



International Journal Advanced Research Publications

BRIDGING THE POLICY-IMPLEMENTATION GAP IN CLIMATE CHANGE MITIGATION: A COMPARATIVE STUDY OF NATIONAL ADAPTATION STRATEGIES IN THE GLOBAL SOUTH

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Article Received: 31 October 2025, Article Revised: 20 November 2025, Published on: 11 December 2025

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India. DOI: <https://doi-doi.org/101555/ijrpa.6788>

ABSTRACT

The growing threat of climate change has catalyzed global attention towards immediate and long-term mitigation and adaptation strategies. However, the gap between policy formulation and practical implementation remains a critical barrier, particularly in the Global South. This research paper, titled "*Bridging the Policy-Implementation Gap in Climate Change Mitigation: A Comparative Study of National Adaptation Strategies in the Global South*", situates itself within the discipline of *Environmental Law and Climate Policy*. It critically examines the disconnect between climate commitments and their execution, with a focus on the legal, institutional, and financial mechanisms that influence adaptation outcomes. Through a comparative legal analysis, this study investigates climate adaptation strategies in selected Global South jurisdictions—specifically India, Kenya, and Bangladesh—where vulnerability is high but adaptive capacity remains constrained. These regions offer fertile ground to explore how national climate action plans, such as India's National Action Plan on Climate Change (NAPCC) and Kenya's Climate Change Act, 2016, are implemented at various governance levels. The research also integrates relevant case laws such as *M.C. Mehta v. Union of India* (India), which expanded environmental jurisprudence through judicial activism, and emerging legal developments in Kenya and Bangladesh related to climate resilience and environmental justice.

Climate change is integrated into the legal discourse by evaluating how legislative frameworks, institutional mandates, and administrative practices mediate the translation of climate policies into tangible outcomes. The study further engages with the intersections of *environmental justice, sustainable development, and governance*, offering an interdisciplinary

lens to assess the policy-to-practice gap. The paper aims to fulfill three key research objectives: (i) to identify and evaluate immediate and long-term climate strategies adopted by selected Global South countries; (ii) to investigate the institutional, legal, and financial bottlenecks hindering the effective implementation of these strategies; and (iii) to propose a contextual framework for strengthening adaptive governance and ensuring localized, inclusive, and equitable climate action.

This study addresses a critical research gap in current climate change literature. While numerous scholarly and policy-based analyses exist on national and international climate strategies, few assess the implementation barriers in a comparative Global South context. Moreover, there is a noticeable lack of integration between legal frameworks, public policy analysis, and environmental justice perspectives, which this research intends to bridge. By synthesizing statutes, judicial decisions, policy instruments, and institutional practices, this paper contributes to the evolving discourse on climate governance in vulnerable regions. It highlights the need for rethinking legal and policy structures to ensure that climate adaptation is not only strategic and ambitious but also practical, inclusive, and enforceable. In doing so, it seeks to empower both state and non-state actors to move from climate commitments to climate outcomes that resonate with local realities.

KEYWORDS: *climate adaptation, Global South, environmental law, governance, policy-implementation gap.*

1. INTRODUCTION

The global climate crisis presents an urgent and multidimensional challenge that compels states to adopt both immediate and long-term strategies to mitigate and adapt to its wide-ranging impacts.¹ While the international community has responded with frameworks like the Paris Agreement² and the United Nations Sustainable Development Goals (SDGs),³ the efficacy of climate action ultimately depends on national and local-level implementation. The disjunction between policy formulation and actual implementation—commonly referred to as the policy-implementation gap—is especially pronounced in the Global South,⁴ where structural, legal, institutional, and financial constraints often impede effective climate

¹ Intergovernmental Panel on Climate Change (IPCC), *Sixth Assessment Report*, 2021.

² Paris Agreement, 2015, United Nations Framework Convention on Climate Change (UNFCCC).

³ United Nations, *Transforming Our World: The 2030 Agenda for Sustainable Development*, 2015.

⁴ Siddiqi, Toufiq, "Challenges of Climate Policy Implementation in the Global South," *Climate Policy Journal*, Vol. 22, 2022.

governance. Against this backdrop, this research paper titled “Bridging the Policy-Implementation Gap in Climate Change Mitigation: A Comparative Study of National Adaptation Strategies in the Global South” investigates how legal systems and policy frameworks can be better aligned to ensure meaningful climate action.

Situated within the broader discipline of Environmental Law⁵ and intersecting with Climate Governance and Public Policy, this study examines how legal instruments, constitutional provisions, institutional structures, and judicial interventions shape and influence national adaptation strategies. The central aim is to explore how selected countries in the Global South—specifically India, Kenya, and Bangladesh—are responding to climate risks through the adoption and enforcement of legal and policy tools. These countries are particularly relevant as they are among the most vulnerable to climate change impacts,⁶ yet they also possess varied legal traditions, governance models, and socio-economic challenges that provide valuable comparative insights.

Climate change is integrated into the subject matter through a multidimensional legal and governance lens. This includes an analysis of climate-specific statutes such as India’s Environment (Protection) Act, 1986,⁷ Kenya’s Climate Change Act, 2016,⁸ and Bangladesh’s Bangladesh Climate Change Strategy and Action Plan (BCCSAP),⁹ alongside relevant constitutional provisions and judicial precedents. For instance, the Indian Supreme Court in *M.C. Mehta v. Union of India*¹⁰ expanded the scope of Article 21 of the Constitution to include the right to a clean and healthy environment, thereby establishing a robust foundation for environmental protection and climate resilience. Similarly, Kenya’s Climate Change Act institutionalizes climate change responses by creating specific roles for national and county governments,¹¹ while Bangladesh has pioneered localized climate financing models under its BCCSAP framework.¹² These statutes and practices reflect evolving legal approaches to climate adaptation and highlight the potential for the law to serve as a tool for environmental justice and sustainability.

⁵ Philippe Sands, *Principles of International Environmental Law* (Cambridge University Press, 2018).

⁶ World Bank, *Climate Change Vulnerability Index*, 2020.

⁷ Environment (Protection) Act, 1986 (India).

⁸ Climate Change Act, 2016 (Kenya).

⁹ Government of Bangladesh, *Bangladesh Climate Change Strategy and Action Plan*, 2009.

¹⁰ *M.C. Mehta v. Union of India*, (1987) 4 SCC 463.

¹¹ Climate Change Act, 2016, Sections 15–18 (Kenya).

¹² Huq, Saleem, “Climate Finance Innovations in Bangladesh,” *Journal of Climate Policy Studies*, 2019.

Despite these developments, the research addresses a significant gap in existing scholarship: while numerous studies analyze national climate policies and legislative commitments, far fewer critically assess the mechanisms, challenges, and outcomes of their implementation—especially within the context of the Global South.¹³ There is a paucity of comparative research that interrogates how successful adaptation strategies are operationalized in practice, taking into account local constraints, governance challenges, and socio-economic disparities. Moreover, current literature often lacks interdisciplinary integration, with limited convergence between legal analysis, policy evaluation, and environmental justice frameworks.¹⁴ This research seeks to bridge that gap by offering a comprehensive, comparative, and integrative approach to understanding and evaluating adaptation efforts.

The objectives of this study are threefold. First, it aims to identify and evaluate key immediate and long-term climate adaptation strategies adopted by India, Kenya, and Bangladesh. This involves a close examination of legal texts, policy documents, institutional mandates, and programmatic interventions. Second, it seeks to investigate the institutional, legal, and financial bottlenecks that obstruct effective implementation.¹⁵ This includes assessing the role of regulatory agencies, intergovernmental coordination, judicial oversight, and access to climate finance. Third, the study proposes a framework for improving adaptive governance that is both localized and equitable—one that ensures participation, accountability, and justice, particularly for vulnerable communities who are often the most affected by climate change but the least empowered to influence decision-making.¹⁶

In doing so, the paper positions itself at the intersection of climate adaptation and the rule of law, emphasizing the transformative potential of legal and institutional reform. By drawing on comparative experiences across different jurisdictions in the Global South, it not only highlights common challenges but also identifies innovative practices and models that can be adapted and scaled. Ultimately, this research contributes to the ongoing discourse on climate resilience by advocating for stronger legal accountability, participatory governance, and policy coherence in the face of a rapidly changing climate.¹⁷

¹³ Khan, M. et al., “Implementation Gaps in Climate Adaptation Policies,” *Environmental Governance Review*, Vol. 12, 2021.

¹⁴ Schlosberg, David, *Defining Environmental Justice* (Oxford University Press, 2007).

¹⁵ UNDP, *Institutional and Financial Constraints in Climate Adaptation*, 2021.

¹⁶ Adger, W. Neil, “Social Vulnerability and Climate Change,” *Global Environmental Change*, Vol. 16, 2006.

¹⁷ United Nations Environment Programme (UNEP), *Adaptation Gap Report*, 2023.

2. Impact of Climate Change and Current Policies

The impact of climate change has become a defining challenge of our era, exerting widespread and often irreversible damage on natural ecosystems, human health, economic livelihoods, and infrastructural resilience.¹⁸ Nowhere are these effects more devastating and complex than in the Global South, a region encompassing countries in Asia, Africa, Latin America, and the Pacific that are both socioeconomically vulnerable and disproportionately affected by climate-induced disasters.¹⁹ Rising sea levels, increasing frequency and intensity of extreme weather events, desertification, and biodiversity loss are particularly pronounced in these regions, threatening the well-being of millions.²⁰ Despite having contributed the least to global greenhouse gas emissions historically, countries of the Global South bear the heaviest burden of climate change.²¹ This paradox underscores a moral imperative and legal necessity to pursue equitable and effective climate adaptation and mitigation policies.²² Within this context, the research paper situates its investigation in the broader framework of “Immediate and Long-term Strategies for Addressing and Mitigating Climate Change Impact.”

