THE RIGHT TO BREATHE CLEAN AIR: A CRITICAL STUDY OF AIR POLLUTION, PUBLIC HEALTH, AND THE RISING THREAT TO LIFE IN DELHI AND THE NATIONAL CAPITAL REGION

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ABSTRACT

The ability to breathe clean air has emerged as a critical human rights concern in India, particularly in Delhi and the wider National Capital Region (NCR), where air pollution poses a continuous threat to public health and environmental sustainability. This article examines air pollution as an evolving challenge that directly affects the fundamental right to life under Article 21 of the Indian Constitution, which has been judicially interpreted to include the right to a clean, healthy and breathable environment. Rapid urbanisation, vehicular emissions, industrial activities, construction dust, waste burning, and regional factors such as agricultural residue burning have significantly deteriorated air quality, making routine breathing unsafe for large sections of the population. The study analyses the constitutional framework, key government initiatives, and landmark judicial interventions aimed at addressing and preventing air pollution, with particular focus on Delhi as the administrative and judicial epicentre, and the NCR as a shared and interconnected airshed requiring coordinated regional responses. This article critically evaluates the role of the Supreme Court in enforcing environmental principles through Public Interest Litigations and policy-driven mechanisms such as the Graded Response Action Plan and air quality monitoring systems. The article also highlights Air Quality Index trends to assess improvements and continuing gaps in pollution control efforts. The findings suggest that while regulatory and judicial measures have led to measurable improvements, they remain inadequate without coordinated action among central and state authorities, pollution control boards, local bodies, and citizens. Therefore, ensuring clean air is not merely an environmental goal but a constitutional obligation essential for protecting human dignity, health, and the basic right to breathe safely.

Keywords: Right to Breathe Clean Air; Air Pollution; Article 21; Delhi and NCR; Public Health; Environmental Measures.

I. INTRODUCTION

"The right to clean air is conventionally con-ceptualized as a component of the broader right to healthy, clean, or ecologically balanced human environment—along with the right to safe water and sanitation, healthy and sustainable food, a safe climate, and healthy biodiversity and ecosystems"[1].

The primary and most essential component of the climate of the global ecosystem is air. It contributes to the formation of the atmospheric environment that surrounds us, which is necessary for life to exist on Earth. In reality, without this vital component, human survival would be limited to a few minutes. It is essential to our ability to survive. The two primary gases that make up the clean air are nitrogen and oxygen, with minor quantities of other gases like hydrogen and ozone and a tiny quantity of carbon dioxide gas. Air is hardly adequate or sufficiently clean for humans to breathe once it has become polluted by an unbalanced mixture of hazardous elements[2]. There are many harmful substances in our surrounding atmosphere currently, but one of the biggest issues of contemporary life is air pollution. It is additionally frequently referred to as a "silent killer" because thousands of thousands of individual lives are impacted by it despite recognizing it, and the harm occurs very gradually but silently. Cities with large populations, traffic congestion, and manufacturing sectors that produce significant amounts of contaminated air are most seriously affected. The widespread relocation of individuals from rural to urban areas in pursuit of higher-quality employment, education, and living conditions is a significant contributing factor to this issue. Cities are frequently becoming overpopulated and create an enormous burden on nature, even though this leads to expansion. As a result, the quality of the air keeps getting worse. Some of the main factors contributing to the continuously increasing levels of air pollution caused by human activity include factory activity, vehicle emissions, burning of trash, construction, and forest destruction. It directly endangers the lives and health of humans in addition to having an impact on resources and the environment.

Air pollution has turned into one of the biggest threats to world health. According to a report, air pollution causes approximately seven million deaths per year, or one out of every eight premature deaths[3]. Millions of people's lives are at risk due to India's year-round high levels

[1] Sava Jankovic, "Conceptual Problems of the Right to Breathe Clean Air" 22 *GLJ* 174 (2021).
[2] Priya Karmakar Das, "Air Pollution in Metropolitan Cities in India" IV (III) *IJLLR* 2 (2022).
[3] World Health Organisation, *7 million premature deaths annually linked to air pollution* (WTO, 2014), *available at*: https://www.who.int/news/item/25-03-2014-7-million-premature-deaths-annually-linked-to-air-pollution (last visited on Dec.18, 2025).

of air pollution, especially in urban areas[4].

One of India's largest cities and the nation's capital is Delhi. It has a huge inhabitants. Delhi's perimeters become residence to 31.7 million people as of 2022, according to the United Nations World Population Prospects. The federal and state governments work together to manage it. This adds to the complexity of the metropolitan zone[5].

Nevertheless, one of the most serious outcomes of having so much land and a large population is that it is among the most contaminated areas in the world. Particles of lesser size, like PM2.5 and PM10, become much more prominent as the Air Quality Index rises beyond 300. The worst thing about these tiny particles is that they may readily invade the blood vessels and lungs, causing allergic reactions, pneumonia, breathing difficulties, and cardiac issues. In Delhi, breathing in the air is like consuming many cigarettes every day without ever burning any. Physicians have even warned that exercising in the morning, which would not be problematic, might become harmful to one's well-being with such low AQI readings as "very poor" and "severe". Even while jogging in the morning is often considered a sign of a healthy lifestyle, it may actually expose the individual to more contaminants than they ordinarily would[6]. This growing environmental crisis raises serious concerns regarding the protection of human health and the recognition of the right to breathe clean air as an essential aspect of the right to life.

II. PRESENT HAZARDOUS AIR QUALITY SCENARIO IN DELHI

The air quality in Delhi is greatly impacted by human, geographical, and meteorological variables. In the winter, Delhi has inversion in air levels with low wind velocity and freezing dry air, which stops air contaminants from dispersing. Because of this shift, burning five hundred million tons of crop leftovers in the neighbouring regions throughout the winter further adds to the creation of smog. The quality of the air worsens as storms of dust from the region of the Middle East and the Thar Desert bring fine particles into the city throughout the summer. Because dust is coated with various contaminants, it becomes particularly dangerous in an atmosphere full of pollutants. Furthermore, because Delhi is a landlocked city, the cooling impact of sea winds cannot dissolve its airborne contaminants, which increases the development of dangerous materials. Both established and emerging countries are impacted by

[4] *Supra* note 2.
[5] Aishwarya Vig, "*Air Pollution and Its Effects on Citizens and Environment"* V(II) *IJLLR* 2 (2023).
[6] "Step Out, Breathe Trouble: Morning walks in Delhi turn risky as air quality dips to 'severe'" *The Economic Times,* Oct. 24, 2025, *available at*: https://economictimes.indiatimes.com/news/india/step-out-breathe-trouble-morning-walks-in-delhi-turn-risky-as-air-quality-dips-to-severe/articleshow/124779288.cms (last visited on Dec. 18, 2025).

the serious ecological issue of air pollution[7]. The UNEP[8] estimates that 1.1 billion individuals globally inhale contaminated air. The significant impact of pollutants in the air on population illness and death has been demonstrated by several research[9]. According to a 2012 WHO[10] assessment, almost one out of every eight deaths worldwide, of roughly 7 million people, were related to contaminants in the air[11]. One-third of deaths from COPD[12] and almost two-thirds of heart-related deaths are caused by contaminants in the air[13].

Although the overall air quality in Delhi-NCR has gradually improved in recent years. Except for 2020, due to the COVID-19 shutdown, Delhi had the best baseline Air Quality Index (AQI) throughout the preceding eight years (2018–2025) between January and August of that year. The average AQI of Delhi during the January - August period has been recorded as 172[14], in comparison to Table 1:

Years	Air Quality Index (AQI)
2018	203
2019	199
2020	147
2021	192
2022	194
2023	174
2024	187

Table 1: Year-wise Air Quality Index (AQI) in Delhi

Source: Press Information Bureau (PIB), Government of India, Delhi, "In last 8 years, Delhi witnesses Best AQI figures in 2025 January–August", 1st September 2025.

[7] Palak Balyan, Chirashree Ghosh, *et.al.,* "Health Effects of Air Pollution among Residents of Delhi: A Systematic Review*" 8(1) IJHSR* 274 *(2018).*
[8] The United Nations Environment Programme.
[9] Palak Balyan, Chirashree Ghosh, *et.al.,* "Health Effects of Air Pollution among Residents of Delhi: A Systematic Review*" 8(1) IJHSR* 274 *(2018).*
[10] The World Health Organization.
[11] *Supra* note 9.
[12] Chronic Obstructive Pulmonary Disease
[13] Palak Balyan, Chirashree Ghosh, *et.al.,* "Health Effects of Air Pollution among Residents of Delhi: A Systematic Review*" 8(1) IJHSR* 274 *(2018).*
[14] Government of India, "In last 8 years, Delhi witnesses Best AQI figures in 2025 for the January - August period" (Ministry of Environment, Forest and Climate Change, 2025).

