

CLIMATE CHANGE OUTLOOK: AN OVERVIEW OF INDIA

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ABSTRACT

Climate Change (CC) is currently having a devastating and harmful influence on the planet. Which is caused by intensive industrialization, agriculture, transportation, pollution, and other factors, along with the dangers of rising sea levels, land degradation, and rising temperatures. However, many nations are unable to meet their CC action plan commitments owing to internal issues. Recently, a developing country like India has enacted a stringent climate change action plan, as well as a strategy for long-term growth and development. India's National Action Plan for Climate Change and Energy Security (NAPCC) is a co-benefit approach to addressing the threat of climate change. The National Action Plan for Climate Change (NAPCC) outlines India's goal for environmentally sustainable growth as well as the steps that must be taken to put it into action. India must make a deliberate shift away from fossil fuels and toward a renewable-energy-based economy. By 2030, India's INDC has set a goal of 175 GW of renewable energy. 32 Indian states have designed and are implementing their own state-level climate change action plans. Despite the fact that there have been several studies on climate change concerns and their causes and consequences in India, this study focuses on India's position on climate action and its policies on climate change action plans from Kyoto to the Paris agreement. India's emerging global leadership position on climate change as a result of its policies and activities was also examined in this study.

KEYWORD: Action Plan, Climate Change, NAPCC, Paris Agreement, Sustainable Growth, etc.

INTRODUCTION

When Europe fell under the grip of the Industrial Revolution, the true climatic dilemma arose. The indiscriminate usage of natural resources resulted in a disaster. Rachel Carson, one of the first ecologists, made people aware of the abuse of science and technology in her book "The Silent Spring." Climate change became an important policy problem after the Brunt Land Commission Report in 1987. The 'greenhouse effect,' which is produced by the excessive emission of chlorofluorocarbon (CFC) by industrialized countries, has become a major source of worry. The United Nations Conference on the Environment, held in 1972, was the first global gathering to make environmental issues a priority. The participants agreed on a set of principles for environmental management. The Stockholm Declaration, which included 26 principles, elevated environmental concerns to the top of international agendas. One of the most important achievements of the Stockholm conference was the creation of the United Nations Environment Programme (UNEP). One of the most significant themes to emerge from the conference is the acknowledgement of poverty alleviation as a strategy for environmental protection. India's Prime Minister, Indira Gandhi, delivered a keynote address at the conference, highlighting the link between environmental management and poverty reduction. The Kyoto Protocol was signed on December 11, 1997, in Kyoto, Japan, and went into effect on February 16, 2005. In 2020, there were 192 parties to the Protocol (Canada withdrew from the Protocol in December 2012). The first commitment period of the Protocol began in 2008 and ended in 2012. During the Doha Round, nitrogen trifluoride was included for the second compliance period. In 2012, a second commitment term, known as the Doha Amendment to the Kyoto Protocol, was agreed upon to prolong the pact through 2020. The only nations without second-round objectives were Australia, the European Union (and its then-28 member states, now 27), Belarus, Iceland, Kazakhstan, Liechtenstein, Norway, Switzerland, and Ukraine. The amendment had been ratified by 147 states as of October 2020.

Resolution 38/161 of the United Nations General Assembly, on December 19, 1983, created the World Commission on Environment and Development. The United Nations Framework Convention on Climate Change (UNFCCC) and the Convention on Biological Diversity were both opened for signing. The Special

Session on the Environment of the United Nations General Assembly was held in New York from June 23 to 27, 1997. A special report on the history of the Paris Agreement has been released by the Intergovernmental Panel on Climate Change (IPCC). On December 12, 2015, the United Nations General Assembly passed the Paris Agreement. The Paris Agreement is a legally binding international agreement that took effect on November 4, 2016. The Paris Agreement has 193 signatories (192 nations plus the European Union). All countries have agreed to cut their emissions and work cooperatively to adapt to the effects of climate change under the terms of the agreement. The operational specifics for the Paris Agreement's actual implementation were agreed with in December 2018 during the United Nations Climate Change Conference (COP24) in Katowice, Poland. The Paris Agreement will be ratified in November 2021 at COP26 in Glasgow, Scotland.

