

Kyoto Protocol to Paris Convention and Beyond: The Evolution of the Laws on Climate Change

¹Ms. Swara Anand, ²Prof. Dr. S.P. Rathor

¹Research Scholar, University School of Law, Gujarat University

²Former Director, University School of Law, Gujarat University

Abstract

Climate change has emerged as one of the most pressing global challenges, necessitating the evolution of international legal frameworks to address its causes and consequences. This paper traces the development of climate change law from early environmental governance efforts to contemporary global agreements, focusing on the transition from the Kyoto Protocol to the Paris Agreement and beyond. It examines how international climate law has evolved in response to scientific advancements, geopolitical realities, and the need for equitable burden-sharing among nations. The pre-Kyoto period laid the foundation for global climate governance through soft-law instruments and principles such as sustainable development and common but differentiated responsibilities. The Kyoto Protocol marked the first significant attempt to impose legally binding emission reduction targets on developed nations; however, its effectiveness was limited by political divisions and the absence of key emitters. The Paris Agreement represents a paradigm shift, introducing a flexible and inclusive framework that emphasizes nationally determined contributions and global cooperation. The paper further analyzes the normative shifts from a rigid, top-down approach to a more decentralized, bottom-up system, highlighting the increasing role of non-state actors and climate finance mechanisms. It also explores emerging developments in climate law beyond the Paris Agreement, including climate litigation, carbon markets, and evolving compliance mechanisms. Ultimately, this study argues that while international climate law has made significant progress, challenges remain in ensuring enforcement, equity, and ambition. The future of climate governance depends on strengthening legal frameworks, enhancing accountability, and fostering global solidarity.

Keywords: Climate Change Law, Kyoto Protocol, Paris Agreement, International Environmental Law, Climate Governance

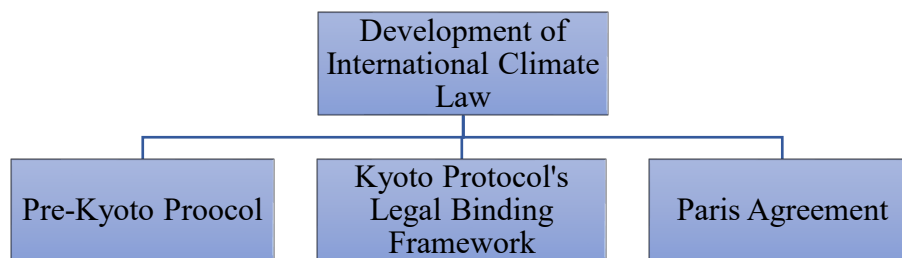
Introduction

Climate change represents a profound and unprecedented challenge to the global community, transcending national boundaries and affecting ecological, economic, and social systems worldwide. The increasing concentration of greenhouse gases in the atmosphere, primarily due to human activities such as industrialization, deforestation, and fossil fuel consumption, has led to rising global temperatures, extreme weather events, sea-level rise, and biodiversity loss. These developments have compelled the international community to formulate legal and institutional frameworks aimed at mitigating climate change and adapting to its impacts.

International climate law has evolved significantly over the past few decades, reflecting shifts in scientific understanding, political priorities, and economic considerations. Initially, environmental concerns were addressed through general principles and non-binding agreements that emphasized cooperation and sustainable

development. However, as the severity of climate change became more evident, there was a growing recognition of the need for more structured and enforceable legal mechanisms.

The development of climate change law can be broadly categorized into three phases: the pre-Kyoto period, characterized by foundational agreements and principles; the Kyoto Protocol era, marked by legally binding emission reduction targets for developed countries; and the Paris Agreement phase, which introduced a more flexible and inclusive framework involving all nations. Each of these phases reflects different approaches to addressing the challenges of climate change, as well as varying degrees of success and limitations.



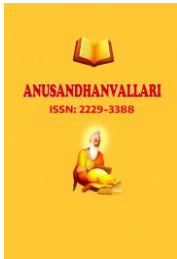
The Kyoto Protocol, adopted in 1997, represented a landmark in international environmental law as it established binding commitments for industrialized countries to reduce greenhouse gas emissions. Despite its pioneering nature, the Protocol faced significant challenges, including limited participation, lack of enforcement mechanisms, and disparities between developed and developing nations. These issues underscored the complexities of achieving global consensus on climate action.