An analysis of Delhi's August air quality patterns over the past few years shows a slow growth, as evidenced by the number of "Good–Satisfactory" air quality days and the falling average AQI levels. Favourable weather and coordinated mitigation efforts by multiple authorities are primarily responsible for these enhancements. The enhancement is further demonstrated by a rise in "Good-Satisfactory" quality of the air[15]. A comparison by year sheds more light on this pattern in Table 2;

Year	Good Satisfactory Days (August)	Average AQI (August)
2018	19	111
2019	22	86
2020	31	64
2021	11	107
2022	18	93
2023	08	116
2024	29	72
2025	23	89

Table 2: Year-wise Good Satisfactory Days and Average AQI in August (Delhi)

Source: Press Information Bureau (PIB), Government of India, Delhi, "In last 8 years, Delhi witnesses Best AQI figures in 2025 January–August", 1st September 2025.

Delhi's air quality has gradually improved, as evidenced by the number of "Satisfactory" air quality days from January to August. With the exception of the lockdown year of 2020, 2025 had the most satisfactory days[16], a sign of improved air quality control and favourable circumstances (Table 3).

[15] *Ibid.*
[16] Government of India, "In last 8 years, Delhi witnesses Best AQI figures in 2025 for the January - August period" (Ministry of Environment, Forest and Climate Change, 2025).

Year	Satisfactory Days
2018	40
2019	35
2020	87
2021	42
2022	50
2023	50
2024	48
2025	65

Table 3: Year-wise Satisfactory Air Quality Days (January-August)

Source: Press Information Bureau (PIB), Government of India, Delhi, "In last 8 years, Delhi witnesses Best AQI figures in 2025 January–August", 1st September 2025.

"This period (January – August) in 2025 did not witness even a single day with an average AQI more than 400 ('Severe' or 'Severe+' categories). There were 06, 07, 02, 06, 01, 03 and 03 such days during the years 2018, 2019, 2020, 2021, 2022, 2023, and 2024 respectively"[17].

However, by the end of 2025, Delhi's air quality had worsened significantly, underscoring the pressing truth that the right to clean air is inextricably linked to the fundamental entitlement to life. On 22nd December, around 4 p.m., the Air Quality Early Warning System for Delhi, operated by the Ministry of Earth Sciences and the Indian Institute of Tropical Meteorology, observed Very Poor air quality with a CPCB AQI of 373. The AQI had increased to 412 on December 23, putting it in the Severe category, and it was anticipated to stay extremely Bad from December 24 to 26[18]. (Table 4)

[17] Government of India, "In last 8 years, Delhi witnesses Best AQI figures in 2025 for the January - August period" (Ministry of Environment, Forest and Climate Change, 2025).
[18] Government of India, "Air Quality Early Warning System for Delhi" (Ministry of Earth Sciences, 2025).

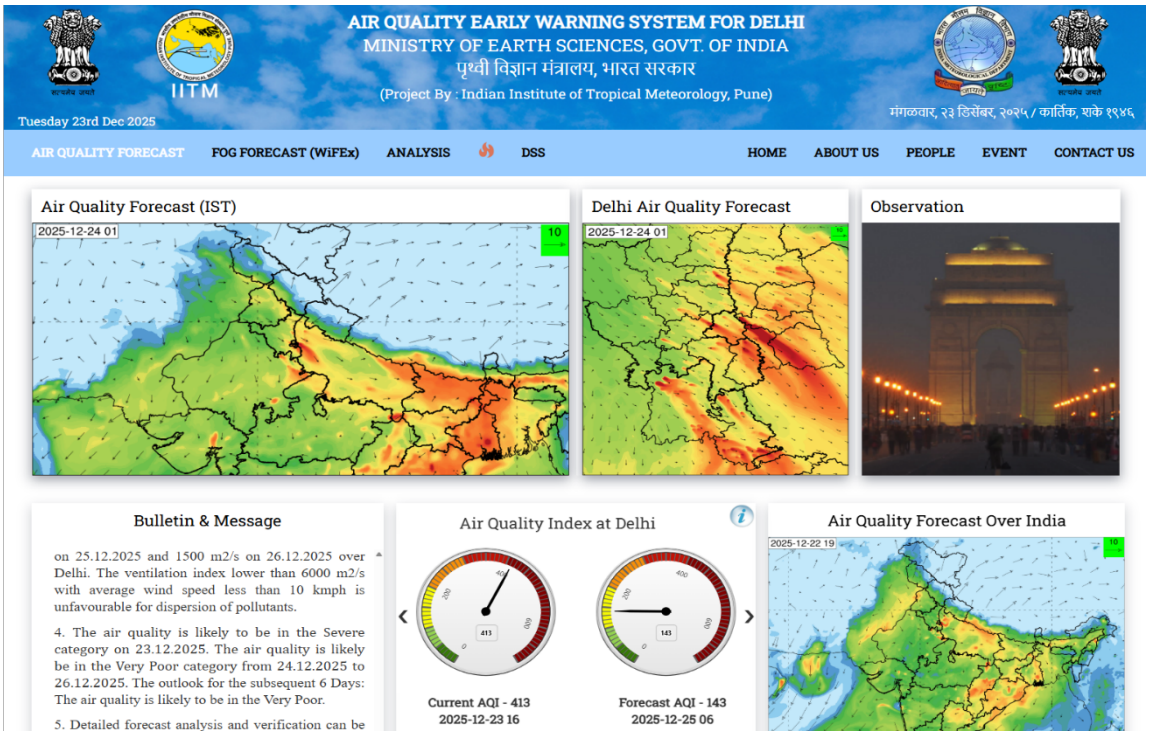


Figure 1: AIR Quality forecast, Air Quality Early Warning System for Delhi, Ministry of Earth Sciences, Govt. of India (Project By: Indian Institute of Tropical Meteorology, Pune) (24th Dec, 2025).

On December 24, continual monitoring revealed a dangerous AQI of 312 (US standard), with PM2.5 at 228 µg/m³ and PM10 at 311 µg/m³. The amount of carbon monoxide (487 ppb), sulfur dioxide (7 ppb), nitrogen dioxide (36 ppb), and ozone (18 ppb) were among the other contaminants. With a temperature of 12°C, 94% humidity, light winds of 11 km/h, and a UV index of zero, the weather was foggy[19]. PM2.5 was the primary contaminant, and the AQI had already reached 398 (Very Poor) on December 20.[20] PM2.5 continued to be the main pollutant on December 23, when the AQI sharply increased to 412, falling into the Severe category[21].

These numbers represent a serious and immediate threat to the livelihoods and well-being of millions of people; they are more than just statistical measurements. The fundamental conditions required for people's survival and dignity are undermined by continuous exposure

[19] New Delhi Air Quality Index (AQI) | Air Pollution, New Delhi, *available at*: https://www.aqi.in/in/dashboard/india/delhi/new-delhi (last visited on Dec. 24, 2025).
[20] Central Pollution Control Board, "Air Quality Index on Dec 20, 2025 @ 4 PM (Average of past 24 hours)", 2025, *available at*: https://cpcb.nic.in//upload/Downloads/AQI_Bulletin_20251220.pdf (last visited on Dec. 24, 2025).
[21] Central Pollution Control Board, "Air Quality Index on Dec 23, 2025 @ 4 PM (Average of past 24 hours)", 2025, *available at*: https://cpcb.nic.in//upload/Downloads/AQI_Bulletin_20251223.pdf (last visited on Dec. 24, 2025).

to such harmful atmospheric conditions.

