



COMBATING CLIMATE CHANGE: A CRITICAL ANALYSIS OF EMERGING LEGAL SYSTEM

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ABSTRACT

The most important concern facing contemporary civilization is climate change, which is now being addressed. Climate change's effects all walks of life and jeopardizes global ecosystem. Through a number of covenants and agreements between the states, the United Nationals and its specialized agencies are making significant efforts to mitigate the effects of climate change. The states parties are encourage to suitably amend their respectivemunicipal laws to address the issue of climate change so as to successfully manage the causes of climate change. Climate change is the long-term alteration of temperature and weather patterns. Significant volcanic eruptions or shifts in the sun's activity may be the cause of such swings. However, since the 1800s, human activity has been the main driver of climate change, particularly the burning of fossil fuels like coal, oil, and gas. The burning of fossil fuels releases greenhouse gas emissions that act as a blanket over the earth, absorbing solar heat and raising temperatures. The main greenhouse gases that cause climate change are carbon dioxide and methane. For instance, they are created while burning coal or fuel to heat a building. When forest area is diminishedand trees are removed from the land,the scope of absorption of Carbon Dioxide is negated. The various covenant and instruments have been adopted by the UN and its Agencies to mitigate the effect of climate change with the consent of state parties. Further, State parties have also



adopted these covenants and instruments through legislation in their municipal laws. This article examines the efficacy and effectiveness of these legal instruments and measures vis-a-vis the problem of climate change.

KEYWORDS: *Climate Change, Consequences, Emission, Laws and policies, India, Emission, Ecosystem, Economy, Greenhouse Gas*

1. INTRODUCTION

Long-term changes in the temperature, humidity, atmospheric pressure, wind, rain and other weather factors of an area are called climate. The climate of a region is determined by five components of the climate system namely; atmosphere, hydrosphere, cryosphere, lithosphere, and biosphere. The location's latitude, topography, elevation, and bordering water bodies also influence the prevailing climate. It is believed that rising atmospheric temperature is the biggest impact on climate change. However, issue of climate change doesn't start with rising temperatures. Rise in temperature triggers or brings about other changes in cycle of atmosphere as the Mother Earth is an interconnected system. Severe droughts, water shortages, devastating fires, rising sea levels, floods, melting polar ice caps, catastrophic storms and loss of biodiversity are just some of the consequences of rising atmospheric temperature. The world's climate is dynamic and undergoes a natural cycle all the time. The acceleration of change that is happening now is what has made the world more worried. There are emissions greenhouse gases around the world that contribute to climate change. However, the level of emission varies from country to country as some countries produce much more than others. About half of the world's greenhouse gas emissions in 2020 came from the top seven polluters (China, the United States, India, the European Union, Indonesia, the Russian Federation and Brazil). Though it the responsibility of everyone member state to act towards combating climate change, but the countries releasing larger amount of greenhouse gases must bear the corresponding greater responsibility to mitigate the climate change.



Climate change threatens clean air, clean drinking water, healthy food and safe housing. Rising sea levels, frequent and severe weather changes, heat waves and droughts, wildfires have devastating impact on the life of the people particularly on low- and middle-income countries. Global warming is the result of human activity, which is resulting in adverse changes in our ecosystems. The Global Community is increasingly aware of the critical phenomena of climate change. The Paris Agreement, signed in 2015, is the first global and binding agreement on climate change. India has developed a National Climate Change Policy Action Plan that outlines initiatives to reduce the impact of climate change.

2. REVIEW OF LITERATURE:

Perkins, Munguia, Moure-Eraso, et al., (2018), pointed out that education is critical to advancing sustainability in the environment. Education regarding climate change is a challenging concern wherein a variety of elements play important roles.

Savaresi and Hartmann (2018), proposed that international concern exists on the transdisciplinary¹ subject of planetary warming and a changing climate. There are a few international agreements on environment that are concerned with climate change and global warming. The United Nations Framework Convention on Climate Change, which was approved at the Rio Earth Summit in 1992 and ratified² by 195 nations, is the most important international accord in this field. Beginning in 2020, it focuses primarily on the funding, adaptations, and curbing the emissions of greenhouse gases. The Kyoto Protocol, which updates the 1992 UNFCCC, requires states that have signed on, to cut greenhouse gas emissions. Its two underlying tenets are that global warming is factual and that it is the result of human-caused emission of carbon dioxide.

