

Human rights and Air pollution in India: A Critical Study

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Abstract

Air pollution is an important problem in India. Air pollution is a serious social, economic, and environmental issue that infringes the fundamental right to life. The Indian Constitution protects basic rights to life and dignity. However, when pollution levels rise, numerous rights such as the right to health, the right to a healthy environment, and the right to an education are being violated. This threatens the right of the people to live with dignity. The chapter aims to analyse the relation between air pollution in India and the human right violation happening due lack of proper recognition of the problem of Air pollution. Knowing how important air is makes it clear how important it is to protect and maintain air quality. The health of both people and the environment depends on taking action to decrease air pollution, encourage sustainable lifestyles, and limit human activities that deteriorate air quality.

Keywords: Air Pollution, Human Rights, Right to Life, Right to Clean Air, Right to Health, Article 21

I. INTRODUCTION

Clean air is an essential element to sustain life on earth. One can survive a few days without food and water but would die off without air for a single minute. The value of air is thus unmeasurable and without any completion. Air pollution is considered the mixing of contaminants into the air, which affects the health and life of any living creature when inhaled. Air pollution is a severe social, economic, and environmental problem. Short-term exposure to air pollution can be harmful to one's health; for instance, heavy pollution days can cause asthma symptoms and a local spike in hospitalizations or even deaths related to respiratory diseases and cardiovascular disease. Whereas, during long-term exposures raise the risk of morbidity and death as a result of diseases like ischemic heart disease, lung cancer, obstructive pulmonary disease (COPD), lower respiratory tract infection (e.g., pneumonia), stroke, type two diabetes, and, more recently, side effects. These exposures have far worse reproductive outcomes and a more significant public health burden than short-term ones. Severity of air pollution also depends upon the spatial levels. When air pollution happens from a point source like burning of garbage by a sweeper, the pollution affects the surrounding people but when pollution is generated in different levels the pollution also multiplies. When it comes to global level the air pollution has increased in a very dangerous level. Human rights have a very unique place in Indian constitution. Indian constitution is the most powerful tool to maintain the law and order in the country.

The Indian Constitution guarantees a wide range of human rights to its citizens. These rights are enshrined in Part III of the Constitution, known as the "Fundamental Rights." While the Indian Constitution does not explicitly mention the right to clean air, the Supreme Court of India has interpreted certain provisions of the Constitution to include the right to a clean and healthy environment, which encompasses the right to clean air. The right to a clean environment has been recognized as a fundamental right under Article 21, which guarantees the right to life and personal liberty. The Supreme Court, in several landmark judgments, has emphasized the importance of clean air and has held that it is an integral part of the right to life. The court has stated that every individual has the right to breathe clean air in order to lead a healthy and meaningful life. Thus, it is the responsibility of the state to protect the air and therefore protecting the rights and life of the individuals of the country. India have reduced the level of air pollution levels while comparing with past statistics yet the average pollution levels are about ten times more than UN pollution standards. Even by making different legislations the state is unable to control the air pollutions in a efficient way. Thus, requires more discussions and policies so as to curb the pollution levels.

