

Global Warming and its Likely Impact in India

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Abstract: *The main of the paper is to provide brief account of Global Warming and its likely environmental, economical impact on India given by various institutional reports. The paper also pointed out that we are at crossroads the present phenomenon of choosing our future course of action.*

1. Global Warming and its Likely Impact in India

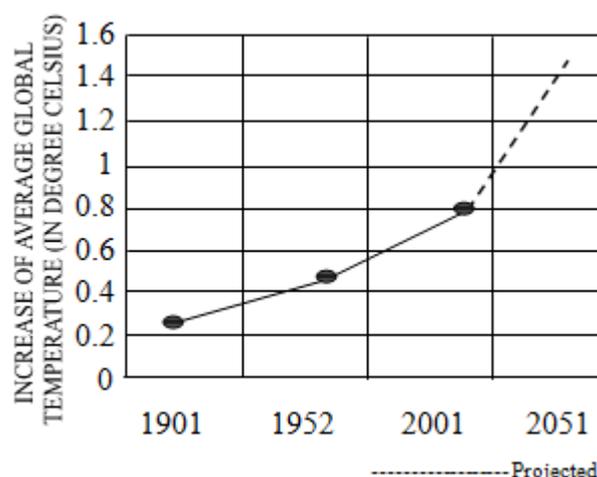
The much-hyped “Global Warming” is simply relating to the warming of the planet, Earth. In broader sense, it Means the increasing of average global temperature due to increase of green house gases mainly of CO₂, followed by CH₄, CFC_s, N₂O, etc caused by burning of fossil fuels, destruction of forests, decomposition of plants and animal matter, use of refrigeration and aerosol sprays, etc. Temperature around the world has risen slightly since the Industrial Revolution in 1870s. According to world’s leading commercial forecaster the global air temperatures shown an increase of 0.45^oc over the past century. Even the seven warmest year of 20th century have occurred since 1980s. Relative contributions of green house gases and the various countries for perpetuation of this controversial Phenomenon are given below.

Name of the Countries	Relative Contributions (in %)
Usa	21
Russia	14
France, Germany, European Industrial Regions	14
China	07
Japan	06
India	04
Other Countries	34
Total = 100%	

Name of the Gasses	Relative Contributions (in%)
Co ₂	49
CH ₄	18
CFC _s	14
N ₂ O	6
Water Vapor and others	13
Total	100%

Source: Internet

2. Increase of Average Global Temperature (In Degree Celsius)



Source: Drawn by Author

It is estimated that at the end of 21st century, the temperature will rise to such an extent the Polar ice will get melt as it was happened 130000 years ago when the sea level was as much as 6 meter higher than average. If it repeats again, Netherlands, New Orleans, Florida, Coastal areas of Bangladesh will likely to be submerged for ever. Apart from this, global warming also may causes the change in precipitation pattern, expansion of deserts, depletion of O₃, etc, likely Impact of Global warming is a matter of great concern to us concern for the world in general and India in particular.

As far as the report released by UN panel of Feb, 2007, is concerned, a gloomy picture will arise in times to come for India, especially its economic and environmental department. India could lose as much as 9% of its GDP, largely from events like submergence of low-lying coastal areas. A report by Indira Gandhi Institute of Development, Research, Mumbai, has put the quantum of loss at a staggering 9% but several studies predicts direct consequences like flooding as well as in agricultural productivity. Rice yields could fall by as much as 40%. It is estimated that about 7.1 million people in India would be affected by submergence of Coastal I and if temperaturerise by 0^oc. The economic loss, quite normally would be high in urban zones such as Mumbai, Chennai, etc. Mumbai Alone could suffer loses up to \$48 billion due to projected submergence. To accentuate the problem, urban sprawls will also have to cater to migration of poor marginal farmers from submerged rural

areas and it will also have further strain of the already damaged infrastructure of Coastal cities. Farm level incomes could be affected by as much as 25% if temperature changes by 2-3%.

The latest UN reports pegs the temperature change by end of the century at 4.5%. Extensive studies on impact of climate change are being carried out in research centers like Indian Institute of science, Bangalore and Natural physics laboratory from where it has been forecasted that extreme events like droughts and heat waves are bound to hit dry land areas of the country. Scientists are shying to forecasts on any kind of immediate micro-level climate extremes caused by global warming as availability of concerned Scientific data is limited in our country, but they undoubtedly believe that the climate change is a real phenomenon for India as it is in the west. The Director of Long-Range Forecasting at Indian Metrological Institute, Pune, Mr. Rajeevan has opined that absolute data (on climate change) and its trends are certain but in spite of that due to Low-Level of projection model the Predictions with great confidence has not made yet. He also added that several Studies are on the understand the probable impact of global warming in India. The areas in which climate change research was being focused up on by the west was detrimental to India's interests. Now Indian Institutes are catching up for the same. Under a globally negotiated treaty, some of these industries has invented high level technologies at reduced rates. But overall slowing down of the economy, the hit on Primary product market and

their future path of action. One hand, there are insatiable needs requiring faster development of resources leading to degradation of environment and finally their own extinction from the earth. On the other hand, there is a choice to develop new sustainable resources at much reduced pace taking steps to conserve resources, reducing growth of population and wasteful consumption. It will be helpful for protecting the environment for our future generation.

References

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THE COST FOR INDIA

- A one-metre sea level rise would lead to submergence of 576,400 hectares (ha) of land in India. This would displace approximately 7.1 million people, says a Asian Development Bank study.
- Economic impact of climate change on Mumbai could be US\$48b (rs 228700 crore), while smaller cities like Balasore could lose US\$75m (Rs. 360 crore) by inundation. Goa could lose 4.32% of its land.
- Rice yields in India could fall by 15-42% and wheat yields by 3.4%. Net agricultural revenues would decline by 12.3% if the temperatures change by 2^oC and rainfall by just 7%.
- Fall in production alone could push GDP down by 1.8% -3.4%. If total impact of climate change is considered then as much as 9% of GDP of developing countries like India could be wiped out.
- 5218 glaciers in Himalayas would be impacted. Gangotri glacier has receded by almost one-third km in just 13 years. Pindari glacier retreats at rate of 13 meters a year already. Gangotry glacier is receding at an annual rate of 30 meters.
- India stands to lose 125 million tones (or 18%) of its rain fed cereal production, according to the International Institute for Applied Systems Analysis Austria.

Environment upheaval may have a severe effect on raw-material resources. The present scenarios obviously showing that humans are at the cross roads of choosing