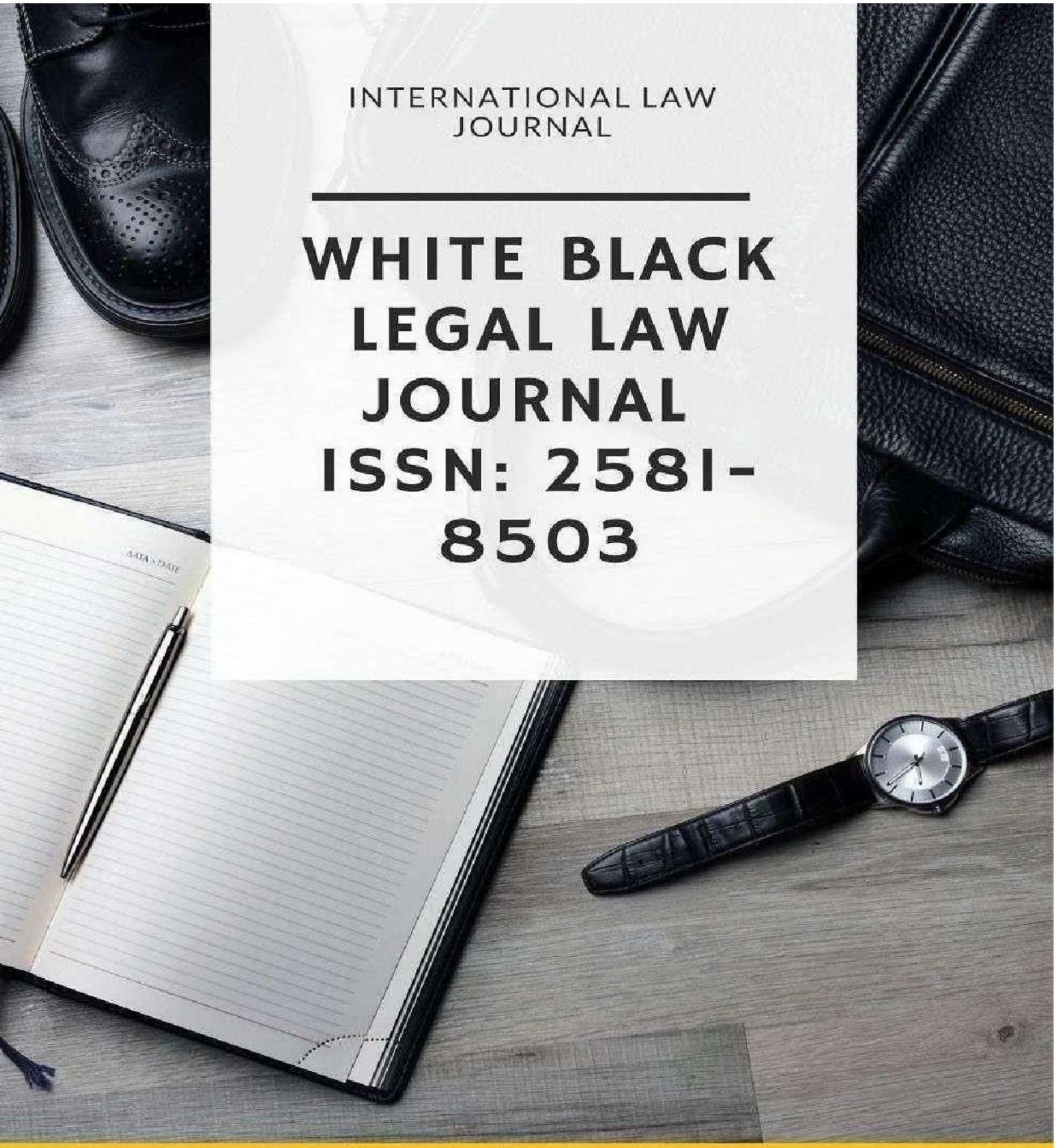

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FROM EMISSIONS TO ENFORCEMENT: RETHINKING CLIMATE GOVERNANCE FOR AIR POLLUTION MITIGATION

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Abstract

Air quality governance in India has matured to a point where the design of regulation, public health, and climate change overlap. The issue is not with the absence of environmental regulations, but rather, the discrepancies in structured deficiencies in relation to enforceable standards of compliance across institutions, sectors, and jurisdictional boundaries. With doctrinal legal research, this Article employs and analyses, in order to ascertain the potential impact of Indian Climate Governance. Constitutional principles and fundamental rights, statutory schemes, case laws, and current regulations, are components of Indian Climate Governance. It concludes with the observation that India has achieved a significant level of judicial environmental activism based on rights, and the last judicial position has expanded the boundaries of that environmental judicial activism in the context of adverse effects to the rights of citizens pocketed with climate change. However, the lax legal climate remains integrated and crisis-bound with judicial overdependence. Emissions, performance studies, and legal frameworks clearly demonstrate that hazardous transport emissions, waste land burning, regional emissions, and a legal vacuum around dust emissions, indicators demonstrate that unsolved gaps are in legal frameworks. The drawn conclusion is that a structured legal, in the context of governance, a framework is necessary along with legally auditable emissions, intergovernmental solidarity, and a departure from the status quo.

Keywords: climate governance; air pollution mitigation; Article 21; airshed regulation; enforcement accountability.

1. Introduction

The governance of air pollution in India is deeply multi-dimensional, going far beyond the scope of the health of the public. Specifically, it concerns the intersection of climate vulnerability, urbanization, energy transition, and accountability. In this context, this Section outlines the assertion that the enforcement of law is as much needed, and is as critical, as reduction of emissions, if not of greater importance.