III. IMPACT ON HEALTH OF HAZARDOUS AIR QUALITY FROM LATE DECEMBER 2025 TO MID-JANUARY 2026

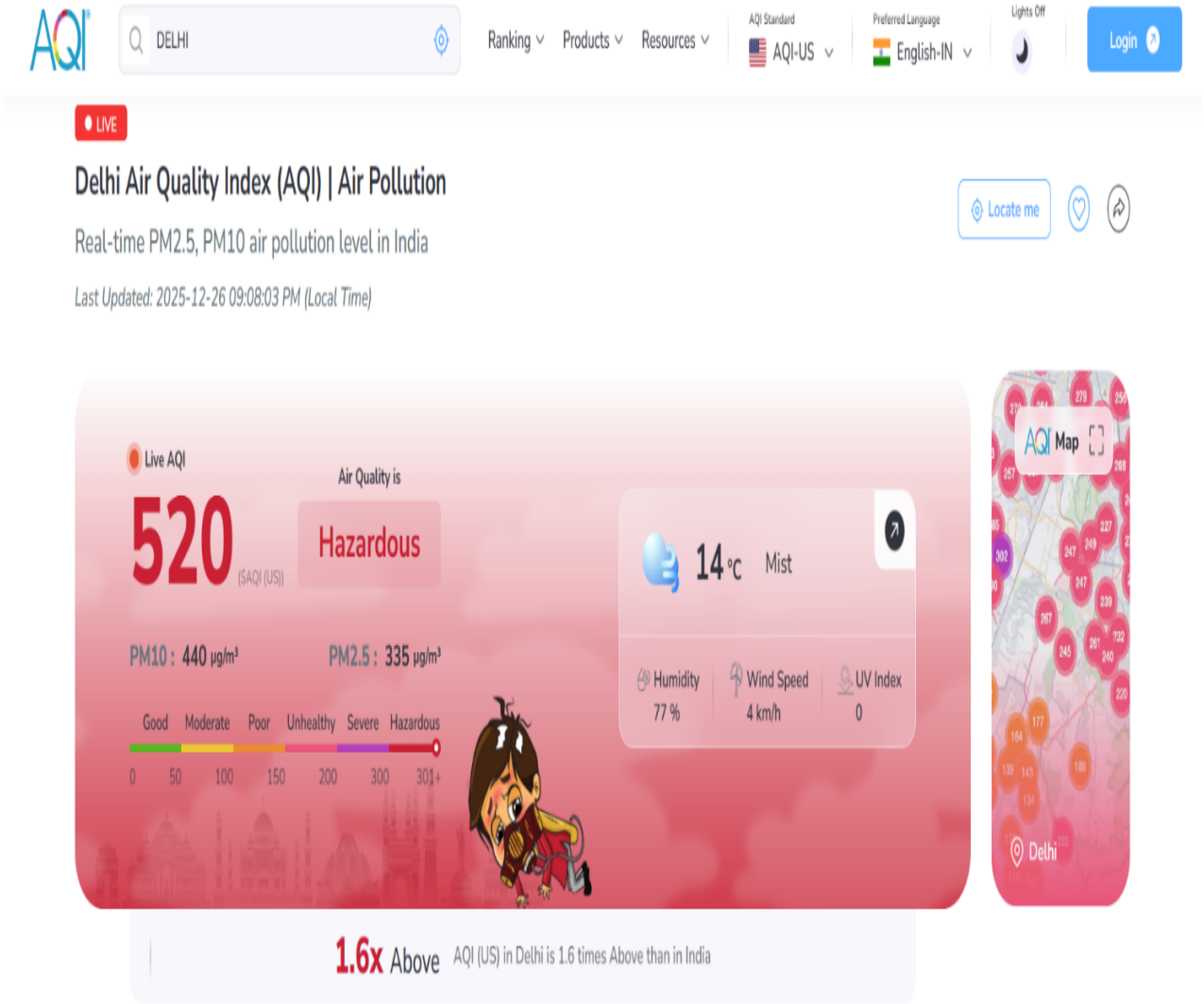
"Air pollution contributes to millions of deaths each year. Understanding the health impacts can guide policies that save lives."[22] Millions of people's daily lives are directly impacted by air pollution in India, which has developed into a major social and human medical emergency. Air quality is declining in towns as well as villages, but the worst effects are felt in large cities like Delhi. The capital's persistent inability to meet required minimum standards for air quality is reflected in its frequent inclusion on the Central Pollution Control Board's list of non-attainment cities[23]. Ecological systems are disrupted, and individual survival is seriously endangered by contaminants in the air, which are brought on by dangerous solid, liquid, and gaseous substances in the atmosphere[24].

As the Air Quality Index surpassed the concerning limit of 500, a category officially classified as "Severe Plus" and exceedingly dangerous for all segments of people, the people of Delhi woke up to oppressive air. At this point, breathing in air from the environment is nearly as dangerous to one's health as breathing hazardous gases. These circumstances go far beyond short-term discomfort; they seriously threaten life for individuals, put a burden on our healthcare systems, and disrupt the ecosystem's natural equilibrium. Although phenomena from nature can cause air pollution, human actions like excessive automobile use, emissions from factories, development of particulates, open trash disposal, and an excessive reliance on fossil fuels are the main causes of contaminants in the air in cities like Delhi. A basic human need has become a daily struggle to survive due to the continual existence of these airborne contaminants, which have made healthy air increasingly impossible to obtain[25]. Since it is impossible to live in an atmosphere that has become hazardous, this reality serves as further evidence that the right to breathe clean air is intrinsically connected to the right to life.

Data from real-time air quality monitoring clearly reflects this dark truth. According to the Delhi Air Quality Dashboard, which was updated on December 26, 2025, at 9:08 PM, the AQI

[22] State of Global Air, *available at*: https://www.stateofglobalair.org/hap (last visited on Dec. 25, 2025).
[23] Dr. Subhadra Rajpoot and Devang Pratap Singh, "Emerging Public Health Concern and Air Pollution: A Case Study of Delhi's Air Pollution Governance" 6(5) *IJMTST* 197 (2020).
[24] Sankalp Yadav and Amruta Nadar, et.al., "New Delhi air pollution: An alarming situation" 10(4) *IJIRM* 180 (2025).
[25] "Delhi's air emergency: What masks can and can't do at AQI 500", *Times Entertainment*, Dec.15, 2025, *available at*: https://timesofindia.indiatimes.com/life-style/health-fitness/health-news/delhis-air-emergency-what-masks-can-and-cant-do-at-aqi-500/articleshow/125974955.cms (last visited on Dec.25, 2025).

(US) increased to an extreme quantity of 520, which is classified as hazardous. The levels of PM10 increased to 440 µg/m³, and the level of concentration of fine particulate matter (PM2.5) was measured at 335 µg/m³, both of which were significantly higher than acceptable safety limits. Further pollutants such as CO, SO_2, NO_2, and O_3 indicate a harmful and worsened air pollution perspective. Unfavourable climate conditions, like smog, excessive humidity, and an inadequate wind speed of 4 km/h, further limited dispersion, trapping airborne contaminants close to the surface and expanding contact with humans. Particularly, Delhi"s air quality index was found to be 1.6 times greater than the national average, underscoring the capital's significantly serious air pollution problem[26]. The real-time amounts of pollutants and quality of air indicators mentioned below are shown graphically in the two subsequent figures.



[26] Delhi Air Quality Index (AQI) |Air Pollution, India, *available at*: https://www.aqi.in/in/dashboard/india/delhi/new-delhi (last visited on Dec.25, 2025).

Figure 2: Real-time Air Quality Index (AQI) status of Delhi showing hazardous pollution levels (26 December 2025)

