

Air Pollution-A Growing Menace

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Introduction:

Presently the problem of air pollution can be considered as one of the patent threat to the existence of all living creatures in the environment. An air pollution is of greater concern all over the world including India, it is a threat not only for the human being but also to the birds, insects, distinct animals and monuments too, the effect of air pollution on man may varies according to his resistance capacity and also according to region where he lives.

When Carbon monoxide inhaled by a person it displaces the oxygen in the blood and reduces the amount of oxygen carried to the body tissues, due to this process the mental performance of a man can be dulled and even healthiest person became dull in his regular activities.

In this paper an attempt has been made to highlight some of the problems caused by air pollution. In India vehicle & the industries are the main culprit for air pollution, but the main fact is that. In spite of various legislation for the protection of the environment & the valuable judgments of the Supreme Court these problems are remain unsolved.

Historical perspective:

Ancient Indian thinkers emphasized the importance of purity of air or vayu because they were very conscious to convey the values of pure air, if we go through various Vedic literatures we may find many reasons from the sages in the state of meditation, which was expressed by them in their scriptures¹

In the scriptures vayu/air has been recognized as a primary source of human life, without pure air life of human being on the earth is very difficult and may impossible, it shows the process of yajna and its importance because it was the best practices and means to purify the atmospheric pollution.

During these days also, the importance of yajna is self proved which clears the air from pollutative elements, to give an illustrations we have seen many house warming ceremony after the construction of any building, they will perform some homa, pooja etc irrespective of their capacity to perform one or more homas. Especially 'vaastu homa' it will be purposefully done to purify the air from chemical pollution. Because for the purpose of paints and varnishes the

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1. Air pollution & environment, Dr, Vijendra kumar, Andhra Law Times,2000, 14-17p.

chemicals that the manufacturers will use for thickness and shining will be very dangerous in nature when it is consumed by the human being inside the building, so in order to purify these pollutants the home will be preferred. It will release the air from pollution. Hence we may say that it is self proved.

Air pollution effects on human being:

The magnitude of air pollution is evident from the following facts:-

Air pollution causes respiratory illness and even to death also, several other health effects are suspected like Bronchitis, heart trouble, infections like eye, skin, respiratory infections, lung cancer, adverse pregnancy, such as low birth weight and still births. Sometimes due to the effects of air pollution intelligence will be reduced among children's, every one child out of ten is suffering from asthma is so worsening just because of vehicular pollution.

Apart from paints and varnishes the use of several pesticides, mosquito coils, perfumes, bathroom odors, room and car fresheners will also directly or indirectly responsible for the cause of indoor air pollution where many people will not knowing it at the stage of use but they will come to know about the nature of illness that they are suffering from after many days.

Significance of air pollution:

Protection of air is significantly different than that of water and land pollution, because one or the other alternatives will be available for water and land pollution problem, whereas air pollution is concern there will not be any alternative means. Hence preservation of air resource and its management is a bigger challenge to be faced by all, moreover biologically air resource is more important for survival of life than water.

Pollution is not a new phenomena it was there since the existence of man on the earth, air is a vital complaint of any living organism for its survival.

Nature and Concept of air pollution:

Pollution of air means unwanted introduction of substances into the atmosphere that are either foreign to it or exceeding in quantities to the air, introduction of a large amount of pollutants into biosphere causes serious problems for lives on the earth. There are three types of air pollution they are-

1. Personal air pollution
2. Occupational air pollution
3. Community air pollution.

1. *Personal air pollution*: which refers to exposure by an individual himself to pollutants such as dust, fumes and gases eg, cigarette smoking.

2. *Occupational air pollution*: exposure of individual into potentially harmful concentration of air pollutants in their working environment, eg, painter, driver, laborers working in any leather, paper and chemical industry etc.
3. *Community air pollution*: it is the most complex and involvement in a varied assessment of pollution sources, which is having an adverse impact on social, economic and health. Eg, industrial pollution, vehicular pollution etc².

Functioning of the air in the atmosphere:

Air is a mixture of gases that forms the earth's atmosphere up to the height of about 20km above the earth's surface and the remaining 5% in the remaining atmosphere i.e. above 20 kms & up to 280 kms.

Various gases present in the air perform useful function for living beings; they keep on rotating the gases in circular form such as nitrogen, carbon, oxygen and hydrogen.

Nitrogen occupies 79% of air.

