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# A Legal Analysis on Air Pollution in Bangladesh: Human Rights Perspective

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## ABSTRACT

*Air is an indispensable ingredient in all living organisms. Breathing clean air is part and parcel of one's right to health. Moreover, reducing pollutants in the air is crucial for the environment too. Regrettably, due to the lack of timely interference in this concern, air pollution has been transformed into the world's largest environmental health threat right now. In this horrendous scenario, the air quality of Bangladesh was positioned as the worst in the world for four years in a row, whereas Dhaka ranked the second most polluted capital in the world, according to the 2021 World Air Quality Report by IQAir. As air pollution is causing a serious threat to the right to health, this paper endeavours to discern the sources of air pollution in Bangladesh. Further, this paper intends to investigate existing laws and policies on preventing air pollution with a view to checking their sufficiency, efficiency and contemporariness. Last but not least, this paper would like to find out the obstacles to ensuring air quality and suggest viable solutions in this regard. A qualitative method has been applied, and data have been collected from secondary sources, which have been processed and presented accordingly.*

**Keywords:** *Air Quality, Air Pollution, Human Rights, Right to Health, Sustainable Environment.*

## I. INTRODUCTION

Breathing air is indispensable to one's right to health. People breathe around 11,000 litres of (non-filtered) air every day (Papathanasiou. 2017), which is not free from severe pollution and often bears particulate matter (PM10 and PM2.5), which is dangerous to health. Air pollution is one of the biggest environmental threats causing 7 million deaths around the world every year (United Nations Economic Commission for Europe, n.d). In 2021, the deaths of 40,000 children under the age of five were caused due to PM2.5 air pollution (The Daily Star, 2022). Moreover, WHO's "Review of evidence on health aspects of air pollution" expresses that long-term exposure to fine particles can trigger health problems, adverse birth outcomes, and childhood respiratory diseases, generating allergic rhinitis and asthma, transmitting viruses – via droplets and aerosols (WHO, 2021). Especially, worsening air quality and pollution pose numerous

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sustainability and environmental health challenges in South Asia (Abdul Jabbar et al., 2022). If we look into the situation in South Asia, airborne particulate matter (PM10 and PM2.5) is a major concern due to its' high ambient concentrations and documented impact on morbidity and premature mortality. As part of South Asia, the air in Bangladesh is also under great hazard. The 2021 World Air Quality Report published by IQAir revealed Dhaka as the second most polluted capital in the world, following New Delhi (The Daily Star, 2022). Air pollution is a serious threat to the 'Right to Health' and 'Right to Life', which are provided by articles 18 (1) and Article 32, respectively. As Bangladesh is a ratifying State of many international instruments guaranteeing the 'Right to Health' and 'Right to Life'-the basic human rights, Bangladesh cannot avoid its liability to ensure the ideal quality of air by preventing air pollution in the country.

### **(A) Objectives of the Research**

The objectives of this research are articulated as follows:

- To create a nexus between air pollution and the violation of human rights
- To discern the sources of the air pollution in Dhaka
- To investigate existing laws and policies to check their efficiency and contemporariness
- To find out the obstacles in ensuring air quality and suggest viable solutions in this regard

### **(B) Research Methodology**

A qualitative approach has been used in this research, as it is difficult to conduct a quantitative approach due to technical issues and scientific precision. Secondary data have been collected from various research papers, stakeholders' reports, newspaper reports, the internet etc.

## **II. CONCEPTUAL FRAMEWORK OF THE RESEARCH**

### **(A) The Concept of Quality Air vs Air Pollution**

'Pollution' has been defined in the section.2 of The Bangladesh Environment Conservation Act, 1995, wherein it is stated that "*Pollution means the contamination or alteration of the physical, chemical or biological properties of air, water or soil, including change in their temperature, taste, odour, density, or any other characteristics, or such other activity which, by way of discharging any liquid, gaseous, solid, radioactive or other substances into the air, water or soil or any component of the environment, destroys or causes injury or harm to public health*

*or to domestic, commercial, industrial, agricultural, recreational or other useful activity, or which by such discharge destroys or causes injury or harm to air, water, soil, livestock, wild animal, bird, fish, plant or other forms of life”* (Environment Conservation Act, 1995).