II. HUMAN RIGHTS AND INDIA

Human rights have a long history, dating back to the dawn of time and evolving through various terms such as civil, political, personal, legal, natural, economic, and social rights. Originating from ancient Indian notions of Dharma and Danda, human rights in India have persisted since the Vedic era, with a commitment to defending the fundamental rights and liberties of all individuals. (Ali & Sawan, 2021). Dharma, as depicted in the Ramayana and Mahabharata, exists to promote the well-being of all beings and prevent harm. The Bhagwad Geeta emphasizes that the core of Dharma is righteousness, while the Upanishads establish it as the foundation of the universe. "Vasudhaiv Kutumbakam" represents the idea of the entire cosmos as one family, and human equality and dignity are central principles found in all four Vedas (Agarwal). Human rights can also be traced from Buddhist and Jain principles in the pre-Mughal period. The arrival of Mughals initially obscured these rights, but later rulers like Akbar and Jahangir were appreciated for their respect for rights and justice. (Shekhar, 2020) (Agarwal). In modern times, The British colonial rule in India resulted in denial of freedom and exploitation of the masses, leading to the destruction of India's economy, politics, culture, and spirituality. This period convinced Indians that human rights recognition, preservation, and application are essential for a civilized life. (Agarwal). The Congress party demanded human rights in opposition to British rule in India due to large-scale abuses. (Hassan, 2021) On January 24, 1947, the Constituent Assembly formed an advisory committee on Fundamental Rights, led by Sardar Patel. Key members such as Dr. B. R. Ambedkar and B. N. Rau contributed to drafting the list of rights with minimal disputes. The Indian Constitution incorporated the rights from the Universal Declaration of Human Rights as either Fundamental Rights or Directive Principles of State Policy. The Motilal Nehru Committee Report, 1928, consisted of nineteen essential rights, with eleven as essential Rights and three as Fundamental Duties (Shekhar, 2020). The Constitution's authors, who experienced such abuses, were highly favorable towards these rights. With India's diverse faiths and cultural groups, establishing basic rights was essential for ensuring security and trust among the population (Hassan, 2021).

The Indian Constitution established a comprehensive list of human rights while the international community was working on the Universal Declaration of Human Rights. Mahatma Gandhi had previously envisioned a society with equality for all, regardless of wealth, gender, or background, encompassing social, economic, and political aspects (Ali & Sawan, 2021). Research on Indian constitutional human rights reveals that the Indian Constitution incorporates international human rights conventions such as the 1948 Universal Declaration of Human Rights and 1966 International Covenants on Civil and Political rights. Rights from the Covenant on Civil and Political Rights are enforceable fundamental rights in Part III of the Constitution, while those from the Covenant on Economic, Social, and Cultural Rights are included as non-enforceable Directive Principles of State Policy. (Ali & Sawan, 2021) (Agarwal). Demonstrating that, India is not a country that is fresh to the idea of rights. After the British took over, the nation lost the rights for which nation had to work hard to restore the rights that the populace had previously enjoyed. As a result, the largest written constitution in the world came into being with a fundamental rights and duties for every citizen to uphold.

III. ARTICLE 21 OF INDIAN CONSTITUTION

"Protection of Life and Personal Liberty: No person shall be deprived of his life or personal liberty except according to procedure established by law". (GOI, 1948)

One of the most crucial human rights that the Constitution protects is the basic right stated in Article 21. This right has been referred to as the "heart of fundamental rights" by the Supreme Court of India. Two rights are defined in Article 21: the right to life and the right to personal freedom. The right expressly states that no one can get deprived of their life or freedom other than in accordance with the rules of law. This suggests that this right is exclusively applicable against the State. State in this context refers to not just the government but also government agencies, local organisations, legislatures, etc. The right to life involves more than just the Right to live. It also involves having an ability to live a full life with dignity and meaning. Thus, the supreme court, in its different verdicts have included many other rights such as: right to privacy, right to go abroad, right to shelter, right against solitary confinement, right to social justice and economic empowerment. Right against handcuffing, right against custodial death, right against delayed execution, Doctors' assistance, right against public hanging, Protection of cultural heritage, right to pollution-free water and air, right of every child to a full development, right to health and medical aid, right to education, protection of under-trials.

Air pollution violates Article 21 in many aspects such as right to pollution-free water and air, right of every child to a full development, right to health and medical aid, right to education and right to live.

