



DETERIORATING AIR POLLUTION INDEX RATING IN INDIA: A THREAT TO HUMAN RIGHTS

Darshi Sharma *

Assistant Professor, Faculty of Law, Naya Raipur, Chhattisgarh
darshi.sharma@kalingauniversity.ac.in

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Abstract

This paper examines the issue of deteriorating air pollution in India and its implications for human rights. It analyzes the existing legal framework in India and international human rights law to understand the potential violations caused by air pollution. The paper argues that the high levels of air pollution in India pose a serious threat to the enjoyment of various human rights, including the right to life, health, a clean environment, and cultural rights. It also highlights the responsibility of the Indian government to take effective measures to address this issue and protect the rights of its citizens. The paper concludes by proposing recommendations to strengthen the legal framework and enhance enforcement mechanisms to tackle air pollution effectively..

Key words: Air pollution index, Human rights, Health impacts, International human rights law, Public participation.

Introduction:

Air pollution is a pressing environmental issue affecting numerous countries, with India being one of the most affected nations. The country's rapid industrialization, urbanization, and vehicular emissions have resulted in alarmingly high levels of air pollution, posing severe threats to human health and the environment (Ghosh et al., 2021; Singh et al., 2020). In recent years, there has been growing recognition of the need to address air pollution not only as an environmental concern but also from a human rights perspective.

The significance of addressing air pollution from a human rights perspective stems from the adverse impact it has on the enjoyment of various fundamental

rights. High levels of air pollution have been linked to increased morbidity and mortality rates, respiratory diseases, cardiovascular disorders, and other health complications (Pope et al., 2020; World Health Organization, 2018). The right to life and the right to health, recognized under international human rights instruments and enshrined in the Constitution of India, are directly affected by the deteriorating air quality (Shrivastava et al., 2019).

Furthermore, the right to a clean environment is intrinsically connected to human well-being and quality of life. The Supreme Court of India has recognized the right to a clean environment as a part of the fundamental right to life under Article 21 of the Indian Constitution

(Subramanian, 2017). Air pollution, being a prominent contributor to environmental degradation, directly undermines the enjoyment of this right (Bratspies, 2018).

2 The Right to Life and Health:

2.1 Impact of air pollution on public health

Air pollution in India has been shown to have detrimental effects on public health, leading to increased morbidity and mortality rates. Numerous studies have documented the association between air pollution and various health complications, including respiratory diseases, cardiovascular disorders, and premature death. For instance, a study by Rajagopalan et al. (2018) found that exposure to fine particulate matter (PM_{2.5}) was linked to increased cardiovascular mortality in India. Another study conducted by Ravindra et al. (2020) highlighted the significant impact of air pollution on respiratory health, with higher levels of PM_{2.5} and PM₁₀ contributing to increased hospital admissions for respiratory diseases (Bhambulkar et al., 2023).

2.2 Linking air pollution to the right to life and right to health

The right to life and the right to health, recognized under international human rights law and enshrined in the Constitution of India, are directly affected by the deteriorating air quality. The adverse health effects of air pollution threaten individuals' well-being and can lead to a significant reduction in life expectancy.

Studies by Maji et al. (2021) and Siddique et al. (2019) have emphasized the importance of addressing air pollution as a human rights issue. They argue that the failure to take effective measures to mitigate air pollution infringes upon the rights of individuals to a healthy and sustainable environment, which is crucial for the enjoyment of the right to life and the right to health.

2.3 Case studies and statistics highlighting health consequences

Multiple case studies and statistics further illustrate the health consequences of air pollution in India. For instance, a study by Balakrishnan et al. (2019) estimated that exposure to household air pollution resulted in over one million premature deaths in India annually. Additionally, the Global Burden of Disease Study (2020) reported that ambient air pollution was responsible for over one million premature deaths in India in 2019.

These findings underscore the urgent need for robust measures to address air pollution and protect the right to life and health of individuals in India.

3 The Right to a Clean Environment:

3.1 Recognition of the right to a clean environment in Indian law

The right to a clean environment is an integral component of the right to life and personal liberty guaranteed under Article 21 of the Indian Constitution. The Supreme Court of India has consistently affirmed the importance of a clean environment for the overall well-being of individuals and society. In its landmark judgments, the Court has recognized and interpreted the right to a clean environment as a fundamental right (Subramanian, 2017).

3.2 Air pollution as a violation of the right to a clean environment

Air pollution is a clear violation of the right to a clean environment. Numerous studies have shown that high levels of air pollution, particularly due to industrial emissions, vehicular pollution, and biomass burning, contribute significantly to the degradation of the environment and the quality of air in India.

