

Climate Justice under Contemporary Environmental Change: Between the Historical Responsibility of Industrialized States and the Right of Developing Countries to Sustainable Development

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Abstract :

Climate change ranks among the most pressing challenges confronting the international community, given its severe repercussions on the environment, the economy, and human rights — particularly in developing countries, which bear the brunt of its consequences despite contributing minimally to greenhouse gas emissions. In this context, the concept of climate justice has emerged as a mechanism for achieving equity among states in shouldering climate responsibilities, by holding industrialized nations historically accountable for environmental degradation while guaranteeing the right of developing countries to sustainable development. This study aims to clarify the concept of climate justice and its legal foundations, to analyse the responsibility of industrialized states for environmental change, to highlight the impact of climate change on development in developing countries, and to examine the effectiveness of international climate agreements. The study concludes that the international legal regime on climate still faces considerable challenges that constrain its effectiveness, chief among them being the weakness of binding international commitments and the persistence of economic disparities between states. Addressing these challenges requires strengthening climate finance, facilitating technology transfer, and enshrining international environmental responsibility in a manner that guarantees the right of developing countries to sustainable development.

Keywords: Climate Justice; Environmental Change; Industrialized States; Developing Countries; Sustainable Development.

Introduction

Climate change is among the most serious challenges confronting the international community in the present era, owing to its adverse effects on virtually every dimension of human, economic, social, and environmental life. The industrial and technological development experienced by advanced nations since the Industrial Revolution has produced an unprecedented surge in greenhouse gas emissions and an accelerating depletion of natural

resources, contributing directly to the worsening of global warming and the disruption of the planetary environmental equilibrium.

At the same time, developing countries are those most severely affected by the consequences of climate change, despite their limited contribution to global environmental pollution. These nations face mounting challenges relating to poverty, desertification, water scarcity, natural disasters, and threats to food and health security — all of which bear negatively upon their right to development and their prospects for economic and social stability.

Against this backdrop, the concept of climate justice has emerged as a legal and ethical mechanism aimed at achieving equity among states in the distribution of climate responsibilities. It does so by holding industrialized nations historically accountable for global environmental degradation, while guaranteeing the right of developing countries to sustainable development and to access the financial and technological support necessary to cope with the adverse effects of climate change.

The significance of this study lies in its attempt to analyse the extent to which the international legal regime on climate effectively balances global environmental protection with the developmental rights of developing countries — especially against a backdrop of persistent economic and political disparity between the countries of the Global North and the Global South.

Research Question

To what extent has the international legal regime on climate succeeded in achieving climate justice through the reconciliation of the historical responsibility of industrialized states for contemporary environmental change with the right of developing countries to sustainable development?

The significance of this study lies in its engagement with one of the most complex and contemporary issues in international affairs: the climate disparity between industrialized and developing countries. It further seeks to assess the capacity of international legal norms to entrench climate justice and to strike a balance between environmental obligations and development imperatives.

Objectives of the Study

- To clarify the concept of climate justice and its legal dimensions.
- To highlight the responsibility of industrialized states for climate change.
- To analyse the effects of climate change on development in developing countries.
- To examine the effectiveness of international climate agreements.
- To propose legal mechanisms for strengthening climate justice at the global level.

This study employs a descriptive methodology in presenting the effects of climate change, an analytical methodology in examining legal texts and international agreements, and a comparative methodology in contrasting the obligations of industrialized and developing states.

In order to address the central research question, the study is structured around two main sections: Section One, entitled 'The Conceptual and Legal Framework of Climate Justice,' and Section Two, entitled 'The Right of Developing Countries to Development in the Face of Climate Challenges.'

