# **CLIMATE CHANGE POLICY IN INDIA**

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#### Abstract

Climate change is one of the most critical problems, Climate change impacts will range from affecting agriculture – further endangering food security – to sea-level rise and the accelerated erosion of coastal zones, increasing intensity of natural disasters, species extinction, and the spread of vector-borne diseases. India released National Action Plan on Climate Change (NAPCC) to mitigate and adapt to climate change on June 30, 2008. The NAPCC runs through 2017 and directs ministries to submit detailed implementation plans to the Prime Minister's Council on Climate Change by December 2008. This article reviews the Indian policy to achieving the goal of climate change.

**Keywords:** Climate change, Indian policy, Action Plan on Climate Change.

#### Introduction-

Since last few decades climate change is a serious agenda for the government of India. India is most vulnerable to climate change. It has one of the highest densities of economic activity in the world. Indian people depend on agriculture and rely on the natural resource. Climate change will have several detrimental impacts on the population of India and its economy. The government is currently taking steps to address this issue, but more has to be done. India emits about 3 gigatonnes CO2eq of greenhouse gases each year, about two and a half tons per person, which is less than the world average.<sup>1</sup>

India emits 7% of global emissions, despite having 17% of the world population.<sup>2</sup> Temperature rises on the Tibetan Plateau are causing Himalayan glaciers to retreat, threatening the flow rate of the Ganges, Brahmaputra, Yamuna and other major rivers. World Wide Fund for Nature (WWF) report states that the Indus River may run dry for the same reason.<sup>3</sup> Heat waves frequency and intensity are increasing in India because of climate change. Severe storms, landslides and floods are projected to become increasingly common in states. Climate change performance index of India ranks eighth among 63 countries which account for 92% of all GHG emissions in the year 2021.<sup>4</sup>

## Climate change-

Climate change refers to long-term shifts in temperatures and weather patterns. These shifts may be natural. But since the 1800s, human activities have been the main driver of climate

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change, primarily due to burning fossil fuels like coal, oil and gas which produce heat tapping gases. In other words climate changes refer to the changes in the environmental conditions of the earth. Carbon dioxide and methane is the main examples of greenhouse gas emissions that are causing climate change. Carbon dioxide come from more use of vehicles and deforestation where as landfills for garbage are a major source of methane emissions. Energy, industry, transport, buildings, agriculture and land use are among the main emitters.<sup>5</sup>

According to NASA, the Earth average temperature has increased about 1 degree Fahrenheit during the 20th century. The impacts of this small change in the temperature are many, from longer drought seasons and heat waves to more aggressive hurricanes Furthermore, the increase in the earth's average temperature created a variety of problems that left a lasting scar on our environment.<sup>6</sup>

# Effect of climate change-

The impact of climate change on different sectors of society. Climate change can also impact human health. Rising sea level, threatens coastal communities and ecosystems. Changes in the patterns and amount of rainfall, as well as water quality and the production of hydroelectricity. Changing ecosystems influence geographic ranges of many plant and animal species and the timing of their lifecycle events, such as migration and reproduction.<sup>7</sup>

Increases intensity of extreme weather events, such as heat waves, droughts, and floods, there are many main areas impacted by climate change which are discussed below-

## **Temperatures-**

Earth's temperature has risen up. 2021, was the sixth warmest year on record based on noaa temperature data.<sup>8</sup> Day by day all land areas are seeing more hot and heat waves. Higher temperatures increase heat-related illnesses and make more difficult to work and move out. Temperatures in the Arctic have warmed at least twice as fast as the global average.<sup>9</sup>

#### Severe storms-

With increasing global temperature the possibility of more drought and intensity of storms. The frequency and extent of destructive storms is also affected by the warming ocean. Cyclones, hurricanes, and typhoons feed on warm waters at the ocean surface. Such storms often destroy homes and communities, causing deaths and huge economic losses.

#### **Drought-**

Rising temperature evaporates water quickly thus increase the risk of drought. Drought increased risk of agricultural affecting crops, and vulnerability of ecosystems. Desserts are expanding, reducing land for growing food. Many people now face the threat on heath, energy, and the environment.

## Warming ocean

The ocean absorbed 90% of the heat generated by human. As the ocean warms, its volume increases since water expands as it gets warmer. Consequently, ice melting, sea level rise, marine heat waves, and ocean acidification. Higher ocean temperatures are melting polar ice and glaciers from Greenland.

## Loss of species-

Species are already being impacted by climate change, species play essential role in ecosystem and the effects of climate changes world is losing species, ecosystems and other spices across the food chain. Forest fires, extreme weather, and invasive pests and diseases are among many threats related to climate change. Some species will be able to relocate and survive, but others will not.

#### Affect Food chain-

Climate changes can disrupt food availability, reduce access to food and food quality. Fisheries, crops, and livestock may be destroyed or become less productive. <sup>10</sup> The ocean becoming more acidic, marine resources, changes in snow and ice cover in many arctic regions have disrupted food supplies. Heat stress can diminish water sources, grasslands and affecting livelihoods.