This definition includes air pollution. The relation between ‘Quality Air’ and ‘Air Pollution’ is inverse. When the quality of air increases, polluted air decreases. Quality air implies normal ambient levels, which is 5 µg/m<sup>3</sup> as per the recommended limit of the World Health Organization (WHO, 2022); on the other hand, air pollution may be defined as an atmospheric condition in which various substances are present at concentrations high enough above their normal ambient levels to produce a measurable adverse effect on people, animals, vegetation or materials. Hence, the ambient level of polluted air is higher than 5 µg/m<sup>3</sup>, and to maintain quality air, this ambient level of air should be limited to under 5 µg/m<sup>3</sup>.

### **(B) The nexus between Air Pollution and Human Rights**

The ‘Right to Health’ is a human right which entangles the right to the enjoyment of the highest attainable standard of physical and mental health. Internationally, it was first articulated in the 1946 Constitution of the WHO, whose preamble defines “Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (Arif, 2015). The preamble further states that “the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition” (Ibid).

Again, Article 25 of the Universal Declaration of Human Rights states that; “Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family” (Ibid). Moreover, the right to health is also protected by other international human rights instruments, including article 12 of the International Covenant on Economic, Social and Cultural Rights (Ibid). It is also recognised in several regional human rights instruments, such as the African Charter on Human and Peoples' Rights, the Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights, known as the Protocol of San Salvador, and the European Social Charter, The American Convention on Human Rights and the European Convention for the Promotion of Human Rights and Fundamental Freedoms contains provisions related to health, such as the right to life (Ibid). Hence, it is evident that human rights obligations are defined and guaranteed by international customary law and international human rights treaties, creating binding obligations on the States that have ratified them to give effect to these rights.

Against the backdrop of the above discussion, it can be noted that air pollution seriously injures

this 'Right to Health' by cutting life expectancy and causing various severe diseases to the human body and brain. As air pollution increases various problems, especially asthma, it also violates the 'Right to life' of the people by death caused by asthma. As a ratifying state of various human rights instruments, in Bangladesh, the 'Right to health' and 'Right to life' means that Bangladesh must generate conditions in which everyone can be as healthy as possible and mass life will not be endangered due to air pollution.

### **III. OBLIGATION OF BANGLADESH UNDER INTERNATIONAL INSTRUMENTS**

Bangladesh ratified the United Nations Charter, Universal Declaration of Human Rights 1948, International Covenant on Civil and Political Rights, the second commitment period of the Kyoto Protocol, Montreal Protocol, and Vienna Convention etc.

#### **(A) Constitutional Obligation of Bangladesh**

Article 18 (1) of the Bangladesh Constitution states that the State shall regard the raising of the level of nutrition and the improvement of public health as among its primary duties. Moreover, article 32 guarantees the fundamental right to life. Under these articles, Bangladesh is legally (article 32) and morally (article 18) bound to prevent the causes of air pollution and to take necessary initiatives to ameliorate the unhealthy ambient level of air pollution so that people can actually enjoy 'Right to Health' and 'Right to Life', enshrined in the constitution.