The answer of India's law that oversees environmental concerns recognizes pollution as a rights issue. The response to the problem of air pollution remains fundamentally unorganized. National programmes, combined with the monitoring of the judiciary and temporally limited air pollution control laws, are numerous, but compliance is not universal. The long-term problem being caused by the interrelationship between health and climate. Poor air governance is, therefore, a failure on the part of public administration. This duality rationalizes that the failure of air governance is not in isolation from other climate concerns.[1]

The legal environment of air governance is complex. The core legal mechanism of air governance is concentrated in the Air (Prevention and Control of Pollution) Act 1981[2], which aims to regulate pollution and control prevention. The Environment (Protection) Act 1986 was the first law that, to a certain extent, broadened the scope of the control of the natural environment and the right of the citizens to a functional bother. [3] The air pollution control laws, however, do not take into consideration modern approaches to control of the air, including the management of the carbon balance and management of the accountability of the air. Therefore, the relevance of these early pieces of legislation are of interpretation, policy, and coordination of institutions, and to some extent the text. From a legal perspective, the challenge remains, not on the existence of regulation, but if the current regulatory system is adaptable to the realities of the contemporary climate and air quality.

The constitutional aspects of Environmental Law have become more prominent. The Supreme Court, in the case of *M. K. Ranjitsinh v. Union of India*, established the importance of the link between climate change and the constitutional right to equality and the right to life and a clean environment by asserting the right to be free from the harmful consequences of climate change, and the right to a healthy environment. This rationale goes beyond the boundaries of the need to conserve wildlife, as it provides a foundational principle which suggests that when the government fails to control air pollution, it goes beyond mere administrative failure, and approaches a serious constitutional and legal issue as it has the potential to cause deadly harm to the climate and the people.[4]

The current study of air pollution control encompasses legal analysis of constitutions and environmental law to develop a legal framework that attempts to create a legal basis to transform the existing data of emissions into enforceable legal rights and obligations within the context of India. It attempts to offer the argument that the fragmented nature of climate and air governance in India poses the greatest threat rather than the fragmented nature of the legal framework.

2. Constitutional and Institutional Architecture of Climate-Air Governance

Air pollution control in India is governed by a multitude of laws, from the constitution to the laws that establish a framework, government policies, and bilateral agreements. Before determining the control mechanisms of the framework, the nested architecture needs to be understood since it is a climate governance framework that assigns control mechanisms.

2.1 CONSTITUTIONAL FOUNDATIONS

Environmental governance in India is grounded in Articles 21, 48A, and 51A(g) of the Constitution. The progressive jurisprudence on Article 21 and the corresponding duties in Articles 48A and 51A(g) give the State and the citizens the right to life, and the duty to not act against the right to life, and to protect the environment.[5] Over the years, the provisions have expanded and provided the scope for the State to protect and promote other interests such as physical health, public health, and the environment. These provisions have provided the citizens a constitutional duty to protect the environment, while the State has a corresponding constitutional duty to safeguard the right of citizens from the negative impact of environmental contamination and pollution.

2.2 STATUTORY FRAMEWORKS AND REGULATORY REACH

The Air Act contains the provisions for setting standards and stipulating the terms of the framework for resp. The Act entails the provisions concerning the Infrastructure and offences of Regulation. It is well structured in Licensing and enforcement to Subject Specific Pollution Control, but it is deficient in controlling the Subject Specific Pollution Control, which typically is of a static The Act of the Environment Protection has tried to supplement this gap by providing the head to make the rules and notify the standards, which are not provided in the Act. However, even with the stipulation of a strong unifying head and framework, it is still heavily dependent on the will/movement of the Executive.

The establishment of the Commission for Air Quality Management in National Capital Region and Adjoining Areas (CAQM-NCR-AA) signifies a change in approach. CAQM-NCR-AA recognizes that the most extreme pollution events in urban areas are typically regional.[6] However, the CAQM-NCR-AA has a specific mandate, both in geography and issues. It enhances the level of cooperation in the National Capital Region, but on its own, it neither provides a national model for airshed governance, nor resolves the persistent challenge of balancing central governance against state-level delegative governance. Therefore, CAQM-NCR-AA should be seen as a corrective instrument, rather than a series of attempts to reconfigure the Indian federalism pertaining to clean air.

2.3 PROGRAMMATIC GOVERNANCE, METRICS, AND FIGURE 1

Recently, there has been a discernible shift in policy towards reliance on data-based governance. The National Clean Air Programme institutionalizes a performance-based approach that connects funding and PM10 targets in city action plans to institutional performance, and where changes in ambient air levels in cities designated as non-attainment are the main focus of public accountability. This approach shifts the accountability focus from legal and from plant-level compliance to something different.[7] The establishment of the performance-based system presents risks of administrative activity that is deemed legally actionable. It is important to have performance-based indicators, but these will be legally meaningful only if linked to a system of air clearance goals, budget constraints, and legally mandated duties, rather than being simply ranked.

Figure 1 presents the dominant sectoral distributions of Delhi's particulate emissions inventory for 2021-2022. The differences between PM10 and PM2.5 warrants some analysis.[8] When it comes to the coarse particulates, road dust is the dominant contributor, whereas transport plays that role for PM2.5. It can be assumed that anti-pollution sentiments directed towards emissions are highly inconsistent, leading to difficult, disparate, and varied regulatory challenges that do require some form of concurrence at the outer limits. Dust management activities are comprised of street, dust suppression, freight, and street management along with venture management, fuel quality, and street management. These activities do vary greatly in the legal domains and courts of enforcement, and as such demand the design of differentiated climate compliance matched to the level of enforcement required.