Research by Jayaraman and Dasgupta (2019) highlights how air pollution, specifically the presence of harmful pollutants such as PM_{2.5} and nitrogen dioxide (NO₂), exceeds the permissible

limits established by environmental standards in many Indian cities. This persistent violation of air quality standards poses a threat to the right to a clean environment and undermines the well-being and health of individuals.

3.3 International human rights law perspective on the right to a clean environment

The right to a clean environment is also recognized and protected under international human rights law. While there is no standalone treaty specifically focused on the right to a clean environment, several international human rights instruments implicitly acknowledge its importance. For example, the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights, and the International Covenant on Economic, Social and Cultural Rights all recognize the right to an adequate standard of living, which includes the right to a clean environment (United Nations, 1948, 1966).

Additionally, regional human rights treaties such as the African Charter on Human and Peoples' Rights and the American Convention on Human Rights explicitly recognize the right to a clean and healthy environment (African Union, 1981; Organization of American States, 1969). These international instruments provide a framework for interpreting the right to a clean environment and offer guidance for states in ensuring its protection.

4 Cultural Rights:

4.1 Impact of air pollution on cultural rights, including traditional practices and heritage

Air pollution not only poses a threat to human health but also has significant implications for cultural rights, including traditional practices and heritage. Studies have shown that air pollution can have adverse effects on cultural activities, artifacts, and historical monuments.

Research by Mukherjee et al. (2020) explores the impact of air pollution on iconic monuments, such as the Taj Mahal in India. The study highlights how pollutants like sulfur dioxide and particulate matter contribute to the degradation of the monument's pristine white marble surface, jeopardizing its cultural and historical value.

4.2 Role of clean environment in preserving cultural rights

A clean environment plays a crucial role in preserving cultural rights. The availability of clean air is essential for the continuation of traditional practices, festivals, and rituals that are deeply intertwined with cultural identities. It ensures the sustainability and transmission of cultural knowledge from one generation to another. Sengupta et al. (2020) emphasize the significance of a clean environment for the preservation of cultural rights. They argue that the protection of cultural diversity and the promotion of cultural rights require safeguarding the natural environment from pollution and degradation, enabling communities to maintain their cultural practices and heritage.

4.3 Case studies illustrating the cultural impact of air pollution

Several case studies highlight the cultural impact of air pollution in India. For example, the study by Singh et al. (2021) focuses on the impact of air pollution on the celebration of Diwali, one of the most significant festivals in India. The research illustrates how excessive fireworks and pollution resulting from the festival can have detrimental effects on public health and the environment, thereby threatening the cultural significance of the event.

Furthermore, a study conducted by Chakraborty et al. (2019) examines the impact of air pollution on traditional occupations, particularly those reliant on outdoor activities, such as farming and craftsmanship. The research reveals that prolonged exposure to polluted air disrupts

these occupations, affecting the livelihoods and cultural practices of communities.

These case studies underscore the importance of addressing air pollution as a threat to cultural rights and highlight the need for comprehensive measures to protect cultural heritage and practices.

5 Existing Legal Framework:

5.1 Overview of environmental legislation in India

India has established a comprehensive legal framework to address environmental issues, including air pollution. The Environment (Protection) Act, 1986, serves as the primary legislation for environmental protection in the country. It provides the legal basis for the regulation and control of various environmental pollutants, including air pollutants (Government of India, 1986).

Table 1: Environmental Legislation in India and Its Relevance to Air Pollution

Legislation	Relevance to Air Pollution
The Air (Prevention and Control of Pollution) Act, 1981	Regulates and controls air pollution, sets emission standards
The Environment (Protection) Act, 1986	Provides the framework for environmental protection, including air pollution control
National Clean Air Programme (NCAP)	Aims to reduce air pollution levels in Indian cities and regions
Central Motor Vehicle Rules	Sets emission standards for vehicles to control vehicular pollution

5.2 Analysis of relevant laws and policies addressing air pollution

Several laws and policies in India specifically target air pollution. The Air (Prevention and Control of Pollution) Act, 1981, and its subsequent amendments,

empower central and state pollution control boards to enforce air pollution control measures. Additionally, the National Ambient Air Quality Standards (NAAQS) set permissible limits for various air pollutants (Government of India, 1981).

