

GLOBAL WARMING IN INDIA: AN OVERVIEW**Dr. Dhananjay Bhimrao Karnik**

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Email Id: ghananjaykarnik64@gmail.com**ABSTRACT**

India exhibits a wide diversity of temperatures. The Himalayas participate in warming by preventing the cold winds from blowing in, and the Thar Desert attracts the summer monsoon winds, which are responsible for making the majority of the monsoon season of India. However, the majority of the regions can be considered climatically tropical. The climate of India is dominated by the monsoon season, which is the most important season of India, providing 80% of the annual rainfall. The season extends from June to September with an average annual rainfall between 750–1,500 mm across the region. The monsoon of India is regarded as the most productive wet season on the earth. The effect of global warming on the climate of India has led to climate disasters as per some experts. India is a disaster prone area, with the statistics of 27 out of 35 states being disaster prone, with floods being the most frequent disasters. The process of global warming has led to an increase in the frequency and intensity of these climatic disasters.

Key Words: Temperatures, Monsoon, Climatically, Productive, Disasters etc.

Introduction

An overwhelming majority of Indians are also unequivocal that global warming is harming their lives and livelihoods and presents a clear danger to future generations. Perhaps surprisingly, a large majority of Indians think both the government and citizens need to take concrete steps to curb carbon emissions, even if there is a price to be paid. In addition, a significant majority of Indians are convinced that actions taken to combat global warming will have a positive impact on economic growth as well as job prospects in the future. India is the most flood distressed state in the world after Bangladesh, accounting for 1/5th of the global deaths every year with 30 million people displaced from their homes yearly. Approximately 40 million hectares of the land is vulnerable to floods, with 8 million hectares affected by it. Unprecedented floods take place every year at one place or the other, with the most vulnerable states of India being Uttar Pradesh, Bihar, Assam, West Bengal, Gujarat, Orissa, Andhra Pradesh, Madhya Pradesh, Maharashtra, Punjab and Jammu & Kashmir. The climatic history of India is studded with a very large number of floods, which have wreaked havoc on the country's economy

Objectives of the Study

1. To study the concept of Global Warming.
2. To study the impact of Global Warming in India.
3. To study the challenges of Global Warming.

Methodology of the Study

The present study has been descriptive; the data for this study were obtained from secondary sources. The secondary data has been collected from various references which already existed in published form; part of the paper is based on literature review the method comprising of collecting all the available papers relating to the theme and selecting relevant papers/books for the review purpose. Selection of the paper is done on the basis of their relevance and contribution to the body of knowledge. The author has made an attempt to do primary reading of the selected papers which will constitute the core of this review study

Concept of Global Warming

Global warming is the slow increase in the average temperature of the earth's atmosphere because an increased amount of the energy (heat) striking the earth from the sun is being trapped in the atmosphere and not radiated out into space. The earth's atmosphere has always acted like a greenhouse to capture the sun's heat, ensuring that the earth has enjoyed temperatures that permitted the emergence of life forms as we know them, including humans. Without our atmospheric greenhouse the earth would be very cold. Global warming, however, is the equivalent of a greenhouse with high efficiency reflective glass installed the wrong way around.

Impact of Global Warming in India

India is likely to witness more extreme weather events, including intense heat waves, heavy flooding and severe drought that pose challenges to food and energy security for the second-most populous nation. Erratic weather conditions

expose millions of Indians to climate disasters, kill thousands every year and increase economic hardships by eroding farm productivity. At the same time, it burdens the country's energy supplies by pushing demand for fossil fuels and drying up sources of hydropower. With the increasing trends of global warming, predictions of severer climatic events have been made for India. The anticipated increase in precipitation, the melting of glaciers and expanding seas are projected to influence the Indian climate particularly severely, with an increase in incidence of floods, hurricanes, and storms. Global warming is also posing as a mammoth threat to the food security situation in India with recurring and severe droughts and ravaging floods engulfing the arable land. Rising Temperatures on the Tibetan Plateau are causing the melting of the Himalayan glaciers, reducing the water flow in the rivers Ganges, Brahmaputra, Yamuna, and other major rivers, on which the livelihoods of hundreds of thousands of farmers depend.