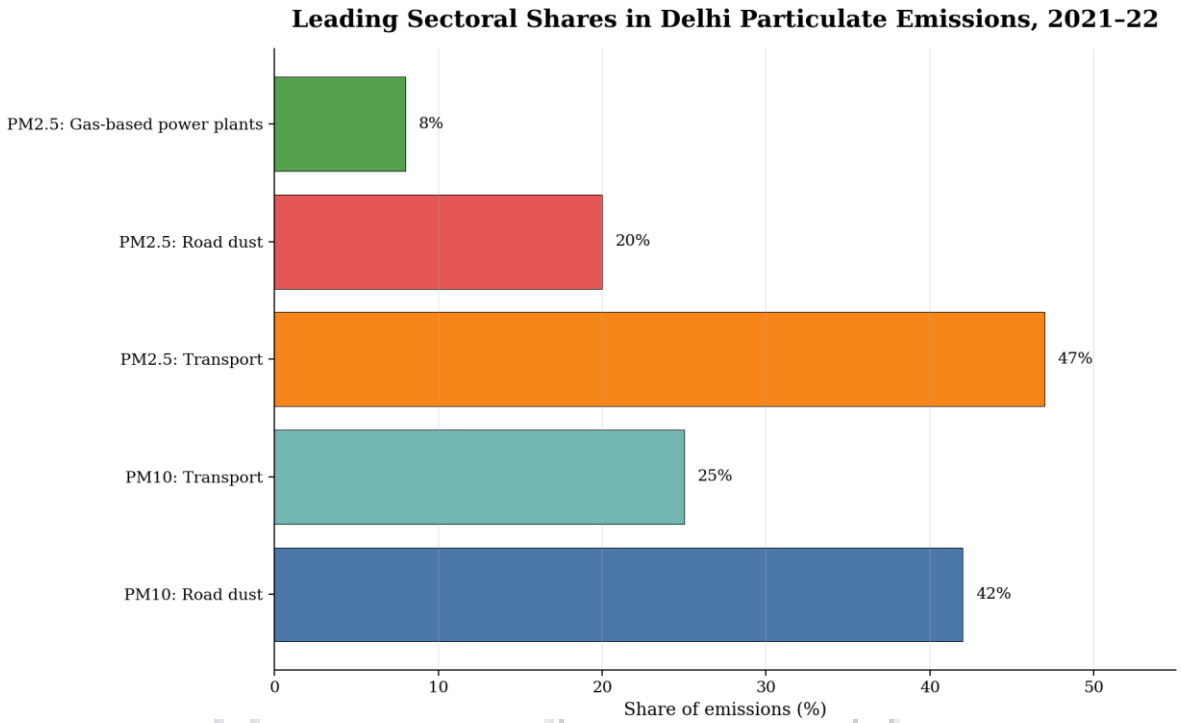

Figure 1. Leading sectoral shares in Delhi particulate emissions, 2021-22.

Transport and dust contribute significantly to Delhi's particulate problem, though they coexist across differing pollutant aggregations. The differentiation calls for dust control in order to regulate coarse particulate and the provision of fuel and improved transport to regulate PM2.5, the fine particulate that is associated with the most serious of health problems.

Swachh Vayu Survekshan's preference for comparative performance grants structured budges against city benchmarks, and, in an almost passive-aggressive manner, indicates preferences for normative controls of a (partially) competitive nature. Figure 2 converts those budges into a simple comparative format. [9] While clean air governance typically employs a logic of implicit prioritization, the focus of the governance system actually rests on a lack of prioritization. The real focus of clean air governance is the lack of the prioritization of the problem fused into political, rigorous, reviewable, and legal commitments.

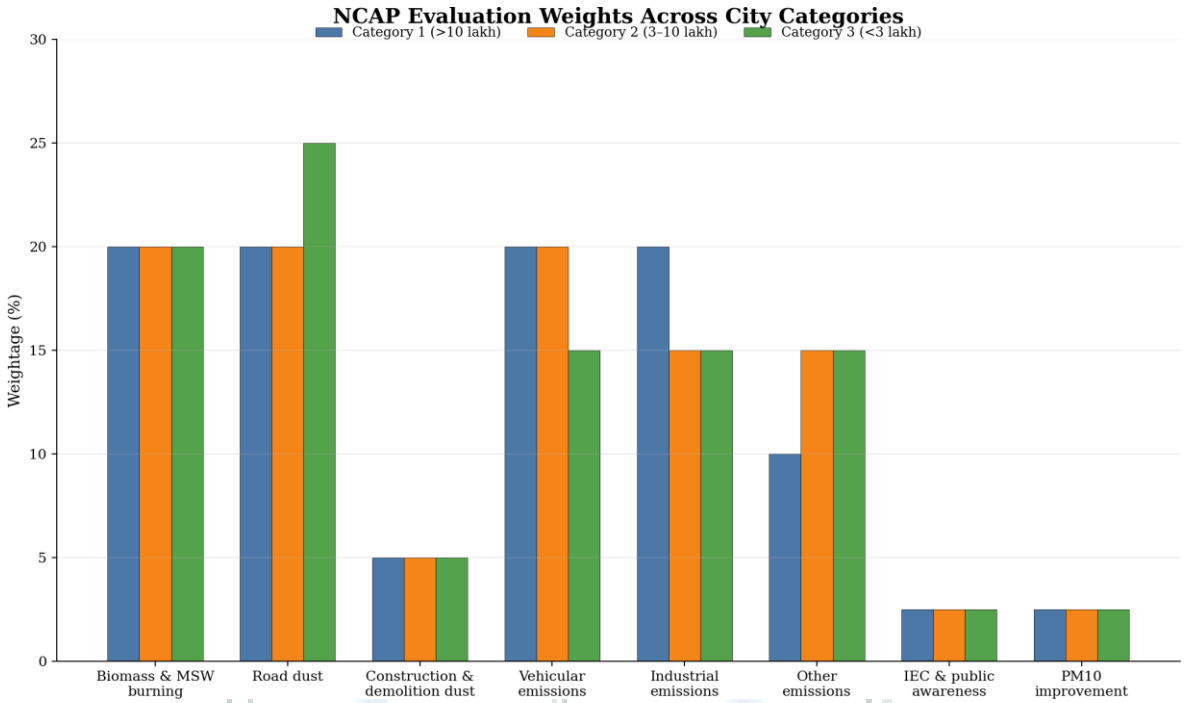

Figure 2. NCAP evaluation weights across city categories.