INDIA'S CONCERN IN RELATION TO ENVIRONMENT

Climate change is a worldwide issue with local implications in India. India's climate change strategy has both international and domestic implications. The National Action Plan for Climate Change (NAPCC) contains India's vision of environmentally sustainable development as well as the procedures that must be done to put it into action. In the run-up to the Paris Climate Change Summit, the INDC is a declaration of intent on climate change action. The NAPCC and Energy Security of India is a co-benefit method to addressing climate change's danger. Around the 1970s, the situation got serious. The depletion of natural resources, which resulted in the 1973 Oil Crisis, the misapplication of science and technology, which resulted in the Bhopal Gas tragedy (1984) and the Chernobyl disaster (1986), and the misuse of science and technology, which resulted in the Bhopal Gas tragedy (1984) and the Chernobyl disaster (1986). The careless attitude of those linked with industry, which has resulted in widespread acid rain, has compelled policymakers to tolerate it. The environment's 'non-renewable' character People were not in a cowboy economy, according to Kenneth Boulding. Extravagance should be displayed. He compares the planet to a spaceship that would degrade if it were not maintained on a regular basis external input supplement. The present study of ecology gained an ethical dimension as a result of such realizations. James Lovestruck created the Gaia theory to transform a human-centric environmental research into an eccentric one. Clean Development Mechanism, Joint Implementation, and Emission Trading are among the Kyoto Protocol's market-based methods. The cultural atmosphere of India is noted for promoting a strong relationship between the individual and the environment.

On 275 rivers, the Central Pollution Control Board (CPCB) found 302 contaminated river sections. The government recognizes the problem and has formed the National Mission for a Clean Ganga to solve it. The entire length of contaminated riverine is 12,363 kilometers. Furthermore, air pollution is a serious problem in Indian cities. Rapid industrialization, increasing urbanization, increased automobile usage, unregulated burning of crop leftovers, and emissions from coal power plants and brick kilns, among other factors, are all contributing to rising air pollution. Forests are essential for long-term environmental management. The Draft National Forest Policy, 2018 was issued by the Ministry of Environment, Forestry, and Climate Change in March 2018. For the first time, the National Forest Policy of 1988 focused on environmental sustainability. The new National Forest Policy aims to improve India's forest management sustainability.

The NAPCC recognizes that India needs to undertake a strategic move away from fossil fuels and toward an economy based on renewable energy sources such as solar energy and cleaner sources such as nuclear energy. On the backdrop of the National Solar Mission's excellent accomplishment, India's INDC has set a target of 175 GW of renewable energy by 2030. When compared to 2005, the energy intensity of India's growth would decrease by 33-35 percent by 2030. This is a significant contribution to combating global climate change. India is making strides on a number of fronts to guarantee that its citizens have access to renewable energy in the future. The government imposes a hefty coal cess, on the order of Rs.400 per tons, with the profits going to a Clean Energy Fund. 32 Indian states have developed and began executing their own climate change state action plans. The goal is to preserve a clean, green, and healthy environment with people's participation in order to foster greater and more equitable economic growth by utilizing existing natural resources in a sustainable manner. In the current financial years (2022- 23) India aim to Reducing PM2.5 levels in Indian cities to below 50, Building a renewable energy generating capability of 175 GW, Avoiding the burning of crop leftovers, ensuring that all homes have access to LPG for cooking, As envisioned in the National Forest Policy of 1988, increasing forest cover to 33.3 percent of the geographical region.

USA'S PERSPECTIVE

Countries such as the United States, China, and a slew of others have failed to meet their commitments to environmental sustainability. China currently accounts for more than a quarter of all global emissions. The United States, which is the world's second-largest emitter, contributes for 11% of worldwide emissions. According to the research, India is responsible for 6.6 percent of world emissions, edging out the EU's 27 member states, which account for 64 percent. The findings come after President Joe Biden hosted a climate

meeting. According to China's ecology ministry, coal accounted for more than half of the country's domestic energy output last year. The country's economy is still reliant on coal for growth. Local, state, and federal governments all work together to design climate change policies. After China, the United States is the world's second-largest producer of greenhouse gases, and one of the countries with the highest greenhouse gas emissions per person. Corporations that are publicly opposed to decreasing carbon emissions perform the majority of lobbying on climate policy in the United States.

