

## Policy Framework for Climate Change: A View

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### Abstract

Climate change is one of the most concerning areas for global challenges in 21<sup>st</sup> century, with profound implications for environmental, economic, and social systems worldwide. Addressing this crisis requires the development of comprehensive and adaptive policy frameworks that effectively mitigate greenhouse gas emissions while fostering resilience to climate impacts. This paper explores the evolution and effectiveness of international, regional, and national climate policies, focusing on the frameworks established by key agreements such as the United Nations Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol, the Paris Agreement and the Conference of the Parties (COP). Through an analysis of these global agreements and national strategies, including the European Union's Green Deal and the United States' evolving climate policy, the paper examines both the successes and shortcomings of current efforts to maintain global environmental issues. Additionally, it highlights the role of market-based mechanisms, such as carbon pricing and green finance, in promoting a sustainable transition. By identifying key policy gaps—such as inadequate long-term funding, political resistance, and insufficient enforcement—the paper offers recommendations for enhancing climate governance, promoting international cooperation, and ensuring equitable outcomes for vulnerable populations. In conclusion, the need for stronger, more ambitious, and inclusive policy frameworks is underscored as critical to averting the most severe consequences of climate change and achieving global sustainability targets.

**Keywords:** Climate, Policy, Change and Environment.

### Introduction

Climate change is an existential challenge that poses significant threats to ecosystems, economies, and human societies around the globe. It is primarily driven by human activities, particularly the burning of fossil fuels, deforestation, and industrial agriculture, which release vast amounts of greenhouse gases (GHGs) into the atmosphere. These gases, such as carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O), trap heat, leading to a rise in global temperatures—a phenomenon commonly known as global warming. The repercussions of this warming are becoming increasingly evident in the form of more frequent and severe weather events, rising sea levels, loss of biodiversity, and threats to food and water security.

Scientific consensus, as detailed in the reports by the Intergovernmental Panel on Climate Change (IPCC), emphasizes the urgency of limiting global warming to below 2<sup>0</sup>C, with efforts to restrict it to 1.5<sup>0</sup>C above pre-industrial levels. Exceeding these thresholds would result in irreversible damage to many ecosystems, endanger human livelihoods, and exacerbate social inequalities, particularly in vulnerable regions like small island states and low-income countries. Given the scale and complexity of this challenge, climate change cannot be addressed by any single entity or nation; it requires a coordinated global response.

Over the past three decades, international climate diplomacy has sought to address these issues through various policy frameworks aimed at reducing GHG emissions, enhancing resilience to climate impacts, and promoting sustainable development. Key agreements, including the United Nations Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol, and the Paris Agreement, have shaped the global

governance of climate change. These frameworks have facilitated negotiations among countries, leading to the establishment of emissions reduction targets and the mobilization of financial resources to support climate action, especially in developing nations.

However, despite these efforts, global emissions continue to rise, and current policies remain insufficient to meet the ambitious goals set by the Paris Agreement. The gap between policy commitments and action on the ground is widening, highlighting the need for stronger, more effective frameworks. Moreover, political resistance, economic concerns, and the influence of vested interests often hinder progress at both national and international levels. Addressing these challenges requires not only more ambitious climate policies but also innovations in governance, finance, and technology.

The paper examines the current landscape of climate policy frameworks, focusing on their strengths, weaknesses, and areas for improvement. It explores the roles of key global agreements, regional and national strategies, and market-based mechanisms in combating climate change. In addition, the paper identifies gaps in existing policies and offers recommendations for enhancing climate governance and achieving sustainable outcomes. By critically assessing the effectiveness of these frameworks, this study aims to contribute to the broader discourse on how global, national, and local actors can collectively respond to the climate crisis with urgency and ambition.

## SCIENTIFIC BACKGROUND AND IMPACTS OF CLIMATE CHANGE

The diminishing of forest, burning the fossil fuels (coal, oil, and natural gases) plays the major role in rise in global temperature which will melt the glacier and in result some low sea level country will submerge into the sea. Therefore a serious action towards it by the Intergovernmental Panel on Climate Change (IPCC), will provide the consensus on how greenhouse gases trap heat in the atmosphere, leading to warming.

**Break down the following impacts of climate change:** Rising Temperatures: The global average temperature has risen, setting the specific benchmarks like 1.5°C and 2°C targets outlined in the Paris Agreement.

**Sea-Level Rise:** The higher the temperature, more ice and glacier will melt, which results the rise in sea level. The higher sea level will submerge the coastal area and some low sea level countries. Therefore, in future some countries existence will disappear.