Carbon will not be present in the atmosphere rather it will moves from atmosphere to plants and after it was eaten by animals it turns to be carbon dioxide returns to atmosphere and water through the process of photosynthesis.

Oxygen survival of living beings in the presence of oxygen in the air it helps in purifying the blood.

Hydrogen gas present in the air either from sea water or through industrial activity in the presence of lightening, reacts with the oxygen get into the form of water comes to earth during rain.

The cycles is very important for the effective functioning of the ecosystem³

Which are the air pollutants which causes pollution of air?

Every day a human being breaths about 23000 times & inhales roughly 2000 liters of air, wherein this carbon dioxide play a significant role.

The main air pollutants are -

2. Mononita Kundu Das, Delhi Law Review vol. VXVII 2005. 121.p
3. Dr. H.N Tiwari, Environmental Law, ALA 23.p.

Carbon Monoxide: It released chiefly from automobiles engines, kerosene stoves, it forms stronger & permanent bond with hemoglobin than oxygen it causes head ache & dizziness.

Sulphur dioxide: SO₂ it will form when sulphur burnt combustion of fuel such as coal, oil, petroleum it reduces the surface area available for transport of oxygen & hence, it results in breathing trouble.

Nitrogen Oxide: oxides of nitrogen, nitric oxide (NO) & Nitrogen oxide (NO₂) are harmful to health, when nitrogen & oxygen reacts at high temperature in the industrial process & when fuel burns it will be released. The oxide of nitrogen are found in vehicles pollution, specially in urban area it is more, it effects the respiratory system by forming Nitric acid (HNO₃) in the presence of moisture, cigarette smoke,

Particulates: small particles like dust, smoke, lead, agricultural as chemicals are important particulates. It prevents the development & maturation of red blood corpuscles (RBCs) it badly affects the muscular & nervous system due to this the liver & Kidney will be damaged & it also induces abnormalities & infertility.

Hydro Carbons: it includes substances like gasoline, methane, ethylene & propane. For eg., Bhopal Gas unit. Famously known as Bhopal Gas disaster took place on 2nd & 3rd December in 1984 killed more than 6000 peoples affecting more number of people.

Photo Chemical Oxidants:

In warm dry & sunny climate the atmosphere hydro carbons & Nitrogen oxides releases from automobiles & power plants reacts in the presences of sun light to form secondary Pollutants this is termed as smog. It causes stinging of eyes respiratory irritation and it adversely affects on breathing.

Environmental effects of air pollution

- Ecosystem effects
- Property damage
- More number of accidents
- Global climate changes

- **Ecosystem Effects:**

These effects are acidification of lakes & stream due to this the wildlife, aquatic life & population of endangered species will be diminished/deteriorated vegetarian like forest, crops, ornamental plants will also be damaged.

- **Property Damages:**

The acid rain will damage the building, the ozone will be the cracking of rubber nylon polymer plastics etc. the particulate matter will causes the soiling & the sulphur dioxide will also be deteriorating the metal & stone, e.g., Taj Trapezium case⁴. In South India salt Manufacturers Association V.s Tamil Nadu Electricity Board⁵ the Madras H.C. has expressed the opinion that the environmental pollution is a social problem affecting the society at large.

➤ **More number of accidents and More labor work**

Quality of life will be affected due to acid rain smog & fog the visibility will be reduced due to fog. Various accidents may occur like flight accident, buses & trains accident etc. because of too much of fog in the morning and evening that to during winter season it is high hence it may cause more labour work.

Due to air pollution the outdoor enjoyment will be reduced, due to air pollution work will be more like cleaning of vehicles, Buildings, houses, offices. It is a burden for everyone. To keep clean environment for healthy and fresh air everything has to be cleaned properly to make it clean & to live safely so it make us to do more work than it is necessary, specially for those who are residing in main roads.

Detrimental economic effects:

Due to air pollution the commercial crop will also be damaged. Where due to vehicular pollution the economy of a person is going to be reduced and it also effects the economic condition of a state and the nation.

Global climate change:

It has green house effect- some solar radiation is reflected by the earth & the atmosphere more radiation will be absorbed by the earth's surface & warms it, some of the infrared radiation passes through the atmosphere & some is absorbed & re-emitted in all the dissections by green house gas molecules, the effect of this is to warm the earth's surface & lower the atmosphere.

The factors contributing air pollution:

Some of the factors which contributes air pollution are-

Discharge particulates small particles such as dust ashes smoke into air.