The paper operates within the legal disciplines of environmental law, climate governance, and public policy, with a significant interdisciplinary emphasis that incorporates elements of international law and human rights.²³ These areas of legal study are integral in understanding how countries construct binding and non-binding climate frameworks, how compliance is monitored and enforced, and how laws are shaped by both global obligations and local realities.²⁴ The integration of climate change into legal discourse is thus not only topical but essential. Climate governance, unlike conventional environmental law, is dynamic, participatory, and multi-level, extending from the local to the international.²⁵ It necessitates a nuanced understanding of how laws, policies, and institutions interact to produce effective outcomes, especially when set against the backdrop of complex socio-economic, political, and ecological conditions found in the Global South.²⁶

¹⁸ Intergovernmental Panel on Climate Change, *Sixth Assessment Report*, 2021.

¹⁹ UNFCCC, *Climate Change: Impacts, Vulnerabilities and Adaptation in Developing Countries*, 2007.

²⁰ World Meteorological Organization, *State of the Global Climate Report*, 2023.

²¹ IPCC, *Synthesis Report*, 2014.

²² United Nations Environment Programme, *Adaptation Gap Report*, 2023.

²³ Philippe Sands, *Principles of International Environmental Law* (Cambridge University Press, 2018).

²⁴ Daniel Bodansky, *The Art and Craft of International Environmental Law* (Harvard University Press, 2010).

²⁵ Harriet Bulkeley & Peter Newell, *Governing Climate Change* (Routledge, 2015).

²⁶ Koko Warner, “Emerging Climate Governance Challenges in the Global South,” *Climate Policy*, Vol. 18, 2018.

In operationalizing the subject of climate change within the context of legal analysis, the paper aims to evaluate how climate-related policies translate into action. To do so, the research will investigate and compare the national adaptation strategies of selected countries from the Global South—specifically India, Kenya, and Bangladesh.²⁷ Each of these countries presents a compelling case due to their high vulnerability to climate risks, varied institutional architectures, and different degrees of policy innovation.²⁸ The research will address three principal objectives: firstly, to identify and evaluate both immediate and long-term strategies for climate change adaptation and mitigation as adopted by these countries; secondly, to investigate the institutional, legal, and financial bottlenecks that hinder the effective implementation of these strategies; and thirdly, to propose a pragmatic and scalable framework for improving adaptive governance that is locally anchored and socially just.²⁹

India, for example, has developed an extensive suite of policy tools to address climate change. Among its notable efforts are the National Action Plan on Climate Change (NAPCC) and the State Action Plans on Climate Change (SAPCCs), which target key sectors such as renewable energy, sustainable agriculture, and water management.³⁰ Legal instruments like the Environment (Protection) Act, 1986 provide a statutory basis for government interventions.³¹ Additionally, judicial pronouncements in landmark cases such as *M.C. Mehta v. Union of India* have expanded the interpretation of Article 21 of the Indian Constitution to encompass the right to a clean and healthy environment.³² However, despite a robust legal and policy framework, India struggles with fragmented institutional coordination, inadequate public participation, and weak monitoring and enforcement mechanisms. These challenges reveal the persistent gap between policy formulation and actual implementation.³³

Kenya's experience offers valuable comparative insight. As one of the few African nations to enact a dedicated climate statute—the Climate Change Act of 2016—Kenya has institutionalized climate governance at both the national and county levels.³⁴ The Act mandates the creation of a Climate Change Council, Climate Fund, and the development of

²⁷ World Bank, *Climate Vulnerability Profiles*, 2020.

²⁸ UNEP, *Global South Climate Risk Atlas*, 2022.

²⁹ UNDP, *Adaptive Governance for Climate Resilience*, 2021.

³⁰ Government of India, *National Action Plan on Climate Change*, 2008.

³¹ Environment (Protection) Act, 1986 (India).

³² *M.C. Mehta v. Union of India*, (1987) 4 SCC 463.

³³ TERI, *India Climate Policy Review*, 2022.

³⁴ Climate Change Act, 2016 (Kenya).

five-year National Climate Change Action Plans (NCCAPs).³⁵ These are designed to mainstream climate resilience into development planning, guided by principles of sustainability, equity, and transparency. However, Kenya's implementation process is impeded by limited technical expertise, bureaucratic inefficiencies, and political interference at devolved levels of government.³⁶ Despite these constraints, the country's decentralized governance model shows promise in embedding local climate knowledge into policy interventions, particularly through County Integrated Development Plans (CIDPs).³⁷

Bangladesh, frequently cited as one of the most climate-vulnerable countries in the world, has developed a strong policy and institutional architecture for climate adaptation.³⁸ The Bangladesh Climate Change Strategy and Action Plan (BCCSAP) and the more recent Bangladesh Delta Plan 2100 reflect a long-term vision that integrates land use, water management, and disaster preparedness.³⁹ Notably, Bangladesh is among the few developing countries to finance climate initiatives domestically through the Bangladesh Climate Change Trust Fund (BCCTF), which supports community-level adaptation projects.⁴⁰ Yet, challenges remain, particularly in terms of transparency, participatory governance, and the integration of climate data into development planning.⁴¹ The absence of enforceable legal mandates further weakens the accountability mechanisms necessary for robust implementation.⁴²

Across these jurisdictions, recurring patterns emerge that point to a common set of barriers: institutional fragmentation, limited financial resources, lack of legal enforceability, and weak stakeholder engagement.⁴³ These factors collectively contribute to the policy-implementation gap—a phenomenon where policies that appear comprehensive on paper fail to generate tangible benefits on the ground.⁴⁴ Furthermore, while many countries align their national strategies with international frameworks like the Paris Agreement and the Sustainable Development Goals (SDGs), there is insufficient localization of these goals, often leading to mismatched priorities and ineffective resource allocation.⁴⁵

³⁵ Government of Kenya, *National Climate Change Action Plan*, 2018–2022.

³⁶ African Development Bank, *Kenya Climate Governance Assessment*, 2020.

³⁷ Government of Kenya, *County Integrated Development Plans*, 2018.

³⁸ World Bank, *Bangladesh Climate Profile*, 2021.

³⁹ Government of Bangladesh, *Bangladesh Climate Change Strategy and Action Plan*, 2009.

⁴⁰ Bangladesh Climate Change Trust Act, 2010.

⁴¹ Asian Development Bank, *Bangladesh Climate Governance Diagnostic*, 2022.

⁴² Ibid.

⁴³ UNFCCC, *National Adaptation Plan Technical Guidelines*, 2019.

⁴⁴ Adaptation Committee, *2022 Progress Report*, UNFCCC.

⁴⁵ UNDESA, *SDG Localization Report*, 2021.

In terms of key statutes and institutional practices, the study will review India's Environment (Protection) Act, 1986 and Energy Conservation Act, 2001; Kenya's Climate Change Act, 2016; and Bangladesh's Environment Conservation Act, 1995 alongside its national strategies.⁴⁶ Institutional practices such as India's National Green Tribunal (NGT), Kenya's Climate Change Council, and Bangladesh's Ministry of Environment, Forest and Climate Change (MoEFCC) will also be critically analyzed to assess their roles in implementing and overseeing climate adaptation efforts.⁴⁷ Moreover, the role of judiciary in interpreting environmental rights and mandating state action, as evidenced in Indian public interest litigation, will be explored as a potential tool for bridging governance gaps.⁴⁸

The research situates itself in a relatively underexplored area of climate adaptation scholarship. While numerous studies exist analyzing national climate change policies, far fewer examine the policy-to-practice gap through a comparative, legally grounded, and interdisciplinary lens.⁴⁹ Particularly within the Global South, there is limited research on what successful implementation looks like when institutions are under-resourced, legal mandates are vague, and social inequality undermines equitable access to adaptation benefits.⁵⁰ There is also insufficient integration of legal frameworks with public policy tools and environmental justice concerns.⁵¹ This gap needs to be urgently addressed, as it hampers the development of inclusive and effective climate governance models.

Another significant lacuna in existing literature is the absence of a people-centric approach. Much of the discourse is top-down, emphasizing national priorities while neglecting local knowledge systems and community participation.⁵² This research will attempt to address this imbalance by incorporating perspectives from civil society, grassroots organizations, and vulnerable populations.⁵³ The intent is to propose a governance framework that does not merely replicate best practices but adapts them to specific socio-legal contexts in the Global South. Such a framework must prioritize enforceable legal mandates, inter-agency coordination, accessible financing, and participatory governance to be truly effective.⁵⁴

⁴⁶ Energy Conservation Act, 2001 (India); Environment Conservation Act, 1995 (Bangladesh).

⁴⁷ National Green Tribunal Act, 2010 (India).

⁴⁸ Lavanya Rajamani, "Judicial Review and Climate Change in India," *Journal of Environmental Law*, 2017.

⁴⁹ IPCC Working Group II, *Impacts, Vulnerability and Adaptation*, 2022.