#### **(B) Critical Examination of the Quality of Air in Bangladesh**

##### **a. The Status of Quality of Air in Bangladesh**

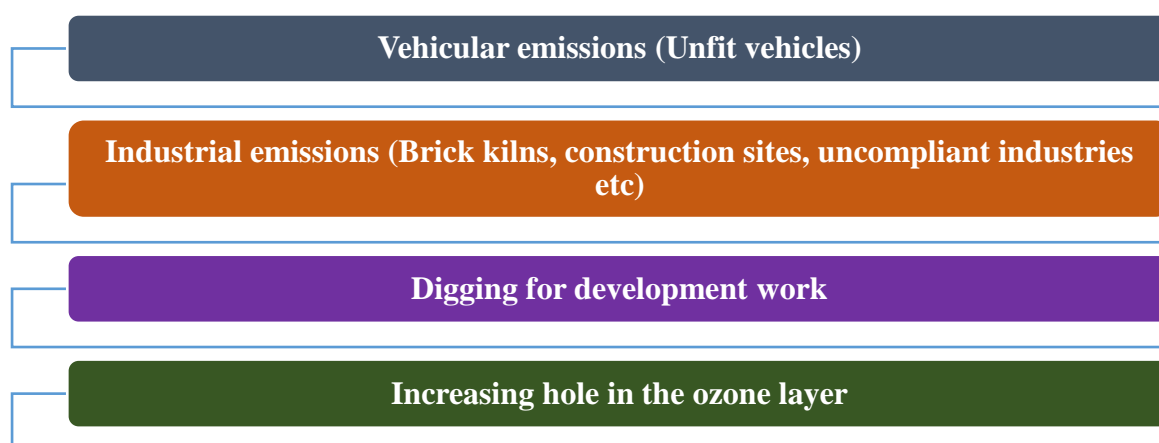
In Bangladesh, the AQI is based on five criteria pollutants -- Particulate Matter\* (PM10 and PM2.5), NO<sub>2</sub>, CO, SO<sub>2</sub> and Ozone (Ministry of Environment & Forests, 2011). In 2021, calculating all these criteria, the Air Quality Average of Bangladesh was 161, which is unhealthy as an AQI between 101 and 200 is considered 'unhealthy' (IQAIR, 2022). Further, according to The International Atomic Energy Agency (IAEA) Report, poisonous carbon monoxide, sulphur dioxide, nitrogen dioxide, suspended particulate matter (PM -10), and particulate matter (PM-2.5) exist in Dhaka's air beyond the permissible level for the human body (Islam, 2014). Furthermore, IAEA also mentioned in its news briefs that pollution levels of lead in Bangladesh are among the world's highest during the dry season, according to Bangladesh Atomic Energy Commission (BAEC), with levels falling during periods of medium and heavy rainfall (Ibid). It was claimed by BAEC that the volume of poisonous particles in the city air has reached far beyond the permissible level for the human body in recent years (Ibid). In another report, IQAIR Report, it was found that particulate matter in Bangladesh was 15

times more than the limit set by the World Health Organization, as the average annual airborne particles, referred to in the report as PM2.5 in Bangladesh, was 76.9 microgrammes per cubic metre ( $\mu\text{g}/\text{m}^3$ ) of air, whereas WHO's recommended limit set is  $5 \mu\text{g}/\text{m}^3$  (The Daily Star, 2022) IQAir collected the data from five places in Bangladesh, according to its website (Ibid).

Moreover, black carbon is another toxic ingredient for air pollution in Bangladesh; here, 25-40 per cent of PM 2.5 is black carbon (Ibid). Dhaka University Professor Abdus Salam, an air pollution researcher, shared that though there is no permissible level of black carbon in the air, in Dhaka, its amount is 10 to 15 micrograms per cubic metre, compared to 0.1 to 0.5 microgram per cubic metre in cities of developed countries (Ibid). According to him, black carbon exists 8-12 micrograms per cubic metre in the country's air around the year (Ibid). In winter, it reaches up to 20-25 micrograms per cubic metre, which is very alarming for both human health and the environment (Ibid). It is a great matter of concern that black carbon is not routinely monitored in Bangladesh; therefore, its concentrations from direct measurements are not available, but it can be assumed that If PM 2.5 rises, black carbon too goes up proportionately (Ibid).

#### **b. Causes of Air Pollution in Bangladesh**

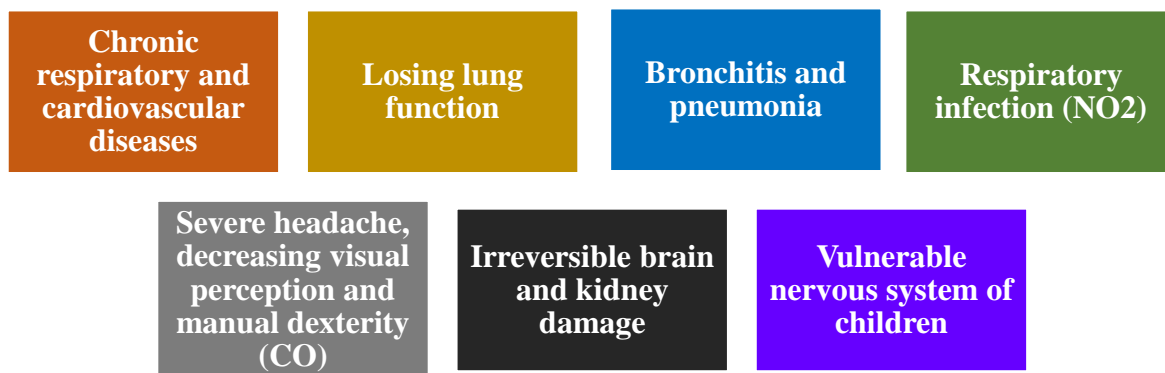
Through critically examining the literature, vehicular emissions and industrial emissions pop up as two major sources of air pollution in Bangladesh (Department of Environment, 2019). A new source of air pollution all over the world is an increasing 'hole' in the ozone layer in the atmosphere above Antarctica, coupled with growing evidence of global ozone depletion (Banglapedia, 2021), which affects the whole earth and Bangladesh cannot escape the threat as well. Multiple studies conducted by CAPS (Centre for Atmospheric Pollution Studies) of Stamford University identified brick kilns, environmentally uncompliant industries, digging for development work, emission from unfit vehicles, transboundary pollution and construction sites are contributing largely to the deteriorating country's air quality (The Daily Star, 2022)



