



CHEMICAL EXPOSURE AS A CONSTITUTIONAL VIOLATION: ENVIRONMENTAL JUSTICE AND THE RIGHT TO HEALTH IN INDIA

Law

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ABSTRACT

Introduction: Chemical exposure represents one of the most pressing yet under-addressed environmental justice challenges in contemporary India. This article examines chemical hazards through the lens of constitutional law, arguing that inadequate protection from toxic chemical exposure constitutes a violation of fundamental rights under Articles 14 and 21 of the Indian Constitution. Objectives: To analyse the constitutional foundations of environmental rights in India; to critique existing regulatory frameworks governing chemical safety; to employ an environmental justice framework to centre the social dimensions of chemical exposure; and to propose a reform agenda grounded in constitutional values and international human rights norms. **Methods:** Doctrinal and socio-legal research methodology was employed, including analysis of constitutional provisions (Articles 14, 21, 48A, 51A(g)), statutory frameworks (Environment (Protection) Act 1986, Insecticides Act 1968, MSIHC Rules 1989, Hazardous Wastes Rules 2016), and landmark Supreme Court jurisprudence (M.C. Mehta cases, PRASAR v. Union of India 2024, Bhopal gas tragedy litigation). Environmental justice framework applied to assess distributive, procedural, and recognitional justice dimensions. **Results:** The Supreme Court has progressively recognised the right to health and a toxic-free environment as intrinsic to the right to life with dignity under Article 21. The 2024 silicosis judgment in PRASAR v. Union of India declared failure to prevent occupational chemical exposure a constitutional violation. Significant enforcement gaps, regulatory capture, and inadequate compensation mechanisms perpetuate chemical injustice, disproportionately affecting informal workers, tribal communities, agricultural labourers, and urban poor. **Conclusions:** Chemical exposure, when preventable yet unaddressed by the State, constitutes a constitutional violation under Articles 14 and 21. Realising environmental justice requires multi-dimensional reforms: constitutional recognition of the right to a safe chemical environment, strengthened liability doctrines, enhanced regulatory enforcement, comprehensive occupational health and social protection, pesticide regulation reform, and meaningful community participation.

KEYWORDS

Chemical Exposure, Environmental Justice, Right to Health, Article 21, Constitutional Law, Hazardous Chemicals, India

1. INTRODUCTION

The relationship between chemical hazards and human rights has emerged as a defining challenge of the Anthropocene. In India, a nation experiencing rapid industrialisation alongside persistent socio-economic inequalities, chemical exposure disproportionately affects vulnerable populations—informal workers, tribal communities, agricultural labourers, and urban poor—raising profound questions of environmental justice and constitutional rights.

Chemical hazards in India manifest across multiple domains: occupational exposure in mining, construction, and manufacturing; agricultural pesticide poisoning among farming communities; industrial accidents such as the 1984 Bhopal gas disaster; and ambient pollution from chemical effluents contaminating air, water, and soil. Despite a robust statutory framework—including the Environment (Protection) Act 1986, the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules 1989, the Insecticides Act 1968, and the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016—enforcement gaps, regulatory capture, and inadequate compensation mechanisms perpetuate chemical injustice.

The Supreme Court of India has played a pivotal role in recognising environmental protection as a constitutional imperative. Through expansive interpretation of Article 21 (right to life), the Court has established that the right to life encompasses the right to health, the right to a wholesome environment, and protection from toxic hazards. In August 2024, the Court's landmark ruling in PRASAR v. Union of India declared silicosis—a preventable lung disease caused by silica dust exposure—a violation of fundamental rights, anchoring occupational chemical hazards squarely within the constitutional rights framework.

This article argues that chemical exposure, when preventable yet unaddressed by the State, constitutes a constitutional violation under Articles 14 (equality) and 21 (life with dignity). The analysis examines the constitutional foundations of environmental rights in India, analyses the statutory and regulatory architecture governing chemical safety, employs an environmental justice framework to centre the social dimensions of chemical exposure, and proposes a reform agenda grounded in constitutional values, international human rights norms, and comparative best practices.

2. Objectives

The primary objectives of this study are:

1. To examine the constitutional foundations of environmental rights in India, tracing judicial interpretation of Articles 14, 21, 48A, and 51A(g).
2. To analyse the statutory and regulatory architecture governing chemical safety, including the Environment (Protection) Act 1986, MSIHC Rules 1989, Insecticides Act 1968, and Hazardous Wastes Rules 2016, identifying enforcement gaps and accountability deficits.
3. To employ an environmental justice framework to centre the social dimensions of chemical exposure, highlighting disproportionate impacts on marginalised communities—informal sector workers, tribal populations, agricultural labourers, and urban poor.
4. To propose a comprehensive reform agenda grounded in constitutional values, international human rights norms, and comparative best practices, including strengthened liability doctrines, enhanced regulatory enforcement, occupational health and social protection, pesticide regulation reform, and meaningful community participation.