Within the categories of cities, road dust, biomass burning, vehicular emissions, and industrial sources are prioritized. These already selected the focus of competitive governance assessment and are the key sectors. The real challenge is to connect the prioritized sectors and the problem fragments into legal, rigid commitments, and into normative framework (timelines and budgets) that carry legal constraints as a consequence of their breach.

3. Doctrinal Evolution from Environmental Rights to Climate-Conscious Adjudication

Indian judiciary system has created a significant impact in the field of environmental governance to the point of turning loose constitutional language into binding and enforceable legal framework. It is in these Sections that I realize the journey from the foundation of environmental law to the language of air pollution jurisprudence, now to the language of climate change and environmental law. I realize that these Sections offer a way to think of, and articulate, a jurisprudence of climate change and environmental law.

3.1 FOUNDATIONAL ENVIRONMENTAL-RIGHTS DOCTRINE

The contemporary doctrinal trajectory starts with industrial risks and public health lawsuits. The Supreme Court, in the Oleum Gas Leak case of *M. C. Mehta v. Union of India*, built the doctrine of absolute liability for dangerous industries, holding that constitutional adjudication has the ability to respond creatively to environmental harm. While the case did not deal with ambient air pollution in the contemporary urban context, its broader import lies in the Court's decision to not restrict environmental harm to the realm of everyday private law.[10] It ruled that

ecological risk and a constitutional response can be addressed together in the same adjudicative framework.

The scope of this right was expanded in *Subhash Kumar v. State of Bihar*, whereby the Court explained that the right to life extends to the right to get water and air without pollution.[11] This particular formulation, like many others, will be of some significance in the years to come because of the doctrinal shift that this judgment represents. Environmental quality will no longer be a trifle to the degree of its inclusion in the major aspects of development planning but a part of the substantive right to life under Article 21. Once quality of air is subsumed in that right, issues of regulating, dilatory, and abstaining may eventually acquire a constitutional character, rather than remain confined to the core of administrative discretion.

The doctrinal consolidation of this type of jurisprudence is seen in *Vellore Citizens' Welfare Forum v. Union of India*, which incorporated the right to sustainable development, the precautionary principle, and the polluter pays principle into India's own environmental law.[12] These principles are of major importance to the mitigation of air pollution. According to the precautionary principle, if it is impossible to scientifically determine whether or not damage will occur, that damage is potentially harmful and reversible, and according to the polluter pays principle, the burden of compliance should be borne by the polluter, and not by affected communities. Ultimately, climate governance extends and strengthens these principles. It shows that damage control of pollution should be the first priority.

Judicial engagement with expertise reached new heights in *A. P. Pollution Control Board v. Prof.*

M. V. Nayudu, when the Supreme Court addressed concepts of scientific ambiguity, institutional competence, and the division of labor of expertise in the scope of the environmental realm. Case law and regulation of air governance is always relevant in balancing scientific data with air pollution. The court and policymakers rely heavily on models, data studies, and even public health data.[13] Thus, the doctrinal challenge is to balance the right use of science with the more espoused use of accountability, and fragmented administrative claims of expertise.

3.2 AIR-POLLUTION-SPECIFIC JUDICIAL INTERVENTIONS

Air pollution case law and theory become more substantive and concrete when courts advance compliance with obligations. In a case on vehicular related pollution in Delhi, *M. C. Mehta v. Union of India*, the Court issued numerous orders to improve urban transport regulation, including the use of less polluting fuels. The orders in *M. C. Mehta v. Union of India* case are

less significant than the judicial case itself.[14] However, the case represents the less common judicial willingness to extend a series of orders and step into the shoes of the executive hurdles at times. This willingness has resulted in numerous positive cases, but also resulted in a judicial case where the progress of the regulatory framework heavily depended on the judicial case leading and facilitating the regulatory progress.

A relevant source-specific method can be seen in *M. C. Mehta v. Union of India*, the Taj Trapezium case. In this case, industrial fuel switching and relocation were used to safeguard a fragile ecological and heritage area.[15] The judgment is helpful in this case because it provides evidence that the need to control pollution can necessitate a restructuring of economic actors where the profile of harm justifies the intervention. Regarding the current climate-air governance, the principle at stake suggests that legal responses ought not to be incremental. Rather, they can include a technological transition, a change in spatial organisation, and a layering of different constraints when standard compliance proves to be inadequate.

The regulation of seasonal and episodic pollution has now fuelled another domain of judicial activism. In *Arjun Gopal v. Union of India*, the Supreme Court dealt with the regulation of firecrackers with the balance of health of the public and practical issues of enforcement to address the selling and bursting of firecrackers during the festival.[16] This case is a manifestation of the advantages and the disadvantages of regulation based on events. Regulatory restrictions imposed by the courts can mitigate short-term exposure, but do not act as a replacement for a robust enforcement system that has the capability to manage and control pollution during the entire year. Because of the long-standing government inaction in the areas of regulation, festival pollution makes acute pollution a politically relevant issue, leaving the system dependent on the acute regulation of pollution during events with enforcement that is more symbolic.