IV. HOW POLLUTED IS INDIA?

Air pollution in India has become a major environmental and public health issue due to rapid industrialization and urbanization, making it challenging to balance economic growth with environmentally sustainable practices. According to AQLI Report, India is currently the second most polluted nation in the world (AQLI, n.d.). Most of the Indian inhabitants live in locations where the yearly average particle pollution level exceeds the WHO recommendation. Ninety-four percent reside in places where the national limit for air quality in India is exceeded. Further, fourteen out of top twenty most polluted cities in the world are Indian (HTNewsDesk, 2023). With pollution 13 times higher than the WHO recommendation, Lucknow, the capital of Uttar Pradesh, has the greatest amount of pollution in the whole nation. Delhi, the capital of India, has a high pollution level (AQLI, n.d.). In comparison to the WHO's recommended yearly guideline level of 5 g/m³, India's average PM_{2.5} concentration, was 53.3 micrograms per cubic metre (g/m³) in 2022. IQAir's average was also greater than the Central Pollution Control Board of India's 40 g/m³ permissible threshold for air pollution (Wire, 2023). India ranks eighth out of one hundred and thirty-one countries and the average PM_{2.5} ranges 10.7 times the WHO guidelines (IQAir, 2022). 76.8% of the population of India, were exposed to annual population-weighted mean PM_{2.5} greater than the limit recommended by the National Ambient Air Quality Standards in India. According to the analysis, at least 60% of the cities in India had yearly PM_{2.5} levels that were at least seven times higher than the WHO recommendation (Wire, 2023). Thus, Air pollution in India is a complex problem with far reaching consequences for public health and environment.

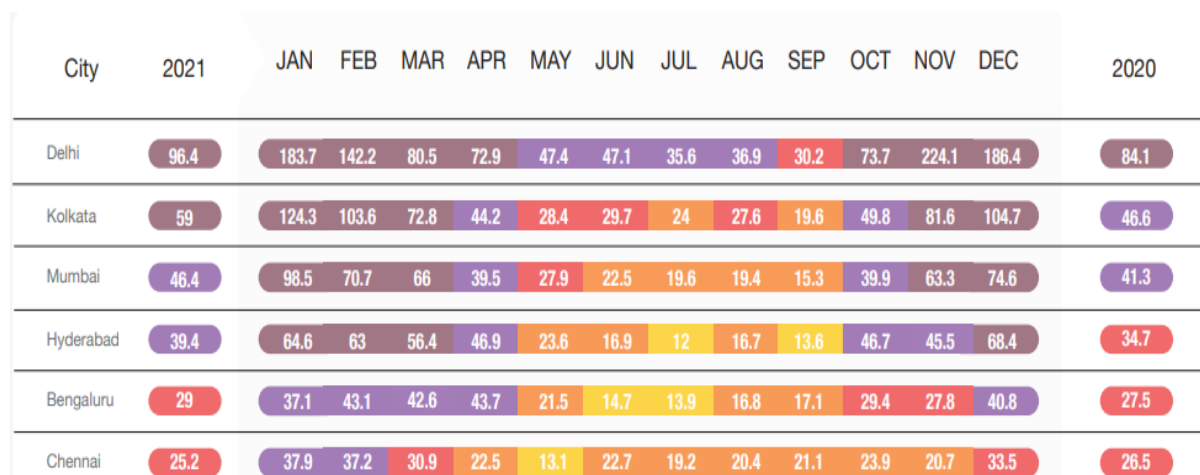


Figure1: Average AQI of each month of major cities (World Air Quality Report (2021))

The above figure shows the average amount of air quality in different cities in India. From the figure we can identify that except Chennai the air quality has deteriorated in other cities. Delhi could be identified as most polluted. Air quality in India reached 224.1 during November month, being the worst polluted month. Also, it could be noted that during winter months the air quality is more at stake.