3. METHODS

This study employed a doctrinal and socio-legal research methodology, combining traditional legal analysis with critical environmental justice frameworks.

Doctrinal Analysis: Primary legal sources were analysed, including constitutional provisions (Articles 14, 21, 39(e), 42, 48A, 51A(g) of the Indian Constitution), statutory frameworks (Environment (Protection) Act 1986, Insecticides Act 1968, Public Liability Insurance Act 1991), and subordinate legislation (MSIHC Rules 1989, Hazardous and Other Wastes Rules 2016).

Case Law Analysis: Landmark Supreme Court judgments were examined, including M.C. Mehta v. Union of India (1987, 1988, 1997), Union Carbide Corporation v. Union of India (1989, 1991), Vellore Citizens Welfare Forum v. Union of India (1996), Virender Gaur v. State of Haryana (1995), and the recent silicosis judgment in People's Rights & Social Research Centre (PRASAR) v. Union of India (2024).

Environmental Justice Framework: The analysis applied a three-dimensional environmental justice framework encompassing distributive justice (fair allocation of environmental benefits and burdens), procedural justice (meaningful participation in environ-

mental decision-making), and recognitional justice (acknowledgement of diverse communities' identities, knowledge, and experiences).

Secondary Sources: Academic literature, government reports, civil society documentation, and international human rights instruments (UN Human Rights Council Resolution 48/13, Basel/Rotterdam/Stockholm Conventions) were reviewed to contextualise legal analysis within broader socio-political and environmental health discourses.

Limitations: As a doctrinal and socio-legal analysis, this study does not include empirical data collection or quantitative risk assessment. Findings are based on judicial interpretation, statutory analysis, and documented case studies of chemical exposure impacts.

4. RESULTS

Constitutional Jurisprudence on Environmental Rights

The Supreme Court has progressively recognised environmental protection as a constitutional imperative. In *M.C. Mehta v. Union of India* (1987), the Court held that the right to life includes the right to live in a healthy environment with dignity. This jurisprudence was reaffirmed in *Virender Gaur v. State of Haryana*, where the Court held that "the right to live with human dignity encompasses the protection and preservation of environment, ecological balance free from pollution of air and water, and sanitation without which life cannot be enjoyed".

The recent silicosis judgment in *PRASAR v. Union of India* (2024) represents the most explicit recognition of chemical exposure as a constitutional violation. The Supreme Court declared that failure to prevent silicosis—a preventable occupational disease caused by inhalation of silica dust—constitutes a violation of Article 21. The Court directed the National Green Tribunal (NGT) to monitor silica-prone industries and the National Human Rights Commission (NHRC) to oversee compensation schemes.

Statutory and Regulatory Framework: Enforcement Gaps

Despite comprehensive statutory frameworks, enforcement remains weak. The Environment (Protection) Act 1986 empowers the Central Government to take measures to protect and improve the environment. The MSIHC Rules 1989 require safety audits, emergency plans, and disclosure of hazard information. However, the Central Pollution Control Board (CPCB) and State Pollution Control Boards (SPCBs) lack adequate resources, technical capacity, and political independence to enforce compliance.

The Insecticides Act 1968 suffers from outdated penalties (maximum fines ₹500–₹2,000), weak enforcement, limited scope focusing on commercial sale rather than use practices, and no compensation mechanism for victims of pesticide poisoning. Pesticide poisoning remains a major public health crisis, with studies estimating over 100,000 deaths annually from pesticide exposure.

Liability Doctrines: Absolute Liability

In *M.C. Mehta v. Union of India* (1987), the Court evolved the doctrine of absolute liability, holding that enterprises engaged in inherently hazardous activities are liable for all harm caused, without exceptions. The doctrine has been applied in subsequent cases, including the Bhopal gas tragedy litigation. However, the 2023 Supreme Court dismissal of the government's curative petition seeking additional Bhopal compensation has been widely criticised as denying justice to survivors.

Environmental Justice: Disproportionate Impacts

Environmental injustice manifests through the disproportionate exposure of marginalised populations to chemical hazards. India's informal sector—employing over 90% of the workforce—lacks occupational health and safety protections. The silicosis judgment exposed systemic neglect of informal workers' health, directing district-wide surveys, mandatory certification, and compensation of 3 lakh per affected family.