**Extreme Weather Events:** The weather will be very harsh due to global warming and it is seen that frequency of tornado, cyclone or hurricane is increased which directly and indirectly impacts our socio-economic structure. Due to global warming, there is change in weather pattern- at some places there is highly drought and at some places heavy rain come.

**Biodiversity Loss:** The drastic change in weather impacts the farming and land fertility which directly affects the local habitats. At certain season there is migration of birds which increases the biodiversity of region but due to harsh condition the birds restrict to move and try to find another place compatible to their liveable.

**Socioeconomic Impacts:** The climate change directly and indirectly impacts the human societies. The heavy rain and drought condition push the human to move to the uninhabitable areas. The disaster like thunderstorm, earthquake, flood etc either destroy or highly impact the economic structure and these conditions generate the situation that they forcefully move from their homeland.

## THE NEED FOR POLICY FRAMEWORKS

There is a necessity of creating structured, well-designed policy frameworks to mitigate climate change impacts. There are some highlights of challenges of crafting effective policies

**Political Barriers:** Governments often face opposition from vested interests like the fossil fuel industry, and political leaders may prioritize short-term economic gains over long-term climate action.

**Economic Challenges:** There are significant economic implications, including the cost of transitioning to renewable energy and the potential impact on jobs in carbon-intensive industries.

**Social Resistance:** Some societies resist changes in energy consumption, especially in developing countries where fossil fuels may still be seen as key to economic development. Therefore, in order to move from ancient way of energy consumption, the developing and underdeveloped countries require the fund allocation and full support for sustaining in the world.

## GLOBAL POLICY FRAMEWORKS

**The United Nations Framework Convention on Climate Change (UNFCCC)** was signed in 1992 by 154 states at the United Nations Conference on Environment and Development (UNCED). The treaty entered into force on 21<sup>st</sup> March 1994. The motto of this UN process was to conquer the dangerous climate change due to human interference with the climate system. Also, it was decided to limit the emission of greenhouse gas.

### The Kyoto Protocol

The Kyoto Protocol is the first legally binding agreement under the UNFCCC, which set binding emissions reduction targets for developed countries. On December 11, 1997, the representative from 160 countries gathered in Tokyo, Japan to attend the Third Conference of the Parties (COP) and signed a historic the Kyoto Protocol agreement. The aim of this protocol was to cut the GHG emission in 38 industrialized countries by 5.2% between 2008 and 2012 compare to the levels to registered in the year 1990. For the first time ever, legally binding targets and commitments were set and key economic players such as Japan, the US and the European Union pledged to cut their emissions by 7%, 8%, and 9% respectively. In result it is set to reduce the emission of ratifying countries approximately by 7% below the emissions under a 'No-Kyoto' scenario.

### The Paris Agreement (2015)

The Paris Agreement marked a new era in climate governance. Discuss its goal of keeping global temperature rise well below 2<sup>0</sup>C and pursuing efforts to limit it to 1.5<sup>0</sup>C. Evaluate the role of Nationally Determined Contributions (NDCs), which allow countries to set their own emissions targets.

### Other International Agreements and Initiatives

Some other agreements are also done to save the Earth such as Montreal Protocol, which successfully addressed ozone depletion but also indirectly reduced greenhouse gas emissions, and voluntary coalitions like the Climate Ambition Alliance formed during COP25.

## REGIONAL AND NATIONAL POLICY FRAMEWORKS

### European Union

The European Union as a single work together to fight against the global warming. They have set their target to reduce the global warming temperature to 1.5<sup>0</sup>C. At the 2023 UN Conference on Climate Change (COP28), the EU's position was again crucial in setting the level of global ambition. It is now proposing to cut 90% of its emissions by 2040.

### United States of America

After analysing the global warming, climate change and its impact on planet Earth, the United States of America started to work in this direction. Since during development stage the USA exploited the resources extensively and became the developed nation. But when nature started to show the repercussion, the countries started to think about the planet. Under the USA administration, the president followed the clean power plan and rejoin the Paris agreement and set the targets to reduce emissions by 50-52% by 2030. For achieving this goal, the country should take it seriously without hesitation and biasing.

### **China**

In the current time, China is the world's largest emitter, and this country should play a crucial role. During the COP28 session it was decided to increase the non-fossil fuels in primary energy consumption to around 25% in 2030. China refused to sign the Global Renewable and Energy Efficiency Pledge (the Pledge). The Pledge is a high-profile, voluntary declaration that commits countries to triple renewable energy capacity to at least 11,000 GW by 2030 and double the global average annual rate of energy efficiency improvements from around 2% to over 4% every year until 2030. This step indicates the non-seriousness of this country for climate change.