1. The Conceptual and Legal Framework of Climate Justice

In the context of growing international concern over the risks posed by contemporary environmental change — particularly as the divide widens between industrialized and developing nations in terms of responsibility for environmental pollution and the scale of damages incurred — the concept of environmental justice has come to the fore as one of the modern frameworks seeking to achieve equity among states in bearing climate responsibilities. It does so by holding industrialized nations historically accountable for global environmental degradation, while guaranteeing developing countries' right to sustainable development and access to the financial and technological support necessary to address the adverse effects of climate change.

Given the importance of climate justice as a modern concept, it is essential to delineate its conceptual and legal framework. This section accordingly examines the concept of climate justice and its relationship to contemporary environmental change — by outlining the manifestations of that change and its legal dimensions — before analyzing the legal basis for the responsibility of industrialized states for climate change, and highlighting the historical responsibility borne by those states for the aggravation of the global climate crisis.

1.1. The Concept of Climate Justice and Its Relationship to Contemporary Environmental Change

1.1.1. The Concept of Climate Justice

Climate justice is understood to mean the achievement of equity among states and peoples in bearing the responsibilities associated with climate change and its effects, grounded in the premise that industrialized states bear a historical responsibility for the greater part of the greenhouse gas emissions that have led to the worsening of global warming.¹

This concept rests upon a set of legal and ethical principles, the most important of which include the principle of equity, the principle of common but differentiated responsibilities, and the right of peoples to sustainable development — in addition to the imperative of respecting human rights linked to the environment, such as the rights to life, health, food, and water.²

The principle of common but differentiated responsibilities is among the most significant principles enshrined by the United Nations Framework Convention on Climate Change. The Convention acknowledged the existence of disparities among states in their

¹Abd al-Qadir Ben Da'mash, *Environmental Justice and Climate Change* (Algiers: Dar Houma, 2021), 70.

²Ahmed Abu al-Wafa, *International Environmental Law* (Cairo: Dar al-Nahda al-Arabiyya, 2018), 214.

responsibility for global environmental degradation, a fact that justifies imposing greater obligations on industrialized nations relative to developing countries.³

It bears noting in this regard that the concept of climate justice is closely bound up with the broader concept of environmental justice, which seeks to ensure the equitable distribution of environmental burdens and to prevent vulnerable groups or nations from bearing the consequences of the industrial activities of advanced states.

1.1.2. Manifestations of Contemporary Environmental Change

Contemporary environmental change manifests in a range of phenomena resulting from escalating environmental imbalance, including rising global temperatures, glacial melting, sea-level rise, desertification, drought, intensifying natural disasters such as floods and cyclones, as well as the loss of biodiversity and increasing water scarcity.⁴

These phenomena have come to threaten the environmental and economic security of states — particularly developing countries, which lack the technical and financial capacity to contend with and adapt to the consequences of climate change.⁵

In this context, studies published by the Intergovernmental Panel on Climate Change (IPCC) have confirmed that continued increases in greenhouse gas emissions will lead to intensifying environmental disasters and growing risks to food, water, and health security across numerous regions of the world.⁶

1.2. The Responsibility of Industrialized States for Climate Change

1.2.1. A. The Legal Basis for International Environmental Responsibility

The international environmental legal system rests upon a set of principles that establish state responsibility for environmental harm. The most important of these are: the no-harm principle, the precautionary and prevention principle, the polluter-pays principle, and the principle of international environmental cooperation, each of which is elaborated below.

- **The No-Harm Principle.** This principle holds that no state may conduct activities within its territory that are likely to cause harm to the environment beyond its borders. It is a principle that has been affirmed by numerous international agreements and judicial decisions.⁷
- **The Polluter-Pays Principle.** This principle holds that the entity responsible for pollution must bear the financial costs of remedying the resulting environmental damage. It constitutes a legal foundation for imposing particular responsibility on industrialized states in respect of climate change. In this regard, the 2015 Paris Climate Agreement reinforced the international commitment to reducing greenhouse

³United Nations, United Nations Framework Convention on Climate Change, adopted May 9, 1992, entered into force March 21, 1994 (New York: United Nations Publications), art. 3.