**Figure 1: Sources of Air Pollution in Bangladesh**

### c. Impacts of Air Pollution in Bangladesh

According to the State of Global Air-2020 report, air pollution cuts the average life expectancy of a person in Bangladesh by almost three years (Health Effects Institute, 2020). As per the above report, the main effects of increasing PM-10 and PM-2.5 (Islam, 2014) are as follows:



**Figure 2: Main effects of increasing PM-10 and PM-2.5**

## IV. LAWS AND POLICIES REGARDING AIR QUALITY IN BANGLADESH

### (A) The Laws Concerning Air Quality in Bangladesh

There are no detailed air quality regulations based on which Environmental Impact Assessment could be done in Bangladesh. There is no Act on Clean Air yet. The Environment Conservation Act 1995 and the Environment Conservation Rules 1997 broadly cover open burning (The Daily Star, 2022). Indoor air pollution is regulated by the Labour Act 2006, though there is no standard limit for the pollutants (Ibid).

#### a. The Environment Conservation Act 1995

Sec. 6 (1) of the Environment Conservation Act 1995 provides restrictions regarding vehicles emitting smoke injurious to the environment, which states that a vehicle emitting smoke or gas injurious to health or environment shall not be operated nor shall such vehicles be switched on except for the purpose of test-operation for stopping the emission of such smoke or gas. In this section, “smoke or gas injurious to health or environment” means any smoke or gas which exceeds the standards fixed by rules (Bangladesh Biosafety, n.d.). For the purposes of section 6 (1), subsection 2 states that the Director General or any person authorised by him may test any vehicle at any place or may stop a vehicle in motion for testing and instantly test it or detain it for a necessary period or may, if any vehicle violates that sub-section, seize it and other related documents, or may give the necessary direction for testing the vehicle (Ibid). Further, according

to sec 8 (1) of the said Act, any person affected or likely to be affected as a result of pollution or degradation of the environment may, in the manner prescribed by rules, apply to the Director General for remedy of the damage or apprehended damage (Ibid). Under sec 8(2), The Director General may hold a public hearing and take other measures for disposing of an application made under this section (Ibid), and he shall, within three months of receiving an application under sub-rule (1), dispose it of in accordance with sub-section (2) of section 8 (Ibid). Sec.15 provides provision for violation of sub-section (1) of section 6, which is, in case of a first offence, a fine not exceeding taka 5 (five) thousand; in case of a second offence, a fine not exceeding taka 10 (ten) thousand; in case of each subsequent offence, imprisonment not exceeding 1 year or a fine not exceeding taka 10 (ten) thousand or both (Ibid).

#### **b. The Environment Conservation Rules 1997**

There are some rules in The Environment Conservation Rules 1997 which relate to the improvement of air quality in Bangladesh. Rule 4 of The Environment Conservation Rules 1997 provides provision for vehicles emitting smoke injurious to health and otherwise harmful. It states in its sub-rule 1 that the owner of a vehicle using petrol, diesel and gas as fuel shall, before registration of the vehicle or renewal of its fitness certificate under the Motor Vehicles Ordinance, 1983 (LV of 1983), ensure that a catalytic converter or a diesel particulate filter is fitted in the vehicle (Mutual Trust Bank, n.d). As per sub-rule 2, if a vehicle is not fitted with the apparatus mentioned in sub-rule.1 and if it violates the standards specified in Schedule 6 or, as the case may be, 7, the vehicle shall be deemed to be a vehicle emitting smoke harmful to the environment or injurious to health (Ibid). Again rule 7A provides a procedure for issuance of Pollution under Control Certificate, which states that the owner of a vehicle shall, after causing the vehicle to be fitted with the apparatus mentioned in sub-rule (1) of rule 4 and before registration of the vehicle under the said Ordinance, or, as the case may be, before renewal of the fitness certificate, collect the Pollution under Control Certificate in accordance with Form-4 and under rule 7B, the importer of catalytic converters or diesel particulate filters shall, before importation and marketing thereof, take written approval of the Director General by demonstrating and proving its effectiveness. Furthermore, rule 12 provides for determination of environmental standards, which is, the standards for air, water, sound, odor and other components of the environment shall be determined in accordance with the standards specified in Schedules - 2, 3, 4, 5, 6,7 and 8. Again Rule 13 states provision regarding determination of the standards for discharge and emission of waste and directs that the standard limits of the discharge of liquid waste and gaseous emission shall be determined in accordance with the standards specified in Schedules 9, 10 & 11 (Ibid).