In contrast, the Paris Agreement, adopted in 2015, marked a shift towards a more decentralized approach, allowing countries to set their own emission reduction targets based on national circumstances. This flexibility has facilitated broader participation but has also raised concerns about the adequacy and enforceability of commitments. The Paris framework emphasizes transparency, accountability, and periodic review, aiming to enhance ambition over time. Beyond these major agreements, climate law continues to evolve in response to emerging challenges and opportunities. The increasing role of non-state actors, including corporations, cities, and civil society organizations, has transformed the landscape of climate governance. Additionally, climate litigation has emerged as a powerful tool for holding governments and businesses accountable for their environmental impact.

Pre-Kyoto Protocol Period

The pre-Kyoto period represents the formative stage of international climate change law, during which foundational principles, institutions, and frameworks were established. This era, spanning from the late 20th century to the mid-1990s, was characterized by growing scientific awareness of climate change and increasing international cooperation to address environmental challenges. One of the earliest milestones in global environmental governance was the 1972 Stockholm Conference on the Human Environment, which marked the beginning of coordinated international efforts to address environmental issues. The conference emphasized the need for sustainable development and laid the groundwork for future environmental treaties. Although climate change was not the primary focus, the principles established during this period influenced subsequent climate-related agreements.

The establishment of the Intergovernmental Panel on Climate Change (IPCC) in 1988 was a crucial development in the pre-Kyoto era. The IPCC provided scientific assessments of climate change, its impacts, and potential



mitigation strategies, thereby informing policy decisions at the international level. Its reports played a significant role in shaping the global understanding of climate change and underscored the urgency of collective action.

The adoption of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 marked a significant step forward in the development of international climate law. The UNFCCC established a framework for international cooperation to combat climate change, with the ultimate objective of stabilizing greenhouse gas concentrations in the atmosphere. It introduced key principles such as common but differentiated responsibilities (CBDR), recognizing that developed countries bear a greater responsibility for historical emissions.

Despite its importance, the UNFCCC was primarily a framework convention, lacking binding emission reduction targets. Instead, it relied on voluntary commitments and encouraged countries to develop national strategies for mitigating climate change. This approach reflected the political realities of the time, as many countries were reluctant to accept legally binding obligations that could impact their economic growth. Another important aspect of the pre-Kyoto period was the emergence of soft law instruments and voluntary initiatives aimed at promoting environmental sustainability. These included declarations, action plans, and guidelines that, while not legally binding, contributed to the development of international norms and standards.

The limitations of the pre-Kyoto framework became increasingly apparent as greenhouse gas emissions continued to rise. The absence of enforceable commitments and the reliance on voluntary measures hindered the effectiveness of global efforts to address climate change. This led to growing calls for a more robust and binding international agreement.

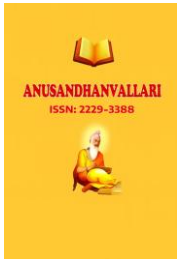
The Kyoto Protocol: A Binding but Divisive Framework

The Kyoto Protocol, adopted in 1997 under the UNFCCC, marked a significant milestone in the evolution of international climate change law. It was the first legally binding international agreement that required developed countries to reduce their greenhouse gas emissions. The Protocol aimed to operationalize the principles established in the UNFCCC, particularly the concept of common but differentiated responsibilities. Under the Kyoto Protocol, industrialized countries, known as Annex I parties, were assigned specific emission reduction targets, collectively aiming to reduce emissions by an average of 5% below 1990 levels during the commitment period from 2008 to 2012. These targets varied among countries, reflecting differences in economic capacity and historical emissions.

One of the innovative features of the Kyoto Protocol was the introduction of market-based mechanisms designed to facilitate cost-effective emission reductions. These included emissions trading, the Clean Development Mechanism (CDM), and Joint Implementation (JI). These mechanisms allowed countries to achieve their targets by investing in emission reduction projects in other countries, thereby promoting international cooperation and technology transfer.

Despite its groundbreaking nature, the Kyoto Protocol faced significant challenges and criticisms. One of the major issues was the limited participation of key emitters. Notably, the United States, one of the largest greenhouse gas emitters, did not ratify the Protocol, citing concerns about economic impacts and the absence of binding commitments for developing countries. This significantly undermined the effectiveness of the agreement.

