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Climate Change And The Courts: A Comparative Public Law Analysis Of Judicial Approaches To Environmental Challenges

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Abstract

In recent years, extreme weather events such as cloudbursts, flash floods, and landslides have been occurring with greater frequency, especially in ecologically sensitive areas. These disasters are not just natural occurrences or developments; they reflect, like a mirror, a deeper, ongoing climate crisis that brings with it serious legal and governance challenges. Many communities affected by these catastrophes are turning to courts to protect their rights and to hold governments accountable for failing to act.

This research paper intends to examine the role courts play in responding to climate-related issues, using a comparative public law approach. It looks at how courts in different Jurisdictional regions, including India, the United States, and Europe, have interpreted and expounded constitutional rights, statutory laws, and international commitments when addressing environmental harm. By comparing these approaches to legal strategy, the study shows how courts navigate the complex, Convoluted balance between economic development, environmental protection, and the rights of present and future generations.

While courts cannot solve the climate crisis on their own, they play a vital role in promoting accountability, fairness, and long-term justice. As disasters like cloudbursts and landslides become more common, judicial reasoning becomes increasingly important in shaping how societies understand responsibility, fairness, and the protection of vulnerable communities during times of environmental emergency.

Key Words: Climate change, Comparative Public Law, Judicial Activism, Environmental Justice, Constitutional Morality, Sustainable development.

INTRODUCTION

One of the most significant challenges the world faces in the 21st century is climate change. Rising temperatures, melting glaciers, and frequent extreme weather events like floods, landslides, and droughts show how deeply its effects cut across boundaries. In India too, recent disasters highlight this reality; the cloudbursts in Himachal Pradesh and Uttarakhand and the devastating floods in Punjab in 2025 remind us how quickly climate change can endanger fragile and sensitive regions. These events not only cause a lot of pain and loss of money for people, but they also make people question the government's responsibility, environmental protection, and constitutional rights.

While international agreements such as the Paris Agreement seek to guide collaborative initiatives against climate change, their effectiveness ultimately depends on national implementation and accountability.¹ Industrial pressures, bureaucratic inefficiencies, and political inertia have often undermined climate policies in India. The courts have become essential actors in climate governance, compelling affected communities and civil society organisations to seek legal remedies.

Indian courts have played a pivotal role in linking environmental protection to constitutional rights. Notable judgments, including *MC Mehta v Union of India*, expanded the interpretation of Article 21 (Right to Life) to include the right to a clean and healthy environment.² Recently, the Supreme Court has reinforced this legal precedent by nullifying retrospective environmental clearances, halting governmental attempts to ease prior approval requirements for industrial and construction projects, and affirming the jurisdiction of Pollution Control Boards to impose penalties in anticipation of environmental harm.³ These interventions demonstrate how courts act as a counterbalance to executive inaction and as protectors of intergenerational equity, public trust, and sustainable development.

Concurrently, there has been a discussion about the role of judicial activism in environmental issues. However, courts are not a comprehensive substitute for comprehensive legislative and policy frameworks, despite the fact that they have addressed the deficiencies of ineffective regulatory bodies. In order to address climate change, it is imperative to implement comprehensive systemic reform in addition to individual decision-making. The primary question is how various jurisdictions, in the context of the climate crisis, maintain a balance between sustainable development, constitutional rights, and public trust. What is the role of courts in the resolution of environmental concerns?

This research paper employs a comparative public law methodology to analyse how courts in India, the United States, and Europe have confronted climate-related issues. Through the examination of landmark

¹ Hari M Osofsky, 'The Geography of Climate Change Litigation: Implications for Transnational Regulatory Governance' (2007) 83 *Washington University Law Review* 1789.

² *MC Mehta v Union of India*, AIR 1987 SC 965 (SC).

³ Supreme Court rules against ex-post facto environmental clearances, ET Legal (28 August 2025).

cases, constitutional principles, and the evolution of jurisprudence, it elucidates the potential and constraints of judicial involvement in climate change.