1. Burning of fire for domestic use – eg- cooking.

4. M.C Mehta V. U.O.I & others. 1999,(6). SCC 611.
5. 1996 (2) MLJR. 175

2. Improper maintenance of vehicles for transport sector, since there is a smog alert every day especially in (Bombay, Delhi etc) western metropolitan cities. People are forced to stay at home.
3. Inappropriate management of chemical industries. In Indian Council for Enviro legal Action V.s U.O.I⁶. After examining the report of NEERI & RPCB – S.C. declared that the chemical industries are the main culprit of pollution, because they have violated & still are violating the orders of lawful authorities & court with impunity.

The major legislative Land Marks:

Air pollution is not confined to any one particular country or a place rather it is an international problem. It cannot be tackled by a country alone. Hence in 1957 the WHO attracted the attention of world community to tackle the problem of air pollution. Again clean Air conference was held in 1959, subsequently a major step was taken in 1972, Stockholm conference on human Environment for prevention of Air pollution.

Keeping in view the directives of stock-holm Conference in our country the Air (prevention & control of pollution) Act 1981 was passed. But there was a need for general legislation since the existing laws generally focused on specific type of pollution; we were in need for an authority to lead a role to give direction & speedy remedy. In response to an emergency situations which threatens the environment hence. The Environment Protection Act 1986 came into force⁷. Apart from these legislation, Article 48-A & 51(A) (G) was added in the 42nd amendment of the Indian Constitution. Prior to the enactment of the Constitution, environmental law was dealt with under the Law of Torts. Public nuisance for unreasonable interference of a general right of the public, negligence, right to easement and strict and absolute liability for inherently dangerous substance that brings harm to the public and subsequently penal and civil⁸ codes that were used to take cognizance of environmental issues⁹.

Art 48(A) provides the directive principles of the state policy. It declares that the state shall endeavor to protect & improve environment & to safeguard the forests & wild life in the country similarly Art.51 (A) (G) provide to protect & improve the natural environment including forest, lakes, rivers, wild life & to have compassion for living creatures.

Number of direct & indirect legislations passed in pre & post independence in India to control air pollution.

The shore nuisance (Bombay & Colaba) Act 1853.

6. AIR 1996, SC. 1446.

7. SC Tripathi, Environmental Law. 3rd Edn. Central Law publication.

8. S.191 provides for civil action of injunction which may be taken up by the Advocate General on behalf of the state or PIL as allowed in M.C Mehta V. UOI-1992.

9. Mrs. Jayashree .V. Doddawadimath, Part 5 May 3rd 2010. Kerala Law times.

Petroleum Act 1934.

Motor vehicle Act 1939.

The Law of Torts 1984.

Factories Act 1948.

Indian penal Code 1860.

Amendment to constitution of India in 1976

Atomic energy Act – 1969.

The air (prevention & Control Pollution) Rules 1982.

The Air (prevention & Control Pollution Amendments) Act 1987.

The Environment Protection Rules – 1986.

The Motor vehicles Act 1994.

Indian forest Act 1865,

Inflammable substances Act-1942

The explosive Act 1908,

The poison Act 1919 &

The Indian Boilers Act 1923.

Thus state enacted the Air Act to show its concern for the deterioration of the air quality & to ensure that the basic rights of citizen are reserved & protected. But these legislations are also not enough to protect the people from the clutches of the Air pollution, which will be directly or indirectly caused by the people themselves.

The measures taken by judiciary in protecting the air and Environment from Pollution. Some judicial judgment which reflected on the significance of air with reference to health and environment.

If we have taken an example of ‘Delhi city’ the death rate is increasing every year more number of people are dying in urban area is due to deterioration of Air quality. Nearly 50% to 60 % of the premature deaths are taking place. The pollution related ailment requires medical treatments hence hospital admissions are increasing to more than 30 million cases¹⁰.

10 .Shyam diwan, Aromn Rosencranz – 2nd eds, envt. Law & Policy in India.