⁵⁰ Oxfam International, *Climate Inequality Report*, 2023.

⁵¹ David Schlosberg, *Defining Environmental Justice* (Oxford University Press, 2007).

⁵² Sultana, Farhana, "Community-Based Adaptation and Climate Justice," *Climate and Development*, 2019.

⁵³ Ribot, Jesse, "Vulnerability Does Not Fall from the Sky," *Environmental Governance*, 2014.

⁵⁴ UNDP, *Climate Governance Frameworks*, 2020.

In conclusion, the intersection of climate change, legal frameworks, and policy implementation remains a critical frontier in the struggle for environmental sustainability and social justice. By examining the strategies and implementation dynamics of India, Kenya, and Bangladesh, this paper contributes to the emerging discourse on adaptive climate governance in the Global South.⁵⁵ It moves beyond theoretical abstraction to engage with the structural, procedural, and normative dimensions of climate action. Ultimately, the paper seeks not only to highlight the challenges but also to offer actionable recommendations grounded in legal and policy reform. In doing so, it aims to strengthen the bridge between ambitious climate policies and the lived realities of communities grappling with the day-to-day impacts of a warming planet.⁵⁶

3. Challenges in Immediate Strategies for Mitigating Climate Change

The climate crisis is accelerating at a pace that demands urgent and immediate action, especially in the Global South, where socio-economic vulnerabilities intersect with environmental fragility.⁵⁷ Despite the formulation of several immediate mitigation strategies by developing countries, their implementation has remained riddled with complex legal, institutional, and financial challenges.⁵⁸ The research paper titled "Bridging the Policy-Implementation Gap in Climate Change Mitigation: A Comparative Study of National Adaptation Strategies in the Global South," situated under the broader inquiry of "Immediate and Long-term Strategies for Addressing and Mitigating Climate Change Impact," aims to critically examine these multifaceted impediments. The paper situates its analysis within the legal discipline of environmental law and governance, extending its focus to climate law, administrative law, and disaster risk reduction frameworks.⁵⁹ Climate change in this context is not only treated as an environmental issue but as a subject of legal regulation and policy design, demanding interdisciplinary understanding to uncover barriers to immediate mitigation action.⁶⁰

In addressing the challenges associated with immediate climate mitigation strategies, this study is grounded in three primary research objectives: first, to identify and evaluate key immediate and long-term climate mitigation strategies in selected Global South countries;

⁵⁵ World Bank, *Adaptive Governance in Developing Countries*, 2022.

⁵⁶ UNEP, *Strengthening Climate Resilience*, 2023.

⁵⁷ Intergovernmental Panel on Climate Change, *Sixth Assessment Report*, 2021.

⁵⁸ UNEP, *Adaptation Gap Report*, 2023.

⁵⁹ Philippe Sands, *Principles of International Environmental Law* (Cambridge University Press, 2018).

⁶⁰ Daniel Bodansky, *The Art and Craft of International Environmental Law* (Harvard University Press, 2010).

second, to investigate the institutional, legal, and financial bottlenecks in implementing these strategies; and third, to propose a framework for adaptive and equitable climate governance.⁶¹ The regional focus on the Global South, particularly countries like India, Bangladesh, and Kenya, underscores the unique implementation difficulties arising from limited fiscal space, legal ambiguities, governance constraints, and socio-political complexities.⁶²

One of the foremost challenges in implementing immediate climate mitigation strategies in the Global South is the lack of enforceable legal frameworks. In many cases, climate action plans and national policies are rooted in executive directives, policy statements, or sectoral guidelines without legislative status.⁶³ This weakens their legal enforceability and creates ambiguities in accountability and jurisdiction. For instance, India's National Action Plan on Climate Change (NAPCC) and the associated State Action Plans (SAPCCs) articulate several immediate measures across energy efficiency, afforestation, and water resource management.⁶⁴ However, these are policy frameworks lacking legislative sanctity, which results in inconsistent application and poor compliance. Similarly, Bangladesh's Climate Change Strategy and Action Plan (BCCSAP), though highly regarded, does not possess statutory backing and relies heavily on ministerial coordination, often creating overlaps and administrative inefficiencies.⁶⁵

Legal fragmentation further compounds this challenge. In countries like Kenya, despite having a progressive Climate Change Act (2016) that integrates climate considerations into development planning,⁶⁶ there is a disconnect between national laws and local enforcement. Sectoral laws—such as forestry, agriculture, urban planning, and disaster management—often operate in silos, with limited coherence or cross-sectoral coordination.⁶⁷ The lack of harmonization between climate policy and environmental statutes, such as India's Environment (Protection) Act, 1986, Kenya's Environmental Management and Coordination Act (EMCA), 1999, and Bangladesh's Environment Conservation Act, 1995, leads to duplication, inefficiency, and regulatory confusion.⁶⁸ In the absence of clear mandates,

⁶¹ UNDP, *Adaptive Governance and Climate Resilience*, 2021.

⁶² World Bank, *Climate Vulnerability Profiles*, 2020.

⁶³ Lavanya Rajamani, "Climate Policy and Legal Fragmentation in Developing Countries," *Journal of Environmental Law*, 2018.

⁶⁴ Government of India, *National Action Plan on Climate Change*, 2008.

⁶⁵ Government of Bangladesh, *Bangladesh Climate Change Strategy and Action Plan*, 2009.

⁶⁶ Climate Change Act, 2016 (Kenya).

⁶⁷ African Development Bank, *Sectoral Climate Governance Assessment*, 2021.

⁶⁸ Environment (Protection) Act, 1986 (India); EMCA, 1999 (Kenya); Environment Conservation Act, 1995 (Bangladesh).

implementing agencies are often unsure of their roles, leading to delays in decision-making and action paralysis during climate emergencies.⁶⁹

Institutional challenges are equally critical. Many Global South countries lack adequately resourced and technically capable institutions to execute time-sensitive mitigation actions.⁷⁰ The centralization of climate governance in national capitals limits responsiveness at local levels where impacts are most severe. In India, for example, while national missions under NAPCC are robustly designed, state-level institutions struggle with inadequate technical capacity, staffing shortages, and limited financial autonomy.⁷¹ In Kenya, the county governments, although constitutionally mandated to implement climate-related programs, often lack institutional clarity, expertise, and funding to translate national goals into grassroots action.⁷² The lack of decentralized institutional capacity inhibits the successful rollout of measures such as early warning systems, community forest management, and micro-irrigation programs.⁷³

Financial constraints remain a significant obstacle to immediate mitigation strategies in the Global South. Most developing countries depend heavily on international climate finance to support adaptation and mitigation.⁷⁴ However, the access, disbursement, and conditionalities associated with international mechanisms such as the Green Climate Fund (GCF) and the Adaptation Fund pose procedural hurdles.⁷⁵ Often, local institutions lack the capacity to prepare bankable project proposals that meet donor criteria. Moreover, financing immediate strategies—such as the construction of flood barriers, emergency shelters, or clean energy installations—requires upfront investment that many national budgets cannot accommodate.⁷⁶ Even where climate trust funds exist, such as Bangladesh's Bangladesh Climate Change Trust Fund (BCCTF), governance issues including lack of transparency, elite capture, and politicization have undermined effectiveness.⁷⁷

The disconnect between scientific data and policy formulation also weakens immediate mitigation responses. Climate vulnerability assessments and risk projections are either

⁶⁹ UNFCCC, *National Adaptation Plan Guidelines*, 2019.

⁷⁰ TERI, *Institutional Capacities for Climate Action in India*, 2022.

⁷¹ Ibid.

⁷² Government of Kenya, *County Climate Change Readiness Report*, 2020.

⁷³ UNEP, *Community-Based Climate Action*, 2022.

⁷⁴ OECD, *Climate Finance for Developing Countries Report*, 2021.

⁷⁵ Green Climate Fund, *Operational Framework*, 2020.

⁷⁶ UNFCCC Standing Committee on Finance, *Biennial Assessment*, 2022.

⁷⁷ Transparency International Bangladesh, *Governance Review of BCCTF*, 2021.

outdated, overly generalized, or inaccessible to policymakers and planners.⁷⁸ As a result, climate action plans are often not based on robust empirical evidence, leading to poor prioritization of interventions.⁷⁹ Without a legal requirement to integrate climate projections into development planning and budgeting processes, climate-sensitive policymaking remains ad hoc.⁸⁰

Further, a significant challenge lies in ensuring environmental justice and inclusivity in immediate strategies. Many top-down interventions fail to consider the needs, knowledge, and agency of vulnerable communities—such as indigenous populations, women, small-scale farmers, and urban poor—who are disproportionately affected by climate change.⁸¹ Strategies like relocation, reforestation, or water conservation are often implemented without adequate community consultation, resulting in resistance, mistrust, and implementation failures.⁸² Legal mechanisms for public participation, such as environmental impact assessments (EIAs) and public hearings, are either circumvented or inadequately enforced in urgent mitigation projects.⁸³ This exclusionary approach undermines the legitimacy and sustainability of immediate strategies.⁸⁴

In the realm of climate litigation, courts in the Global South have occasionally intervened to ensure immediate action. India's judiciary, for instance, has expanded the scope of Article 21 (Right to Life) to include environmental protection, as seen in *Subhash Kumar v. State of Bihar* and *M.C. Mehta v. Union of India*.⁸⁵ However, judicial pronouncements often lack follow-up mechanisms or are not effectively implemented by administrative bodies. Moreover, access to justice is limited by procedural constraints, lack of awareness, and financial barriers.⁸⁶

These multi-layered challenges highlight a critical research gap. While numerous studies analyze climate change policies and national adaptation strategies, fewer focus on the implementation of immediate measures under legal, institutional, and financial constraints.⁸⁷

⁷⁸ IPCC Working Group II, *Impacts, Vulnerability and Adaptation*, 2022.