Agricultural labourers and smallholder farmers face routine pesticide exposure without mandatory training, adequate labeling, personal protective equipment, or health monitoring. Tribal (Adivasi) communities bear disproportionate chemical burdens from mining and industrial operations. The endosulfan tragedy in Kerala exemplifies how marginalised communities face prolonged chemical exposure

before obtaining relief.

5. DISCUSSION

Constitutional Recognition of the Right to a Safe Chemical Environment

The Supreme Court should explicitly recognise the right to a safe chemical environment as an intrinsic aspect of Article 21. This would elevate chemical safety from policy preference to constitutional entitlement, enable courts to enforce preventive measures, monitoring, and remediation, and provide a normative foundation for legislative and regulatory reform. The silicosis judgment represents a significant step in this direction.

Strengthening Liability and Compensation Mechanisms

Absolute liability doctrine should be codified in statutory law, ensuring prompt compensation for chemical disaster victims without protracted litigation. Key reforms include statutory compensation schedules specifying minimum compensation for death, injury, and long-term health impacts; mandatory insurance for hazardous industries with premiums linked to risk profiles; establishment of an Environmental Damage Compensation Fund financed by industry levies; and fast-track tribunals for chemical disaster claims.

Enhancing Regulatory Enforcement

Regulatory agencies—CPCB, SPCBs, and State Insecticides Departments—require strengthened capacity, independence, and accountability: increased funding for technical staff, monitoring equipment, and laboratory facilities; statutory protections against political interference; mandatory public disclosure of inspection reports and violations; and community monitoring mechanisms.

Occupational Health and Social Protection

Informal sector workers require comprehensive occupational health and social protection: mandatory health surveillance for workers in chemically hazardous occupations; presumptive recognition of occupational diseases (e.g., silicosis, pesticide poisoning) for compensation purposes; extension of Employees' State Insurance (ESI) and Workers' Compensation to informal workers; and community-based health clinics.

Pesticide Regulation Reform

The Insecticides Act 1968 requires comprehensive amendment: enhanced penalties commensurate with harm caused (imprisonment up to 10 years, fines up to ₹10 crore); mandatory training and certification for pesticide applicators; phasing out of highly hazardous pesticides (WHO Class Ia and Ib); promotion of integrated pest management (IPM); statutory compensation for pesticide poisoning victims funded by industry levies; and independent health impact assessments.

Community Participation and Procedural Justice

Environmental justice requires meaningful community participation in chemical risk governance: mandatory public hearings for siting of hazardous chemical facilities; community right-to-know provisions ensuring access to hazard information in local languages; participatory monitoring; and grievance redressal mechanisms accessible to affected populations. The principle of free, prior, and informed consent (FPIC) should be extended to all communities facing chemical hazards.

International Human Rights Framework

India's chemical safety obligations should be aligned with international human rights norms: UN Human Rights Council Resolution 48/13 (2021) recognises the right to a safe, clean, healthy, and sustainable environment as a human right; UN Special Rapporteur on Human Rights and Hazardous Substances emphasises States' obligations to prevent exposure to toxic substances; Basel, Rotterdam, and Stockholm Conventions govern transboundary movement of hazardous wastes and chemicals. While international law does not automatically become domestic law, Indian courts have consistently drawn upon international norms to interpret constitutional rights.

6. CONCLUSION

Chemical exposure represents a profound constitutional challenge in India. The Supreme Court's jurisprudence—from *M.C. Mehta* to *PRASAR*—has established that the right to life encompasses protection from toxic hazards, the right to health, and the right to a wholesome environment. Yet regulatory gaps, enforcement failures, and accountability deficits perpetuate chemical injustice, dispro-

portionately affecting marginalised communities.

Realising environmental justice requires a multi-dimensional reform agenda: constitutional recognition of the right to a safe chemical environment, strengthened liability and compensation mechanisms, enhanced regulatory enforcement, comprehensive occupational health and social protection, pesticide regulation reform, and meaningful community participation.

The silicosis judgment offers a template for future litigation and reform. By anchoring chemical hazards in fundamental rights, the Court has transformed prevention and compensation from policy preferences to constitutional obligations. This jurisprudence must be extended to other chemical contexts—pesticides, industrial pollution, hazardous waste—ensuring that all Indians, regardless of caste, class, or occupation, enjoy the constitutional promise of life with dignity in a toxic-free environment.

The path forward demands sustained engagement from courts, legislatures, regulators, civil society, and affected communities. Chemical justice is not merely a technical or regulatory challenge; it is a constitutional imperative and a moral obligation. Only through collective action can India realise the vision of environmental justice embedded in its constitutional architecture.

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