**(B) The Policies Concerning Air Quality in Bangladesh**

There is a national action plan in place since 2018, but not effectively implemented. Bangladesh has yet to implement a National Air Quality Standard. There is a 9-point directives of the High Court in 2020 on improving air quality. Bangladesh formulated Air Pollution (Control) Rules in 2022 (Ministry of Environment, Forest and Climate Change, 2022). In 2019, the Clean Air Bill under the Environment Conservation Act 1995 was adopted as rules, which stipulate two years' imprisonment and Tk 2 lakh fine for emitting harmful substances into the air (The Daily Star, 2022).

From the examination of various reports, we can find a number of policies concerning air quality in Bangladesh. Such as, Report of Bangladesh Sangbad Sangstha, 2021, wherein it was claimed that significant contributions to the control of illegal entry and import of ozone depleting substances will eventually reduce the use of HCFC by 67.5 percent in 2025 (Bangladesh Sangbad Sangstha, 2021). By implementation of HPMP Stage-2, it will be possible to avoid greenhouse gas emissions equivalent to about 1.7 million tons of carbon-di-oxide (Ibid). Moreover, the national action plan was adopted in 2018, aiming to reduce black carbon emission by 40 percent by 2030. Still there is no mechanism to monitor black carbon and Department of Environment only can monitor particulate matters PM10 and PM 2.5. Moreover, there is fund crunch, claimed by the Director of the Climate change & International Convention of Department of Environment.

It is claimed that Bangladesh has successfully phased out major Ozone Depleting Substances like CFCs, CTC, halons and methyl bromide from the commercial sector use in 2010 (UNDP, 2018). The CFCs was also phased out in manufacturing of metred dose inhalers and HCFC-141b in manufacturing refrigerator foam as foam blowing agent in 2012 under the Public Private Partnership (PPP) model with financial support from the Montreal Protocol Multilateral Fund through UNDP (Ibid). HCFC Phase-out Management Plan 2018 (Stage-II) was successfully carried out with support from UNDP Bangladesh (Ibid). A US\$ 6 million project has been taken to stop the use of HCFC by 2023, another project involving US\$ 3 million aiming to stop HFCs use (Ibid). Regarding GHG Emission Reduction under Montreal Protocol, Bangladesh has successfully implemented the required obligation under the Montreal Protocol (WHO, 2022). More than 2.14 MtCO<sub>2</sub>-e emissions will be reduced by 2025 as per Montreal Protocol targets (Ibid). Bangladesh ratified the Kigali Amendment on 08 June 2020 and enacted an SRO to reduce the import and consumption of HFCs on 11 Feb 2021 with a view to HFC phasing-down (80%) by 2045 (Ibid).

Moreover, the High Court on Feb 15, 2022 (The Daily Star, 2022) directed the authorities concerned of the government to identify and make a list of the activities, which are mainly responsible for air pollution across the country, to prepare a time-bound mitigation plan for setting up air quality monitoring system in appropriate places and introduce a system to save people from the exposure to unhealthy air and also to develop an action plan about switching to alternate of burnt bricks and to submit a report to the HC after complying with the directives in four months. The Honorable High Court of Bangladesh has issued a total of a nine-point directive in 2020 to the Govt. to prevent air pollution in the capital of Dhaka (Ibid). To prevent pollution, the High Court directed the authorities to demolish all illegal brick kilns in Dhaka and its surrounding districts (Ibid).