⁷⁹ World Resources Institute, *Climate Risk and Data Gaps*, 2023.

⁸⁰ UNDESA, *Mainstreaming Climate Projections in Development Planning*, 2021.

⁸¹ Oxfam, *Climate Inequality Report*, 2023.

⁸² Sultana, Farhana, "Community Participation and Climate Adaptation," *Climate and Development*, 2019.

⁸³ UNEP, *Environmental Impact Assessment Review*, 2022.

⁸⁴ David Schlosberg, *Defining Environmental Justice* (Oxford University Press, 2007).

⁸⁵ *Subhash Kumar v. State of Bihar*, (1991) 1 SCC 598; *M.C. Mehta v. Union of India*, (1987) 4 SCC 463.

⁸⁶ Centre for Policy Research, *Access to Environmental Justice in India*, 2020.

⁸⁷ Adaptation Committee, *Progress Report*, UNFCCC (2022).

There is limited comparative analysis across Global South nations on implementation success under limited capacity and complex governance conditions.⁸⁸ Existing studies rarely integrate legal frameworks with public policy analysis or adopt an environmental justice lens.⁸⁹ This research aims to address these gaps by providing a grounded, interdisciplinary analysis of the policy-practice divide, identifying common and context-specific obstacles to immediate climate action.⁹⁰

Implementation of immediate climate change mitigation strategies in the Global South is hindered by legal uncertainties, institutional fragmentation, financial limitations, scientific disconnects, and social exclusion.⁹¹ Addressing these challenges requires an integrated approach combining legal reform, institutional strengthening, fiscal innovation, and participatory governance.⁹² Through a comparative lens focused on India, Bangladesh, and Kenya, this study aims to unpack these challenges and contribute to the development of a framework for adaptive, inclusive, and enforceable climate action.⁹³ Only by bridging the gap between policy and implementation can the Global South hope to meet the urgent demands of the climate crisis in a just and sustainable manner.⁹⁴

4. Challenges in Long-term Strategies for Mitigating Climate Change

Long-term strategies for mitigating climate change are indispensable to achieving global sustainability, economic resilience, and environmental justice.⁹⁵ However, for countries in the Global South, these strategies remain entangled in a complex web of legal, institutional, financial, and socio-political challenges that hinder effective implementation.⁹⁶ In this context, the research paper focuses specifically on the legal and governance challenges associated with long-term mitigation efforts. The analysis is firmly rooted in the discipline of environmental law, with significant intersections with administrative law, climate justice, international environmental law, and public policy.⁹⁷ The subject of climate change is integrated into this legal discourse by examining how legal mandates, policy instruments,

⁸⁸ IPCC, *Synthesis Report*, 2023.

⁸⁹ World Bank, *Environmental Justice and Climate Change*, 2021.

⁹⁰ UNDP, *Integrated Climate Governance Frameworks*, 2020.

⁹¹ UNFCCC, *Implementation Challenges in Developing Countries*, 2019.

⁹² UNEP, *Strengthening Climate Governance*, 2023.

⁹³ Asian Development Bank, *Comparative Climate Governance Study*, 2022.

⁹⁴ World Bank, *Pathways to Climate-Resilient Development*, 2023.

⁹⁵ Intergovernmental Panel on Climate Change, *Sixth Assessment Report*, 2021.

⁹⁶ UNEP, *Adaptation Gap Report*, 2023.

⁹⁷ Philippe Sands, *Principles of International Environmental Law* (Cambridge University Press, 2018).

institutional frameworks, and regulatory mechanisms interact—or fail to interact—with long-term climate objectives in the Global South.⁹⁸

The principal research objectives of this study include the identification and evaluation of key climate mitigation strategies adopted by selected countries in the Global South, the investigation of institutional, legal, and financial bottlenecks hindering these strategies, and the formulation of a localized and equitable adaptive governance framework.⁹⁹ While immediate strategies focus on short-term responses such as disaster preparedness and renewable energy transitions, long-term strategies entail comprehensive planning for decarbonization, land-use reforms, infrastructure transformation, and sustainable urban development.¹⁰⁰ These require sustained political will, legal continuity, institutional maturity, and financial predictability—conditions often absent or unstable in many Global South nations.¹⁰¹

One of the most significant challenges in implementing long-term mitigation strategies in the Global South is the absence of legally binding climate frameworks with extended timelines.¹⁰² While international commitments under the Paris Agreement require countries to submit and update Nationally Determined Contributions (NDCs), these documents often lack specificity, enforceability, and robust implementation mechanisms at the national level.¹⁰³ For instance, India's updated NDC (2022) outlines a target of achieving 50% cumulative electric power from non-fossil fuel sources by 2030, but there is no enabling legislation to guarantee compliance or legal accountability for deviations.¹⁰⁴ Similarly, Kenya's Climate Change Act (2016) mandates the development of a National Climate Change Action Plan (NCCAP) every five years, but implementation largely depends on ministerial discretion and fluctuating budgetary allocations.¹⁰⁵

Institutional discontinuity is another critical impediment. Long-term strategies require consistency across electoral cycles, bureaucratic tenures, and leadership regimes.¹⁰⁶ In the

⁹⁸ Daniel Bodansky, *The Art and Craft of International Environmental Law* (Harvard University Press, 2010).

⁹⁹ UNDP, *Adaptive Governance for Climate Resilience*, 2021.

¹⁰⁰ World Bank, *Long-Term Climate Strategies Review*, 2022.

¹⁰¹ IPCC, *Synthesis Report*, 2023.

¹⁰² Rajamani, Lavanya, "Climate Legal Frameworks in Developing Countries," *Journal of Environmental Law*, 2019.

¹⁰³ Paris Agreement, Article 4 (UNFCCC).

¹⁰⁴ Government of India, *Updated NDC Submission*, 2022.

¹⁰⁵ Climate Change Act, 2016 (Kenya).

¹⁰⁶ UNDESA, *Institutional Continuity and Climate Governance*, 2020.

Global South, however, climate policy is often subordinated to immediate development goals, such as poverty reduction, infrastructure expansion, and industrialization.¹⁰⁷ As a result, successive governments may deprioritize or reshape long-term strategies to suit short-term political agendas. Large-scale projects like smart cities, special economic zones, and highway expansions are frequently approved without integrating long-term climate resilience into environmental assessments.¹⁰⁸ Institutional fragmentation further complicates implementation. For example, in Bangladesh, the Ministry of Environment, Forest and Climate Change and the Ministry of Disaster Management and Relief share overlapping climate responsibilities with limited coordination.¹⁰⁹

Another key challenge lies in the legal integration of long-term mitigation strategies with development planning and sectoral policies. Most climate-related actions in the Global South are relegated to environment ministries, limiting their influence on cross-cutting sectors such as energy, agriculture, transportation, and housing.¹¹⁰ This siloed approach results in misalignment between climate goals and economic strategies. For example, in India, the Environmental Impact Assessment (EIA) regime under the Environment (Protection) Act, 1986 has been repeatedly diluted to fast-track developmental projects at the cost of environmental safeguards.¹¹¹ Similarly, Kenya's Vision 2030, while acknowledging climate risks, insufficiently integrates carbon-neutrality targets into infrastructural and industrial policy.¹¹² Without mainstreaming climate considerations into national development plans, long-term mitigation remains fragmented and ineffective.¹¹³

Financial constraints continue to be a formidable barrier. Long-term climate strategies require sustained investment in green infrastructure, renewable energy, public transportation, and climate-resilient agriculture.¹¹⁴ However, many Global South countries face fiscal limitations, debt burdens, and heavy dependence on international climate finance.¹¹⁵ While mechanisms like the Green Climate Fund (GCF) and Adaptation Fund exist, accessing these resources is hampered by procedural complexity, technical capacity requirements, and geopolitical

¹⁰⁷ African Development Bank, *Development Priorities and Climate Policy*, 2021.

¹⁰⁸ Centre for Science and Environment (CSE), *Environmental Assessment Review*, 2020.

¹⁰⁹ ADB, *Bangladesh Climate Governance Diagnostic*, 2022.

¹¹⁰ UNFCCC, *Sectoral Integration in Climate Policy*, 2019.

¹¹¹ Environment (Protection) Act, 1986 (India).

¹¹² Government of Kenya, *Vision 2030 Progress Report*, 2020.

¹¹³ World Resources Institute, *Mainstreaming Climate Goals*, 2023.

¹¹⁴ OECD, *Financing Climate Futures*, 2021.