⁴Mohamed Sami Abd al-Hamid, *International Environmental Law* (Alexandria: Dar al-Jami'a al-Jadida, 2015), 145.

⁵World Bank, *Development and Climate: An Action Agenda* (Washington, D.C.: World Bank, 2022), 31.

⁶Intergovernmental Panel on Climate Change (IPCC), *Sixth Assessment Report* (Geneva: United Nations, 2022), 45.

⁷Abu al-Wafa, *International Environmental Law*, 223.

gas emissions and limiting global temperature rise, while emphasizing the need to provide financial and technological support to developing countries.⁸

- **The Precautionary and Prevention Principles.** The prevention principle requires that necessary measures be taken in advance to avert environmental harm or mitigate its effects before it materializes — applicable when environmental risks are scientifically established and well-known. The precautionary principle, by contrast, applies in cases where there is a possibility of serious or irreversible environmental harm, even in the absence of full scientific certainty. In such circumstances, the principle mandates the adoption of precautionary measures to forestall future environmental damage.⁹
- **The Principle of International Environmental Cooperation.** This principle holds that states must pool their efforts and coordinate with one another to address environmental problems that transcend the boundaries of any single state, such as climate change, transboundary pollution, and biodiversity loss. It is grounded in the understanding that environmental protection is a collective responsibility that no state can discharge alone; cooperation is essential through the exchange of information and expertise, the provision of technical and financial support, and joint action within international agreements, all with a view to achieving the objectives of environmental protection and sustainable development.¹⁰

Article 9 of the 2015 Paris Agreement further affirmed the need to reinforce the international commitment to reducing greenhouse gas emissions and limiting global temperature rise, while emphasizing the necessity of providing financial and technological support to developing countries.¹¹

1.2.2. The Historical Responsibility of Industrialized States for Climate Change

Industrialized states bear a historical responsibility for climate change as a result of their intensive reliance on industrial activity and fossil fuels since the Industrial Revolution, which has led to an unprecedented accumulation of greenhouse gases in the atmosphere.¹²

These states benefited from industrialization and economic development over many decades, while the effects of environmental pollution spread across the world — particularly to developing countries, which now bear the greater share of the adverse consequences of climate change despite their limited contribution to greenhouse gas emissions.¹³

This is starkly illustrated by the suffering of numerous African and Asian nations from desertification, drought, flooding, and threats to food security, which directly undermines economic development and social stability.¹⁴

⁸Abd al-Hamid, *International Environmental Law*, 167.

⁹Abu al-Wafa, *International Environmental Law*, 221.

¹⁰ *Ibid.*, 223.

¹¹United Nations, *Paris Agreement on Climate Change*, adopted December 12, 2015, entered into force November 4, 2016 (New York: United Nations Publications, 2016), art. 9.

¹²IPCC, *Sixth Assessment Report*, 52.

¹³United Nations Environment Programme (UNEP), *Global Environmental Reports and Assessments* (Nairobi: UNEP, 2022), 20.

¹⁴World Bank, *Development and Climate*, 40.

Although the international community has recognized the principle of common but differentiated responsibilities, industrialized states remain reluctant to fully embrace their historical responsibility — particularly with regard to climate compensation and the financing of environmental adaptation programmed in developing countries.¹⁵

2. The Right of Developing Countries to Development in the Face of Climate

Challenges

The right of developing countries to development is among the fundamental rights recognized by international law. Yet this right has come under increasing strain in the face of worsening climate change and the severe environmental, economic, and social consequences it generates. Climate change has weakened the capacity of developing countries to achieve their development objectives, as a result of mounting natural disasters, declining agricultural production, and resource scarcity — all of which have deepened poverty and economic fragility within these nations. This section accordingly examines the repercussions of climate change for development in developing countries, through an analysis of the economic and social consequences and the environmental and humanitarian threats they generate, before turning to the mechanisms for achieving climate justice at the international level — focusing on the role of climate finance and technology transfer, as well as the role of international agreements and conferences in supporting the right of developing countries to sustainable development despite the intensifying climate challenges they face.