Another challenge was the rigid distinction between developed and developing countries. While the CBDR principle was intended to ensure fairness, it also led to tensions, as some developed countries argued that emerging economies should also take on binding commitments. This division hindered global cooperation and contributed to the Protocol's limited success. Additionally, the enforcement mechanisms under the Kyoto Protocol were relatively weak, relying primarily on reporting and review processes. Although there were consequences for non-



compliance, such as stricter targets in subsequent commitment periods, these measures were not always sufficient to ensure compliance.

The Paris Agreement: A Flexible, Universal Regime

The Paris Agreement, adopted in 2015, represents a transformative shift in international climate governance. Unlike the Kyoto Protocol, which imposed binding targets on a limited group of developed countries, the Paris Agreement establishes a universal framework that includes all nations, regardless of their level of development.

At the core of the Paris Agreement is the goal of limiting global temperature rise to well below 2°C above pre-industrial levels, while pursuing efforts to limit it to 1.5°C. To achieve this objective, countries are required to submit nationally determined contributions (NDCs), outlining their plans for reducing emissions and adapting to climate change. This bottom-up approach allows countries to tailor their commitments based on national circumstances.

The Paris Agreement emphasizes transparency and accountability through mechanisms such as the global stocktake and enhanced reporting requirements. These processes are designed to assess collective progress and encourage countries to increase their ambition over time. Another key feature of the Paris Agreement is its focus on climate finance, technology transfer, and capacity-building, particularly for developing countries. It recognizes the need for financial support to enable vulnerable nations to mitigate and adapt to climate change.

While the Paris Agreement has achieved widespread participation and represents a more inclusive approach, it also faces challenges. The voluntary nature of NDCs raises concerns about the adequacy of commitments, and the lack of strong enforcement mechanisms limits its effectiveness.

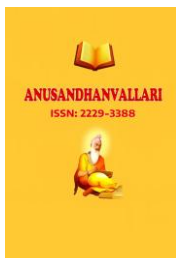
From Kyoto to Paris: Shifts in Norms and Principles

The transition from the Kyoto Protocol to the Paris Agreement reflects significant shifts in the norms and principles underlying international climate law. One of the most notable changes is the move from a top-down approach, characterized by legally binding targets, to a bottom-up system based on voluntary national commitments.

This shift reflects the recognition that a rigid, one-size-fits-all approach is not suitable for addressing the diverse circumstances of different countries. The Paris Agreement's flexibility has enabled broader participation, including both developed and developing nations. Another important shift is the evolving interpretation of the principle of common but differentiated responsibilities. While the Kyoto Protocol emphasized clear distinctions between developed and developing countries, the Paris Agreement adopts a more nuanced approach, recognizing that all countries have a role to play in addressing climate change. The increased emphasis on transparency, accountability, and iterative progress also represents a significant development. The Paris framework encourages countries to regularly update and enhance their commitments, fostering a dynamic and adaptive approach to climate governance.

Beyond Paris: Emerging Developments in Climate Law

In the years following the adoption of the Paris Agreement, climate law has continued to evolve in response to emerging challenges and opportunities. One of the most significant developments is the rise of climate litigation, with individuals, communities, and organizations increasingly turning to courts to hold governments and



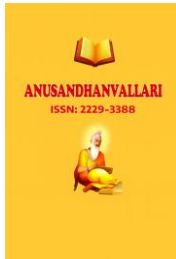
corporations accountable for their contributions to climate change. Another important trend is the growing role of non-state actors, including cities, businesses, and civil society organizations. These actors are playing an increasingly active role in climate governance, often implementing innovative solutions and driving progress at the local level. Carbon markets and pricing mechanisms are also gaining prominence as tools for reducing emissions. These mechanisms create economic incentives for emission reductions and promote the transition to low-carbon technologies.

Conclusion

The evolution of international climate law from Kyoto to Paris illustrates the tension between legal enforceability and political inclusivity. Kyoto embodied a rigid, legally binding approach that failed to achieve universal participation, while Paris embraced flexibility and inclusivity at the cost of legal precision. The post-Paris era will determine whether voluntary commitments, coupled with transparency, litigation, and societal pressure, can deliver the rapid decarbonization needed to meet the 1.5°C goal. International climate law now stands at a crossroads: whether to remain anchored in a flexible bottom-up system or move toward stronger binding obligations that align ambition with scientific necessity. The effectiveness of this legal evolution will define the trajectory of global climate governance in the decades ahead.

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