3.3 CLIMATE RIGHTS AND DOCTRINAL CONTINUITY

The climate turn should not be viewed as a replacement for the legacy of environmental jurisprudence; instead, it should be viewed as changing the stakes of the older legacy of environmental jurisprudence. This climate turn could also help justify the courts' activism in the space of providing relief to the public who is anticipated to face the negative health impacts of air pollution by integrating the concepts of climate change and the vulnerability of the people. The state of transport, energy, and waste contributes to Emergency Health Services pollution on a local level. A sustainable state of regulation can be viewed as compounding two of the constitutionally relevant harms.

4. Enforcement Deficits and Institutional Frictions

The most damaging gaps in the governance of air quality can be found not in the professed positions of the Indian government, but in the practical realities. This paper focuses on the gaps in air quality governance, by investigating the issues of spatial mismatches, the lack of data, and the measures of uncertainty with the monopoly of the courts on governance during air pollution emergencies.

4.1 SPATIAL MISMATCH AND FEDERAL FRAGMENTATION

Pollution knows no bounds. Political and legal systems, however, are bound by jurisdictional lines. This problem can be illustrated in the National Capital Region. Because of the split-up enforcement and regulatory powers – e.g. between legal municipalities, state or provincial agencies, boards of accountability, etc. – emissions in one jurisdiction notoriously impact the air quality of another.[17] As between comparative systems of governance, India's federal governance can be said to allow for the allocation of accountability. Yet, what can also be said to allow for fragmentation of accountability when responsibility and obligation in the governance structure are role related. For these reasons and given the alignment/realignment relationships, a city-centred governance structure is a poor fit with respect to cross-border/region pollution and the cross-sectoral dimensions in governance of climate change mitigation.

At the centre of debate, to describe this situation and to suggest a solution, the term 'airshed' is used. The term includes, but goes beyond, the governance of air pollution.[18] For an 'airshed' governance to be successful, it must possess all the elements of a governance system to include, but not limited to, the relational, shared/resource governance, and joint enforcement to define all systems and governance. In the current state, climate governance is limited to stagnant or residual 'deference' at a regional level, with the balance of each level of governance remaining in the state of 'deference' at a stagnant regional level. Federal governance is then limited to a reactive posture, especially during extreme weather or pollution.

4.2 DATA, MONITORING, AND FIGURE 3

The strength of legal enforcement is determined by evidence made available to the public. As noted by the NCAP's official data, multiple cities have managed to significantly lower PM10 numbers compared to baseline years, while a smaller number have officially attained the targeted PM10 annual standard. This progress is notable.[19] However, concentration

improvement data only provide an incomplete picture of good governance. They tell nothing of the specific interventions that led to the observed improvements, the sustainability of the improvements, the extent to which the reductions align with (or help achieve) climate co-benefits. A legally robust system must, therefore, move beyond top-line performance to source-focused accountability.

Figure 3 illustrates the daily average PM10 and PM2.5 data from 2018 to 2025, with some guidance. There are periods of improvement; however, the pattern is not a decline to signify a legal structure.[20] Such rapid changes provide evidence that meteorological changes, legal structure, and intensity all co-operate in a legal system that demands complex accountability. Without such measures, data at best provide a reflection of the system, and at worst will provide evidence of legal and operational accountability.

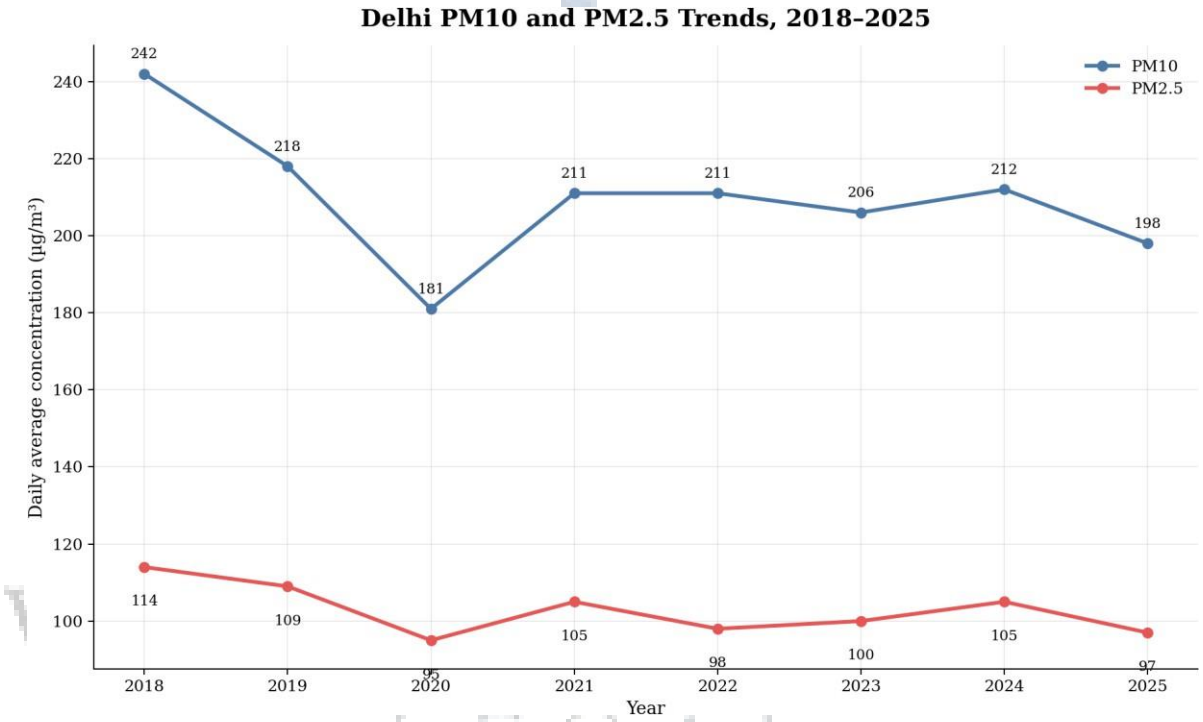

Figure 3. Delhi PM10 and PM2.5 trends, 2018-2025.