¹¹⁵ IMF, *Fiscal Space in Developing Countries*, 2020.

conditionalities.¹¹⁶ Bangladesh and Kenya often struggle to prepare long-term bankable proposals that meet donor criteria.¹¹⁷ Climate finance is also unevenly distributed—favoring mitigation over adaptation and urban regions over rural or marginalized communities.¹¹⁸ Domestic finance is constrained by competing priorities such as health, education, and defense.¹¹⁹

Socio-political resistance further delays or derails long-term strategies. Measures such as carbon taxes, subsidy rationalization, and fossil fuel phase-outs often trigger public backlash in economies with high dependence on traditional energy sources or informal employment.¹²⁰ For instance, attempts to remove fuel subsidies in Nigeria in 2012 sparked nationwide protests and forced policy reversal.¹²¹ Land-use reforms for reforestation or renewable energy installation sometimes clash with indigenous rights and local livelihoods, leading to conflicts and litigation.¹²² The absence of participatory legal frameworks ensuring free, prior, and informed consent (FPIC) exacerbates mistrust.¹²³

A further barrier is the lack of climate litigation and judicial enforcement mechanisms. While some Global South courts have recognized environmental rights as part of constitutional guarantees, climate-specific enforcement remains weak.¹²⁴ In India, cases such as *Vellore Citizens Welfare Forum v. Union of India* and *T.N. Godavarman Thirumulpad v. Union of India* introduced principles like the precautionary principle and public trust doctrine, yet courts have not consistently enforced long-term climate obligations.¹²⁵ In Kenya, Article 42 of the Constitution guarantees the right to a clean environment, but judicial application to climate duties under the Climate Change Act is sporadic.¹²⁶ Stronger legal infrastructure—environmental courts, independent oversight bodies, citizen suits—is needed to uphold long-term commitments.¹²⁷

¹¹⁶ Green Climate Fund, *Operational Procedures*, 2020.

¹¹⁷ UNFCCC Standing Committee on Finance, *Biennial Assessment*, 2022.

¹¹⁸ World Bank, *Climate Finance Distribution Report*, 2021.

¹¹⁹ UNDP, *Domestic Climate Budgeting Report*, 2022.

¹²⁰ Oxfam, *Climate Inequality and Political Resistance*, 2023.

¹²¹ BBC News, “Nigeria Fuel Subsidy Protests,” January 2012.

¹²² Sultana, Farhana, “Climate Justice and Land Conflicts,” *Climate and Development*, 2020.

¹²³ UNDRIP, Article 32 (United Nations Declaration on the Rights of Indigenous Peoples).

¹²⁴ UNEP, *Environmental Rule of Law Report*, 2019.

¹²⁵ *Vellore Citizens Welfare Forum v. Union of India*, (1996) 5 SCC 647; *T.N. Godavarman Thirumulpad v. Union of India*, (2006) 1 SCC 1.

¹²⁶ Constitution of Kenya, Article 42 (2010).

¹²⁷ Kenya Environment and Land Court Act, 2011.

The research gap addressed by this study is significant. While numerous policy documents and academic studies analyze mitigation targets and national adaptation strategies, fewer critically assess the gap between policy formulation and practical implementation in the Global South.¹²⁸ Comparative analysis of how long-term strategies are shaped, constrained, or disrupted by legal norms, institutional structures, financial instruments, and political realities is limited.¹²⁹ Additionally, existing scholarship insufficiently integrates legal analysis with public policy evaluation and environmental justice concerns.¹³⁰

Long-term climate mitigation strategies in the Global South face a wide array of challenges spanning legal, institutional, financial, and social dimensions.¹³¹ The absence of binding legal frameworks, fragmented institutions, financial insecurity, and socio-political resistance collectively undermine long-range climate goals. Addressing these obstacles requires a systemic and interdisciplinary approach integrating environmental law, public policy, and participatory governance.¹³² By examining case studies across India, Bangladesh, and Kenya, this research contributes to developing a nuanced and context-specific framework for adaptive climate governance. Bridging the policy-implementation gap in long-term strategies is not merely a technical imperative but a political, legal, and ethical necessity in addressing the climate crisis.¹³³

5. Role of Policy Governance and Comparative Study

In the face of escalating climate risks, the role of policy and governance in shaping and implementing national adaptation strategies has become a focal point of scholarly and policy discourses.¹³⁴ The research paper explores this critical juncture through a legal and governance-oriented lens under the thematic aegis of "Immediate and Long-term Strategies for Addressing and Mitigating Climate Change Impact." The central concern of the paper is to understand why, despite the proliferation of climate policies and adaptation plans, implementation remains sporadic, uneven, and often ineffective, especially in the Global South.¹³⁵ This inquiry is grounded in the discipline of environmental law, intersecting with constitutional law, international environmental regimes, administrative law, and public policy

¹²⁸ IPCC Working Group III, *Mitigation Pathways*, 2022.

¹²⁹ Adaptation Committee, *2022 Progress Report*, UNFCCC.

¹³⁰ David Schlosberg, *Defining Environmental Justice* (OUP, 2007).

¹³¹ UNEP, *Long-Term Climate Policy Challenges*, 2023.

¹³² UNDP, *Integrated Climate Governance Models*, 2020.

¹³³ World Bank, *Pathways to Climate-Resilient Development*, 2023.

¹³⁴ Intergovernmental Panel on Climate Change, *Sixth Assessment Report*, 2021.

¹³⁵ UNEP, *Adaptation Gap Report*, 2023.

studies.¹³⁶ Climate change is integrated into the subject matter through an exploration of how legal and policy frameworks shape national adaptation trajectories, influence institutional behavior, and determine governance outcomes in the context of environmental vulnerability and socio-economic inequalities prevalent in the Global South.¹³⁷

The primary research objectives of the study are threefold: first, to identify and evaluate key immediate and long-term climate adaptation strategies adopted by selected Global South countries; second, to investigate the institutional, legal, and financial bottlenecks that impede their effective implementation; and third, to propose a framework for improving adaptive governance, with a strong emphasis on localized and equitable outcomes.¹³⁸ These objectives underscore the need for a comparative analysis that goes beyond policy rhetoric to assess on-ground realities, institutional capacity, community engagement, and legal enforceability.¹³⁹ In the Global South, where exposure to climate shocks is disproportionately higher and adaptive capacity more constrained, the role of public institutions, legal norms, and governance mechanisms in translating policy into practice becomes both a challenge and a necessity.¹⁴⁰

A significant aspect of this investigation is the diversity of national adaptation strategies among Global South countries and the varying degrees of their legal formalization. For instance, India's National Action Plan on Climate Change (NAPCC), introduced in 2008, consists of eight sectoral missions addressing both mitigation and adaptation goals.¹⁴¹ While institutionally mainstreamed into development planning, it lacks a strong legal foundation and has been criticized for its top-down and insufficiently participatory approach.¹⁴² In contrast, Kenya's Climate Change Act, 2016 is a landmark statute mandating National Climate Change Action Plans (NCCAPs) and imposing legally binding obligations on public bodies to integrate climate resilience into sectoral plans.¹⁴³ Bangladesh has taken a proactive legal and institutional stance through its Bangladesh Climate Change Strategy and Action Plan (BCCSAP) and the Climate Change Trust Fund, both of which institutionalize adaptation financing at the national level.¹⁴⁴

¹³⁶ Philippe Sands, *Principles of International Environmental Law* (Cambridge University Press, 2018).

¹³⁷ Bodansky, Daniel, *The Art and Craft of International Environmental Law* (Harvard University Press, 2010).

¹³⁸ UNDP, *Adaptive Governance for Climate Resilience*, 2021.

¹³⁹ World Bank, *Climate Adaptation and Institutional Capacity Report*, 2022.

¹⁴⁰ IPCC Working Group II, *Impacts, Vulnerability and Adaptation*, 2022.

¹⁴¹ Government of India, *National Action Plan on Climate Change*, 2008.

¹⁴² TERI, *Review of NAPCC Implementation*, 2021.

¹⁴³ Climate Change Act, 2016 (Kenya).

¹⁴⁴ Government of Bangladesh, *Bangladesh Climate Change Strategy and Action Plan*, 2009.

However, a common thread across these cases is the persistence of a policy-implementation gap rooted in weak enforcement, fragmented institutional responsibilities, and inadequate stakeholder inclusion.¹⁴⁵ Governance structures often suffer from overlapping mandates, under-resourced environmental agencies, and poor coherence between national and sub-national institutions.¹⁴⁶ In India, the federal structure generates jurisdictional conflicts between central and state governments in areas such as water management, forest conservation, and urban planning.¹⁴⁷ In Kenya, despite a strong legal framework, implementation is hampered by limited technical capacity at the county level and heavy reliance on external funding.¹⁴⁸ In Bangladesh, community-based adaptation has gained prominence, but integration into formal policy and legal structures remains limited.¹⁴⁹

Financial governance is another key constraint. Adaptation projects in the Global South often rely on international climate finance mechanisms such as the Green Climate Fund (GCF), Adaptation Fund, and bilateral donor contributions.¹⁵⁰ However, accessing such funds requires transparency, institutional capacity, and technically rigorous project proposals—criteria difficult for many countries to meet.¹⁵¹ Kenya has accredited the National Environment Management Authority (NEMA) as a national implementing entity under the GCF, but delays in project approval and disbursement remain significant barriers.¹⁵² In Bangladesh, the Climate Change Trust Fund has been innovative yet criticized for concerns over fund allocation, transparency, and administrative oversight.¹⁵³ These challenges point to the need for legally codified financial procedures, stronger oversight mechanisms, and enhanced community participation.¹⁵⁴

The role of judiciary and legal accountability also varies across jurisdictions. In India, landmark judgments such as *Subhash Kumar v. State of Bihar* and *M.C. Mehta v. Union of India* have affirmed the right to a clean and healthy environment under Article 21 of the Constitution.¹⁵⁵ However, climate-specific litigation remains limited. Comparatively,

¹⁴⁵ UNFCCC, *National Adaptation Planning Guidelines*, 2019.