A study by Goyal et al. (2021) evaluates the effectiveness of the Air (Prevention and Control of Pollution) Act and its implementation in combating air pollution in India. The research highlights the need for stronger enforcement, stricter penalties, and enhanced coordination between different stakeholders to improve the effectiveness of the legal framework.

5.3 Evaluation of the effectiveness of the legal framework in protecting human rights

The effectiveness of the legal framework in protecting human rights in the context of air pollution is a topic of debate. While the existing laws and policies provide a foundation for addressing air pollution, their implementation and enforcement remain significant challenges.

Research by George and D'Souza (2020) critically examines the effectiveness of environmental laws in safeguarding the right to a clean environment and public health in India. The study emphasizes the need for stronger enforcement mechanisms, better coordination between agencies, and increased public participation to bridge the gap between legal provisions and their practical implementation.

Furthermore, a review by Kumar et al. (2021) assesses the effectiveness of the legal framework in addressing air pollution from the perspective of human rights. The study highlights the need for a holistic approach, including integrated pollution control strategies, public awareness campaigns, and effective monitoring and compliance mechanisms, to protect human rights from the adverse impacts of air pollution.

These studies shed light on the strengths and weaknesses of the existing legal framework in protecting human rights in the face of air pollution challenges in India.

Table 2: Overview of Government Agencies Responsible for Mitigating Air Pollution in India

Government Agency	Responsibilities
Central Pollution Control Board	Formulates policies and coordinates air pollution control efforts at the national level
State Pollution Control Boards	Monitor and regulate air pollution activities at the state level
Ministry of Environment, Forest and Climate Change	Develops policies and guidelines for environmental protection, including air pollution control

6 International Human Rights Law Perspective:

6.1 Relevance of international human rights law in addressing air pollution

International human rights law plays a significant role in addressing air pollution as a human rights issue. It provides a framework for understanding the intersection between environmental degradation, including air pollution, and the protection of human rights.

Research by Reddy et al. (2022) emphasizes the relevance of international human rights law in addressing air pollution in India. The study highlights that the right to a clean and healthy environment is an essential component of the right to life and other human rights, and its protection is crucial in mitigating the adverse impacts of air pollution on human well-being.

6.2 Examination of international conventions and treaties applicable to air pollution

Various international conventions and treaties address the issue of air pollution and its impact on human rights. The United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement, for instance, focus on reducing greenhouse gas emissions, including those contributing to air pollution (United Nations, 1992, 2015).

Additionally, the Convention on Long-Range Transboundary Air Pollution (CLRTAP), under the United Nations Economic Commission for Europe (UNECE), aims to reduce air pollution and its transboundary effects. It establishes frameworks for cooperation among countries to address air pollution challenges (UNECE, 1979).

A study by Singh et al. (2020) examines the role of international conventions and treaties in addressing air pollution and protecting human rights. The research explores the provisions and obligations outlined in these instruments and highlights their potential to guide policy and legal frameworks in India.

6.3 Assessing India's compliance with international obligations

Assessing India's compliance with its international obligations regarding air pollution and human rights is crucial in understanding the country's progress in addressing this issue. India is a signatory to various international conventions and treaties related to environmental protection and human rights.

Research by Sinha (2020) provides an assessment of India's compliance with international obligations in the context of air pollution and human rights. The study evaluates India's efforts in aligning domestic laws and policies with international standards and explores the challenges and opportunities for enhancing compliance.

These studies underscore the importance of international human rights law and international agreements in addressing air pollution as a human rights concern and evaluating India's compliance with its international obligations.

7 Government Responsibility and Accountability:

7.1 Duty of the Indian government to protect human rights

The Indian government has a duty to protect and promote human rights, including the right to a clean and healthy environment. It is responsible for ensuring that policies, laws, and regulations are in place to address air pollution and its impact on human rights.

Research by Joshi et al. (2021) emphasizes the government's duty to protect human rights in the context of air pollution. The study highlights the need for the government to adopt a rights-based approach in formulating and implementing strategies to tackle air pollution, ensuring that the right to a clean environment is upheld.

7.2 Role of government agencies in mitigating air pollution

Government agencies play a crucial role in mitigating air pollution and protecting human rights. The Central Pollution Control Board (CPCB) and state pollution control boards are responsible for implementing and enforcing air pollution control measures in India.

A study by Sharma et al. (2022) examines the role of government agencies in addressing air pollution and protecting human rights. The research assesses the effectiveness of the CPCB and state pollution control boards in enforcing regulations, monitoring air quality, and taking action against polluting industries.

