



Effect of Climate Change on Indian Economy

Description

Theme:

- Climate change has emerged as one of the biggest challenges to the global economy. According to the World Economic Forum's Global Risks Report 2020, the top 5 risks over the coming decade in terms of likelihood, are all climate-related including human-made environmental disasters, climate action failure, natural disasters, biodiversity loss and extreme weather. Developing economies like India are particularly vulnerable to the effects of climate change. Climate change has resulted in significant economic losses for India across sectors.

What is climate change?

- Climate change describes a change in the temperature and rainfall in a region over a long period of time. NASA scientists have observed Earth's surface is warming, and many of the warmest years on record have happened in the past 20 years.
- The primary cause of climate change has been human activity, primarily as a result of the burning of fossil fuels like coal, oil, and gas.
- Burning fossil fuels generates greenhouse gas emissions that act like a blanket wrapped around the Earth, trapping the sun's heat and raising temperatures.
- Increasing temperatures caused by global warming are accelerating the melting of ice, which raises sea levels and leads to flooding and soil erosion.
- There is a increasing global consensus that climate change is impacting the trajectory of national growth, with obvious implications for the economy, society, and environment.

How Climate Change is Relevant for Indian Economy?

- The climate of India is quite diversified in nature, from the peaks of Himalayas to the flat beaches, which are facing a significant transition in climate.



- Temperatures in India have risen by 0.7 Â°C (1.3 Â°F) between 1901 and 2018.
- In May 2022, severe heatwave was recorded in India. The temperature reached 51 Â°C. Climate change makes such heatwaves 100 times more likely.
- Ten states and a Union Territory in India, in the northern and north-eastern part of the country, have been experiencing large excess (over 60%) rainfall.
- Many parts of the country have suffered from floods due to excessive rainfall.

Impacts of Climate Change on the Indian Economy:

- Climate change can make weather patterns less predictable. Farmers' decisions regarding what crops to plant and when to grow them are impacted by uncertainty about monsoonal changes, which lowers productivity.
- The river flow required at the time of irrigation will decrease due to earlier seasonal snowmelt and diminishing glaciers.
- Heat stress reduces feed and fodder, making it difficult to take care of the livestock, with animals used as milk producers, manure and seeding and as household capital, particularly in landless households.
- Work hours are cut in industries like construction that need a lot of outside activity due to climate change. Days with severe heat or floods tend to have reduced labour productivity, which lowers industrial yields, lowers exports and lowers national income.
- Climate change causes an energy crisis because higher temperatures necessitate more energy use to help minimize the impact of the heat.
- The infrastructure has been severely impacted by the increased extremes of natural disaster brought on by climate change. India spent 3 billion dollars of economic damage caused by floods in the last decade which is 10% of the global economic loss.
- Increasing temperatures and increased seasonal variability cause Himalayan glaciers to melt more and more quickly. This effects the natural cycle of glaciers forming rivers and results in either overflowing rivers resulting into heavy flood or dry rivers, causing water scarcity.
- Climate disasters results in scarcity of food due to negative impact on crops. This affects the families with low income as the prices of food items increase.

Way Forward:

- Reduced air pollution and a shift away from fossil fuels can be done with the transition to clean, green energy.
- A planned approach to development which address climate change challenges and ways to reduce its effects on different sectors.
- Conservation of forests is required for regulating rainfall and temperature.
- To tackle the water scarcity, development of proper waste management is important.
- Crop diversification and micro irrigation based farming reduces the amount of water required and helps in better use of rainfall. This will help in protecting our agriculture from climate change.
- Development of disaster resilient infrastructure through shelter houses, coastal embankments, and the construction of flood-resistant buildings and roads.



- It is also important to develop more accurate and timely weather forecasts and early warning systems.

Conclusion:

India's ambition to become a developed country in the next 25 years faces a significant obstacle in the form of climate change. For the time being, attention must be paid to climate change solutions that can boost the economy while also enhancing our quality of life and safeguarding the environment. Our reliance on fossil fuels must be reduced in order to combat climate change and save money. Additionally, it is crucial for the government to advocate for environmentally friendly behaviours among the population, such as planting and taking care of trees, recycling, switching to electric vehicles, and water harvesting. Even if it might already be too late, if most of us adopt an environmentally conscious attitude and contributed to lowering environmental stress, we might be able to prevent any further drastic changes to the climate.

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