The environment magazine 'Down to earth' reports extensively on air pollution problems. Which highlighted the dangerous posed by suspended particulate matters (SPM) to public health & it is a root cause for air pollution in the city of Agra – which lays down the ground for **Taj Trapazium**¹¹. According to the petitioner, the foundries, chemical/hazardous industries and the refinery in mathura are the major sources of damage to the Taj. The sulphur dioxide emitted by mathura refinery and the industries when it is combined with oxygen with the aid of moisture in the atmosphere forms sulphuric acid called 'acid rain' which has corroding effect on white marble. Industrial/ refinery emissions, brick kilns, vehicle traffic and generator sets are primarily responsible for polluting the ambient air around Taz Trapezium Zone Taz monument is of international repute and also an industry where more than 2 million tourist visit the Taj every year and it is a source of revenue to the country is on its way to degradation due to atmosphere pollution. The petitioner has finally sought appropriate directions to the authorities to take immediate step to stop air pollution in the TTZ and to save taj.

The court considered the affidavit filed by the board and directed the board to issue a public notice. The public notice was given in 2 local news papers of Agra on 18-5-19193 calling of the industries to file their replies. The affidavits states that all the listed industries are polluting industries. 507 industries have not installed any air pollution control devices and 212 industries have not respond to the notice given to them and failed to take steps towards installing the pollution control devices hence these industries were closed by the order dated 27-5-1993 with immediate effect.

The court was assisted in its efforts to improve the air quality in the TTZ by the reports prepared by NEERI and GAIL (Gas Authority of India Limited) on the supply of fuel gas to industries in the area. As per the schedule it indicate therein 292 industries out of 522 has changed natural gas as fuel and the remaining industries which are not in a position to change shall stop functioning and may relocate themselves as per the directions given by the court.

The court is separately monitoring the issues relating to air pollution in TTZ. Following are few important steps taken.

1. Setting up of 50 bed hospital to provide treatment to people who are living in the surrounding area.
2. Construction of Agra by pass road to divert the traffic within stipulated time.
3. Green belt was recommended by NEERI been set up around the Taj.

11. M.C. Mehta V. U.O. I AIR 1997 Sc 734.

12. Cr. L J (S.C 1978) page 524.

Govind Singh V. Shanti Sarup¹² where smoke was emitted by the chimney constructed by the appellants was injurious to the health and comfort of the people living or working in the proximity of the appellant's bakery and could carry flames over a distance and it also amounts to public nuisance hence court ordered the appellant to demolish the Oven and chimney constructed by him within a period of one month.

In **M/S Nagarjuna Paper Mills Ltd. V. SDM Sanga reddy**¹³ the petitioners were the manufacturers of MG Posters and MG Kraft papers based on 100% waste paper with all aiding chemicals. An engineer of the pollution Control Board in his letter dated 17.7.1986 reported that due to emission of effluents from the petitioner industry there had been air and water pollution in and around Patancheru area by discharging the untreated effluents into Nakka Vagu which is injurious to human and cattle life. On the basis of the report and on the information the SDM passed an order U/S 133 of Cr.P.C prescribing the time limit to control the pollution and when his order was not complied with, he passed the final order u/s 136 of Cr.P.C authorizing the mandal Revenue Officer to close the carrying of trade in the petitioner factory.

The present petition was filed u/s 482 of Cr.P.C to quash that order by contending that SDM could not exercise his general powers u/s133 Cr.P.C. The court observed that Board did not have powers beyond going to courts and to seek prosecution of the said industry. The only competent authority that could exercise the powers was the SDM u/s 133 of Cr.P.C ¹⁴so by rejecting the arguments of the petitioner the court held that it is only SDM that is entitled to take action to remove nuisance and also declared that the final order passed by SDM was in conformity with the provisions contained in s. 133 to 136 of Cr.P.C.

In **Rural litigation Entitlement Kendra v. State of U. P**¹⁵ the SC by accepting the letter and treated an affidavit as writ petition and a first major Public Interest Litigation focused towards the development and conservation of environment. Where in this case the mining operation was going on in Mussorie range of Himalayas through blasting in mile stone quarries.

The order was passed to stop blasting operations in certain lime stone quarries. The court on perusal of the reports submitted by various committees came across 105 mining leases having direct environmental impact on the areas where in there is no protection to the lives of the people

13. (1987) Cr. L.J Vol 93 pg 2071.

14. ibid at page 2072.

15. AIR 1987 S.C page 359

and it affects the life of the people, cattle, homes, agricultural land and also on air and water. The court cautioned that the government must realize and remain cognizant of the fact that the stake involved in the matter is large and far reaching. Mr. Ranganath Mishra J while delivering the judgment concluded :- ‘ we are not oblivious of the fact that natural resources have got to be tamped for the purposes of social development but tapping of resources have to be done with requisite attention and care so that ecology and environment may not be affected in any serious way...’¹⁶.