¹⁴⁶ ADB, *Institutional Challenges in Climate Governance*, 2020.

¹⁴⁷ Centre for Policy Research, *Climate Federalism in India*, 2022.

¹⁴⁸ African Development Bank, *Kenya Climate Governance Assessment*, 2021.

¹⁴⁹ UNDP, *Community-Based Adaptation in Bangladesh*, 2020.

¹⁵⁰ OECD, *Climate Finance in Developing Countries*, 2021.

¹⁵¹ Green Climate Fund, *Readiness and Capacity Support Report*, 2020.

¹⁵² GCF, *Kenya Country Readiness Portfolio*, 2021.

¹⁵³ Transparency International Bangladesh, *Audit of Climate Trust Fund*, 2022.

¹⁵⁴ UNDESA, *Climate Finance Governance Frameworks*, 2021.

¹⁵⁵ *Subhash Kumar v. State of Bihar*, (1991) 1 SCC 598; *M.C. Mehta v. Union of India*, (1987) 4 SCC 463.

countries like Colombia have demonstrated judicial activism, as seen in *Future Generations v. Ministry of Environment*, where the court recognized climate change as a violation of intergenerational equity.¹⁵⁶ In Kenya, although Article 42 of the Constitution guarantees environmental rights, climate-related judicial enforcement remains nascent, with public interest litigations beginning to expand the legal landscape.¹⁵⁷

One of the crucial observations emerging from this comparative analysis is the need for integrating environmental justice into policy and governance frameworks. Adaptation strategies that ignore socio-economic vulnerabilities risk reinforcing existing inequalities.¹⁵⁸ For instance, India's Smart Cities Mission, despite incorporating climate-friendly planning, has faced criticism for displacing marginalized groups without adequate rehabilitation.¹⁵⁹ In Kenya and Bangladesh, climate-induced displacement and migration remain insufficiently addressed in formal adaptation policies, revealing gaps in legal protection frameworks.¹⁶⁰

The research gap addressed by this paper is significant. Although extensive literature exists on climate adaptation policies, relatively few studies adopt a comparative and implementation-focused legal perspective.¹⁶¹ Even fewer incorporate cross-sectoral analysis addressing legal enforceability, public administration, fiscal decentralization, and community-based governance.¹⁶² Research on what constitutes successful adaptation in the diverse socio-political and legal landscapes of the Global South remains sparse, with many frameworks imported from the Global North failing to account for local realities.¹⁶³

The findings of this paper aim to contribute toward developing a nuanced, locally responsive, and legally grounded framework for adaptive governance. Such a framework requires multi-level legal mandates, inter-institutional coordination, transparent financial procedures, and participatory governance.¹⁶⁴ Lessons from comparative case studies highlight the importance of aligning climate laws with constitutional guarantees, sectoral legislation, and international commitments.¹⁶⁵ Moreover, incorporating sub-national actors, civil society, indigenous

¹⁵⁶ *Future Generations v. Ministry of Environment*, Supreme Court of Colombia (2018).

¹⁵⁷ Constitution of Kenya, Article 42 (2010).

¹⁵⁸ David Schlosberg, *Defining Environmental Justice* (Oxford University Press, 2007).

¹⁵⁹ Housing and Land Rights Network (HLRN), *Impact Assessment of Smart Cities Mission*, 2019.

¹⁶⁰ IOM, *Climate-Induced Migration in South Asia and East Africa*, 2021.

¹⁶¹ IPCC, *Synthesis Report*, 2023.

¹⁶² UNDP, *Integrated Climate Governance Models*, 2020.

¹⁶³ Oxfam, *Climate Inequality and Justice Report*, 2023.

¹⁶⁴ World Resources Institute, *Legal and Institutional Reforms for Adaptation*, 2022.

¹⁶⁵ UNFCCC, *Alignment of National Laws with Global Climate Commitments*, 2020.

knowledge systems, and academic institutions is essential to ensure legitimacy, inclusivity, and long-term efficacy.¹⁶⁶

The role of policy and governance in national adaptation strategies in the Global South is therefore both pivotal and problematic. While policy formulations have grown increasingly sophisticated, governance mechanisms remain inconsistent and underdeveloped. A comparative legal and institutional analysis reveals not only shared constraints but also innovative practices that can be adapted across contexts.¹⁶⁷ This research, situated at the intersection of environmental law, governance theory, and public policy, seeks to offer actionable insights into how Global South countries can move beyond planning toward effective and equitable adaptation to climate change.¹⁶⁸

6. International Cooperation and Equity

In addressing the pressing challenges of climate change mitigation and adaptation, international cooperation and equity emerge as indispensable pillars, particularly within the context of the Global South.¹⁶⁹ The research paper is anchored in this understanding and aims to evaluate the dynamics of both international support mechanisms and equitable governance frameworks that underpin national adaptation efforts. Operating within the legal discipline of international environmental law, supported by insights from environmental justice, human rights law, and development studies, this research integrates climate change as a multidimensional phenomenon—legal, social, political, and economic—requiring transboundary cooperation and fairness in the distribution of responsibilities and resources.¹⁷⁰ The focus on the Global South is essential, as countries in this region disproportionately bear the brunt of climate impacts despite contributing the least to global greenhouse gas emissions, making the need for equity-centered international cooperation even more urgent.¹⁷¹

Climate change is intrinsically a global issue that transcends national boundaries, yet its consequences are unequally distributed.¹⁷² This inequity is reflected not only in vulnerability but also in the capacities of states to adapt and mitigate its effects. The foundational principle of Common But Differentiated Responsibilities and Respective Capabilities (CBDR-RC),

¹⁶⁶ UNEP, *Multi-Stakeholder Climate Governance*, 2022.

¹⁶⁷ World Bank, *Comparative Climate Governance Study*, 2023.

¹⁶⁸ Adaptation Committee, *Progress Report*, UNFCCC (2022).

¹⁶⁹ IPCC, *Sixth Assessment Report*, 2021.

¹⁷⁰ Philippe Sands, *Principles of International Environmental Law* (Cambridge University Press, 2018).

¹⁷¹ UNEP, *Emissions Gap Report*, 2022.

¹⁷² IPCC Working Group II, *Impacts, Adaptation and Vulnerability*, 2022.

enshrined in the United Nations Framework Convention on Climate Change (UNFCCC) and reaffirmed in the Paris Agreement, provides a legal and ethical basis for differential obligations between developed and developing countries.¹⁷³ However, operationalizing this principle remains fraught with challenges.¹⁷⁴ Despite the normative strength of CBDR-RC, the actual disbursement of climate finance, technology transfer, and capacity-building support to the Global South has been inconsistent and often conditional.¹⁷⁵ This incongruence between international commitments and their implementation has significant implications for national adaptation strategies in countries like Kenya, Bangladesh, and India, where reliance on external support mechanisms forms a critical component of their climate resilience planning.¹⁷⁶

International cooperation manifests primarily through multilateral climate finance mechanisms such as the Green Climate Fund (GCF), the Adaptation Fund, and various bilateral and multilateral development assistance frameworks.¹⁷⁷ These mechanisms are intended to assist vulnerable countries in formulating and executing both immediate and long-term climate strategies. For instance, Bangladesh has leveraged its institutional frameworks to become one of the first countries to receive direct access to GCF funding, with projects focusing on climate-resilient livelihoods and infrastructure.¹⁷⁸ Kenya, through the National Environment Management Authority (NEMA), has also gained accreditation as a National Implementing Entity (NIE) under the GCF, reflecting progress in institutional readiness.¹⁷⁹ However, a deeper analysis reveals that many countries in the Global South continue to struggle with the procedural complexity, conditionality, and stringent transparency requirements associated with international climate finance, which in turn hampers their ability to operationalize well-conceived national strategies.¹⁸⁰

From a legal perspective, the implementation of climate-related commitments at the national level requires both harmonization with international obligations and contextualization within local socio-political realities.¹⁸¹ The lack of coherence between domestic laws and international frameworks is a recurrent theme in adaptation policy analysis. For instance,

¹⁷³ United Nations Framework Convention on Climate Change, 1992; Paris Agreement, 2015.

¹⁷⁴ Lavanya Rajamani, *Differentiation in the Paris Agreement*, 2016.

¹⁷⁵ OECD, *Climate Finance Provided and Mobilised*, 2021.

¹⁷⁶ World Bank, *Country Climate and Development Reports: India, Kenya, Bangladesh*, 2022.

¹⁷⁷ UNFCCC, *Standing Committee on Finance Report*, 2021.

¹⁷⁸ Green Climate Fund, *Bangladesh Country Portfolio*, 2021.

¹⁷⁹ GCF, *Accreditation of NEMA (Kenya)*, 2015.

¹⁸⁰ Adaptation Fund Board, *Operational Challenges Report*, 2020.

¹⁸¹ Daniel Bodansky, *The Art and Craft of International Environmental Law* (Harvard University Press, 2010).