Kulovesi (2014), understood the substantial connection between the UNFCCC and WTO legal frameworks has previously been investigated, and such ties can be anticipated to expand if countries make honest attempts to meet the global climate aim of controlling the shoot up in temperature to less than 2°C over the period prior to industrialization.

¹ Linked with more than one division of knowledge

²To make an agreement officially acceptable by voting for or signing it.



*Ruhl and Saltzman*³, pointed out that there is a nearly instinctive understanding that because climate change is destined to cause destruction, law and policy would inevitably evolve across various disciplines, even to the point of requiring an entirely new field of law devoted explicitly to handling mitigation and adaptation to climate change.

McDonald (2011), argued that legal structures and mechanisms, as well as technical skills, executive levels, and attitudinal measures, are going to serve a pivotal part in the mitigation of atmospheric conditions.

Carlarne (2010), The scientific and political setting surrounding climate change reflects an urgent sense, unmatched in the history of international environmental law as the United Nations Framework Convention on Climate Change (UNFCCC) approaches its twentieth anniversary and the first compliance period for the Kyoto Protocol to the UNFCCC draws to a close. Environmental, monetary, and defence forums throughout the world are constantly discussing the future of the international climate framework, and it is a highest political priority everywhere. Media outlets on a local, regional, and international scale increasingly report on climate change politics, science, repercussions, and solutions. As a result of changes in economic strength and the impact of carbon footprints, the significance of developing States is becoming more crucial. Particularly significant and crucial elements of the global climate regime are China and India. The global financial meltdown of 2008 provided a terrifying geopolitical blow to the US and EU's economic hegemony and exposed the degree pertaining to which China and India have expanded their political clout, as further evidenced by the political dynamics that surfaced at the Copenhagen Climate Change Conference in December 2009. However, despite changes in the economy and the environment, the US and the EU maintain to have a significant hold in global climate agreements.

³(2013)



3. RESEARCH GAP

There are several research gaps related to law and policy on climate change. Some of the key gaps are enumerated hereunder:

1. Implementation and enforcement of existing law and policy on climate:-Though the policy on climate change has been universally adopted in theory, yet there is a lack of implementation and enforcement which rendered the policy ineffective. Research is needed to identify causes for not being implemented effectively and to develop strategies to its improvement.
2. Adaptation policies: There is a need for research on the effective adaptation of policies, particularly in developing countries where vulnerability to climate change is high.
3. Legal frameworks for climate action: There is a need for research to identify the most effective legal frameworks for climate action, including the role of international law and domestic legislation for the support in climate action.
4. Financing for climate action: Research is needed to identify innovative financing mechanisms to support climate action, particularly in developing countries where financing is often limited.
5. Just transition: There is a need for research to understand the social and economic impacts of climate policies and to develop strategies for a just transition to a low-carbon economy, particularly in fossil fuel-dependent regions.
6. Climate litigation: There is an increment in climate litigation with the incidence of climate change. Research is required to understand the actual effectiveness of climate litigation in driving policy change and holding governments and corporations accountable for their climate impacts. Thus, there is a need for interdisciplinary research that integrates legal, policy, and scientific perspectives to address the complex challenges of climate change.



4. WHY WE NEED ACTION

The impact of climate change is now a global phenomenon disrupting national economies and affecting lives. People all over the world are experiencing significant impacts of climate change, which include changing weather patterns, rising sea level, and more extreme weather conditions. The greenhouse gas emission which is ever increasing from human activities is primarily responsible for climate change. The marginalized and poor population is more vulnerable to the impact of climate change. Thus, the issue of climate change requires immediate, concerted and coordinated efforts at the national and international level. To address climate change, countries adopted the Paris Agreement to limit global temperature rise to well below 2 degrees Celsius.

5. HYPOTHESIS

Implementing a carbon tax or cap can reduce greenhouse gas emissions. Encouraging the adoption of electric vehicles and investing in public transportation systems can decrease greenhouse gas emissions from the transportation sector.

Implementing energy efficiency measures can reduce energy consumption, such as comparing our buildings energy performance to standards, use of renewable resources like solar panels, wind energy, hydro etc. instead of non-renewable resources.

Use of energy efficient appliances to save energy and cost, we should update our appliances such as refrigerators, washing machines, thermostats etc., because old ones cost heavy energy consumption as compared to new ones.

These things can reduce greenhouse effects, CO₂ emission greatly and can help to maintain ecosystem safe.

6. RESEARCH METHODOLOGY:

As the study is essentially doctrinal in nature, the library method is followed. The available materials in the form of books, research articles, debates, commentaries, legislation of parliaments of India as also case laws are analytically examined. Relevant



literature from materials available on relevant websites is also be made use of for the purpose of this study.