Table 1: Air quality as on 20 July 2023 at 4 pm are:

Name of the city	Air quality	Index value	Prominent pollutant	Number of monitoring stations
Delhi	Satisfactory	91	O ₃ , PM ₁₀	11
Mumbai	Satisfactory	86	PM _{2.5} , NO ₂	20
Kolkata	Good	32	O ₃ , PM ₁₀	7
Bangalore	Satisfactory	71	PM _{2.5} , PM ₁₀	10

Source: https://cpcb.nic.in/upload/Downloads/AQI_Bulletin_20230720.pdf

From the above table, the air quality in Delhi and Mumbai is classified as "satisfactory". The index value for Delhi is slightly higher than Mumbai. Kolkata has "Good" air quality, with an index value of 32. The prominent pollutants in Kolkata are O₃ and PM₁₀. Bangalore also has "Satisfactory" air quality, with an index value of 71. The prominent pollutants in Bangalore are PM_{2.5} and PM₁₀. Overall, the air quality in these four cities is relatively

good. However, there are some regions in Delhi and Mumbai where the air quality is worse than in others. Because the wind speed is high these days (summers and monsoons) compared to winter days thus, the air quality is relatively better. Moreover, stubble burning (October to November) and bursting crackers (during Diwali) contributes to Delhi's already polluted air. The geographical elements contribute to the catastrophe as well, leading to the worsening of the air quality.

V. IMPACTS OF AIR POLLUTION

Air pollution is a serious problem that affects people in a very serious way. It can have a number of negative impacts on health, the environment, and socio-economic life of the people. The impacts of air pollution can vary depending on the type of pollutant, the level of exposure, and the individual's health status.

A) Impact on Public Health

High concentrations of air pollutants such as smoke, particulates, solid materials settle in cities, causing air pollution and health risks worldwide. Particulate pollution has risen dramatically over time. India's air pollution contributed 18.1% of the global population but had 26.2% of the global air pollution Disability-adjusted life years (DALYs) in 2017 (India State-Level Disease Burden Initiative Air Pollution Collaborators, 2019). Since 1998, average yearly particle pollution has grown by 22%, taking 1.3 years off the average resident's life. The average life expectancy in India is lowered by air pollution by 6.3 years in comparison to what it would be if the World Health Organization's (WHO) recommendations were followed, and by 3.4 years in comparison to what it would be if pollution were reduced to the nation's own national standard. Some parts of India suffer significantly worse than others, with air pollution reducing life expectancy by more than ten years in Delhi and its surrounding territories. Residents of Delhi may gain 13 years of life if pollution levels were decreased to meet WHO guidelines; 10 years if pollution levels matched India's national standard (AQLI, n.d.). In 2019, 1.67 million deaths in India were attributable to air pollution, accounting for 17.8% of the total deaths in India. 0.98 million deaths were attributable to ambient particulate matter pollution, 0.61 million to household air pollution, and 0.17 million to ambient ozone pollution (Prof Lalit, 2021). The Energy Policy Institute at the University of Chicago published a research in 2021 that found that people who live in India, which has the greatest levels of air pollution on earth, lose an average of 5.9 years off their lives as a result of the terrible air (Lee & Greenstone, 2021). Poor air quality in Delhi permanently harms the lungs of 2.2 million youngsters, or 50% of all children (TOI, n.d.). According to studies, exposure to severe air pollution increases the risk of early mortality and a variety of medical disorders such as asthma, pre-term birth, low birth weight, depression, schizophrenia, diabetes, stroke, and lung cancer (TheHindu, 2023). The estimated economic burden of health problems connected with air pollution in major metropolitan areas is mostly comprised of out-of-pocket costs of city citizens, which account for a considerable proportion of individuals' annual income, particularly those from low-income households (Patankar & Trivedi, 2011).

Thus, it could be said that the public health of the people is at stake when the air pollution is increased. Many physical and mental health is affected. The life expectancy of the people living in the polluted areas are reducing due to higher amount of air pollution. Problems like pre-mature deaths, sickness, respiratory related diseases affect the individual's life. Therefore, the people living cannot afford to live even if they want. This could be seen as the violation of right to clean air, right to health, right to live.