LITERATURE REVIEW

Climate change litigation has developed into a significant area of comparative public law, with courts worldwide assuming an increasingly crucial role in confronting governmental inaction. Academics like Hari Osofsky have emphasised the interconnection between domestic climate litigation and transnational governance, compelling national courts to take international obligations into account.⁴ Jacqueline Peel similarly observes that climate litigation generates accountability pressures that affect regulatory frameworks and public policy.⁵

In India, academics characterise the judiciary as distinctly activist, broadening constitutional protections under Article 21 to encompass the right to a clean and healthy environment. Landmark rulings such as *MC Mehta v Union of India* exemplify this trend.⁶ Conversely, in the United States, constitutional constraints have rendered courts more circumspect, as exemplified in *Juliana v. The United States*.⁷ And Europe exemplify a third model, wherein courts, notably in the *Urgenda* case.⁸ They have decisively connected human rights to climate responsibilities.

Thus, existing research demonstrates how courts balance public trust, sustainability, and constitutional rights. Recent Indian developments, such as the Supreme Court's 2025 rulings invalidating retroactive environmental clearances and upholding the authority of Pollution Control Boards, have received less attention, though. By providing a comparative analysis of Europe, the US, and India, this paper fills that gap.

THEORETICAL FRAMEWORK

Courts in various jurisdictions depend on specific foundational principles of public law to rationalise their involvement in climate-related conflicts. These principles establish the normative framework for reconciling development with environmental preservation.

1. Public Trust Doctrine

The public trust doctrine posits that natural resources, such as forests, rivers, air, and water, are entrusted to the state for the benefit of the public. The state is therefore a trustee, required to ensure that these resources are not utilised in a manner that endangers ecological balance. In India, this doctrine is

⁴ Hari M Osofsky, 'The Geography of Climate Change Litigation: Implications for Transnational Regulatory Governance' (2007) 83 Washington University Law Review 1789.

⁵ Jacqueline Peel and Hari Osofsky, *Climate Change Litigation: Regulatory Pathways to Cleaner Energy* (CUP 2015).

⁶ *MC Mehta v Union of India*, AIR 1987 SC 965 (SC).

⁷ *Juliana v United States* 947 F Supp 2d 1237 (D Or 2016).

⁸ *Urgenda Foundation v State of the Netherlands* (2019) (Supreme Court of the Netherlands).

enshrined in Article 21, empowering the judiciary to restrain both state and private entities from jeopardising the environment.⁹

2. Precautionary Principle

The precautionary principle stipulates that potential serious or irreversible environmental harm necessitates preventive actions, regardless of the absence of absolute scientific certainty. This principle has been explicitly recognised in Indian jurisprudence, notably in *Vellore Citizens Welfare Forum v. Union of India*, where the Supreme Court emphasised that industries must prove the environmental harmlessness of their operations.¹⁰

3. Intergenerational Development

The principle of intergenerational equity recognises that future generations possess a right to a sustainable environment, while current generations are custodians of natural resources. The Supreme Court in *State of Himachal Pradesh v. Ganesh Wood Products* emphasised that natural resources should be conserved for both current and future generations.¹¹ This corresponds with advancements in international law, notably the 1992 Rio Declaration.

4. Sustainable Development

The principle of sustainable development mandates that economic growth be sought in conjunction with ecological preservation. Courts apply this principle to resolve conflicts between industrial initiatives and environmental protections. In India, the principle of sustainable development has evolved into a constitutional mandate, influencing judicial reasoning in project approvals and environmental clearance controversies.

5. Constitutional Morality and Environmental Rights

Recent legal precedents have broadened environmental protection to encompass constitutional morality. By associating ecological preservation with the inherent right to life and dignity under Article 21, courts position environmental justice as an obligatory constitutional assurance rather than a voluntary policy matter.¹²

Collectively, these principles establish the theoretical basis for judicial intervention in climate litigation. They allow courts to express a rights-based, justice-focused approach to environmental issues while addressing the constraints of statutory and policy frameworks.

METHODOLOGY

This study employs a comparative legal methodology to examine judicial responses to climate change.