7. INDIA AND CLIMATE CHANGE:

Livelihood of majority of the Indian population India depends on agriculture. Agriculture in turn is depends on climate. Therefore, India is one of the most vulnerable countries to climate change. About half of India's population is dependent upon agriculture or other climate sensitive sectors. About 12% of India is flood prone while 16% is drought prone.

India is now the third largest emitter of greenhouse gases in the world after China and the United States. However, India has now become a key player in international negotiations and has begun implementing a diverse portfolio of policies, nationally and within individual states, to improve energy efficiency, develop clean sources of energy and prepare for the impacts of climate change.

7.1 ENVIRONMENT AND INDIAN CONSTITUTION:

Prior to 42nd amendment to the Constitution in 1976, there was no explicit reference for the protection of environmental. However, Stockholm Conference, 1972, prompted the Indian Government incorporate specific provisions for protection of environment. Accordingly, Article 48-A to the Directive Principles of State Policy was added by way of 42nd amendment. Now, there are specific provisions in Indian Constitution for preserving and protecting the environment. The Fundamental Duties as well as Directive Principles of state policy explicitly provides for the state obligation towards protection and improvement of the environment. The following constitutional provisions have direct bearing on the environmental matters.



- 7.1.1 Article 21⁴ states: "No person shall be deprived of his life or personal liberty except according to procedure established by law." In **Subhash Kumar v. State of Bihar**⁵, and **Virendra Gaur v. State of Haryana**, (1995) 2 SCC 577, the Supreme Court recognized several rights that are implicitly covered within the scope of Article 21 of the constitution. One such right recognized by Hon'ble Supreme Court is 'Right to a Healthy Environment'. Eventually, this right is now virtually recognized an environmental dimension to Article 21.
- 7.1.2 Article 19 (1) (g) of the Indian constitution confers fundamental right on every citizen to practice any profession or to carry on any occupation, trade or business. This is subject to reasonable restrictions. A citizen cannot carry on business activity, if it is health hazards to the society or general public. Thus, safeguards for environment protection are inherent in this.
- 7.1.3 Article 48A⁶ requires that "the State shall endeavour to protect and improve the environment and to safeguard the forests and wild life of the country."
- 7.1.4 Article 51A⁷ provides that "it shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers, and wild life and to have compassion for living creatures." Thus, the protection of environment is a duty cast on the state.

7.2 PROTECTION OF ENVIRONMENT THROUGH LEGISLATIONS:

The Parliament of India has enacted a number of statutes in quest of protecting the ecosystem. These instruments also framed in fulfillment of the International obligations arising out of International Covenants and instruments. Some of these legal frameworks address specific environmental issues such as water, air, forest;

⁴Constitution of India

⁵, A.I.R 1991 SC 420

⁶Constitution of India

⁷Constitution of India



whereas, some others are general in nature. These legal frameworks have proved very effective tools in the hands of the government to achieve the desired results. Some of such statutes are enumerated hereunder.

7.2.1 Water (Prevention and Control of Pollution) Act, 1974:

This Act covers specifically relates to water pollution and is considered to be the first attempt to address comprehensively the issue of water pollution. Thus Act has standardized level of pollutants which can be discharged into water bodies. In other words the Act prohibits discharge of pollutants in to water body beyond a prescribed standard. The Act provides for penal action for non-compliance. The objective of the Act is to maintain purity of the water in the country and also to promote cleanliness of ocean and rivers. The Central Pollution Control Board (CPCB) and State Pollution Control Board (SPCB)⁸ have been established under this Act.

7.2.2 The Air (Prevention and Control of Pollution) Act, 1981:

Air pollution is one of the biggest factors responsible for respiratory cardiovascular diseases. Therefore, it is essential to check air pollution to tackle the problems associated with air pollution. The Act is a tool in the hands of the Government for to regulate and abatement of air pollution. The Act seeks to combat air pollution by prohibiting the use of polluting fuels and also seeks to regulate machines and other Auto-mobile that causes air pollution. National Ambient Air Quality Standards (NAAQS) for major pollutants were notified by the CPCB in the year, 1994. The Act authorizes the state government to declare any area as pollution control area. It is pertinent to mention here that no industry can be operated in an area which declared was 'Pollution Control Area'. Further, specific permission / license is required

⁸ <https://cpcb.nic.in/water-pollution/>



from the concern pollution control board⁹ for operating industrial activity in such area.