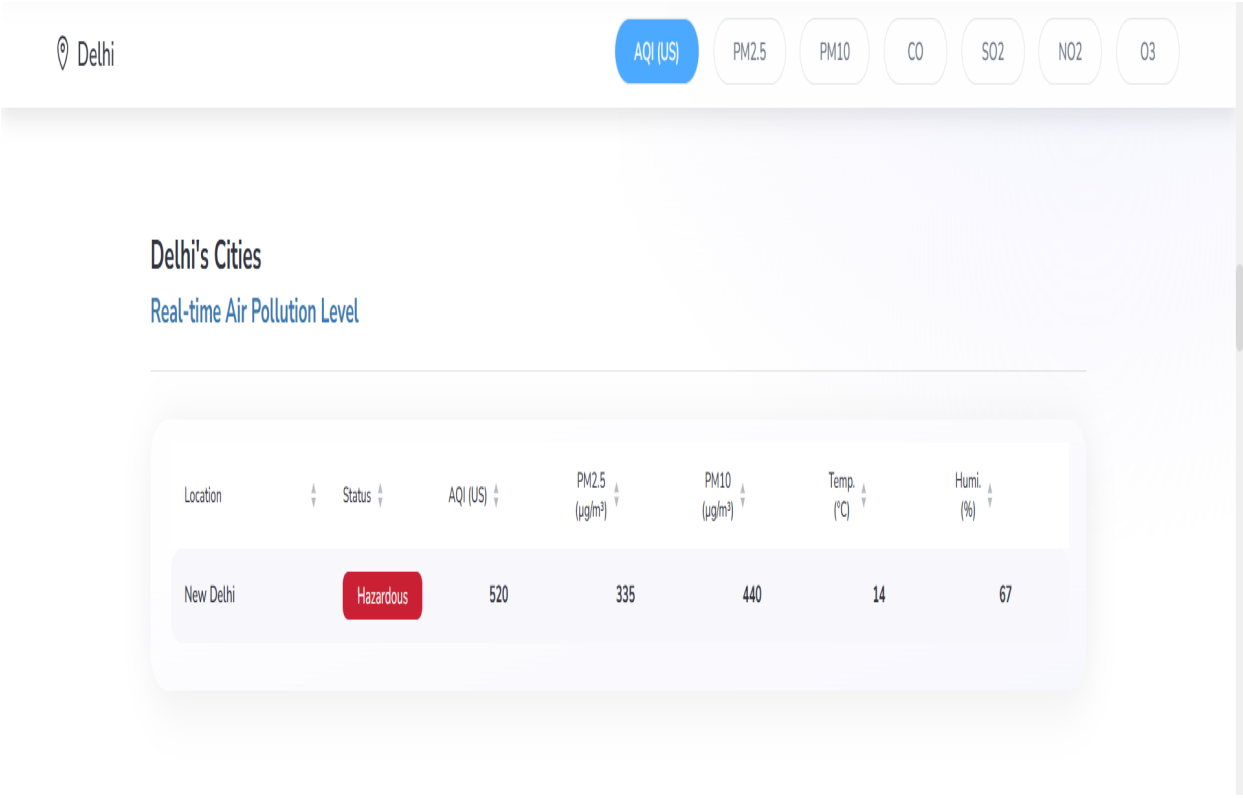


Figure 3: Concentration levels of major air pollutants (PM2.5, PM10, CO, NO_2, SO_2, O_3) in Delhi.

Furthermore, the beginning of January 2026 failed to bring any significant relaxation. Instead, real-time statistics show that dangerous situations persist and, in some cases, worsen. According to the Delhi Air Quality Dashboard, which was updated on January 17, 2026, AQI (US) readings increased significantly, ranging from 684 to 717, strongly sticking in the Hazardous range. PM2.5 values reached 417-434 µg/m³, while PM10 levels rose to 558-577 µg/m³[27](Figures: 4 and 5). Weather conditions were primarily consistent and poor, characterised by continuous cloudiness, a humidity percentage of around 72%, and low wind speeds of approximately 4 km/h, which hindered the significant circulation of pollutants and increased exposure to humans to polluted air, which exacerbated breathing difficulties and other environmental health hazards. While the current analysis focuses on specific dates in mid-January 2026 based on relevant real-time information, it is critical to note that such potentially harmful exposure is not restricted to limited periods, but rather constitutes an

[27] Delhi Air Quality Index (AQI) |Air Pollution, India, *available at*: https://www.aqi.in/in/dashboard/india/delhi/new-delhi (last visited on Jan.17, 2026).

everyday and ongoing public health crisis, also worsening climate conditions from past years.[28] (Figure:6).

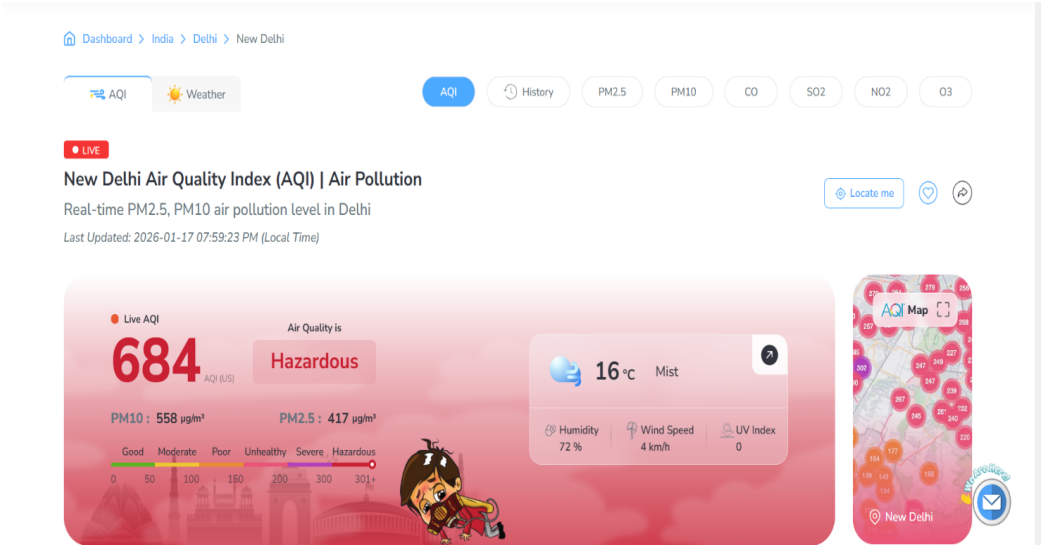


Figure 4: Real-Time Air Quality Index (AQI) of New Delhi – 17 January 2026 (Source: AQI Dashboard).

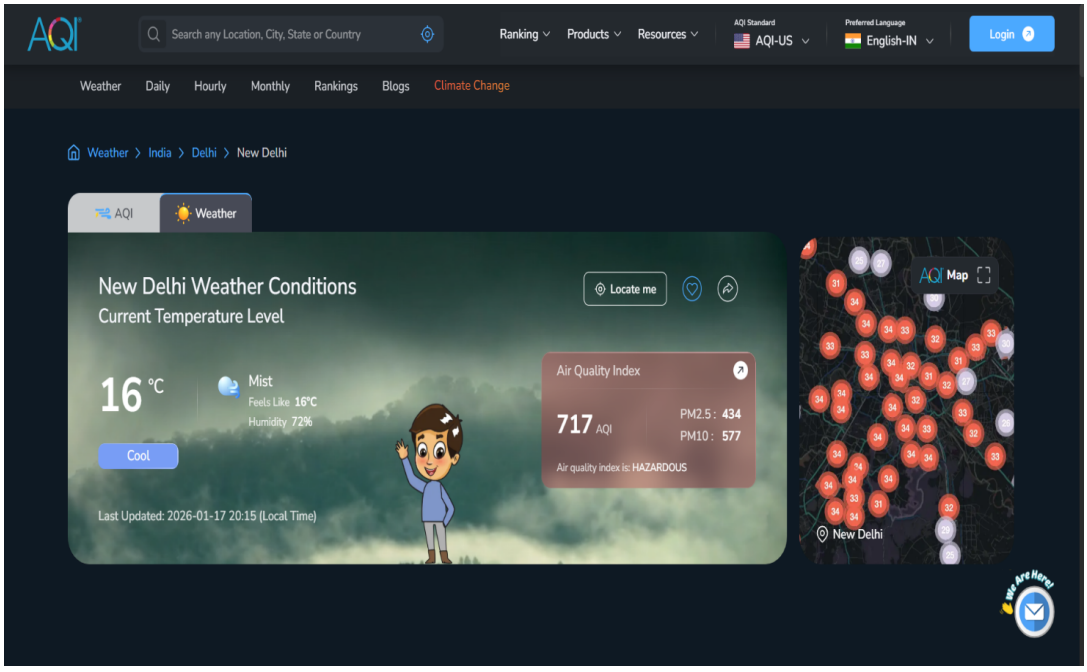


Figure 5: New Delhi Weather Conditions and AQI – 17 January 2026 (Source: AQI Dashboard).

[28] New Delhi Weather Conditions, current temperature level, New Delhi, 2025, available at: https://www.aqi.in/weather/in/india/delhi/new-delhi (last visited on Jan.17, 2026).