There are other following rules and policies which relates with air quality in Bangladesh (UNEP, 2015):

**1. National Ambient Air Quality Standards under Environment Conservation Rules, 1997:** Currently the Govt is considering the revision of the existing NAAQS to meet WHO air quality guiding values (Ibid).

**2. National Air Quality Policy:** As there is no Act or rule dealing air quality, the issues are addressed in the Bangladesh Environment Conservation Act 1995 and Environment Conservation Rules 1997 (Ibid). Brick Manufacturing and Kiln Construction (Control) Act 2013 has been enacted to reduce emissions from brick kilns (Ibid).

**3. Air Quality Program:** Converting traditional brick kiln into energy efficient kiln, reviewing import policy order banning on importing coal with high sulphur content are in process (Ibid). Clean Air and Sustainable Environment (CASE) project is being implemented to reduce air pollution from transport and brick kiln (Ibid).

**4. Emission Regulations for Industries:** Environmental Conservation Rules 1997 and Brick Manufacturing and Kiln Construction (Control) Act 2013 provides Emission Regulations for Industries (Ibid).

**5. Energy Efficiency Incentives:** Energy audit got introduced but not launched yet (Ibid). Energy Efficiency Incentives include distribution of improved cook stoves, brick kiln, rice parboiling, CFL bulbs, energy star labeling (Ibid)..

**6. Incentives for Clean Production and Installation of Pollution Prevention Technologies:** 2 Billion Green Banking Refinance Scheme was adopted in 2009 by Bangladesh Bank who will provide soft loans for using environment friendly technology (Ibid).

**7. Vehicle Emission Limit Set:** Vehicle Emission Limit was set to Euro 1 for diesel driven vehicle and euro 2 for petrol driven vehicle (Ibid).

**8. Fuel Sulphur Content:** Bangladesh Petroleum Corporation has begun importing diesel fuel with a lower sulphur content of 0.05% (Ibid).

Besides the above-mentioned policies, we can find the following initiatives (Ibid):

- Restrictions on used car importation for older than 4 years got introduced.
- Greater Dhaka Sustainable Urban Transport Project was adopted to expand, improve and promote public transport and mass transit.
- Construction of 70 km of sidewalks by the CASE Project was completed to promote non-motorized transport, which will prevent air pollution.
- Electric rickshaws got banned in the main road.
- 2-stroke engines got banned in some cities.

## V. JUDICIAL DECISIONS REGARDING AIR POLLUTION

There is a legal proverb '*Ubi jus ibi remedium*', which implies 'Where there is a right, there must be a remedy', otherwise rights are mere papers. To examine this proverb in the context of air pollution, examining the sufficiency of cases regarding air pollution and the judicial decisions are crucial. In Bangladesh, the environmental court in Bangladesh was formed to provide effective judicial and administrative measures and take liability for the victims of both man-made and natural hazards by following the agenda 21 of the United Nations Environmental Program (UNEP) in 1992 (Mannan, 2021). According to section 5A of the Environmental Court Act 2000, the court has the right to penalize any environmental offender with up to 10,000 BDT in fine and not more than 2 years for violating the court's order (Bangladesh, n.d). According to the 5C of the Environmental Court Act 2000, if the case is received from the Special Magistrate's Court the offense might be punishable for up to 5 years of imprisonment and not more than 5 lakh BDT as a penalty (Ibid).

Since the establishment of the court, there were many issues that came up in the court in some of those, Bangladesh government was directly involved as the complainant in the Supreme Court (Ibid). Regarding air quality, only two cases are available in the internet. This statistics demonstrate the lack of political will and national indifference regarding air quality, maintenance of which is indispensable to our existence and well-being. One of the two cases was *Farooque v. Government of Bangladesh* which was based on air pollution, noise pollution,

and atmosphere quality against the vehicle pollution, which was a successful case for the government and restrictions were imposed to deal with the scenario (Ibid), however, there were many loopholes for which the defendant often got away even after committing an offense (Ibid). Another one was *BLAST and others v Bangladesh and others* [‘Vehicular Pollution’ Case] Writ Petition No. 1694/2000, 22 BLD (HCD) 245 (BLAST, 2010)

1. *Farooque v. Government of Bangladesh* (InforMea, n.d)

This case dealt with vehicle pollution and the corresponding problems related to environment and health. The petitioners sought directions upon the respondents to take all adequate and effective measures to check pollutions caused due to the emissions of hazardous smokes from motor vehicles and the use of audible signaling devices giving unduly loud noise, to ensure that the motor cycles obtained certificates of fitness, to set a Bangladesh standard for petroleum ensuring the reductions of toxic and hazardous constituents from the same and to require all imported motor vehicles to be fitted with catalytic converters.