B) Economic Burden:

India's second most serious health risk, and the economic cost of air pollution is estimated to exceed USD 150 billion dollars annually (IndiaToday, 2022). In 2010, the economic cost of health problems caused by air pollution was estimated to be over USD 80 billion, or 5.7% of India's GDP. The tremendous amount of health cost for fine particulate matter pollution induced by outdoor/indoor pollution is mostly driven by increased exposure of talented young people in urban areas, resulting in a high cardiovascular, RM, and mobility burden among adults (WB, 2013). Etchie et al. (2017) found that PM 2.5 pollution cost India \$2.2 billion (95 percent CI: 1.7, 2.8) per year in economic losses. Their economic cost was calculated using the OECD's statistical value of life years, which was set at US \$602,000 (Chowdhury, Pohit, & Singh, 2023). 230 million people in India live in below poverty line (HT, 2023). Thus, could be said that they cannot completely afford treatment cost.

Air pollution can cause out of pocket expenses causing economic burden to the common people of the country. At the national level it can cause the slowing down the economic progress of the country because the young people either cannot go outside to work or may be sick due to increased pollution reducing the potential working hours. Also, the premature deaths can cause the shortage of skilled workers.

C) Related Social problems

Air pollution may result in a variety of societal issues in addition to the health problems. For instance, air pollution has been connected to higher levels of criminal behaviour, psychological disorders, and premature mortality. The disproportionate effects that air pollution has on low-income communities and other marginalised populations are among the most important socioeconomic issues it causes.

1. **Reduced wellbeing of the people:** Life satisfaction is significantly impacted by air quality. People who are more sensitive to air pollution will experience a greater influence from air quality on life satisfaction. According to the study, a 10% drop in air pollution is linked to a 0.07 rise in life satisfaction. This indicates that a person who lives in a good-air location is around 7% happier than a person who lives in a bad-air area (Luechinger, 2009). According to the study, air pollution significantly affects home values. According to the study, a 10% reduction in suspended particles (TSPs) causes a 0.7–1.5% rise in property prices. Accordingly, a property in a neighbourhood with high air quality is worth around 7% to 15% more than a home in a neighbourhood with bad air quality (Chay & Greenstone, 2005). According to both research, air quality has a significant impact on both life happiness and house values.
2. **Increased crime:** It is well known how air pollution affects human health. But there is growing evidence that air pollution affects not just our health but also our behaviours. Cognitive disorders like sadness and anxiety may be directly (cognitive function) and indirectly (physical health, and behaviour) correlated with air pollution. There is also proof that the latter may be a factor in hostility and violence (Kuo & Putra, 2021). In 1990s, Removing Lead from petrol was found associated with a 56% decrease in violent crime in the US (Reyes, 2007). In Shanghai, sulphur dioxide has been linked to a significant probability of mental health hospital admissions (Chen, et al., 2018). Similarly, Higher levels of particulate matter pollution, according to a study conducted in Los Angeles, are linked to an increase in teenage criminal activity in urban areas (ScienceDaily, 2017). Therefore, rise in crime rates is correlated with air pollution. Air pollution is likely to contribute to this because it can impair cognitive function and decision-making, which can result in impulsive and violent behaviour.
3. **Social inequality:** Individuals and groups with lower income consistently appear to be exposed to greater levels of air pollutions, significantly affecting health of the people (Hajat, Hsia, & O'Neill, 2015). Because residents of marginalised communities often have fewer resources and social capital and little power to influence the processes locating industries are nearer to their residence (Woo, et al., 2019). The settlements also develop here because these industries provide job opportunities for the people living nearby. Society as a whole is not equally affected by air pollution. The likelihood of exposure to air pollution is higher for those who are poor and marginalised. This is due to the fact that they are more likely to work jobs that expose them to air pollution as well as reside in polluted neighbourhoods.
4. **Decreased attainment of education:** From 2017 to 2021, the children of Delhi and the neighbouring parts of the NCR have lost at least 26 days of schooling during the past five years as a result of school closures caused by air pollution in Delhi (Outlook, 2021). Moreover, children who are exposed to high amounts of air pollution may be more likely to have poor cognitive control in late childhood and poor academic performance in the first few years of adolescence, including difficulties with spelling, reading comprehension, and maths. It has been discovered that inhibition issues in late childhood are a forerunner to later scholastic issues connected to air pollution. Interventions that focus on inhibiting control may result in better results (ScienceDaily, 2021). Children are particularly vulnerable to effects of air pollution. Children who live in areas with high levels of air pollution are more likely to have lower educational attainment. This is likely due to the fact that air pollution can interfere with learning and development.
5. **Conflict over resources:** When the resource become scares, and the demand increase. It would lead to a conflicted situation. Demand for clean air is increasing day by day. But the deteriorating air quality may create a situation where people would fight fir fresh air as the people are fighting for drinkable water. Air pollution can lead to increased social conflict, as people compete for resources that are becoming scarce due to pollution.
6. **Commodification of commons (Oxygen):** Our nation's neo liberals have come up with a fresh approach to the problem of rising air pollution. Neo liberals believe that a common good can only be safeguarded if resources and related services are given a monetary value (McCarthy & Prudham, 2003). The use of