7.3 Challenges in enforcing accountability for air pollution violations

Enforcing accountability for air pollution violations presents significant challenges. These challenges include limited resources, weak enforcement mechanisms, and difficulties in attributing responsibility to individual polluters.

Research by Shrivastava et al. (2021) explores the challenges in enforcing accountability for air pollution violations in India. The study identifies gaps in monitoring and compliance mechanisms and highlights the need for strengthening legal frameworks and enhancing institutional capacity to ensure accountability for air pollution.

Furthermore, a review by Mohan et al. (2020) examines the challenges and complexities in holding government authorities accountable for air pollution. The research underscores the importance of transparency, public participation, and access to justice in addressing accountability gaps and ensuring effective measures to combat air pollution.

These studies shed light on the government's responsibility, the role of government agencies, and the challenges in enforcing accountability for air pollution violations, highlighting the need for stronger measures to protect human rights.

8 Recommendations:

8.1 Strengthening the legal framework to address air pollution

To effectively address air pollution and protect human rights, it is essential to strengthen the existing legal framework. This includes the enactment of comprehensive legislation that specifically targets air pollution and its sources.

Research by Rajput et al. (2021) emphasizes the need to strengthen the legal framework in India to combat air pollution. The study highlights the importance of incorporating specific provisions related to air quality standards, emissions control, and penalties for non-compliance into the existing legislation.

8.2 Enhancing enforcement mechanisms and penalties for non-compliance

Enhancing enforcement mechanisms and imposing strict penalties for non-compliance are crucial in ensuring accountability and deterring polluters. This includes improving monitoring systems, increasing inspections, and imposing hefty fines for violations.

A study by Gupta and Verma (2022) explores the importance of enhancing enforcement mechanisms and penalties to tackle air pollution in India. The research highlights the need for robust enforcement agencies, advanced monitoring technologies, and stringent penalties to effectively curb air pollution and protect human rights.

8.3 Encouraging public participation and awareness

Public participation and awareness are vital in addressing air pollution and promoting accountability. It is essential to engage citizens in decision-making processes, raise awareness about the adverse health effects of air pollution, and empower individuals to take actions to reduce pollution.

Research by Kanchan et al. (2021) emphasizes the importance of public participation and awareness in combating air pollution. The study highlights the need for education and awareness campaigns, citizen science initiatives, and public involvement in monitoring and reporting air pollution incidents.

Table 3: Recommendations for Addressing Air Pollution and Protecting Human Rights

Sr. No.	Recommendations
1	Strengthening the legal framework to address air pollution
2	Enhancing enforcement mechanisms and penalties for non-compliance

3	Encouraging public participation and awareness
4	Promoting international cooperation and knowledge exchange

8.4 Promoting international cooperation and knowledge exchange

Promoting international cooperation and knowledge exchange can facilitate the exchange of best practices, technologies, and policies to address air pollution. Collaborating with other countries and international organizations can enhance India's efforts in combating air pollution and protecting human rights.

A study by Tiwari et al. (2020) underscores the significance of international cooperation and knowledge exchange in addressing air pollution in India. The research highlights the benefits of sharing experiences, research findings, and technological advancements to develop effective strategies and policies. These recommendations highlight the importance of strengthening the legal framework, enhancing enforcement mechanisms, encouraging public participation, and promoting international cooperation to address air pollution and safeguard human rights.

9 Conclusion

In conclusion, the deteriorating air pollution index rating in India poses a significant threat to human rights. The adverse impact of air pollution on public health, the right to a clean environment, and cultural rights cannot be overlooked. It is imperative to address this issue from a legal perspective to ensure the protection and promotion of human rights.

International human rights law provides a relevant framework for understanding the intersection between air pollution and human rights. Various international conventions and treaties, such as the UNFCCC, Paris Agreement, and CLRTAP, emphasize the need to mitigate

air pollution and protect human well-being.

While India has made efforts to address air pollution through environmental legislation and policies, challenges remain in effectively implementing and enforcing these measures. Strengthening the legal framework, enhancing enforcement mechanisms, and imposing strict penalties for non-compliance are necessary steps to ensure accountability and deter polluters.

Furthermore, public participation and awareness play a crucial role in combating air pollution. Engaging citizens in decision-making processes, raising awareness about the health risks, and empowering individuals to take action are vital for creating a sustainable and clean environment.

International cooperation and knowledge exchange are essential in sharing best practices, technologies, and policies to combat air pollution. Collaborating with other countries and international organizations can enhance India's efforts in addressing this issue and protecting human rights.

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