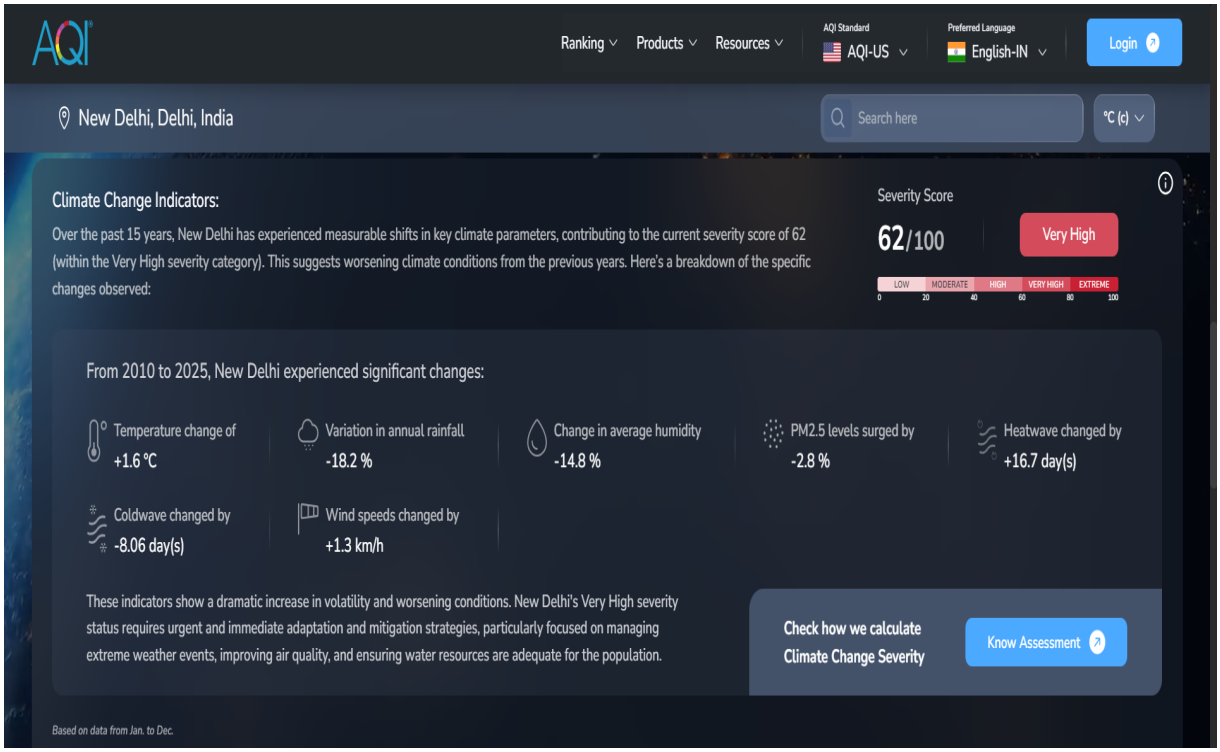


Figure 6: Climate Change Indicators and Severity Score for New Delhi (2010–2025) (Source: AQI Dashboard).

People now experience airborne contaminants in their bodies on a daily basis; it is no longer just an abstract worry about the environment. In metropolitan areas such as Delhi, breathing is no longer something that happens naturally but rather a form of toughness. Millions of people endure smog-filled mornings, eye irritation, constricted chests, and ongoing coughing. When air quality becomes dangerous, the heart, lungs, and immune system are quietly under attack, gradually shortening life for humans and lowering the standard of living. Air pollution causes more harm than just discomfort; it frequently leads to severe and sometimes incurable illnesses. Pulmonary stuffiness, wheezing sounds during breathing, and extreme breathing difficulties are common symptoms of high pollution exposure. Eventually, this exposure raises the risk of lung cancer and COPD[29], asthma, allergic alveolitis, and cardiovascular problems[30].

Although comparison of air quality patterns from the last week of January 2026 finds that the condition in Delhi was persistently terrible. When considering the air quality circumstances for the previous few days, following up to January 19, 2026, the weekly assessment clearly shows a persistent period of high contamination rather than short-term shifts. Notably, on January 18,

[29] Chronic Obstructive Pulmonary Disease
[30] Priya Karmakar Das, "Air Pollution in Metropolitan Cities in India" IV(III) *IJLLR* 5 (2022).

2026, the atmospheric pollution reached Severe status with a CPCB AQI of 440 reported at 4:00 PM. This discovery is consistent with the larger weekly trend, demonstrating that poor quality air remained into mid-January, putting the population to long-term and ongoing health hazards. Following Table describe about the weekly AQI status[31];

Weekly AQI Status in New Delhi

Date	Day	AQI	AQI Category
12th January	Monday	349,	Severe
13th January	Tuesday	458	Hazardous
14th January	Wednesday	427	Hazardous
15th January	Thursday	407	Hazardous
16th January	Friday	418	Hazardous
17th January	Saturday	552	Hazardous
18th January	Sunday	559	Hazardous

Table 4: Weekly Air Quality Index (AQI) status of New Delhi during mid-January 2026 (12–18 January 2026)

The pollutant level data taken on January 19, 2026, emphasise the gravity of the issue. PM2.5 values reached 377 µg/m³, and PM10 levels peaked at 493 µg/m³, suggesting highly hazardous air for daily breathing. CO[32] levels were 592 ppb, with additional gaseous contaminants such as SO_2[33] at 7 ppb, NO_2[34] at 51 ppb, and O_3[35] at 29 ppb still prevalent. These data, combined, reveal continuous and dangerous contamination levels, demonstrating that in the last days of January covered by this weekly analysis, Delhi kept suffering from chronically poor air quality rather than intermittent or sudden pollution problems[36].

[31] New Delhi Air Quality Index Today, *Times of India*, Jan. 20, 2026, *available at*: https://timesofindia.indiatimes.com/weather/new-delhi-aqi-level-air-quality-index-today/3291 (last visited on Jan. 20, 2026).
[32] Carbon Monoxide.
[33] Sulfur Dioxide.
[34] Nitrogen Dioxide.
[35] Ozone.
[36] *Supra* note 31.

"The Air Quality and Weather Bulletin for Delhi", published January 19, 2026, supports the current pattern. The advisory predicted that air quality will stay in the Very Poor category on January 19, 2026, with the same circumstances forecast between January 20 and 22, 2026. The six-day forecast suggested that the air quality will swing between Very Poor and Poor, providing no significant relief.[37]

Despite having minimal control over their surroundings, children are among the worst affected by air pollution. In Delhi alone, nearly 2.2 million children have reportedly suffered serious pulmonary damage. Children inhale more air per kilogram of body weight and spend more time outdoors, making them more vulnerable. Polluted air weakens immunity and increases the risk of respiratory diseases, diabetes, cancer, epilepsy, and long-term neurological disorders.[38]

Rising contaminants in the air levels in the city are undermining the right to life and the right to a healthy environment[39]. The health impacts of this problem have been obvious, impacting even notable public personalities. Sonia Gandhi was hospitalized late at night because Delhi's heavy smog and cold temperatures intensified her previously present bronchial asthma, demonstrating the fact that people are more vulnerable during such times[40].

Despite wearing masks and adopting simple measures, Delhi's hazardous air is difficult to get away from. Hospitals are overcrowded with people suffering from respiratory problems, difficulty breathing, and eye discomfort. The city feels stifling, and even air filters provide no comfort. As pollution rises alongside the winter chill, medical retailers report an increase in demand for masks, eye drops, nasal sprays, and nebulizers[41]. Residents are obliged to purchase these daily necessities in order to survive, emphasizing the critical need for solutions that are lasting. Naresh Dang, a physician at Max Healthcare, said, "New Delhi is a gas chamber right now. Air purifiers can help only a bit, so it's high time the government comes up with some

[37] Government of India, "Air Quality Early Warning System for Delhi" (Ministry of Earth Sciences, 2026).
[38] Aishwarya Vig, "*Air Pollution and Its Effects on Citizens and Environment"* V(II) *IJLLR* 2 (2023).
[39] Dr. Subhadra Rajpoot and Devang Pratap Singh, "Emerging Public Health Concern and Air Pollution: A Case Study of Delhi's Air Pollution Governance" 6(5) *IJMTST* 200 (2020).
[40] Rahul Gautam, Sonia Gandhi hospitalised as Delhi pollution, cold worsen respiratory ailment, *India Today,* Jan. 6, 2026, *available at*: https://www.indiatoday.in/india/story/sonia-gandhi-hospitalised-after-respiratory-ailment-worsened-by-delhi-pollution-cold-2847452-2026-01-06 (last visited on Jan. 20, 2026).
[41] Eye Drop, Mask And Nebuliser Sales Spike Along with Pollution, Cold Wave in Delhi. Chemists say the rise in pollution every year in Delhi translates into a higher demand for eye care and respiratory products and medications, *NDTV,* Dec. 22, 2025, *available at*: https://www.ndtv.com/health/eye-drop-mask-and-nebuliser-sales-spike-along-with-pollution-cold-wave-in-delhi-9871499 (last visited on Jan. 20, 2026).

permanent solutions"[42].