India's climate governance remains largely policy-driven rather than legislatively mandated, leading to institutional ambiguity and weak enforceability.¹⁸² In contrast, Kenya's Climate Change Act 2016 integrates international climate commitments into domestic law, providing a statutory mandate for implementation.¹⁸³ Nonetheless, the efficacy of such legal instruments is contingent on political will, administrative capacity, and sustained international support.¹⁸⁴ The research thus identifies and evaluates how legal harmonization and international collaboration function (or falter) across various jurisdictions of the Global South.¹⁸⁵

A critical component of international cooperation is the equitable inclusion of developing countries in global decision-making processes.¹⁸⁶ The Global South has frequently voiced concerns about procedural justice in international climate negotiations, where power asymmetries often dictate the agenda.¹⁸⁷ Equity, in this context, is not only about resource distribution but also about participatory parity and recognition of diverse adaptation priorities.¹⁸⁸ The case of the Alliance of Small Island States (AOSIS) and the Least Developed Countries (LDC) Group exemplifies efforts by vulnerable countries to assert collective agency and influence global climate discourse.¹⁸⁹ However, this advocacy has yet to fully translate into mechanisms that guarantee equitable outcomes in climate negotiations and resource flows.¹⁹⁰

Furthermore, regional cooperation within the Global South also plays a pivotal role. Initiatives such as the Africa Adaptation Initiative (AAI), the South Asia Co-operative Environment Programme (SACEP), and platforms under the ASEAN Working Group on Climate Change provide opportunities for regional knowledge exchange, capacity building, and joint implementation.¹⁹¹ These platforms, however, remain underutilized due to financial limitations, inconsistent political engagement, and fragmented legal mandates.¹⁹² Strengthening South-South cooperation through legally binding instruments and collaborative

¹⁸² Centre for Policy Research, *Climate Governance in India*, 2022.

¹⁸³ Climate Change Act, 2016 (Kenya).

¹⁸⁴ African Development Bank, *Kenya Climate Implementation Assessment*, 2021.

¹⁸⁵ UNDP, *Legal Readiness for Climate Action in Developing Countries*, 2020.

¹⁸⁶ Roberts, J.T. & Parks, B., *Climate of Injustice* (MIT Press, 2007).

¹⁸⁷ Earth Negotiations Bulletin, *COP Proceedings*, various years.

¹⁸⁸ Schlosberg, David, *Defining Environmental Justice* (Oxford University Press, 2007).

¹⁸⁹ AOSIS, *Negotiation Submissions*, UNFCCC Archives, 2015–2023.

¹⁹⁰ LDC Group, *Annual Report on Climate Finance Needs*, 2022.

¹⁹¹ Africa Adaptation Initiative, *Technical Report*, 2021.

¹⁹² SACEP, *Regional Climate Governance Review*, 2020.

governance structures can significantly enhance collective adaptation capacity and reduce dependence on the Global North.¹⁹³

The research objectives of this study—identifying and evaluating key adaptation strategies, analyzing institutional bottlenecks, and proposing frameworks for adaptive governance—are directly shaped by the dynamics of international cooperation and equity.¹⁹⁴ Understanding how countries access and utilize international support, how legal systems accommodate global commitments, and how fairness is institutionalized in both global and national climate regimes is essential to bridging the policy-implementation gap.¹⁹⁵ By highlighting these aspects, the study provides a comprehensive view of adaptation governance that integrates local realities with global responsibilities.¹⁹⁶

The research gap addressed here is particularly significant. While existing literature often emphasizes international climate diplomacy or domestic policy instruments in isolation, there is a paucity of studies that interrogate the intersection between international cooperation and national implementation, especially through a legal lens in the Global South.¹⁹⁷ There is also limited scholarship that integrates the principles of environmental justice and equity into the evaluation of international support mechanisms.¹⁹⁸ Comparative insights into how different Global South countries navigate these challenges can illuminate pathways to more inclusive, accountable, and responsive climate governance.¹⁹⁹

International cooperation and equity are not peripheral concerns but core determinants of successful climate adaptation in the Global South.²⁰⁰ Legal frameworks, financial mechanisms, and governance institutions must work in tandem to ensure that commitments made on the global stage translate into tangible outcomes on the ground. The challenges are multifaceted—ranging from legal harmonization and financial access to participatory justice and institutional integrity—but so are the opportunities. Through comparative legal and policy analysis, this research aims to provide actionable recommendations for building a

¹⁹³ UNOSSC, *South-South Cooperation in Climate Adaptation*, 2021.

¹⁹⁴ UNDP, *Adaptive Governance Frameworks*, 2019.

¹⁹⁵ World Resources Institute, *Bridging the Adaptation Gap*, 2022.

¹⁹⁶ IPCC, *Synthesis Report*, 2023.

¹⁹⁷ Rajamani & Peel, *International Climate Change Law* (Oxford University Press, 2018).

¹⁹⁸ Oxfam, *Climate Justice and Equity Report*, 2022.

¹⁹⁹ UNEP, *Effective National Adaptation Strategies*, 2021.

²⁰⁰ UNFCCC, *Equity and Climate Justice Technical Paper*, 2020.

climate governance model that is globally supported, locally grounded, and fundamentally just.²⁰¹

7. Legal and Institutional Practices towards a Framework for Adaptive Governance

In the context of climate change mitigation and adaptation, especially within the Global South, the emergence of adaptive governance as a guiding framework is both timely and necessary.²⁰² The research paper focuses on developing a legally and institutionally grounded model of adaptive governance that can effectively respond to immediate and long-term climate risks. Rooted in the legal disciplines of environmental law, administrative law, and international climate law, the inquiry integrates climate change as a governance challenge that intersects with questions of legality, institutional capacity, and participatory justice.²⁰³ Within this framing, adaptive governance is understood not merely as an administrative or technical process but as a legal and institutional ecosystem capable of learning, evolving, and responding dynamically to shifting climate realities, especially in the diverse political, economic, and ecological landscapes of the Global South.²⁰⁴

Climate change, by its nature, demands governance structures that are anticipatory, flexible, and responsive.²⁰⁵ Traditional legal and institutional frameworks in many Global South countries, however, remain rigid, fragmented, and sectorally divided, often modeled on top-down paradigms ill-suited for dealing with cross-cutting environmental threats.²⁰⁶ This disjuncture becomes particularly problematic when examining the implementation of climate adaptation strategies. The research thus seeks to identify and evaluate how legal systems and institutional practices either facilitate or obstruct the translation of policy into action.²⁰⁷ The proposed objective is to critically analyze how laws, institutional mandates, and administrative cultures in countries like India, Kenya, South Africa, and the Philippines have shaped their respective climate responses, highlighting both best practices and systemic failures.²⁰⁸

²⁰¹ Adaptation Committee, *Progress Report*, UNFCCC (2022).

²⁰² IPCC, *Sixth Assessment Report* (2021).

²⁰³ Daniel Bodansky, *The Art and Craft of International Environmental Law* (Harvard University Press, 2010).

²⁰⁴ Folke, C. et al., "Adaptive Governance of Social-Ecological Systems," *Annual Review of Environment and Resources*, 2005.

²⁰⁵ IPCC, *Synthesis Report* (2023).

²⁰⁶ UNDP, *Institutional Challenges in Climate Governance*, 2020.

²⁰⁷ World Resources Institute, *Adaptation Governance Assessment*, 2022.

²⁰⁸ UNEP, *Climate Governance in Developing Countries*, 2021.

Several statutes and institutional developments within the Global South provide valuable insights into the evolving contours of climate governance. For example, Kenya's Climate Change Act 2016 stands out as a pioneering effort in embedding climate action into statutory law.²⁰⁹ It establishes the Climate Change Directorate and sets forth responsibilities for county-level governments, thereby decentralizing adaptation planning.²¹⁰ Similarly, the Philippines' Climate Change Act of 2009 and its complementary People's Survival Fund Act (2012) institutionalize a climate-resilient development approach, including participatory mechanisms for community engagement and funding for local adaptation plans.²¹¹ In India, while there is no singular climate change legislation, frameworks such as the National Action Plan on Climate Change (NAPCC) and corresponding State Action Plans on Climate Change (SAPCCs) reflect a multi-level governance model that attempts to integrate national priorities with localized interventions.²¹² However, the absence of a legally binding obligation for state action has often resulted in inconsistencies in implementation and weak accountability mechanisms.²¹³

A core component of this research is to investigate institutional and legal bottlenecks that contribute to the persistent policy-implementation gap. These bottlenecks include overlapping institutional jurisdictions, lack of inter-agency coordination, inadequate local government capacities, and the absence of monitoring and enforcement mechanisms.²¹⁴ For instance, South Africa's fragmented environmental governance has often led to overlaps between the Department of Forestry, Fisheries and the Environment and provincial agencies, affecting coherent implementation of adaptation programs.²¹⁵ In many countries, environmental laws and climate policies exist in parallel but are not well integrated, undermining synergies needed for effective adaptive governance.²¹⁶ Additionally, legal instruments tend to prioritize mitigation over adaptation, further widening the implementation gap in contexts where immediate resilience-building is crucial.²¹⁷

²⁰⁹ Climate Change Act, 2016 (Kenya).

²¹⁰ African Centre for Technology Studies, *Kenya Climate Governance Review*, 2019.

²¹¹ Republic of the Philippines, Climate Change Act 2009; People's Survival Fund Act 2012.

²¹² Government of India, *National Action Plan on Climate Change* (2008).

²¹³ Centre for Policy Research, *State Climate Action Plans Evaluation*, 2021.

²¹⁴ OECD, *Institutional Barriers to Climate Adaptation*, 2021.

