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### RESEARCH ARTICLE

#### CLIMATE CHANGE IN INDIA: GAPS IN POLICIES AND PRACTICES

**Vaishali Nagar**

Masters in Resource Management and Design Applications.

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#### Abstract

This study was carried out to understand the gaps between the targets and achievements in government climate change policies and the sufficiency of government policies and decisions regarding climate change. For this research paper secondary research was conducted. Various government reports from IPCC, the Ministry of Environment, Forest and Climate Change, and the Ministry of New and Renewable Energy were analyzed. The study revealed that the government is lacking behind in achieving the targets for the year 2022. Out of the 100 GW target, only 40.1 GW of solar energy is installed in the country. India is ranked 180th among 180 countries in the Environmental Performance Index (EPI) 2022. There are targets in place, but the specific plan of action to deal with the issues of climate change are lacking. It's high time the Indian government shall take the right decisions for protecting the environment and addressing the issue of climate change with an accurate approach.

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#### Introduction:-

Climate change is the defining catastrophe of our time and it is occurring even more rapidly than we expected. Current events have insistently shown our growing susceptibility to climate change. Climate change repercussions vary from hitting agriculture – further jeopardizing food security – to sea level rise and spurring erosion of coastal zones, species extinction, growing intensity of natural disasters, and the outspread of vector-borne diseases (Press Information Bureau, [PIB],2021).

Changes in rainfall, temperature and adverse weather have also escalated the recurrence and outspread of diseases in wildlife, people, and agriculture. Lately, we see an elongated wildfire season and a rise in the area burned. Nowadays people living in cities come across greater risks of heat stress, lack of water, food shortages, poor air quality because of wildfire, and other effects caused by climate change and its impacts on supply chains, critical infrastructure, and other transport networks. Globally, climate change is abruptly causing injuries, malnutrition, illness, menaces to physical and mental health and well-being, and even demise. It is making warm areas even warmer and excessively decreasing the time people can spend outdoors, which means that some outdoor workers cannot work the requisite hours and hence will earn less (Intergovernmental Panel on Climate Change [IPCC],2022).

Climate change impressions are anticipated to aggravate with additional warming. It is also an entrenched fact that they are interacting with numerous other societal and environmental challenges. These incorporate a burgeoning world population, a rapidly increasing number of people living in cities, land degradation, significant inequality, unsustainable consumption, continuing poverty, biodiversity loss due to land-use change, overfishing, ocean

**Corresponding Author:- Vaishali Nagar**

Address:- Masters in Resource Management and Design Applications.

pollution, habitat destruction furthermore a global pandemic. Where trends bisect they can strengthen each other, worsen risks and impacts, which influence the poor and most endangered people the hardest (IPCC, 2022)

### **National Action Plan on Climate Change (NAPCC)**

The National Action Plan on Climate Change (NAPCC) was publicized by the Prime Minister on 30th June 2008. It frames a national strategy that focuses to accredit the country to adjust to climate change and elevate the ecological sustainability of India's development track. It emphasizes that sustaining a high growth rate is crucial for developing the living standards of the vast majority of people of India and turning down their sensitivity to the impacts of climate change. There are eight National Missions on climate change National Solar Mission, National Mission for Enhanced Energy Efficiency, National Mission on Sustainable Habitat, National Water Mission, National Mission for Sustaining the Himalayan Eco-system, National Mission for a Green India, National Mission for Sustainable Agriculture and National Mission on Strategic Knowledge for Climate Change.

India's climate change policy is constructed considering both international and national parameters. NAPCC is the national and locally focussed action plan that is in place since 2008. Therefore, there is a level of consciousness at the policy level in India on the significance of progress that is climate change sensitivity, environment friendliness, and sustainability. Moreover, even though not close-knit, various ministries include these policies in their work. There are targets in place, but the specific plan of action to deal with the issues of climate change are lacking.

### **Review of Literature:-**

In a study titled "Climate change and health: Why should India be concerned?", Majra, Gur (2009) studied that climate change shows increasing menace to public health security – from adverse weather-related disasters to a wider spread of such vector-borne diseases as dengue and malaria. The influence of climate on human health will not be uniformly distributed around the world. Malaria, diarrhea, and malnutrition are notable public health problems. Any further rise, as presented in weather-linked disasters and related health effects, may ruin the already insufficient public health infrastructure in the country. Therefore, there is a hasty need to acknowledge the situation. Response alternatives to defend health from the effects of climate change incorporate mitigation as well as adaptation. Both can accompany each other and can remarkably reduce the risks of climate change.

In a study titled "Climate change and its impact on human rights: North-East India in context", Gurung (2021) studied the influence of climate change on the fundamental human rights of the people is growing as a salient research field, especially in the North East region of India- the region which is more vulnerable to the extravagant effect of global climate change due to its shared international boundaries, geo-ecological fragility, rugged mountain terrains and the regions' high dependency on climate-conscious livelihoods such as tea, forestry, and agriculture. Intense effects of climate change in the region are already being seen in the form of an increase in mean temperature, a decrease in air quality, a difference in biodiversity, and slight changes in rainfall patterns which has eventually intimidated a range of human rights of the people in the region such as their Right to Food, Right to Life, Right to health and so on.

In a study titled "Impact of climatic changes and anthropogenic activities on ecosystem net primary productivity in India during 2001–2019, Bejagam, Sharma (2022) studied the effects of climatic changes and human activities on ecosystem net primary productivity (NPP) in India utilizing remote sensing-based observations, Residual Trend analysis (RESTREND) and correlation analysis. The involvement of climatic changes and human activities varied contiguously and temporally. In general, climatic factors amplified the net primary productivity, whereas human activities pitched into a slight decrease in NPP. These findings ameliorate our understanding of how ecosystems in India are affected by climate change and human activities in recent decades.