The court noted that the current procedure of granting fitness certificate by the respondent was based on human judgment which was subject to error and corruption although the technology of ensuring fitness through automation was easily available and such measures had been adopted almost in every country. Many of the vehicles used by the respondents and other Government agencies did not have fitness certificate as per records. The degree of vehicular pollution was further aggravated by the quality of petroleum products used by the vehicles containing various constituents which were dangerous to health and could cause serious diseases like cancer. The respondents contended that the Government had taken some decisions to control the air pollution of Dhaka City from faulty vehicles both from emission of hazardous smokes and incessant use of high noise making horns. The court, however, felt that some urgent preventive measures were necessary to halt environmental pollution and degradation of Dhaka City. Accordingly, the following directions were given, among others: To enforce restrictions against the use of hydraulic and other loud horns; to implement the decision of the respondents that all motor vehicles be fitted with catalytic converter and diesel particulate filter; to set a Bangladesh standard for petroleum in accordance with the international standards ensuring the reduction and removal of toxic and hazardous constituents from the same; and to phase out a certain type of polluting wheeler and to replace it with cleaner transport alternatives.

Owing to the environmental hazards caused by two stroke three wheelers in Dhaka via smoke emissions and excessively shrill horns, Dr. Mohiuddin Farooque filed another writ petition seeking implementation of the provisions of the Motor Vehicles Ordinance, 1983 (Mashraf,

2019). The HCD recognized that a pollution free environment is a component of the right to life guaranteed under the Constitution (Ibid). Hence, it ordered the government to phase out the two stroke three wheelers and replace them with cleaner alternatives by December 2003 (Ibid). This verdict has led to CNG auto rickshaws being fielded in our streets ever since.

2. *BLAST and others v Bangladesh and others [‘Vehicular Pollution’ Case] Writ Petition No. 1694/2000, 22 BLD (HCD) 245 (BLAST, 2010)*

BLAST, on behalf of two minor petitioners, filed a writ petition challenging the plying of three wheelers operating with two-stroke engines in Dhaka, which are contributing to environmental hazards in Dhaka and affecting the health of children and elderly people by emission of a high level of pollutants. They based their petition on an agreement signed in 1997 by the Dhaka City Auto Rickshaw Business Owners Association, the Bangladesh Road Transport Authority and the Ministry of Communications to the effect that three wheelers older than nine years would not operate within Dhaka and would not be sold in other Metropolitan areas, alleging that this agreement was not effectively implemented, which ultimately violated the fundamental rights to adequate standard of living, the right to health care, the right to unpolluted air and to freedom from noise pollution, which can be interpreted to be included within the right to life, guaranteed under Article 32 of the Constitution. In response, the High Court delivered a judgment and passed an order directing the Government to phase out all three wheelers with two-stroke engines from Dhaka within 2002 by replacing them with clean transport alternatives. Afterwards, the Government filed a petition for leave to appeal (No. 749 of 2002) against the said order, which was rejected by the Appellate Division on 27<sup>th</sup> March of 2002 (BDPIL, 2022).

## VI. CHALLENGES

To maintain quality air, there are a number of challenges in Bangladesh, which can be summarized as follows:

- a. The world is rapidly growing, all countries are trying to catch this train of development. Bangladesh recently upgraded from developing to middle-income country, which made it more difficult to slow down in order to prevent eventual environmental pollution linked with developmental projects. The ongoing as well as completed development projects made the country more ambitious despite its hazardous impact on air quality. The tendency of rat-racing and lack of political will in taking environmental concerns into consideration are the main driving factor of air pollution in Bangladesh.
- b. The procedure described by Section 5 sub-clause 3 of the Environmental Court Act 2000 that no Environment Court shall take cognizance of an offense or receive any suit for

compensation except on the written report of an Inspector or any other person authorized by the Director-General made taking action difficult for the people (Mannan, 2021). So, the environmental court seems more user friendly for the governmental ministry and more complex for the general people (Ibid).