oxygen bars has allowed individuals to breathe in clean air. There are many distinct flavours to breathe in. People may go to nearby oxygen bar and breathe in the clean, pure air. But going forward, this is not a good idea. Commons may readily become commodities, and doing away with them would be exceedingly challenging. Additionally, privatising the air may result in a situation where only those with money could survive and the others could perish from a lack of access to clean air. Additionally, this would cause people to compete for fresh air in order to survive.

VI. CONCLUSION

The environment, people's health, and way of life are all threatened by air pollution. According to the Indian Constitution, a person has the right to life, which includes the freedom and the right to live in dignity. However, the rise in air pollution violates this, making it impossible for individuals to fully enjoy life. Thus, air pollution poses a threat to both the survival of humankind and its socio-economic system. People's health is declining, and they must spend more money on medications than they make. This results in the economic burden. The difficulty occurs when those with low incomes must deal with it. Due to the nature of the labour, they do, those who are struggling to make ends meet are more exposed to air pollution. More people are exposed to the polluted air, including auto rickshaw drivers, sweepers, rubbish collectors, construction workers, Dhobi, and many more. Low-income individuals avoid going to hospitals since it could be expensive for them. Consequently, the health issues are neglected. They are more concerned with current issues than with those in the future. Therefore, in order to safeguard people's health and wellbeing, it is crucial to manage air pollution. Some suggestions and recommendations for reduction of air pollution and safeguarding right to life are as follows:

- 1) **From the state side:** Governments should adopt laws and ensure that everyone abides by them. Governments need to stop diverting the blame, as they do in the case of Delhi's air pollution and accept responsibility for the problem. A sustainable step towards growth would be to support eco-friendly technology and invest in renewable energy sources. Governments should also encourage the use of shared and public transport. States are obligated to safeguard all of their inhabitants because government is the sole authority to protect an individual's the right to life.
- 2) **For markets/ business:** Markets must prioritise people's health and avoid focusing just on business or profit. Attaching some air purifiers or any form of filters to prevent dangerous gases from escaping can be a way to reduce the health consequences of air pollution. Investing in cleaner manufacturing methods and lowering their reliance on non-renewable resources, as well as other fossils and fuels, should be prioritised. The government regulations put in place to safeguard our environment must also be followed by markets.
- 3) **From the individual side:** Individuals must obey the regulations imposed by the government as responsible citizens. Reducing bursting of crackers would be an efficient way to minimise air pollution. Using public transportation or shared transportation would be both cost-effective and environmentally friendly. Choosing energy-efficient devices and decreasing unnecessary energy use are good ways to reduce pollution. Every citizen is responsible for carrying out his or her responsibilities. Rights may only be enjoyed if duties are performed correctly.

By these steps, Right to Life could be protected without any discrimination of socio- economic differences and the people could live the life to its fullest.

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