⁹ *MC Mehta v Kamal Nath* (1997) 1 SCC 388 (SC).

¹⁰ *Vellore Citizens Welfare Forum v Union of India* (1996) 5 SCC 647 (SC).

¹¹ *State of Himachal Pradesh v Ganesh Wood Products* (1995) 6 SCC 363 (SC).

¹² Lavanya Rajamani, 'Constitutionalism and Climate Change in India' (2020) 69 *International & Comparative Law Quarterly* 757.

The emphasis is on analysing significant court cases, legislation, and reports to comprehend the influence of judicial rulings on environmental protection.

The study examines India, the United States, and the European Union due to their distinct legal frameworks and methodologies regarding environmental concerns. India is recognised for public interest litigation (PIL), which enables courts to address environmental issues.¹³ The United States operates under a federal system in which courts interpret environmental legislation such as the Clean Air Act.¹⁴ The European Union exemplifies the integration of environmental regulations with human rights safeguards in judicial proceedings.¹⁵

The study examines judicial rulings, legislation, and international treaties for comparative analysis.

- The rationale and decision-making processes of courts
- The remedies or solutions offered
- Comparative analysis of similarities and differences among nations

This approach elucidates the function of courts in tackling climate change and examines how various legal systems confront analogous issues.

ANALYSIS

1. India: Judicial Activism and Public Interest Litigation

In India, the judiciary has taken the lead in protecting the environment. Public Interest Litigation (PIL) has been a common tool used by the Supreme Court and High Courts to address environmental degradation, particularly when it comes to issues involving public health and cultural heritage. The Supreme Court stepped in to protect the Taj Mahal from industrial pollution in Agra in the landmark case of *M.C. Mehta v. Union of India*. The Court applied the polluter pays principle, which ensures that those who cause environmental harm bear the costs, and the precautionary principle, which requires polluting industries to reduce their emissions.¹⁶

Indian courts have recognised that the right to a healthy environment is an essential aspect of the right to life, as outlined in Article 21 of the Constitution. Recent public interest litigations have expanded this rationale to include climate change, highlighting the government's duty to reduce emissions and protect vulnerable populations.¹⁷

2. United States: Regulatory Oversight and Climate Litigation

In the United States, the judiciary primarily tackles climate change by interpreting existing environmental legislation rather than engaging in direct activism. The Supreme Court case

¹³ *M.C. Mehta v. Union of India*, AIR 1987 SC 1086.

¹⁴ *Massachusetts v. Environmental Protection Agency*, 549 U.S. 497 (2007).

¹⁵ European Court of Human Rights, *Verein Klima Schweiz v. Switzerland*, App. No. 53600/20 (2022).

¹⁶ *M.C. Mehta v. Union of India*, AIR 1987 SC 1086.

¹⁷ Supreme Court of India, *Indian Council for Enviro-Legal Action v. Union of India*, AIR 1996 SC 1446.

Massachusetts v. Environmental Protection Agency was pivotal in affirming that greenhouse gases qualify as air pollutants under the Clean Air Act.¹⁸ This ruling required the EPA to regulate emissions, thereby confirming the legal obligation of federal agencies to consider environmental effects when formulating policy.

United States courts also point out the value of standing and the constraints of judicial authority. Only plaintiffs who can establish direct harm are permitted to initiate cases, thereby influencing the character of climate litigation. Although courts do not formulate policy, they ensure regulatory agencies are held accountable for inaction on climate change, illustrating the judiciary's function in upholding administrative accountability.

3. European Union: Integrating Human Rights with Environmental Protection

The European Union exhibits a supranational framework that integrates environmental protection with human rights commitments. The European Court of Human Rights determined in Verein Schweiz v. Switzerland that Switzerland's inadequate climate policies infringed upon citizens' rights as stipulated by the European Convention on Human Rights.¹⁹ This case demonstrates the connection between environmental accountability and the safeguarding of fundamental rights, including the right to life and health.