## Poverty and homeless -

The increased frequency of extreme weather events like storms, droughts and foods threaten lives driving people from their homes, food sources and livelihoods, all these effects increases poverty hunger and conflict. Climate changes displace the people and stress on our environment, economy, social and political system.<sup>11</sup>

## Climate change in Indian perspective-

Environmental challenges in India have been sharper in the past two decades. Climate change is impacting the natural ecosystems and is expected to have substantial adverse effects in India, mainly on agriculture on which 58 per cent of the population still depends for livelihood, water storage which are the source of major rivers and groundwater recharge, sea-level rise, and threats to a long coastline and habitations. Climate change will also cause increased frequency of extreme events such as floods, droughts. These in turn will impact India's food security problems.<sup>12</sup>

Last decade, there has been a gradual change in the issue of climate change emerging both within national and state governments in India, especially, responding to international pressure for action, there has been more focused domestic policy movement around climate change and related issues.

The Ministry of Environment, Forest and Climate Change has adopted an environmental policy <sup>13</sup> National Environmental Policy, 2006, which sets mandates for concerned departments.

Climate change policies in India Ministry of Natural Resources and Environment, published the main objectives of the National Policy on Climate Change include mainstreaming climate change through the wise management of resources and enhanced environmental conservation. Government of India adopted two policies concerning climate change. 14 there are-

- First the National Action Plan on Climate Change (NAPCC) 2008,
- Second 12th Five Year Plan, introducing measures that promote economic development while yielding secondary climate benefits.

The Government of India has appointed the National Institution for Transforming Urban India successor to the Planning Commission, as the nodal agency to coordinate the SDGs. Together with the Ministry of Statistics and Program Implementation & NITI Aayog will work together with the different line ministries to develop indicators that reflect the SDG goals and targets. <sup>15</sup>

## Indian policy on climate change-

The Prime Minister, Dr. Manmohan Singh, has set up a High Level advisory group on climate change issues which include: Government Representatives and Non-Government Members. The Council coordinates National Action Plans for assessment, adaptation and mitigation of Climate Change. It also advises the Government on proactive measures that can be taken by India to deal with the challenge of Climate Change. It will also facilitate inter-ministerial coordination and guide policy in relevant areas. <sup>16</sup>

The Government of India launched national action pan on climate change (NAPCC) on 30<sup>th</sup> June 2008 outlining eight national missions on climate change.17 These are eight national pan representing multi pronged, long term and integrated strategies for achieving key goal in the context of climate change.

The action plan outlines a number of steps to simultaneously advance India's development and climate change-related objectives. The National Action Plan on Climate Change (NAPCC) encompasses a range of measures. It focuses on eight missions, which are as follows:

1. National Solar Mission:

- 2. National Mission for Enhanced Energy Efficiency:
- 3. National Mission on Sustainable Habitat:
- 4. National Water Mission:
- 5. National Mission for Sustaining the Himalayan Ecosystem:
- 6. Green India Mission:
- 7. National Mission for Sustainable Agriculture:
- 8. National Mission on Strategic Knowledge for Climate Change:

Ministry of Science & Technology was entrusted with the responsibility of coordinating two out of these eight national missions on climate change. These are:

- National Mission for Sustaining Himalayan Ecosystem (NMSHE) and
- National Mission on Strategic Knowledge for Climate Change (NMSKCC)

Both of these missions - NMSHE & NMSKCC - focus on building national S&T capacities in the area of climate change. While main objective of NMSHE is to develop a capacity to scientifically assess the vulnerability of the Himalayan region to climate change and continuously assess the health status of the Himalayan ecosystem, NMSKCC focuses on building human and institutional S&T capacities in climate change and developing strategic knowledge in the key areas of climate change science, adaptation and mitigation.

The NAPCC also describes other ongoing initiatives that are as follows:

- a) Power generation:
- b) Renewable energy:
- c) Energy efficiency:
- d) Proposals for health sector:
- e) Implementation

Other policy applied by the Government of India

- > State action pan on climate change
- > National clean energy fund
- Paris Agreement
- ➤ International solar alliance
- Bharat stage emission norms
- Word bank on climate change

In August 2022, Shri Narendra Modi Government has amended its 2001 Energy Conservation Act to promote energy efficiency and conservation, and regulate the energy

consumption of certain equipment, appliances, buildings and industries through energy consumption standards and codes, and the introduction of a carbon credit market.

It is stated that initiatives of central and state government to prevent climate change are started but, most importantly things that, these initiatives must be continuous and sustainable. And individuals of every country will need to participate their contribution to prevent climate change. By releasing the NAPCC, the government has shown India's commitment to address climate change issues and also sent a positive message to the public, industries, and civil society about the government's concern to address the climate change issue through concerted action.

It is duty of every people that every change and every effort begins from the individuals. we as a individual by expressing our opinion on various burning problem and spreading awareness to each other and pay our effective role with the purpose of achieving the goal or object. The destiny of mankind depends on the actions which we human being taken. We being the intellectual class have greater responsibility.

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