2.1. The Repercussions of Climate Change for Development in Developing Countries

2.1.1. The Economic and Social Consequences of Climate Change in Developing Countries

Climate change has had direct repercussions on the economies and development prospects of developing countries. Drought and rising temperatures have caused a significant decline in agricultural production, thereby threatening food security and exacerbating poverty and famine.¹⁶

Natural disasters have likewise inflicted enormous economic losses, compelling developing countries to divert substantial financial resources toward disaster response rather than channeling them into development projects.¹⁷

Beyond this, escalating climate change has intensified unemployment, migration, and environmental displacement — particularly in regions that depend primarily on agriculture and natural resources — thereby threatening social and political stability within developing countries.¹⁸

2.1.2. The Environmental and Humanitarian Threats Resulting from Climate Change in Developing Countries

¹⁵Abu al-Wafa, *International Environmental Law*, 231.

¹⁶Food and Agriculture Organization of the United Nations (FAO), *The State of Food Security and Nutrition in the World 2022* (Rome: FAO, 2022), 28.

¹⁷World Bank, *Development and Climate*, 51.

¹⁸Abd al-Hamid, *International Environmental Law*, 189.

Climate change constitutes a direct threat to fundamental human rights, particularly the rights to life, health, water, food, and shelter. Numerous regions have become increasingly vulnerable to drought, desertification, and rising sea levels.¹⁹

Environmental disasters driven by climate change have also given rise to the spread of disease and epidemic outbreaks and to the deterioration of health services, compounding the suffering of vulnerable groups within impoverished communities.²⁰

In this context, the United Nations has affirmed the need to recognize the close relationship between environmental protection and human rights, on the understanding that environmental degradation constitutes a direct threat to human dignity and sustainable development.²¹

2.2. Mechanisms for Achieving Climate Justice at the International Level

2.2.1. Climate Finance and Technology Transfer as International Mechanisms for Climate Justice

Climate finance is among the most important international mechanisms designed to assist developing countries in confronting the effects of climate change. Developed countries have committed to providing financial assistance to the most severely affected nations in order to support environmental adaptation programmed and reduce greenhouse gas emissions.²²

Alongside this, the transfer of clean technology constitutes an essential element for achieving sustainable development, enabling developing countries to benefit from modern means in the fields of renewable energy and to reduce their dependence on polluting energy sources.²³

Nevertheless, the problem of insufficient financing and the failure of some industrialized states to meet their financial commitments continues to represent a genuine obstacle to the effective realization of climate justice.

2.2.2. The Role of International Agreements and Conferences in Achieving Climate Justice

Numerous international agreements and conferences have contributed to organizing global efforts to address climate change. Worthy of particular mention are the following:

- The United Nations Framework Convention on Climate Change (UNFCCC);
- The Kyoto Protocol;
- The Paris Climate Agreement.

These agreements affirmed the importance of international cooperation, the reduction of greenhouse gas emissions, and the provision of financial and technical support to

¹⁹United Nations Human Rights Council, Report on Human Rights and Climate Change (Geneva: United Nations Human Rights Council, 2021), 12.

²⁰Ibid., 15.

²¹Ibid., 19.

²²United Nations, Paris Agreement on Climate Change, art. 9.