7.2.3 The Forest (Conservation) Act, 1980:

This Act provide for protection and conservation of forests by way of limiting the power of state government with respect to de-reservation of forests and use of forestland for non-forest purposes. the clearing of any forestland for cultivation or for any purpose other than re-forestation is prohibited¹⁰.

7.2.4 The Environment (Protection) Act, 1986:

The Environment (Protection) Act, 1986 provides for protection and improvement of the environment. It enabled the Central Government to establish authorities to monitor and prevents environmental pollution of any description and dimensions. Further, the authority formed under the Act is empowered to take steps to tackle environmental problems peculiar to area specific in any part of the country¹¹. The legislation provides a legal framework for the co-ordinated efforts of central and state authorities.¹². The central government is empowered to issue directions by way of Notification From time to time for the protection of eco-sensitive areas.

8. FINDINGS/RESULTS

According to climatologists, the worst impact of climate change must be avoided by reducing production of greenhouse gages. India has updated its climate change commitments to the UN in light of pledges made by Prime Minister NarendraModi to battle global warming at the COP26 session last year.As part of its Nationally

⁹ <https://cpcb.nic.in/7thEditionPollutionControlLawSeries2021.pdf>

¹⁰ Section-2 of The Forest (Conservation) Act, 1980 (ACT NO. 69 OF 1980)

¹¹ <https://cpcb.nic.in/env-protection-act /visited on 07.12.2022 at 4.55AM>

¹² <https://old.amu.ac.in/emp/studym/99994644.pdf visited on 07.12.2022 at 5.20AM>



Determined Contributions (NDC), India has pledged to reduce the emissions intensity of its Gross Domestic Product (GDP) by 45% by the year 2030.

In comparison to the 33-55% reduction that was established before to COP26, India now has a more aggressive objective in terms of the quantity of greenhouse gases generated per unit of economic activity. India was the third-highest volume producer of carbon dioxide in 2020, although its per-capita emissions were lower than the world average. The Paris Agreement suggested 2050 as the deadline for achieving net zero emissions in order to keep global temperature increases to 1.5C, but it continues to set 2070 as the deadline, which is much later than the deadline set by many other countries. Climate Action Tracker, a global group that keeps track of governments' efforts, claims that India's new goals are "stronger on paper" than its earlier promises. It also points out that the updated goals won't be enough to achieve the goal of restricting global temperature increases to 1.5C because India's emissions won't peak until after 2030. India has been ranked as one of the top five countries in the world and the best among the G20 nations for its achievements in battling climate change. India moves up two points to gain the eighth position in the Climate Change Performance Index (CCPI, 2023) created by German Watch, New Climate Institute, and Climate Action Network International, all of which are based in Germany. The only four minor countries that were scored higher than India in the most current CCPI assessment, which was released at COP 27 in November 2022, were Denmark, Sweden, Chile, and Morocco. They come in at positions 4, 5, 6, and 7, respectively. The first, second, and third spots weren't won by any country. In terms of rating among all major economies, India comes out on top.

9. SIGNIFICANCE

The significance of this study lies in its contribution to the existing body of knowledge on the emerging legal systems to combat climate change. The findings of this study may be useful for policymakers, legal practitioners, and scholars working in the field of environmental law and policy.



10.LIMITATION

Virtually every child on the planet is already affected by climate change. Natural disasters, environmental degradation, and biodiversity loss can devastate agriculture, cutting children off from nutritious foods and safe water.

As humanitarian action falls short of addressing the climate crisis, children and young people are bearing the brunt. They make up half of the world's population, but are least responsible for the greenhouse gas emissions, deforestation and other hazardous practices harming our environment.

CONCLUSION

Early in the 19th century, when ice ages and other natural changes in the paleo-climate were first suspected, and the natural greenhouse effect was first identified, the history of the scientific discovery of climate change began. Later with development and onset of an industrialized world, along with poor disposal and poor use of the environmental resources, climate change was further enhanced. After a few years, people started to recognize this as a serious issue and aimed in resolving it. Be it the Stockholm declaration or establishment of various rules and guidelines for the nations to improve our environment or the emergence of the idea of sustainable development, people tried to resolve this major crises. India too was not behind.we adopted various principles and passed various legislation for the conservation of our environment. Various amendmentswere made to meet the needs of the environment, many boards both in the center and the state were established to take care of the environment and its resources. Now a days, people have started realizing the importance of environment and its resources and try to protect it. With this research paper we tried to highlight the improvement that we have made up till now as a whole and what are the areas which need more improvement.



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