Asia-Pacific is not on track to achieving any of its sustainability targets by 2030, said a United Nations representative. The Covid pandemic has put a drag on progress in many areas, said Kaveh Zahedi. He said the region has seen a "rollback" in some areas and is "going backwards" when it comes to climate action (2022). New Energy for America is a strategy to increase renewable energy production, reduce dependency on foreign oil, solve the global climate catastrophe, and make coal a less competitive energy source. During Barack Obama's presidential campaign, it was announced. The American Clean Energy and Security Act, a cap-and-trade measure, was enacted by the House of Representatives on June 26, 2009, but failed to pass the Senate. At 2009, President Barack Obama stated that "our wealth, our health, and our safety are in risk" if the international community did not act quickly to address climate change. In 2010, President Obama stated that it was time for the United States to "aggressively accelerate" its transition away from oil and toward other energy sources. The US filed its intended INDC for greenhouse gas emissions to UNFCCC. President Barack Obama stated in 2015 that by 2025, he wants to reduce methane emissions by 40-45 percent below 2012 levels. The President would subsequently formalize this commitment in an agreement with Prime Minister Justin Trudeau of Canada in March 2016, announcing that the two federal governments will collaborate to minimize methane emissions in North America. Within their respective domains, the agreement specified general procedures and strategies for achieving such aims. The Biden administration has established a National Climate Task Force and put a halt to oil and gas leases on public lands since entering office. In his infrastructure package, his administration proposes investing on climate change, including \$174 billion for electric automobiles and \$35 billion for climate-focused research and development. Following intense opposition from environmentalists, indigenous peoples, and the Joe Biden administration, the project Keystone XL, which was regarded to be exceedingly damaging for the climate, was shelved in June 2021. Due to rapid industrialization, heavy carbon emission and deforestation USA unable to meet its commitment to the world. However, the United States has failed to meet its commitment to environmental legislation and action, resulting in floods, wildfires, hurricanes, tropical storms, and other environmental disasters. There are around 54 environmental disasters faced by USA as per the research.

EMMISSION DATA OF FOUR MAJOR COUNTRIES (in million tons)

YEAR	CHINA	USA	INDIA	RUSSIA
1970	2015	5719	769	1744
1980	2844	5965	941	2430
1990	3920	6160	1375	3052
2000	5343	7198	1851	2118
2018	13740	6298	3620	2314

Source- unep.org

Above data show that the emission report of five major countries from 1970 to 2018 on the basis of ten years gap. One of the leading polluters of GHG is China. 27.79% of the world's emissions come from it. 13,739.79 million tons were released in 2018. Its 250% growth in GHG emissions since 1990 is one among the largest. The United States of America ranks among the major emitters of GHG. 12.74% of the world's emissions come from it. 6,297.62 million tons were released in 2018. With 19.27 tones, it is one of the nations with the largest GHG emissions per person. One of the biggest GHG polluters is India. It is the cause of 7.32% of the world's emissions. 3,619.80 million tons were released in 2018. One of the top emitters of GHG is the Russian Fed. It is responsible for 4.68% of the world's emissions. It released 2,313.74 million tons of emissions in 2018. It is one of the nations with the highest per capita GHG emissions, at 16.07 tones. However, because of the nation's policies and programmes to combat climate change, the emission fluctuated every ten years. In addition to individual action plans, binding principles and the national determine principle significantly impacted emission, particularly between the years of 1970 and 2000. However, the significant change in climate change was caused by the spread of liberalization, privatization, and globalization (LPG). Due to the free flow of goods and services that LPG allows between nations, both developed and developing countries have shifted their attention away from sustainable development and toward industrial and technological advancement. Issues like air pollution harming health, disease, extreme weather events, forced displacement, pressures on mental health, and increased hunger and poor nutrition in areas where people cannot grow or find enough food draw the

attention of the world. Issues between world leaders must be taken into account when addressing climate change. For example, the recent withdrawal of former US President Trump from the Paris Agreement illustrates how disagreement and conflict among nations have diverted attention from the problem. However, President Biden re-joined the Paris Climate Agreement on January 20 as one of his first official acts as president. The United States will double its climate financing efforts through the U.S. Development Finance Corporation (DFC) and triple its assistance to help developing countries adapt to the impacts of climate change, he announced, mobilizing nations around the world to increase their commitments to combating climate change at the Leaders' Summit on Climate on April 22–23. In order to leverage \$3.5 billion in private funding for climate resilience, USAID also disclosed that it would invest \$250 million.