From 2018 onwards, the data is legally solid and strengthen the burden of proof from the annual legal compliance report. It becomes legally operative (as opposed to a one-time report).

4.3 JUDICIAL SUPERVISION, COMPLIANCE, AND DISTRIBUTIONAL JUSTICE

Recent developments in *M. C. Mehta v. Union of India* substantiate the pertinence of the Supreme Court's role as a primary guardian in relation to Delhi's air quality. In 2024–2025, the Court's orders and reports from the registry [21] addressed the continuation of GRAP measures for submission of implementation affidavits and enforcement of firecrackers' bans.[22] The Court's continuing supervisory role provides the system with oversight and serves a valuable

(environmental) purpose by convincing inaction and default, and sustaining the urgency posed by affected (environmental) systems. The Court's continuing role, however, also indicates that the system suffers from a chronic default. The length of time for which extraordinary (judicial) role subsists for the purpose of closure (along the regulatory continuum), indicates a chronic default in the system and the inordinate length of time which (judicial) closure subsists indicates the chronic default.

Emergency measures may also impose unequal burdens. The Court's 2025 order concerning payments to the construction workforce due to GRAP closure measures demonstrates the relativity of pollution closure. Restrictions may need to be imposed to help reduce the spread of the disease, but, in the absence of social protection, these measures will shift the burden to workers and informal earners.[23] A climate-sensitive framework will have to deal with this challenge. Legitimate justice will entail establishing compensation mechanisms, prior social protection measures, and differentiated obligations to ensure that the burden of cost-sharing for cleaner air will not be imposed on the most vulnerable social groups, whose members have the least power to negotiate and the least responsibility for the emissions that are the primary causes of the pollution.

Thus, the larger enforcement gap is that most of these orders are not implemented. Governance views compliance as something to be insisted on, not on a daily basis, but only when negative trends become observable. This is a backwards approach. Healthy climate-air regulation measures are of a preventive nature, and will need to be planned and budgeted. A legal and governance framework is not the problem; in fact, what it is judging is a legal, crisis-as-usual paradigm: it normalizes a governance paradigm where actual realization is not the goal. A legal design that climate-sensitive methods will bring to the closure of high emissions will not be the negative paradigm of governance. This paradigm, though, will lead to a good pollution regulation closure paradigm. The interstices of governance will not lead to the emissions closure.

5. Reframing Climate Governance for Air Pollution Mitigation

An effective legal design will broaden the regional perspective where resources will be from the statutes and the Constitution to establish a source-converging and reviewable legal design. This Section will elaborate on this reform perspective by way of demonstrating the basic design elements of multi-sector air regulation, evidence-based enforcement, climate synergies, and the legal institutionalization of a performance duty.

5.1 AIRSHED-BASED REGULATORY DESIGN

The first reform, which can be implemented immediately, is to create Indian clean-air legislation that centres around airsheds, rather than in isolation by municipal boundaries. Official pollution emissions inventories have also recognized that regional framing in polluted areas is essential. The legal distribution may be that responsibilities be assigned based on who contributes, who is exposed, and/or who has the capacity to enforce in the specific pollution area.[24] While this model may not eliminate the local entities, it does mean that they would be compelled to operate within a regional framework that encompasses inventories, reports, and deadlines. This would also mean that there would be regional modifiers that would operate as fall triggers. There would be positive occurrences on the climate mitigation front as source control, which is a primary focus of the framework, is also a means of decreasing the flow of carbon.

An airshed approach would also help define the roles and responsibilities of the federal government. Parliament and the Union executive can more effectively create standardized regulations for interoperability, data management, and compliance in a collaborative manner across different states. Urban and regional organisations still play a vital role in management. The aim should be to more effectively manage authorities in a way that does not undermine state power or responsibility, making sure that fragmented states or in this case region authorities do not become enforcement gaps. From a legal standpoint, a fragmented and otherwise uncoordinated authority harms the population that has been exposed more than it does the pollutants.

5.2 EMISSIONS EVIDENCE AS A LEGAL INSTRUMENT

The second reform is on evidence. Emission inventories and source apportionment studies should attain legal standing and not remain the advisory or technocratic documents they have been. They should be incorporated into regulations to allow judicial and administrative responsibility to be entrusted to public authorities for acting against the most important emission sources only in a proportionate manner. Theory on air governance has recognized that legal systems have a greater chance to accomplish their goals when accountability is partitioned to specific sectors, institutions, and outcomes. This contrasts with the generalized concern over pollution. [25] From a climate-governance standpoint, this point is further strengthened as the control of co-pollutants can only be designed when source information is reliable, publicly accessible, and updated on a regular basis.

This does not imply rigidity on the part of legal systems to reflect each and every scientific

shift. It, however, posits that legal systems should define evidence assert that prompts some action, review, or that some additional obligations should be added or existing reviewed to be stricter. For example, if transportation persists as the biggest contributor to generating PM2.5 in a large city, law systems should be designed to compel action to herd fleet policy, control of freight, and investment in public transport. Compliance scrutiny should be exercised for PM2.5. The same logic is true for the design of parametric systems to control PM10 that is generated from street dust. The data becomes legally and institutionally actionable only when legal failure to respond to it becomes evident.