According to the 2025 "Lancet Countdown on Health and Climate Change", more than seventeen lakh people in India died in 2022 due to PM2.5 air pollution, much of it caused by petrol and diesel vehicles. These numbers represent real people and families, not just statistics. Since no one can fully avoid polluted air, the problem is even more serious. Studies by the International Council on Clean Transportation show that reducing vehicle pollution could save about 1.9 million lives worldwide and protect millions of children from asthma. Dirty air damages the lungs and heart, shortens life, and forces people to stay indoors just to breathe safely, taking away their comfort and quality of life[43]. In such cases, the right to life under the Constitution of India[44] is severely undermined because the right to life cannot exist without the right to breathe clean air.

The combination of deteriorating air quality, heavy fog, and a prolonged cold wave has raised public health issues, particularly among youngsters, senior citizens, and those who are already suffering from respiratory or heart problems. These conditions significantly raise the risk of respiratory problems, hospitalisation, and serious medical problems. As the cold temperatures continue to worsen across the area, administrators remain on high alert, continuously tracking contaminants in the air levels and related health implications, emphasising the critical requirement for persistent and effective actions to preserve public wellness as well as rights guaranteed by the Constitution.

IV. LEGAL FRAMEWORK GOVERNING AIR POLLUTION

Air pollution has been recognized as one of India's most critical ecological and health issues, particularly in major cities such as Delhi and its NCR region. Not only does unhealthy air quality harm the surroundings, but it also has an impact on individual wellness, communal well-being, and economic growth. The law plays an important role in tackling this situation by recognizing clean air as a basic necessity for survival and establishing measures to prevent, manage, and minimize contamination. The legal system of India for air pollution is based on

[42] Rajesh Roy, Toxic smog blankets New Delhi, disrupting travel, air quality at hazardous levels, *abc News*, Dec.15, 2025, *available at*: https://abcnews.go.com/International/wireStory/toxic-smog-blankets-new-delhi-disrupting-travel-plunging-128407286 (last visited on Jan. 20, 2026).
[43] "Air pollution India's biggest health crisis since Covid, warn doctors", *The Economic Times*, Dec.26, 2025, *available at*: https://economictimes.indiatimes.com/industry/healthcare/biotech/healthcare/air-pollution-indias-biggest-health-crisis-since-covid-warn-doctors/articleshow/126182273.cms?from=mdr (last visited on Jan. 20, 2026).
[44] The Constitution of India, 1950, art.21.

basic constitutional demands, legislation, administrative decisions and governmental actions aimed at safeguarding ecosystems and the welfare of people.

i. Constitutional Safeguard

The Constitution is the cornerstone of safeguarding the environment in India. The entitlement to life as well as individual freedom is protected under the Indian Constitution[45]. The entitlement of living in a safe, nutritious, and free of pollutants atmosphere has been continuously added to this clause by court interpretation. The Supreme Court has made it clear that the right to life encompasses the freedom of living with human dignity, protection, and wellness rather than just being an animal existence. Therefore, breathing clean air is a crucial part of this right[46]. The DPSP provides further constitutional backing, requiring the state to maintain and develop ecosystems, as well as preserve forests and animals[47] and under Fundamental Duties, requires all citizens to maintain and develop the natural realm, which includes air, water, and land. Together, these clauses impose a constitutional duty on both government and people to avoid ecological damage[48]. Thus, air pollution that hurts people's health, interrupts everyday living, and reduces lifespan is a breach of the article[49] mentioned in the Constitution of India, undermining the fundamental provision of an adequate standard of living[50].

ii. Statutory Provisions and Rules on Air Pollution

To put constitutional values into action, Parliament has passed a number of legislation governing air quality and pollution management. These laws establish institutional frameworks, disciplinary authorities, and requirements for monitoring and mitigating contamination rates. The regulatory structure handles pollution caused by industry, automobiles, dangerous procedures and urban activities.

The Act of 1981[51] is India's main legislation addressing air pollution. Its goal is to eliminate, manage, and mitigate air pollution by establishing the Central and State Pollution Control Boards. These boards have the authority to set pollution guidelines, evaluate the air's

[45] *Ibid.*
[46] Sheeba N., "Constitutional Safeguards Against Construction-Related Pollution and The Right to Breathe Clean Air" IV(IV) *IJLLR* 2-3 (2022).
[47] The Constitution of India, 1950, art. 48-A.
[48] *Ibid.,* art.51-A(g).
[49] *Supra* note at 29.
[50] Priya Karmakar Das, "Air Pollution in Metropolitan Cities in India" IV(III) *IJLLR* 5 (2022).
[51] The Air (Prevention and Control of Pollution) Act, 1981.

cleanliness, and take preventive steps, including the shutdown of harmful companies. "Along with this the Air (Prevention and Control of Pollution) Rules, 1982 defines the procedures of the meetings of the Boards and the powers entrusted to them". The Act of 1987[52] amended the initial statute by allowing officials more urgent powers to handle significant pollution incidents[53].

The 1988 Act[54] tackles car emissions by establishing standards for emissions and standardizing automobile specifications. Its adoption has been significant in reducing emission levels from transportation, particularly in urban regions[55].

In 1948, an Act[56] related to factories, notably with its 1987 revision, emphasizes on occupational security and dangerous operations, acknowledging the ecological and human health consequences of pollutants from industry[57].

One of the most dangerous contaminants in the air in India is airborne particulate matter, which is mostly produced by industrial processes, mining, and mineral extraction[58]. The government passed the 1952 Act[59], which mainly focuses on controlling mining operations and guaranteeing safety requirements, in order to reduce contamination resulting from mining and connected procedures. By controlling the production of dust operations and dangerous working environments related to the extraction of minerals, the Act indirectly helps to the management of pollutants in the atmosphere, even though it is not solely an environmental legislation.

The Act of 1952[60] is an additional early piece of regulation with an indirect effect on air pollution prevention. The major goal of this Act is to proclaim some substances highly inflammable and restrict their preservation, transportation, and management[61] in accordance with the Act of 1934[62]. While safety is the primary priority, limiting explosive compounds also aids in the reduction of inadvertent emissions, burns, and hazardous discharges, all of which can have a negative impact on the condition of the air.

[52] The Air (Prevention and Control of Pollution) Amendment Act, 1987.
[53] *Supra* note 50 at 8.
[54] The Motor Vehicles Act, 1988.
[55] Priya Karmakar Das, "Air Pollution in Metropolitan Cities in India" IV(III) *IJLLR* 9 (2022).
[56] The Factories Act, 1948.
[57] *Supra* note 55, at 8.
[58] *Supra* note 55, at 8.
[59] The Mines Act, 1952.
[60] The Inflammable Substances Act, 1952.
[61] *Supra* note 55, at 8
[62] The Petroleum Act, 1934.

The Act of 1986[63] serves as a guiding legislation, granting wide authorities to the central government to maintain a healthy environment. This Act authorizes government agencies to regulate industrial sites, ban dangerous operations, and establish ecological norms. It serves as the legal foundation for most environmental regulations and alerts. Rules of 1986[64] were enacted to put the environmental protection measures into effect. These Rules specify the methods for establishing standards for emissions and controlling the discharge of environmental contaminants. They offer the technological and regulatory frameworks required to enforce pollution prevention standards[65] across industry and urban-regions. Therefore 1989 rules[66] also intended to govern the creation, preservation, transportation, and destruction of dangerous material. Although these Rules mainly concentrate on how to handle trash, they indirectly serve to minimize air pollution by minimizing the emission of harmful vapours and particles in the air[67] caused by inadequate handling or dumping of dangerous substances.

To ensure responsibility and reimbursement for harm done to the environment, individual and property caused by any hazardous materials, water and air pollution, etc., an Act was passed in 1995[68]. This act offers remuneration to survivors of incidents involving dangerous substances, particularly those that cause air pollution. It acknowledges ecological damage as a severe legal injury that necessitates mitigation[69].

To further promote environmental equity, another act was passed in 1997[70] was enacted to hear challenges against the regulation of the environment that restricts economic activity. This Act provides a fair procedure while upholding preservation of the environment, especially in situations addressing polluting companies[71].