The European Court of Justice enforces EU directives and regulations, ensuring member states adhere to binding environmental legislation. The Court can enforce remedial measures and oversee their execution, demonstrating a robust institutional framework for climate governance.

4. Comparative Insights

A comparative review of the three jurisdictions reveals distinct judicial approaches:

<i>JURISDICTION</i>	<i>APPROACH</i>	<i>KEY FEATURES</i>	<i>CHALLENGES</i>
India	Judicial Activism	PILs, precautionary principle	Enforcement relies on executive action; limited resources
USA	Regulatory Interpretation	Courts interpret laws like the Clean Air Act, emphasising standing	Courts cannot create policy; only enforce statutes

¹⁸ Massachusetts v. Environmental Protection Agency, 549 U.S. 497 (2007).

¹⁹ European Court of Human Rights, Verein Schweiz v. Switzerland, App. No. 53600/20 (2022).

EU	Human Rights Integration	Courts link climate policies with rights; enforce directions	Supranational jurisdiction limits local enforcement flexibility
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FINDINGS AND DISCUSSION

The comparative analysis of judicial methodologies across jurisdictions uncovers several notable trends in the manner in which courts are addressing the challenges posed by climate change. These findings point out the transformative value of judicial reasoning and the intrinsic limitations of adjudication in tackling global environmental crises.

1. Rights-Based Expansion of Environmental Protection

Judicial systems in South Asia, particularly in India, have persistently adopted a rights-based framework by interpreting the constitutional right to life to include the right to a clean and healthy environment. In *Subhash Kumar v. State of Bihar*, the Supreme Court of India ruled that the right to life under Article 21 includes “the right to enjoy pollution-free water and air.”²⁰ This expansive interpretation demonstrates the judiciary's willingness to rectify shortcomings in legislative actions. In *Leghari v. Federation of Pakistan*, the Lahore High Court recognised climate change as a violation of fundamental rights, thereby imposing a constitutional obligation on the state to take action.²¹

2. Judicial Activism v. Judicial Restraint

The comparative analysis reveals a substantial disparity between Global South and Global North jurisdictions. In India and Pakistan, judicial activism has profoundly impacted environmental jurisprudence, often compensating for deficient institutional frameworks.²² In contrast, courts in the United States have demonstrated heightened restraint, limiting themselves to the interpretation of statutes. In *Massachusetts v. Environmental Protection Agency*, the U.S. Supreme Court compelled the EPA to regulate greenhouse gases under the Clean Air Act, primarily relying on statutory duties rather than broad constitutional doctrines.²³ This exemplifies a preference for judicial minimalism, emphasising deference to the legislature.

3. Integration of International Norms

National courts often reference international environmental commitments. In *Urgenda Foundation v. State of the Netherlands*, the Hague District Court extensively cited the European Convention on Human Rights and international climate agreements to compel the Dutch government to reduce greenhouse gas

²⁰ *Subhash Kumar v. State of Bihar*, AIR 1991 SC 420 (India)
²¹ *Leghari v. Federation of Pakistan*, W.P. No. 25501/2015 (Lahore High Court).
²² Shibani Ghosh, “Litigating Climate Claims in India,” *Journal of Environmental Law* 32, no. 3 (2020): 457–480.
²³ *Massachusetts v. Environmental Protection Agency*, 549 U.S. 497 (2007).

emissions.²⁴ This exemplifies a transnational judicial dialogue, in which courts utilise international norms as persuasive authority to bolster domestic rulings. Indian courts have incorporated international environmental law principles, including sustainable development and the precautionary principle, thereby bolstering global environmental standards.²⁵

4. Limitations of Judicial Intervention

Notwithstanding these advancements, the findings indicate that judicial rulings frequently encounter significant implementation obstacles. In India, although public interest litigation has generated a substantial corpus of environmental jurisprudence, enforcement is inconsistent owing to bureaucratic inertia and political opposition.²⁶ In jurisdictions such as the Netherlands, concerns have been expressed regarding the democratic legitimacy of courts instructing governments on policy issues with significant economic consequences.²⁷ This highlights the conflict between judicial innovation and the doctrine of separation of powers.