5.3 CLIMATE CO-BENEFITS AND SECTORAL PRIORITISATION

The third reform is to operationalize climate co-benefits instead of treating them as a concern to give rhetorical attention. There is a wealth of literature on co-benefits in the context of Indian climate policy that suggest that the co-benefits of climate action can actually help in the alignment of developmental, health, and climate mitigation goals, particularly in the urban context, where the same actions leads to the simultaneous reduction of greenhouse gases and local pollutants. Initiatives include the provision of electrified and clean public transport, the management of urban waste and the reduction of burning in the open by including the provisions in the legislation.[26] Co-benefits should be utilized to the fullest in these areas. If they co-exist, it should be mandatory for the regulators to explain the reasons for choice, postponement or non-reciprocity of a lower impact alternative.

5.4 FROM METRICS TO ENFORCEABLE DUTIES

The fourth reform is institutional. Current governance can generate scores, targets, and rankings, but these instruments often do not have a direct legal implication. Reforms should create a legal obligation to innovate, flexible duties collectively termed as mean obligations; duties to manage emissions inventories, duty to create specific action plans to justify choices to prioritize certain actions to achieve means, plan to achieve means, and duty to take corrective measures to achieve means. These duties would lessen the reliance on irregular judicial routines while ensuring a legal safety net.

A public requirement for transparency also exists. When there is the ability to understand the "who", the "what", the "when", and the "where", environmental regulation is more likely to be enforced. Thus, there is a need for legally meaningful dashboards and disclosures. Public law theorists have believed that the most important kind of transparency is that which empowers the public to "do" rather than "watch." Regarding air pollution, the public is able to relate their

rights vis-à-vis the law and the local information.[27] The public, the employees, and the judiciary are able to determine the degree of pollution, as well as the degree to which institutions are acting reasonably for the most significant pollution sources.

6. Conclusion

There are multiple legal principles for protection of the environment in the Indian Constitution. The bigger hurdle lies in the configuration of legal aspirations in the Constitution together with the requisite legal framework, legal-tech evidence and cross-jurisdictional cooperation for the effective long term management of emissions control. Hence the conclusion knitted these strands of argument.

The elements of constituent air quality management are already institutionalized in Indian Environmental Law. The precautionary principle, the legal reasoning of Article 21, the polluter pays, and the recent climate-rights reasoning posit that air pollution control is a constitutional obligation with both highly distributive and inter-generational equitable attributes. What is lacking is the framework through which these principals would be said to be operationalized. The layered governance that prioritizes urban, lazy, and ad hoc crisis management has disallowed the realization of legal norms as routine practice, resulting in a governance model that is robust for the short-term, but not sustainable.

Conceptualizing air pollution control as climate governance is both a more precise and more prescriptive definition of the problem. It allows for the disparate elements of transport, waste, dust, and industry and problems of regional governance to be viewed as multiple failing systems of governance that cumulatively yield harmful results to human health and that are compounding the problem of climate change. Once the intersection is established, the argument of dualism in permission for regulates of airspace and equitable emissions control for inter-jurisdictional governance and differentiated equitable bounds of airspace would be stronger. The objective of the law should be to construct a framework that operationalizes legal-tech evidence and differentiated accountability and sectoral ethics.

The overarching insight is that enforcement should be recognized as an integral part of environmental justice as opposed to being just an administrative issue. As long as Indian law continues to segment formal regulations and the conditions of the structure for implementation, the reduction of emissions will be tenuous and exceedingly reversible. Therefore, a climate-sensitive clean-air regime needs to seek the shift from incremental command and control to sustainable governance. Such a shift would not imply an abandonment of the doctrine. Rather,

it would be a shift in the coherent employment of the Constitution, the legislative instruments, as well as the current information systems, so that the evidential pathway between emissions and the law is clear and accountable.

7. Suggestions

The discussion above yields practical reforms for enforceable governance.

1. Adopt legally defined airsheds: Parliament or the Union executive should select priority airsheds according to specific criteria and associate them with a unified regulatory framework. Common legal limits will lessen the interstate blame game. It will also allow responsibility to be apportioned by demonstrable contribution and exposure.
2. Mandate periodic emissions inventories: Every significant urban area that fails to meet the standards should have comprehensive emissions inventories released to the public and conducted according to standard methods. Authorities will also have to justify how new inventories issued in the interim changed their priorities, budget, and action taken.
3. Tie NCAP targets to statutory duties: PM targets should be enshrined in law beyond mere policy goals. These should also create obligations for structural reports, correction plans, and time-bound review to be set when gaps are left by such targets, i.e., sectoral instruments are not in place.
4. Create compliance triggers for major sources: Transport, construction dust, waste burning, and industrial emissions should each have escalatory responses linked to specific evidence. This would minimize administrative bottlenecks and would, in effect, make legally reviewable the administrative silence.
5. Build social protection into emergency controls: Whenever GRAP-type interventions shut down the economy, mechanisms to compensate and support affected workers should be instituted. It is not acceptable to allow the economically vulnerable to be the full cost bearers of legally required economy stops.
6. Require reasoned use of climate co-benefits: Authorities should be required to examine if proposed interventions truly reduce particulates and/or the impact of climate change. If a lower co-benefit option is selected, the authority should explain the decision with reference to costs, feasibility, or other sectoral restraints.
7. Strengthen local implementation capacity: Urban local bodies should be supported by integrated funding and staffing, and offered procurement support, specifically for dust control, waste management, and street maintenance. Until assistance is offered that

enables local institutions to implement the measures repeatedly prioritized in the inventory to be integrated at the national level, the measures will continue to be ineffective.