National Action Plan of India

As part of India's Initial National Communication to the United Nations Framework Convention on Climate Change, studies of climate change adaptation and vulnerability were conducted in a number of areas, including water resources, agriculture, forests, natural eco-systems, coastal zones, health, energy, and infrastructure (UNFCCC). The Ministry of Environment & Forests established the Expert Committee on Impact of Climate Change in June 2007 to assess the effects of climate change on six different sectors, including agriculture, health, Coastal Zone Management, natural ecosystems, and water resources. A variety of policies and programmes were then launched to address the issue of climate change in the context of sustainable development after the Expert Committee's reports had been prepared. On June 30, 2008, the prime minister unveiled the National Action Plan on Climate Change (NAPCC). It presents a national plan of action meant to facilitate climate change adaptation and improve the ecological sustainability of India's development course. The importance of maintaining a high growth rate is emphasized in order to raise the living standards of the vast majority of Indians and lessen their susceptibility to the effects of climate change. The foundation of the National Action Plan is made up of eight "National Missions." They put special emphasis on fostering knowledge of climate change, adaptation and mitigation, energy efficiency, and resource preservation.

The NAPCC's guiding principles are: Protecting the poor through inclusive and sustainable development strategies, sensitive to climate change Achieving national growth and poverty alleviation goals while ensuring environmental sustainability Extensive and accelerated deployment of appropriate technologies for adaptation and mitigation New and innovative market, regulatory, and voluntary mechanisms. The National Solar Mission (NSM) was introduced in January 2010 with the goal of making India a global leader in solar energy by establishing the political framework for the rapid diffusion of solar technology. NSM's initial goal was to install 20 GW of solar energy by 2022. The National Mission for Sustaining the Himalayan Ecosystem is a specific mission that aims to protect biodiversity in the Himalayan region and stop Himalayan glaciers from melting. The Himalayan ecosystem as a national mission will centre on the quick development of four different national capacities that deal with: Human and knowledge capacities Institutional capacities for evidence-based policy building and governance Continuous self-learning for balancing between forces of nature and human actions. The mission aims to address a number of significant issues regarding Himalayan Glaciers and the resulting hydrological effects. Traditional knowledge societies and their means of subsistence Biodiversity conservation and protection Wildlife conservation and protection.

CONCLUSION

India's NAPCC and Energy Security is a co-benefit method to addressing climate change's danger. NAPCC contains India's vision of environmentally sustainable development as well as procedures that must be done to put it into action. The Paris Agreement has 193 signatories (192 nations plus the European Union). India is making strides on a number of fronts to guarantee that its citizens have access to renewable energy in the future. The new National Forest Policy aims to improve India's forest management sustainability. India's INDC has set a target of 175 GW of renewable energy by 2030, which is significant contribution to combating global climate change.

The NAPCC and Energy Security of India is a co-benefit approach to tackling the threat of climate change. India's cultural environment is known for encouraging a close bond between people and the environment. The NAPCC outlines India's vision for environmentally sustainable development as well as the steps necessary to put it into effect. The CPCB discovered 302 polluted river sections on 275 rivers. In Indian cities, air pollution is a major issue. For long-term environmental management, forests are necessary. The new National Forest Policy intends to enhance the long-term viability of India's forest management. By 2030, India's INDC has set a goal of 175 GW of renewable energy. India's strong commitment and action plan on climate change, as a developing country, demonstrate crucial leadership qualities on the international stage; nevertheless, India should continue to involve herself in combating climate change and ensuring a sustainable environment throughout its leadership.

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