Further to set precise standards for identifying suitable sites for factories, one rules was passed in 1999[72]. These Rules seek to limit pollutants in the air by requiring that companies not be established in environmentally vulnerable or heavily inhabited regions without proper protections. Metropolitan waste disposal has a direct influence on the air we breathe. The Rules

[63] The Environment (Protection) Act, 1986.
[64] The Environment (Protection) Rules, 1986.
[65] Priya Karmakar Das, "Air Pollution in Metropolitan Cities in India" IV(III) *IJLLR* 8-9 (2022).
[66] The Hazardous Waste (Management and Handling) Rules, 1989.
[67] Priya Karmakar Das, "Air Pollution in Metropolitan Cities in India" IV(III) *IJLLR* 9 (2022).
[68] The National Environmental Tribunal Act, 1995.
[69] Supra note 67.
[70] The National Environment Appellate Authority Act, 1997.
[71] Supra note 67.
[72] The Environment (Siting for Industrial Projects) Rules, 1999.

of 2000[73] require the municipalities to guarantee adequate solid waste gathering, separating, shipment, processing, and disposing[74]. Effective execution of these Rules assists in reducing open trash combustion, which is a major cause of air pollution in cities.

A specialised place for the prompt resolution of ecological complaints is provided under the 2010 NGT Act[75]. It makes it possible for those impacted by environmental harm, particularly injuries caused by contaminants in the air, to pursue compensation.

Finally, the Rules of 2000[76] acknowledge noise as a threat to the environment that has an impact on the well-being and standard of living. These Rules define the level of ambient noise according to land time and usage, strengthening the notion that polluting the environment, particularly in the form of air or noise, directly violates Article 21 of the Constitution's guarantee of the freedom to live peacefully and with dignity[77].

V. GOVERNMENT INITIATIVES AND POLICY MEASURES TO PREVENT AND CONTROL AIR POLLUTION

Air pollution is a major issue in India, impacting numerous cities, with almost 101 classed as severely polluted. Article 48-A of the Indian Constitution recognises the need for environmental protection, as does Article 51-A(g) of the Fundamental Duties. Article 21 protects the right to life, which includes the right to clean air and water. In order to tackle this issue, the government has taken a number of measures, mostly in large metropolitan areas, to minimise contaminants in the air and preserve the health of the population. To combat ozone depletion, India ratified the Montreal Protocol on a global scale. In accordance with the "Environment Protection Act of 1986, the Ministry of Environment, Forests, and Climate Change developed the Ozone Depleting Substances (Regulation and Control) Rules, 2000". In order to ensure industrial adherence to international environmental standards, these regulations govern the manufacture, retailing, circulation, transit and arrival of substances that damage the ozone layer. NAPCC, 2008,[78] was introduced by the government at the national level to describe initiatives and strategies for climate change adaptation and response. In an effort to promote environmentally friendly modes of transport, India has also embraced European fuel and emission regulations for automobiles. With a budget of ₹1,000 crores to cut CO2 emissions

[73] The Municipal Solid Wastes (Management and Handling) Rules, 2000.
[74] Supra note 67.
[75] The National Green Tribunal Act, 2010
[76] The Noise Pollution (Regulation and Control) Rules, 2000.
[77] Priya Karmakar Das, "Air Pollution in Metropolitan Cities in India" IV(III) *IJLLR* 8-9 (2022).
[78] The National Action Plan on Climate Change.

by 1.2–1.5% by 2020, the NMEM, 2015[79], was established to promote the use of hybrid and electric vehicles. Since then, a number of metropolitan areas, including Delhi, have increased the number of electricity-powered buses, CNG cars, and other greener modes of transportation. Other prominent efforts include the "National Urban Transport Policy", which encourages the use of public transportation, as well as the prohibition on outdated automobiles, which limits petrol vehicles to 15 years and diesel vehicles to 10 years. "The National Biomass Cook Stoves Programme" lowers internal emission levels, while the Clean Energy Cess supports renewable energy initiatives. To keep track of air quality, the government created the NAAQS[80] and conducts national surveillance via the NAMP[81]. AQI[82] delivers real-time data on the amount of pollution and related health hazards. Additional initiatives include sector-specific emission regulations for industry, encouraging the use of CNG, LPG, and ethanol-based blended fuels, the implementation of "Bharat Stage IV and VI vehicle emission standards", the prohibition on the combustion of biomass, and the promotion of public transportation networks. The PUC[83], online surveillance for severely polluting manufacturing industries, the restriction of sound-emitting firecrackers at night, and the creation of citizen-centric applications like "SAMEER" have all helped to improve enforcement and public involvement. Almost 30 lakh kids are involved in awareness about the environment and preservation endeavours through educational programs such as eco-clubs run by [84] the NGC[85].

VI. CONTROL MEASURES UNDERTAKEN IN DELHI AND THE NATIONAL CAPITAL REGION (NCR)

Several control measures have been undertaken in Delhi and NCR. To manage Delhi's severe air pollution, special control measures have been put in place. Since 2016, significant pollution events have resulted in the short-term closing of schools, limits on building and demolition operations, and the prohibition of diesel-powered generators unless in emergencies. To cut emissions, applications for monitoring leaf burning have been introduced, roads are automatically cleaned and doused with water, and policies that allow employees to work from home are promoted. By 2030, the city hopes to have all cars powered by batteries, electricity, or hybrids. "Bharat Stage VI pollution standards" are necessary for combustion automobiles,

[79] The National Electric Mobility Mission.
[80] The National Ambient Air Quality Standards.
[81] The National Air Quality Monitoring Programme.
[82] The Air Quality Index.
[83] Pollution Under Control Certificates.
[84] Priya Karmakar Da, "Air Pollution in Metropolitan Cities in India" IV(III) *IJLLR* 5-7 (2022).
[85] National Green Corps.

and cars older than 10-15 years are forbidden. Technological solutions include smog towers, smog mitigation guns, and agricultural waste management equipment like the "Pusa Bio-decomposer and Turbo Happy Seeder", which reduces the combustion of stubble[86].

In October 2020, a Supreme Court-appointed team led by Justice Lokur observed stubble burning in neighbouring states. "The Graded Response Action Plan (GRAP, 2017)" requires urgent steps amid extreme pollution, such as school closures and a halt in building. Trash control regulations require separation, along with secure dumping of building and demolition waste. Campaigns such as "Odd-Even car Rules" and "Red Light On", "Gaadi Off" help to minimize automobile emissions. Policies that encourage tree planting and urban greening improve air quality even more[87].

The Delhi Pollution Control Committee (DPCC) Air Lab is crucial to controlling air quality. It continually monitors critical pollutants, such as PM10, PM2.5, NOx, SOx, CO, O3, BTEX, and NH3, utilizing modern equipment and beta-ray-driven dust detectors. Information has been gathered in immediate form and published onto centralized records, which are available through the Green Delhi and SAMEER applications. GIS mapping, automated dashboards, and citizen grievance systems provide openness, quick action, and hotspot discovery[88].

"The Standing Committee on Science, Technology, Environment, Forests, and Climate Change (2025)" identified gaps in air quality regulations, inadequate surveillance, and fragmented solutions. It recommended updating NAAQS to WHO standards, fresh source-apportionment studies, inter-state coordination in Delhi-NCR, promotion of cleaner vehicles, including EVs and CNG, dust suppression, stricter industrial pollution control, use of air purifiers in schools and hospitals, targeted projects for vulnerable groups, and reduction of GST on air purifiers are all examples of public health efforts[89].