### **Aim and Objectives:-**

1. To identify the gaps between the targets and achievements in government climate change policies in India
2. To identify the sufficiency of government policies and decisions regarding climate change in India

### **Research Methodology:-**

For this research paper secondary research was conducted. Various government reports from IPCC, Ministry of Environment, Forest and Climate Change, and Ministry of New and Renewable Energy were analyzed. Also, news

reports from Hindustan Times and Times of India were examined. Data were collected from Climate Action Tracker as well.

## **Result and Discussion:-**

### ***Gaps between targets and achievements in government climate change policies in India***

In 2014, Prime Minister Narendra Modi assured that India will attain the target of installing 175 GW of renewable energy capacity by the end of 2022. As the year closes its end, data from the Central Electricity Authority revealed that India has only about 116 GW of renewable energy capacity across solar, wind, bio-power, and small hydroelectric sources.

**In the case of solar energy**, the central government aims to achieve 100 GW of grid-connected solar energy by 2022. Over a decade since the launch, only 40.1 GW of solar energy capacity has been installed in the country. The rooftop solar program was introduced in February 2019. It was estimated at achieving 40,000 megawatts (MW) from rooftop solar projects by the year 2022. In 2019-20, only 472 MW of capacity was accomplished against the target of 3,000 MW. The target of 40 GW of solar energy capacity by 2022 is questionable to be achieved. In the case of wind energy, the overall target was 60 GW and only 39.2 GW of wind energy has been installed as of now.

**In the case of the green energy corridor**, the project targets to contemporize electricity from renewable sources with conventional power stations in the grid. Since the launch of the project in 2015-16, transmission lines of length 7,365 circuit kilometers (ckm) have been built and sub-stations of capacity 9,976 MVA have been commissioned (till December 31, 2020). This is lesser than the target of 9,700 ckm of conveyance lines and 22,600 MVA sub-station capacity.

At COP27, India presented its prolonged plan of action for Low Carbon Development (LTS) which bring forth a disintegration of initiatives by sector, but these do not go far off the current policies and general future direction. Based on its Low Carbon Development, India intends to pursue developing coal in the long term. The level of detail conveyed is exceptionally confined with no emissions pathway to exhibit how India will reach net zero by 2070. It remains uncertain if India's net zero by 2070 objectives covers all greenhouse gas emissions or just CO<sub>2</sub>. A drop in emissions in 2020 was mostly due to lockdown actions in response to the pandemic, but the economy has snapped back, with 2021 emissions at much higher levels than our previous records. The generation and utilization of coal remain an issue: the Ministry of Power has assigned a skilled committee to table a proposal to stop new coal-based power units after 2030. However, the government is enduring its support for coal and India continues to be the second-largest coal pipeline globally.

### ***Environmental Performance Index (EPI) ranking***

The World Economic Forum declared the Environmental Performance Index (EPI) 2022, on June 6, 2022, ranked 180 countries in terms of climate change performance, ecosystem vitality, and environmental health India is ranked **180th among 180 countries** in the Environmental Performance Index (EPI) 2022. India falls to the bottom of the rankings for the first time because of rising hazardous air quality and greenhouse gas emissions.

### ***Insufficient government decisions regarding climate change in India***

Even after progressive firm laws, rules, procedures, and regulatory measures are proposed over time, they fall far short of the expected goals and targets in many aspects due to political, administrative, social, economic, and capacity constraints. Nevertheless, it is extensively acknowledged that environmental performance has not entirely kept pace with the pace of development in a sustainable manner.

India's forests are in a very critical situation. Between 2014 to 2017, 36,500 hectares of forest land were re-routed for non-forest activities like mining, industry, highways, and so on. This brings to an annual average of 12,166 hectares, or similar to 63 football fields every single day. This does not incorporate the invasions.

The **Lancet** report which pointed out that 2.5 million people are dying prematurely due to diseases associated with pollution was dissolved as a western conspiracy. Environment minister Harsh Vardhan, also a doctor, has dismissed reports that indicate air pollution leads to millions of death every year saying that: "To attribute any death to a cause like pollution may be too much."

The duty of authorizing mining agreements has also been assigned to the district level, to a committee that considers the mining officer as a member and the district chief engineer of the irrigation department as the chairperson. The District Environment Regulation Authority is to be directed by the district magistrate whose job is to raise revenues. It's like asking a person likely to exploit the resources that they have been charged with to protect them.

Thirteen of the 20 highly polluted cities in the world are in India. The Yamuna passing through India's capital Delhi has 16 million fecal coliform parts per million (PPM); the accepted value is 500 PPM for potable water which means the flush in your toilet may have cleaner water.

The Himalayas are determined to have the excessive concentrations of dams in the world, so states like Arunachal, Himachal, and Sikkim are distressed by conflict over water, and dams (with subsequent dislocation and loss of forests). In central India Chhattisgarh and Jharkhand, the acquisition of land for mining has communities up in arms. Goa is taking to the streets opposing the plans to convert it into a coal corridor. In September 2017, a 1,600 MW power plant coincidentally Adani's was accepted in Jharkhand's Godda district. It ruined forests, water, and multi-crop fertile land, only to sell its electricity to Bangladesh. There is massive disruption among the local farmers who do not want to leave their land.

### Conclusion:-

India is experiencing a high level of climate crisis with the year 2021 being the fifth warmest reported over the past 121 years as per a report released by the India Meteorological Department (IMD). The impacts of global warming and climate change are evident yet, there are fewer projects stopped on environmental grounds, but supported for economic reasons even if they are destroying forests, land, water, and air. So appropriate strategies should be adopted for achieving the targets on time and environment-friendly decisions should be encouraged by the government.

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