²¹⁵ South Africa Department of Environment, *National Climate Change Response White Paper*, 2011.

²¹⁶ Adaptation Committee, UNFCCC, *Legal and Policy Coherence Report*, 2020.

²¹⁷ IPCC, *Adaptation Gap Technical Summary*, 2022.

To bridge this gap, the paper proposes the development of a framework for adaptive governance rooted in five key principles: legal coherence, institutional flexibility, multi-level coordination, participatory engagement, and equity.²¹⁸ Legal coherence involves harmonizing national environmental laws with climate policy instruments and international obligations such as the Paris Agreement.²¹⁹ Institutional flexibility refers to the capacity of governance structures to adjust mandates, processes, and resource allocation based on evolving scientific knowledge and community needs.²²⁰ Multi-level coordination emphasizes vertical and horizontal integration of adaptation planning—from national ministries to local governments and civil society actors.²²¹ Participatory engagement ensures that vulnerable populations are not only beneficiaries but also active co-creators of adaptation strategies.²²² Lastly, equity underscores the need for distributive and procedural justice in the allocation of resources, benefits, and decision-making power.²²³

Judicial interventions also play a significant role in advancing adaptive governance. In *Leghari v. Federation of Pakistan* (2015), the Lahore High Court held the government accountable for failing to implement its National Climate Change Policy and directed the establishment of a Climate Change Commission to monitor progress.²²⁴ This case exemplifies how the judiciary can enforce governmental obligations and catalyze institutional reform. Similarly, the *Urgenda Foundation v. State of the Netherlands* decision, though outside the Global South, has inspired legal activism in several developing countries seeking justiciable climate rights.²²⁵ These cases demonstrate the potential for courts to act as agents of adaptive governance by ensuring state compliance with environmental duties and recognizing the right to a safe climate as a component of constitutional rights.²²⁶

The research gap addressed by this study lies in the limited integration of legal and institutional analysis in existing adaptation literature, particularly in the Global South.²²⁷ While numerous studies dissect climate policies, fewer critically assess the interface between

²¹⁸ UNDP, *Adaptive Governance Toolkit*, 2019.

²¹⁹ Paris Agreement, 2015.

²²⁰ Armitage, D. et al., “Adaptive Co-Management,” *Ecology and Society*, 2009.

²²¹ UN-Habitat, *Multilevel Climate Governance Report*, 2020.

²²² Oxfam, *Community Participation in Climate Adaptation*, 2022.

²²³ Schlosberg, D., *Defining Environmental Justice* (Oxford University Press, 2007).

²²⁴ *Ashgar Leghari v. Federation of Pakistan*, WP No. 25501/2015 (Lahore High Court).

²²⁵ *Urgenda Foundation v. State of the Netherlands*, Hague District Court (2015).

²²⁶ Setzer, J. & Higham, C., *Global Trends in Climate Litigation* (Grantham Research Institute, 2021).

²²⁷ Rajamani, L. & Peel, J., *International Climate Change Law* (Oxford University Press, 2018).

law, institutional practice, and implementation outcomes.²²⁸ Comparative insights that reveal how different countries overcome or succumb to similar challenges are sparse, and even fewer studies interrogate how adaptive governance can be legally designed and operationalized under conditions of limited state capacity, socio-economic vulnerability, and ecological diversity.²²⁹ Furthermore, there is a need to embed environmental justice within adaptation frameworks, recognizing that marginalized groups—often at the frontline of climate impacts—must be central to legal and institutional reforms.²³⁰

In conclusion, constructing a framework for adaptive governance in the Global South is both a normative and practical imperative. Legal and institutional practices must evolve from static, command-and-control models toward dynamic systems capable of responding to uncertainty and promoting resilience.²³¹ The comparative analysis of national adaptation strategies within this research paper offers a pathway for legal scholars, policymakers, and practitioners to understand what works, what fails, and why—ultimately contributing to more localized, inclusive, and effective climate governance.²³² Through this lens, the research not only enriches academic discourse but also informs real-world institutional design and legal reform essential for bridging the enduring gap between climate policy and implementation.²³³

8. CONCLUSION

The present study, *"Bridging the Policy-Implementation Gap in Climate Change Mitigation: A Comparative Study of National Adaptation Strategies in the Global South,"* underscores the urgent need to recalibrate legal and institutional mechanisms to ensure effective climate governance.²³⁴ Rooted in the legal disciplines of environmental law, administrative law, and international law, the research integrates climate change not only as an ecological challenge but also as a multi-dimensional legal and governance issue.²³⁵ Within the broader context of Immediate and Long-term Strategies for Addressing and Mitigating Climate Change Impact, the study focuses specifically on the Global South, a region marked by acute climate vulnerability, yet home to diverse, evolving adaptation strategies.²³⁶ Through comparative analysis of selected countries such as India, Kenya, the Philippines, and South Africa, the

²²⁸ UNEP, *Global Adaptation Gap Report*, 2021.

²²⁹ IPCC, Working Group II, *Impacts, Adaptation and Vulnerability* (2022).

²³⁰ Environmental Justice Foundation, *Climate Justice and Vulnerable Communities*, 2020.

²³¹ UNFCCC, *Adaptive Capacity and Governance Frameworks*, 2021.

²³² World Bank, *Climate Resilient Development Pathways*, 2022.

²³³ UNDP, *Strengthening Climate Governance for Implementation*, 2022.

²³⁴ IPCC, *Sixth Assessment Report*, 2021.

²³⁵ Daniel Bodansky, *The Art and Craft of International Environmental Law* (Harvard University Press, 2010).

²³⁶ UNDP, *Climate Vulnerability in the Global South*, 2020.

research identifies critical gaps between climate adaptation policy frameworks and their actual implementation, thereby contributing to a growing body of literature aimed at institutional reform and legal resilience.²³⁷

The findings reveal that while most Global South countries have articulated comprehensive climate adaptation policies, such as India's State Action Plans on Climate Change (SAPCCs), Kenya's Climate Change Act, 2016, and the Philippines' Climate Change Act, 2009, implementation continues to be hampered by overlapping mandates, weak inter-agency coordination, inadequate local government capacity, limited funding, and insufficient legal enforcement mechanisms.²³⁸ Moreover, despite ratifying international agreements like the Paris Agreement, domestic legal systems in these countries often fall short in translating those commitments into binding, enforceable obligations.²³⁹ Judicial interventions, such as *Leghari v. Federation of Pakistan* (2015), have shown the judiciary's potential in upholding climate obligations, yet such precedents remain isolated and are seldom institutionalized into long-term policy frameworks.²⁴⁰ The research thus highlights the importance of integrating legal and institutional analysis with climate adaptation planning, especially to improve accountability, coherence, and equity in policy outcomes.²⁴¹

The research also surfaces a notable gap in literature, for example the lack of rigorous, comparative, interdisciplinary studies that bridge environmental law, public policy, and social equity in the context of climate adaptation.²⁴² While climate strategies are increasingly examined in academic and policy circles, their ground-level impact, particularly under local constraints in the Global South, remains underexplored.²⁴³ This study aims to fill that void by proposing an adaptive governance framework built around legal coherence, decentralization, participatory engagement, and equitable outcomes.²⁴⁴ The objective is not only to assess what policies exist but also to understand how, why, and under what conditions they succeed or fail, offering insight into institutional best practices and reform pathways.²⁴⁵

²³⁷ UNEP, *Climate Governance in Developing Countries*, 2021.

²³⁸ Government of India, *State Action Plans on Climate Change* (MoEFCC, 2009–2015); Climate Change Act 2016 (Kenya); Republic of the Philippines, *Climate Change Act* 2009.

²³⁹ Paris Agreement, 2015.

²⁴⁰ *Ashgar Leghari v. Federation of Pakistan*, WP No. 25501/2015 (Lahore High Court).

²⁴¹ World Resources Institute, *Adaptation Governance Assessment*, 2022.

²⁴² Rajamani, L. & Peel, J., *International Climate Change Law* (Oxford University Press, 2018).

²⁴³ UNEP, *Adaptation Gap Report*, 2021.

²⁴⁴ UNDP, *Adaptive Governance Toolkit*, 2019.

²⁴⁵ World Bank, *Climate Resilient Pathways*, 2022.

In conclusion, the study recommends that Global South nations invest in strengthening legal mandates for climate adaptation by embedding them within enforceable statutes rather than relying solely on policy instruments.²⁴⁶ Greater emphasis must be placed on institutional capacity-building at the local level, with clearer allocation of roles and responsibilities.²⁴⁷ International cooperation must be structured around principles of climate justice and common but differentiated responsibilities, ensuring financial and technological support tailored to local needs.²⁴⁸ Most importantly, adaptive governance must be people-centric, with participatory mechanisms that empower communities as co-creators of climate resilience.²⁴⁹ By addressing both legal architecture and institutional functionality, this study offers a pragmatic roadmap for bridging the policy-implementation gap in climate change mitigation and adaptation across the Global South.²⁵⁰

²⁴⁶ IPCC, *Working Group III Mitigation Report*, 2022.

²⁴⁷ OECD, *Institutional Capacity for Climate Action in Developing Countries*, 2021.

²⁴⁸ UNFCCC, *Common But Differentiated Responsibilities: Implementation Report*, 2019.

²⁴⁹ Oxfam, *Community-Led Climate Adaptation*, 2022.

²⁵⁰ UNDP, *Strengthening Climate Governance for Implementation*, 2022.