Shri Bhupender Yadav, Union Environment Minister, reviewed city-specific action plans in Ghaziabad and Noida, highlighting stringent on-the-ground execution, Jan Bhagidari, and

[86] Aishwarya Vig, "Air Pollution and Its Effects on Citizens and Environment" V(II) *IJLLR* 4-5 (2023).
[87] Air Pollution in Delhi, *available at*: https://byjus.com/free-ias-prep/delhi-air-pollution-upsc/ (last visited on Jan. 20, 2026).
[88] Dr. Bhupender Singh, Additional Director (Scientific), Information and Communication Technology (ICT) for Empowered Communities: Tackling Pollution Together, *available at*: https://environment.delhi.gov.in/sites/default/files/environment/circulars-orders/1_gda_conf_compressed_0.pdf (last visited on Jan. 20, 2026).
[89] Vaishali Dhariwal, Standing Committee Report Summary Air Pollution in Delhi NCR and steps taken by various agencies for its mitigation, *available at*: https://prsindia.org/files/policy/policy_committee_reports/Environment_Air_Pollution.pdf (last visited on Jan. 20, 2026).

integrated garbage handling[90]. Improved traffic systems, improved public transportation, expanded infrastructure for electric vehicles, automated roadway cleaners, smog prevention equipment, dust management, and more green cover are among the measures being implemented. Delhi has approved a 25-point winter action plan (2025-26)" that includes "86 mechanical sweepers, 300 sprinklers, 362 anti-smog guns, 578 enforcement teams, six new air-quality monitoring stations, and a prototype cloud-seeding project". The strategy enforces dust prevention rules for projects above 500 m², connects 953 PUC centres to a constantly updated dashboard, and limits emissions from industries, generator usage, and natural crackers during festivals. The Green Delhi app is a key tool for community involvement and pollution complaint resolution[91].

VII. JUDICIAL RESPONSE TO AIR POLLUTION (LANDMARK SUPREME COURT DECISIONS)

The judiciary, particularly the higher courts, has played a critical role in fighting India's deteriorating air quality through a number of historic decisions. The courts have made major contributions to air pollution prevention and control by applying and upholding environmental laws, delivering binding orders, and guaranteeing cooperation by government agencies and industry. The Supreme Court of India has broadened the meaning of "Article 21" to include the "right to breathe clean and healthy air", and it has effectively protected environmental principles through Public Interest Litigation[92]. In urban areas like Delhi and its neighbouring region NCR, where air pollution poses a major danger to citizens' health and the preservation of the environment, ongoing court oversight has been required to keep authorities responsible.

In the M.C. Mehta Case (Delhi Vehicular Pollution Case)[93] The Hon'ble Supreme Court issued a series of directives to reduce emissions from automobiles in Delhi, including the discontinuation of toxic leaded gasoline, the phase-out of old commercial cars and trucks, the transition of public transportation to CNG, the development of interstate bus terminals, and the enhancement of air quality monitoring procedures. This legal action was a crucial step toward

[90] Government of India, "Shri Bhupender Yadav calls for Strict On-Ground Implementation of Air Quality Control Action Plans, Directs Zero Tolerance for Non-Compliance Emphasis given on Jan Bhagidari as Key to Winning the Fight Against Air Pollution in Delhi-NCR" (Ministry of Environment, Forest and Climate Change, 2025).
[91] "Jasjeev Gandhiok, Delhi govt finalises its 25-point 'winter action plan' to combat air pollution", *Hindustan Times*, Oct.17, 2025, *available at*: https://www.hindustantimes.com/cities/delhi-news/delhi-govt-releases-its-action-plan-for-winter-101760637428526.html (last visited on Jan. 20, 2026).
[92] Priyam Priyadarshini Goswami, "Judicial Responses Towards Air Pollution Issues in India" 5(4) *IJFMR* 1-2 (2023).
[93] *M.C. Mehta* v. *UOI*, writ petition (civil) no.13029/1985.

judicially controlled management of the environment[94].

In the Oleum Gas Leak Case[95] The Court developed the doctrine of absolute liability and emphasized the importance of a national policy on hazardous industries, expert scientific bodies, and specialized environmental courts, emphasizing the prevention and regulatory aspects of preserving the environment[96].

The ruling in the **Vellore Citizens' Welfare Forum[97]** legally recognized the precautionary principle and polluter pays concept as vital to achieving sustainable growth and mandated the concentration of better fuels, particularly in the transportation sector.

In the Murli Deora case[98] The Hon'ble Supreme Court prohibited smoking in public areas after ruling that forcing individuals to be helpless victim who do not smoke to breathe toxic air, which infringes "Article 21 of the Constitution of India, provides that no one shall be deprived of his life without due process of law"[99]. Realizing the gravity of the situation, the Honourable Supreme Court directed and prohibited smoking in public places and issue necessary directions to the Union of India, State Governments as well as the Union Territories to take effective steps[100].

In the Arjun Gopal[101] case, the Supreme Court addressed post-Diwali pollution in Delhi by restricting firecracker sales and use. While rejecting a total ban, it prioritised the right to health under Article 21, imposed time-bound and location-specific use, promoted green crackers, and strengthened CPCB-SPCB monitoring[102].

VIII. CONCLUSION AND SUGGESTIONS

Air pollution in Delhi and the National Capital Region is one of the most dangerous threats to human health and life today. What was once regarded as just an ecological problem has evolved into an unprecedented health crisis that affects thousands of people every day. Rising quantities

[94] *Supra.,* note 66 at 3
[95] (1987) 1 SCC 395.
[96] Priyam Priyadarshini Goswami, "Judicial Responses Towards Air Pollution Issues in India" 5(4) *IJFMR* 3 (2023).
[97] *Vellore Citizen Welfare Forum* v. *Union of India and Others* (1996) 5 SCC 647.
[98] *Murli Deora* v. *Union of India and others* 2001(8) SCC 765.
[99] Priya Karmakar Da, "Air Pollution in Metropolitan Cities in India" IV(III) *IJLLR* 11 (2022).
[100] Priyam Priyadarshini Goswami, "Judicial Responses Towards Air Pollution Issues in India" 5(4) *IJFMR* 4 (2023).
[101] *Arjun Gopal* v. *Union of India* (2017) 1 SCC 412; (2018) 9 SCC 811.
[102] An analysis of orders of the Indian Courts regarding sale and use of firecrackers, *available at*: https://blog.ipleaders.in/an-analysis-of-orders-of-the-indian-courts-regarding-sale-and-use-of-firecrackers/ (last visited on Jan. 20, 2026).

of pollutants, particularly fine particulate matter (PM2.5 and PM10), have made breathing dangerous, resulting in breathing problems, cardiac issues, and long-term health concerns. Vulnerable populations, notably kids, older people, and those with pre-existing diseases, are at the greatest danger, underscoring the human cost of this environmental crisis. The current situation in Delhi is the result of several factors. Automobile pollution, manufacturing processes, industrial contaminants, stubble burning in neighbouring states, and environmental scenarios all contribute to a dangerous atmosphere that increases with each winter. Despite improvements in certain months and government measures such as the GRAP, higher emission limits, battery-powered vehicle programs, and continuous air assessment, air pollution levels remain hazardously high, demonstrating the need for more synchronized and persistent efforts. Legal and constitutional frameworks recognize the right to clean air as part of the fundamental right to life under Article 21[103]. Judicial interventions, landmark Supreme Court cases, and statutory measures reinforce the need for accountability, precaution, and public participation in controlling pollution. However, policies alone are insufficient without consistent enforcement and active involvement of citizens.

As a result, this research paper emphasized that breathing clean air is a basic human right rather than a privilege. Excessive air pollution in Delhi and the National Capital Region endangers human lives, lowers the standards of existence and threatens the right to a healthy environment. To combat this disaster, governments, companies, and the general people must take immediate and collective steps. Fresh air may be recovered gradually by strengthening legislation, supporting environmentally friendly developments, promoting environmentally friendly modes of transportation, and boosting awareness. The battle against air pollution is about more than just saving the environment; it is also about upholding the core values of life for humans.

Suggestions

i. Reduce automobile pollution by enforcing more restrictive emission rules, encouraging electrical and eco-friendly transportation, and removing older, highly polluting cars from the road.
ii. Control emissions from manufacturing by deploying better equipment, conducting frequent checks and ensuring that industries obey environmental standards.
iii. Improve cooperation among national and state governments, local authorities or bodies, and Pollution Control Boards to implement and monitor air quality measures together.

[103] The Constitution of India, 1950, art.21.

iv. Reduce the open-air combustion of agricultural wastes, waste materials, and construction materials through public awareness programs and strong implementation.

v. Increase greenery in city territories, stop deforestation, support tree planting efforts, and establish natural barriers that will absorb pollution.

vi. Advise individuals to take preventive precautions, such as using masks during polluted periods.

vii. Monitor the AQI on an ongoing schedule and provide real-time data available to the public in order to help in prevention efforts.

viii. Set up appropriate penalties for violating pollution control regulations, such as excessive emissions from automobiles, industrial infringements, and prohibited trash combustion.

ix. Educational campaigns and grassroots outreach may all be used to raise people's consciousness about pollutants in the air, health effects, and environmentally friendly techniques.