- c. Environmental courts are not sufficient in number. In Bangladesh, only two environmental courts were established in both Dhaka and Chittagong specially structured to deal with environmental offenses only (Ibid). The environmental issues are multifarious, which cannot be effectively dealt with by only two courts.
- d. The Environment Court's authority is ambiguous, as offenses and claims for compensation under the laws can be diverted by the Environment Court. Section 2(c) of the Environmental Court Act, 2000 defines environmental law entangling the Bangladesh Environment Conservation Act, 1995, and other laws which may subsequently be specified in the official Gazette by the Government. But till today, no gazette notification has been released by the government including any other act (Ibid).
- e. There is a concern of visible socioeconomic disparity, as usually when polluters belong to an upper class, they can easily get out by hiring influential lawyers and using political link, whereas in most cases the villagers or the poor community get victimized by such pollution (Mannan, 2021).
- f. Another concern is that the complainant must prove his case under the provided laws. But due to the lack of required technical knowledge, expertise and institutional assistance, proving environmental contamination is quite difficult for common citizens. Hence, due to the complicated and long method of filing suit and ordinary trial procedure, people lose their interest in Environment Courts (Ibid).

## **VII. RECOMMENDATIONS**

To enhance the air quality in Bangladesh, the following initiatives should be adopted:

- a. Government must strengthen vehicle emission standards, regulations and enforcement by reducing the number of vehicles, ensuring cleaner vehicles, promoting public transport, phasing out old vehicles, and using of diesel in automobiles.
- b. Government should adopt measures to reduce fuel demand and to improve traffic conditions.
- c. Primary regulation policies by environmental agencies of Bangladesh are required to regulate industrial emissions with the aim of large-scale structural emission reduction

from industrial facilities by making proper use of ‘Pollution eating nano particles’, i.e., titanium dioxide and ultraviolet light as control devices in the exhaust stream, electrostatic precipitators, dust cyclones, particulate scrubbers, and bag-house to reduce industrial air pollution and by switching to the use of renewable energy.

- d. Initiatives should be taken to introduce ‘Eco-friendly transportation’ instead of environmentally harmful transportation.
- e. Renewable fuel and clean energy production must be ensured. We need to move away from fossil fuels, and replace them with alternative energies like solar, wind and geothermal, especially wind in the case of Bangladesh.
- f. To reduce consumption of energy, people need to adopt responsible habits and use more efficient devices.
- g. Carbon tax must be declared so that people can be conscious of cutting back on carbon use.
- h. Initiatives for ‘Carbon Capture’ and ‘Sequestration’ by planting more trees must be adopted
- i. Banning the use of CFC overnight is not possible. But reducing the use of CFC is possible through awareness-raising. Through such initiatives, ozone destruction will be reduced.
- j. Government must specifically enact the ‘Clean Air Act’ as an Act provides more emphasis and attracts more attention than rules. Implementation of an Act which contains fines and punishments for those that exceed air pollution levels in any given area will be more fruitful.
- k. Government must conform to the 9-point directives of the High Court on Air Quality.
- l. Government must ensure the ‘Rule of Law’ and ‘Good Governance’ in the country so that no perpetrators of air pollution can get away.

## **VIII. CONCLUSION**

Air pollution is one of the greatest environmental hazards which poses a serious threat to the right to health. By reducing air pollution levels, countries can reduce the burden of disease from stroke, heart disease, lung cancer, and both chronic and acute respiratory diseases, including asthma (WHO, 2021). The lower the levels of air pollution, the better the cardiovascular and respiratory health of the population will be, both in the long and short-term. In 2019, 99% of

the world's population was living in places which had levels below the standard specified by WHO air quality guidelines (Ibid). Ambient (outdoor air pollution) in both cities and rural areas was calculated to cause 4.2 million premature deaths worldwide in 2016, among which approximately 91% occurred in low- and middle-income countries, and the greatest number in the WHO South-East Asia and Western Pacific regions (Ibid). Hence, in the spirit of ensuring the 'Right to Health' and 'Right to Life', the government of Bangladesh must provide a strong emphasis on reducing air pollution by adopting stringent laws and policies and taking the initiative for investments supporting cleaner transport, energy-efficient homes, power generation, industry and better municipal waste management, energy-efficient cooking etc. Not only that, but citizens should also be conscious as well to prevent air pollution by reducing air pollutants and by using air-friendly processes and equipment. To maintain the quality of Air and to prevent air pollution, all stakeholders must be determined and cooperate with each other in adopting necessary initiatives.

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