The rise of the average global temperature can be very dangerous for human¹ being because "extreme temperature can directly cause the loss of life." An increase in concentration of ozone at ground level due to "Higher air temperature" can lead to serious problems for people with asthma and other lung diseases. Higher air temperatures could have serious impacts on those who live in the southern areas of the United States it is estimated "that in Atlanta, for example, even a warming of about 2° (f) would increase heat related death from 78 today to anywhere between 96 to 247 people per year." In addition to these direct impacts, there could also occur indirect ones. If warmer temperature enabled insects to become established farther north, infectious diseases such as malaria, dengue fever and yellow fever could occur in those areas which today are too cold for these insects to survive. As the changing climate could cause soils to become drier and drier, crop failure could become more wide spread. Agriculture² could also be affected by increased heat stress, more frequent flooding, and salinization of soils due to sea level rise. On the other hand, global warming could have "beneficial effects" which could offset the adverse impacts at least in the United States. One "beneficial effects" is the "fertilizing effect" of CO₂ which enables plants to grow more rapidly positive impact agriculture is the possible lengthening of the growing season in colder areas which would allow farmers to plant crops in latitudes that are normally not suitable for these crops. In the case of the north American forests, for example this could enable the trees to colonize north in to areas that are currently too cold, on the other hand, southern areas will become too hot and dry for (many north American forest) species to survive, As a result, a 2°C warming in 100 years could cause the species to migrate about 2 miles every year. A side effect of global warming are insect attacks. A study shows that Alaskan forest³ have suffered from severe outbreaks of bark beetles, which have devastated several million acres of forest.³ Another aspect has to be mentioned in this context is that the plants and trees of the terrestrial ecosystem are the largest absorbers of CO₂, which otherwise rises in to the atmosphere. This clearly shows how strange the situation really is climate change destroys the trees, which would normally mitigate the effects of climate change.

Challenges of Global Warming

The main challenges before humankind are three – to preserve peace, to eradicate poverty and to conserve the environment. The path that the world has until now traversed in the pursuit of technological mastery has imperiled peace and the environment and failed to provide prosperity and equality for all the peoples of the world. A major change is required in our outlook and our methods.

i. Sustainable Development

The earth is one but the world is not. We all depend on one biosphere for sustaining our lives. Yet each community, each country, strives for survival and prosperity with little regard for its impact on others. Some consume the Earth's resources at a rate that would leave little for future generations. Others, many more in number, consume far too little and live with the prospect of hunger, squalor, disease and early death.

ii. Ecological Degradation

In the name of growing more food and providing more comforts, we have denuded our forests. In the name of industrial growth, we have polluted the rivers and seas, heated up the globe through the accumulation of carbon dioxide, and even depleted the ozone layers that shield the planet from harmful cosmic radiation. Ecological degradation affects developing countries more fundamentally than it does the developed ones. We, in India know this only too well.

iii. Environmental Insecurity

Among the dangers facing the environment, the possibility of nuclear war is undoubtedly the gravest. Certain aspects of the issues of peace and security bear directly upon the concept of sustainable development. The whole notion of security as traditionally understood – in terms of political and military threats to national sovereignty – must be expanded to include the growing impacts of environmental stress – locally, nationally, regionally, and globally. There are no military solutions to 'environmental insecurity' and 'poverty'.

Conclusion

Global Warming is a real problem that many want to prove as a hoax for their political benefit. However, as aware citizens of the world, we must make sure only the truth is presented in the media. Various parts of the environment, both flora and fauna, are directly adversely affected by the damages caused by Global Warming. Wildlife being in danger is ultimately a serious threat to the survival of humanity as we know it and its future. The effect of Global Warming is widely seen in this decade. Glacier retreat and arctic shrinkage are the two common phenomena seen. Glaciers are melting in a fast way. These are pure examples of climate change. Rise in sea level is another significant effect of Global Warming. This sea-level rise is leading to floods in low-lying areas. Extreme weather conditions are witnessed in many countries. Unseasonal rainfall, extreme heat and cold, wildfires and others are common every year. The number of these cases is increasing. These will indeed imbalance the ecosystem bringing the result of the extinction of species. Similarly, marine life is also widely getting affected due to the increase in Global Warming. This is resulting in the death of marine species and other issues. Moreover, changes are expected in coral reefs, which are going to face the end in coming years.

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