5. Emerging Judicial Consensus

Courts around the world are beginning to recognise that climate change affects fundamental rights and state obligations, which is a small but important consensus. Although approaches differ—from statutory analysis in the United States and reliance on human rights frameworks in Europe to constitutional interpretation in India and Pakistan—the general theme is the judicial acknowledgement of climate change as a legal and constitutional issue rather than just a political or scientific one.²⁸

CHALLENGES AND CRITICISMS

Even though courts in different places have been crucial in moving climate change law forward, their actions have not been without big problems and criticism. These limitations show the structural, institutional, and normative limits on what courts can do when it comes to climate governance.

1. Separation of Powers Concerns

One of the most persistent criticisms is that climate change litigation often pushes courts into the domain of policy-making, raising concerns of judicial overreach. In *Urgenda Foundation v. State of the Netherlands*, critics argued that the judiciary effectively set national climate policy, a function traditionally reserved for the executive and legislature.²⁹ Higher courts upheld the ruling, but it sparked

²⁴ *Urgenda Foundation v. State of Netherlands*, C/09/456689/HA ZA 13-1396 (Hague District Court 2015).

²⁵ *Vellore Citizens' Welfare Forum v. Union of India*, AIR 1996 SC 2715 (India).

²⁶ Lavanya Rajamani, *Courts and Climate Change: National, Regional and International* (Oxford University Press, 2021), 89.

²⁷ Jaap Spier, "The 'Urgenda' Judgment: Netherlands Liability for Climate Change," *Journal of European Tort Law* 7, no. 3 (2016): 210–227.

²⁸ Jacqueline Peel and Hari M. Osofsky, *Climate Change Litigation: Regulatory Pathways to Cleaner Energy* (Cambridge University Press, 2015), 134–138.

²⁹ *Urgenda Foundation v. State of Netherlands*, C/09/456689/HA ZA 13-1396 (Hague District Court 2015).

debates about whether such judicial activism undermines democratic accountability.³⁰

2. Enforcement Deficits

Even when courts make progressive decisions, enforcing them is still a big problem. In India, state officials have frequently disregarded the law regarding environmental protection, despite numerous public interest litigation cases that have affirmed these rights.³¹ The difference between what the courts say and what the government does makes climate litigation less effective, especially in developing countries where institutions are not forceful.³²

3. Lack of Resources and Knowledge

Courts often don't have the tools they need to resolve complicated scientific and technical issues related to climate change. They don't have access to the same level of expertise in climate science, environmental economics, and energy policy as legislatures or regulatory agencies do.³³ This makes me wonder if the way judges think about things can really capture how complicated climate governance is, which could lead to solutions that are too simple or not possible to put into action.

4. Breaking up climate governance

Another restriction is that judicial decisions, by their inherent nature, function within the confines of domestic law. Climate change is a problem that crosses borders and needs action from all countries. Courts can tell national governments to cut down on emissions, but these steps may not have much of an effect on the world as a whole unless they are in line with international agreements like the Paris Agreement.³⁴ This leads to a fragmented approach in which national courts protect the climate in different ways in different areas.

5. Danger of a Crisis in Judicial Legitimacy

If judges become too involved in climate issues, people might accuse them of being political, which could hurt their legitimacy. Many people in the United States have argued that climate-related cases are merely a means to circumvent the political process through "climate litigation by proxy."³⁵ If people think that courts are political actors instead of neutral judges, they might lose faith in the judiciary, which would weaken its authority over time.

CONCLUSION AND RECOMMENDATIONS

³⁰ Jaap Spier, "The 'Urgenda' Judgment: Netherlands Liability for Climate Change," *Journal of European Tort Law* 7, no. 3 (2016): 210–227.

³¹ *M.C. Mehta v. Union of India*, AIR 1987 SC 1086 (India).

