforestation also reduces the absorption of carbon dioxide by trees.

There is an excess of carbon dioxide in the atmosphere not only because of high current emissions but also because of accumulated emissions from the past. The developed world home to 15 per cent of the world's population, emits 45 per cent of the greenhouse gases. For example, the US emits about 20 tonnes of carbon dioxide per person – 25 times more than India's 0.8 tonnes. Scientists say that to avoid a catastrophe, global warming needs to be limited to no more than 2°C above pre industrial levels.

The rise in sea level is a major cause of concern. A large number of cities located in coastal areas. Like Mumbai, Kolkata, Tokyo, New York, London, São Paulo and island nations like Maldives may get submerged.

Global warming poses a great threat to the flora and fauna of the earth. A large number of species of them may become extinct. About 20 to 30 per cent of species assessed so far are likely to become extinct. About 20 to 30 per cent of species assessed so far are likely to become extinct if global average warming exceeds 1.5-2.5°C. Deserts would increase, low rainfall and rising temperature could add to the intensity and frequency of dusty storms. This in turn will immensely affect the quality of agricultural land, ultimately causing adverse effect on agricultural produce.

Moreover, climate change is posing a significant threat to public health-more so in the poor and developing countries. Studies have shown that global warming is influencing the geographical distribution and incidence of diseases, especially those transmitted by mosquitoes, such as malaria and dengue.

The growing concern over global temperature has led to the different countries to draw out a plan of action to avert the situation. The United Nations Framework Convention on climate Change was adopted at the Earth Summit at Rio de Janeiro in 1992. It was treaty signed by 192 countries. It did not set any binding targets on countries for cutting emissions, but only called for stabilizing carbon emissions. Under the UNFCCC process, a treaty was adopted on December 11, 1997 at the Kyoto (Japan). Under this protocol, 39 industrialized countries committed themselves to reduce their emissions by 5.2 per cent of the 1990 levels, by 2012.

The Copenhagen Summit-2009 was the first global agreement of the 21st century to control global warming the gravest challenge to humanity. It was called to get the 192 member nations of the UN to sign a legally binding agreement setting targets and deadlines for managing emission of greenhouse gases. But a comprehensive agreement was not possible. The developed world wanted a new treaty, with fewer responsibilities. The emerging economies saw all these as bedrock principles.

The 2011 United Nation Climate Change Conference was held in Durban, South Africa from 28th November to 11th December, 2011 to establish a new treaty to limit carbon emission. The conference agreed to a legally binding deal comprising all countries, which will be prepared by 2015, and to take effect in 2020. The agreement, referred to as the Durban Platform is notable in that for the first time it includes developing countries such as China and India, as well as the US which refused to sign the Kyoto protocol.

As humanity strives to achieve better living standards for all, there is an increase in fuel consumption, industrial production and other such activities that cause emissions. So in the present technological and political climate, economic growth means higher emissions. Conversely, cuts in emissions would mean lower growth. This problem leads to the controversy about who should cut emissions, by how much, and how?

We can help prevent global warming in numerous ways. Efficient use of energy, plantation of trees, adopting a clean approach for the environment are the different ways to help prevent global warming. The modern environment movement started with fighting against polluting factories, power plants, oil spills, sewage and toxic dumps. Every individual should be aware of the importance of protection the

environment. With effective co-operation from citizens and government officials only, we may be able to slow down the effects of global warming.