Besides industrial pollution the vehicular pollution is also another threat to the lives of all. Among all the metropolitan cities Delhi witnessed the growing menace of the air pollution. The Supreme Court of India has banned the old vehicles and brought revolutionary changes by greening the automobile technology. In **M.C Mehta V. UOI**¹⁷ Supreme Court recognized the findings of Environment Protection authority 1998 (Bhurelal Committee) to the effect that all commercial vehicles which are more than 15 years old should not be permitted to play on roads of National territory of Delhi from 2nd October 1998.

In **M.C. Mehta V. UOI**¹⁸ Supreme court has looking into the findings of Bhurelal Committee exploring the possibility of banning of non-commercial diesel vehicles. Taking note of California Air resource Board Report that the diesel particulate matters are major source of lung cancer. Hence ordered that all private or non commercial vehicles shall conform of Euro-1 or Euro-II standards by 1st June 1999. And 1st April 2000. Hence 30% ambient air decreased in 1999.

In **Obayya Pujari V. Member Secretary, KSPC**,¹⁹ the Petitioner alleged that air pollution arising out of the stone crushing operations at Mangalore and Udupi Districts of Karnataka have adversely effecting the agricultural yield, health and safety of the people. It was documented that the hazardous activity led to bronchitis, fibrosis, tuberculosis and cancer. Taking note of the problem The Karnataka High court decide to treat the problem as PIL on the ground that Right to life includes right of enjoyment of pollution free water and air. Keeping in view the facts and circumstances of the case, the position of law, the interest of the society business community allowed the writ by issuance of host of directives which include formulation of state policy, identification of safer zone, compliance with directives of CPCB, revamping of existing legislation and closure of defaulting units. The citizen who are suffered from the air pollution are to be paid compensation by the owners of stone crushing units within a period of two months otherwise their license will be cancelled.

16. ibid at pg 364.

17. AIR 1990 SC 291.

18 (1999)6 SCC9.

19. AIR 1999 Kant 157.

In *S. Rama Krishnan V. state of Kerala*²⁰ the Kerala High Court declared that smoking of tobacco in any form, in any public places is unconstitutional and violative of Article 21 of the Constitution of India 1950 and also tobacco smoking in public places fall within mischief of Public nuisance u/s 268, 278 of IPC 1860. It directed all District Magistrates of Kerala to promulgate orders and to undertake appropriate measures for the prosecution of persons found smoking in public place. Presently the same law is applicable in Karnataka also.

Conclusion and Suggestions:

To conclude I may say that the growing population, technology & ceremony is pulling the raw materials & converting into & wastes & pollution. The impact of these factors has to be limited to maintain the balance between health and growth of technology, especially to conserve environment from pollution. The concern for protection & conservation of environment is not so simple, since it is not confine to one particular issue. Thus it is a chain link between Man, technology & environment etc.

It can be controlled by effective implementation of the various laws. Air Act 1981, Factories Act. Etc. but pollution caused by domestic source can be controlled by ourselves or else it may require another legislation to prevent domestic pollution.

The smoke of factories is to be filtered by treatment processes to entrap dust aerosols and poisonous gases. And our motor vehicles which contribute a considerable volume of air pollution should be equipped with modern technology to check smoke and there must be some step to improve green belt.

Biologically air resource management is more important for survivorship. Economic Incentives should be given to promote the industrialists to go for better technologies & methods to cause less harm to atmosphere.

Judicial intervention has to be improved – it is trying to improve but still not enough in the way of mitigation of air pollution.

There should be some important in increasing the man power and infrastructure of the controlling authority like C B C B & S P C B.

Steps should be taken seriously to reduce the corruption and to implement the rules properly.

Administrative action should be taken against the corrupted officials.

Global gas or solar energy can be preferred than domestic use of cycle & smoke less vehicles should be encouraged. Civil consciousness is more important to be known by all.

20. AIR 1999 Ker 385.

It is the duty & legal obligation for all of us to maintain the quality of air and to make it free from pollution.

There is a need to go for an overall assessment of the whole problem before responding to concrete solution. There is need & effort to tackle the problem of environmental disaster at the same time if any programme to be implemented successfully to control any pollution an active participation of the people is required & there must be educated in this manner to preserve & maintain the quality of air at present and to future. Air once polluted cannot be purified hence prevention is better than cure must be the aim of all.