### **Developing Nations**

The developing nations like India and Brazil, are serious towards the climate change but the main issue for them is the funding. These developing countries have to manage between the fund and social reforms and they are balancing development needs and climate change. The Brazil has made the policies for deforestation and trying to switch towards renewable energy. But sometimes the wildfire and other natural disaster disrupts the strategy. India has also decided to achieve net zero carbon emission up to 2070 and India is taking proper steps for attaining this goal before time.

### **Market-Based Mechanisms and Economic Policies**

#### **Carbon Pricing**

Increasing the carbon taxes and enhancing the carbon pricing will play a role to move away from fossil fuels system. The European Union's ETS and California's cap-and-trade system show that these mechanisms work well and this should be followed by other countries also.

#### **Subsidies and Incentives**

In order to increase the role of renewable energy in the government should provide the subsidy in renewable energy and solar cell so that the usability of fossil fuels go down. Also, if the government provide incentives for the person or company who use the solar or non-fossil fuels then it will encourage continued use of polluting free energy sources.

#### **Green Financing**

The international organizations, such as the World Bank, IMF, and Green Climate Fund should finance the climate mitigation and adaptation projects. The public-private partnerships (PPP) models is also solution for green financing because the protection from climate change is a two way process and if the government and private company collaborative work together then the goals could be achieved. The green bond is also a solution for green financing.

### **POLICY GAPS AND CHALLENGES**

**Lack of Alignment Between Short-Term and Long-Term Goals:** Governments often prioritize immediate economic gains over long-term climate stability.

**Insufficient Funding:** Climate financing falls short of what is required, particularly for adaptation in vulnerable countries.

**Monitoring and Enforcement:** Weak mechanisms for tracking progress on NDCs, and the lack of binding enforcement mechanisms under the Paris Agreement.

**Political and Industrial Resistance:** Powerful industrial lobbies, political opposition, and misinformation campaigns hinder more ambitious policies.

## RECOMMENDATIONS FOR STRENGTHENING CLIMATE POLICY FRAMEWORKS

**Enhancing International Cooperation:** There are many conferences and councils are formed from many years but no country is serious in this direction because even today the greenhouse gas and melting glacier is continued. Recently, a glacier near Russia is totally melted and a new route is developed. This shows the country's own profit at the cost of Earth destruction. So, in order to do some work in this direction, the global organizations and institutions such as UNFCCC, COP should be strengthened and to watch the country's action.

**National Policy Innovations:** The countries should be encouraged to adopt more aggressive national policies, including stricter emissions standards and comprehensive adaptation plans. The cities and local governments can play in leading role in climate action.

**Market and Financial Solutions:** If any country have to move away from fossil fuels systems and provide an alternate route for fuel then two actions should take simultaneously, one is to increase in carbon taxes and enhance the carbon price and second to provide the alternate option so that there would be no problem to be shifting. Also, in order to implement these steps the developed countries should provide financial assistance to the third countries otherwise no one will take proper steps in this direction.

**Social and Equity Considerations:** It is also the social responsibility of each and every citizen to cooperate with the government, the intuitions and organization who are working in these directions. The climate change impacts every person all over the world. Limiting the population is also a way to support in climate change because if there is constant population or less population then there is no need to clear the forest to make available the land, less emission of greenhouse gas, less pollution etc. So it is the responsibility of every citizen to contribute in to save the planet Earth.

## CONCLUSION

The global challenge for sustaining the ecosystem, economics, health, society etc. is to maintain the climate habitable because there is no other planate till now. The scientific evidence regarding this issue warns that there is a need of decisive and immediate action otherwise the world will have to suffer extreme consequences such as frequent weather events, ubiquitous ecological and economic disruption. Since some steps are taken over the world to save the planet in form of agreements such as UNFCCC, the Kyoto Protocol, the Paris Agreement and the Conference of Parties (COP). Even the aim of these agreements is to save the planet by the increase of forestation, attaining the net zero carbon emission, reduce the use of fossil fuels, increase the dependency on solar cell etc. but in reality, the targets are far away. The reason behind this is the lack of interest of developed countries. They have developed by harness the nature without thinking about the future but, when there is time for developing countries to look ahead for development, they try to put startle and remind about nature. These are double standards by the developed countries.



In conclusion tampering with nature even at low scale impacts the whole world in all forms including social, financial, economical, physical etc. There is need of fund allocation by developed countries to the third economy countries because they are underdeveloped countries who have very less role in the climate change but they also face the negative impact of climate change. The implementation of policy frameworks will put positive impact of climate. The upcoming time will be harsher and will decide the planet's climate future. If the world come together with strict decision and the determination having a single objective to save the world from the worst impact of climate change, then this planet will be habitable for the future generation. The proper collective actions at local level, national level and global level will ensure the climate policies effective, inclusive and capable of addressing the scale of the climate crisis.

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