8. Publish intelligible public dashboards: Dashboards for regulators ought to indicate source categories, each entity's assigned roles, deadlines for completion, and the current status in plain Human understandable language. Public disclosure of the dashboard is only of legal value if the public is able to determine, in relation to each source, which public entity has breached the obligation and when.
9. Limit dependence on continuing judicial supervision: Adjudicative oversight should continue, but in the design of the system, attempts should be made to limit the need for oversight proceedings. Providing and disclosing clear statutory obligations and deadlines would restrict easily.
10. Integrate health, labour, and climate assessment: There should be no necessary health, labor and climate assessments conducted in isolation. Integrated assessment would make necessary regulations more balanced and would facilitate difficult sector regulatory transitions.

BIBLIOGRAPHY

- Commission for Air Quality Management, "Framework for Development of Emission Inventory and Source Apportionment in Delhi NCR" (April, 2025).
- Commission for Air Quality Management, "PM10 and PM2.5 Concentration Levels in Delhi during 2018-2025" (January, 2026).
- https://www.pib.gov.in/PressReleasePage.aspx?PRID=2036732
- Parul Kumar, "Striving Towards 'The Good Life': What Environmental Litigation in India Can Tell Us About Climate Litigation in the Global South", 13 Transnational Environmental Law 636 (2024).
- Pu Wang, Dachuan Liu, et.al., "Air Pollution Governance in China and India: Comparison and Implications", 142 Environmental Science and Policy 112 (2023).
- Shibani Ghosh, "Litigating Climate Claims in India", 114 AJIL Unbound 45 (2020).
- The Air (Prevention and Control of Pollution) Act, 1981 (Act No. 14 of 1981)
- The Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021 (Act No. 29 of 2021)
- The Constitution of India, 1950

- The Construction and Demolition Waste Management Rules, 2016
- The Environment (Protection) Act, 1986 (Act No. 29 of 1986)
- The Environment (Protection) Rules, 1986
- The Explosives Act, 1884 (Act No. 4 of 1884)
- The Explosives Rules, 2008
- The Motor Vehicles Act, 1988 (Act No. 59 of 1988)
- The National Green Tribunal Act, 2010 (Act No. 19 of 2010)
- The Noise Pollution (Regulation and Control) Rules, 2000
- The Solid Waste Management Rules, 2016
- The Water (Prevention and Control of Pollution) Act, 1974 (Act No. 6 of 1974)
- Theresa Stahlke, "Climate Policy and the Concept of Co-Benefits in India", 25 Journal of Social and Economic Development 86 (2023).

[1] Parul Kumar, "Striving Towards 'The Good Life': What Environmental Litigation in India Can Tell Us About Climate Litigation in the Global South", 13 *Transnational Environmental Law* 636 (2024).
[2] The Air (Prevention and Control of Pollution) Act, 1981 (Act 14 of 1981).
[3] The Environment (Protection) Act, 1986 (Act 29 of 1986).
[4] M. K. Ranjitsinh v. Union of India, 2024 INSC 280.
[5] The Constitution of India, arts. 21, 48A and 51A(g).
[6] The Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021 (Act 29 of 2021).
[7] Central Pollution Control Board, "Guidelines for Release and Utilisation of Funds under National Clean Air Programme" (2021).
[8] Commission for Air Quality Management, "Framework for Development of Emission Inventory and Source Apportionment in Delhi NCR" (April, 2025).
[9] Central Pollution Control Board, "Swachh Vayu Survekshan 2024 Result" (2024).
[10] M. C. Mehta v. Union of India, (1987) 1 SCC 395.
[11] Subhash Kumar v. State of Bihar, (1991) 1 SCC 598.
[12] Vellore Citizens' Welfare Forum v. Union of India, (1996) 5 SCC 647.
[13] A. P. Pollution Control Board v. Prof. M. V. Nayudu, (1999) 2 SCC 718.
[14] M. C. Mehta v. Union of India, (1998) 6 SCC 63.
[15] M. C. Mehta v. Union of India, (1997) 2 SCC 353.
[16] Arjun Gopal v. Union of India, (2017) 16 SCC 267.
[17] Pu Wang, Dachuan Liu, et.al., "Air Pollution Governance in China and India: Comparison and Implications", 142 *Environmental Science and Policy* 112 (2023).
[18] Arpan Chatterji, "Air Pollution in Delhi: Filling the Policy Gaps" 6 (December, 2020).
[19] Strategies to Reduce Air Pollution, *available at:* https://www.pib.gov.in/PressReleasePage.aspx?PRID=2036732 (last visited on April 30, 2026).
[20] Commission for Air Quality Management, "PM10 and PM2.5 Concentration Levels in Delhi during 2018-2025" (January, 2026).
[21] M. C. Mehta v. Union of India, W.P. (C) No. 13029 of 1985, office report dated November 22, 2024 (Supreme Court of India).
[22] M. C. Mehta v. Union of India, W.P. (C) No. 13029 of 1985, order dated April 3, 2025 (Supreme Court of India).
[23] M. C. Mehta v. Union of India, W.P. (C) No. 13029 of 1985, order dated February 28, 2025 (Supreme Court of India).
[24] Commission for Air Quality Management, "Framework for Development of Emission Inventory and

Source Apportionment in Delhi NCR" (April, 2025).

[25] Santosh Harish, Mandakini Chandra, et.al., "Airing Differences? Reading the Political Narrative on Air Quality Management in India" (2021).

[26] Theresa Stahlke, "Climate Policy and the Concept of Co-Benefits in India", 25 *Journal of Social and Economic Development* 86 (2023).

[27] Shibani Ghosh, "Litigating Climate Claims in India", 114 *AJIL Unbound* 45 (2020).