³² Lavanya Rajamani, *Courts and Climate Change: National, Regional and International* (Oxford University Press, 2021), 112–114

³³ Hari M. Osofsky, "The Role of Climate Change Litigation in Shaping Climate Governance," *Chicago Journal of International Law* 28, no. 2 (2019): 233–265.

³⁴ Daniel Bodansky, *The Art and Craft of International Environmental Law* (Harvard University Press, 2011), 189–194.

³⁵ Michael B. Gerrard and Tracy Hester, "Climate Change Litigation: A Growing Trend," *Environmental Law Reporter* 48, no. 5 (2018): 100–115.

The comparative analysis reveals that courts have become pivotal entities in tackling climate change, though their approaches vary by jurisdiction. In South Asia, especially India and Pakistan, judicial activism has broadened constitutional rights to include environmental protection, thus addressing deficiencies in legislative and executive actions.³⁶ Conversely, courts in the United States have exhibited greater restraint, basing their interventions on statutory interpretation, whereas European courts—illustrated by the *Urgenda* ruling—have utilised human rights frameworks to ensure governmental accountability.³⁷ These approaches collectively highlight an increasing judicial acknowledgement that climate change transcends being solely a scientific or political matter, emerging as a fundamental legal and constitutional issue.

Nonetheless, the study also underscores persistent challenges. Enforcement deficiencies, concerns regarding the separation of powers, and the limited technical proficiency of courts highlight the dangers of excessive dependence on judicial interventions.³⁸ Although courts are essential in protecting rights and enforcing state action, they cannot replace coherent legislative and executive policies.

Suggestions

1. Enhancing Legislative Frameworks

Legislatures ought to implement explicit, enforceable climate legislation that alleviates the necessity for courts to function as policymakers.³⁹

2. Capacity Enhancement for Judicial Institutions

Specialised environmental benches and access to expert advisory panels can assist courts in addressing the scientific and technical aspects of climate disputes.⁴⁰

3. Improved Compliance Mechanisms

Establishing autonomous monitoring entities can close the enforcement gap, guaranteeing that judicial mandates result in tangible outcomes.⁴¹

4. Incorporation of Global Standards

Domestic courts should continue to engage with international environmental principles, aligning national rulings with global climate governance frameworks, such as the Paris Agreement.⁴²

5. Promoting Regional and Transnational Judicial Discourse

³⁶ Subhash Kumar v. State of Bihar, AIR 1991 SC 420 (India); Leghari v. Federation of Pakistan, W.P. No. 25501/2015 (Lahore High Court).

³⁷ *Urgenda Foundation v. State of Netherlands*, C/09/456689/HA ZA 13-1396 (Hague District Court 2015); *Massachusetts v. Environmental Protection Agency*, 549 U.S. 497 (2007).

³⁸ Lavanya Rajamani, *Courts and Climate Change: National, Regional and International* (Oxford University Press, 2021), 110–118.

³⁹ Daniel Bodansky, *The Art and Craft of International Environmental Law* (Harvard University Press, 2011), 202–206.

⁴⁰ Shibani Ghosh, “Environmental Courts and Tribunals in India: Strengthening Judicial Capacity,” *Indian Journal of Environmental Law* 25, no. 1 (2020): 45–67.

⁴¹ Michael B. Gerrard, *Legal Pathways to Deep Decarbonization in the United States* (Environmental Law Institute, 2019), 77–81.

⁴² Christina Voigt, “The Paris Agreement: What Role for Courts?” *Journal of Environmental Law* 29, no. 1 (2017): 3–25.

Cross-jurisdictional learning, facilitated by judicial conferences and the citation of foreign precedents, can promote a more uniform and effective global response to climate litigation.⁴³

In conclusion, courts are essential yet not all-powerful entities in the battle against climate change. Their rulings can stimulate political action, broaden rights discourse, and ensure accountability. However, strong legislative measures, executive dedication, and international collaboration must supplement judicial interventions for a truly sustainable and coordinated response.

⁴³ Jacqueline Peel and Hari M. Osofsky, *Climate Change Litigation: Regulatory Pathways to Cleaner Energy* (Cambridge University Press, 2015), 211–216.