²³Abu al-Wafa, International Environmental Law, 240.

developing countries. The effectiveness of these efforts, however, remains contingent upon the extent to which industrialized states honor their climate commitments.²⁴

International climate conferences — particularly the Conferences of the Parties (COP) — have witnessed growing demands for the establishment of a dedicated loss and damage fund to assist countries affected by climate disasters.²⁵

2.2.3. Obstacles to the Achievement of Climate Justice

Despite the international efforts undertaken to achieve climate justice, significant challenges persist. The most notable of these include the absence of strictly binding international mechanisms, economic disparities between states, inadequate climate financing, and the systematic prioritization of economic and political interests over environmental considerations.²⁶

The continued rise in global greenhouse gas emissions further reflects the limited effectiveness of the international climate legal regime — particularly in the absence of effective international sanctions against states that fail to honor their environmental commitments.²⁷

International disputes and global economic crises also bear negatively on international environmental cooperation, obstructing efforts to achieve climate justice at the global level.²⁸

Conclusion

Climate justice has emerged as one of the most prominent legal and humanitarian issues generated by contemporary environmental change, laying bare the profound disparity between industrialized and developing nations in bearing climate responsibilities and their consequences. The study has demonstrated that industrialized states carry a substantial historical responsibility for global environmental degradation — the product of their prolonged reliance on polluting industrial activity — while developing countries bear the greater share of the adverse effects of climate change despite contributing minimally to greenhouse gas emissions. The study has further shown that international climate agreements, notwithstanding their importance, continue to suffer from limited effectiveness, owing to the weakness of the binding character of climate commitments and the persistence of economic and political inequality among states.

Accordingly, achieving climate justice requires strengthening international environmental responsibility, securing equitable climate financing for developing countries, and entrenching the right to sustainable development as a fundamental right of all peoples.

²⁴United Nations, Kyoto Protocol to the United Nations Framework Convention on Climate Change, adopted December 11, 1997, entered into force February 16, 2005 (New York: United Nations Publications, 2005), art. 10.

²⁵United Nations, Report of the Conference of the Parties at Its Twenty-Seventh Session (COP27), Sharm el-Sheikh, Egypt, November 6–20, 2022 (New York: United Nations Publications, 2022).

²⁶Abu al-Wafa, *International Environmental Law*, 251.

²⁷Abd al-Hamid, *International Environmental Law*, 205.

²⁸Ben Da'mash, *Environmental Justice and Climate Change*, 118.

Findings:

- Climate justice has become a foundational principle of international environmental law, aimed at achieving equity among states in bearing the burdens of climate change.
- Industrialized states bear a historical responsibility for the greater part of global environmental degradation, as a result of their intensive industrial activity.
- Developing countries are the most severely affected by the consequences of climate change, despite their limited contribution to greenhouse gas emissions.
- The international climate legal regime suffers from a lack of binding force, which limits the effective application of climate obligations.
- International climate agreements have yet to achieve a full balance between environmental protection and the guarantee of developing countries' right to development.
- Climate finance and technology transfer represent two pivotal mechanisms for achieving climate justice and sustainable development.
- The limited contribution of developing countries to greenhouse gas emissions stands in stark contrast to their disproportionate vulnerability to climate impacts, including drought, flooding, and desertification.
- The international climate legal regime continues to suffer from a weakness in binding force, which constrains the effectiveness of climate justice principles.
- International agreements, despite their significance, do not achieve the required balance, owing to the persistence of economic and technological disparities between states.
- Climate finance and technology transfer are essential elements for achieving sustainable development in developing countries and for addressing the effects of climate change.

Recommendations

- It is essential to strengthen the binding character of international climate agreements in order to ensure that states honor their environmental commitments.
- It is necessary to enshrine the principle of the historical responsibility of industrialized states in the face of climate change, particularly in the field of environmental compensation.
- Efforts should be made to increase the volume of climate financing directed to developing countries in a concrete and regular manner, while ensuring its transparency and effectiveness.
- The transfer of clean environmental technology to developing countries should be facilitated, enabling them to achieve low-carbon sustainable development.

- International environmental cooperation should be reinforced through the activation of the principles of cooperation and solidarity among states in addressing climate challenges.
- Climate justice should be mainstreamed within national and international policies as a prerequisite for achieving sustainable development globally.

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