

Environment and Pollution Laws in India – An Overview

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Abstract

Protection and improvement of deteriorating natural environment is a common cause and obligation of all the citizens and it is the right time for introspection by every citizen and nation as to what our future generations are going to inherit from us. It is they who will reap the grim consequences of our failure to act timely on the programmes which are needed now if we are to prevent future disaster and natural resource depletion. The constitution gives right to life for every citizen, an onerous obligation which we owe to posterity is clean air, potable water and liveable natural environment and these ought to be elevated to the status of birth rights of every citizen born today and in future. The Constitution of India was amended in 1976, to incorporate the provisions for protection of environment and imposing a fundamental duty upon the citizens of this country to protect and improve the natural environment. Article 51A mentions "It shall be the duty of every citizen of India - (g) to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures. The objective of the author in the article is to create awareness among all concerned in the society about the various laws on environment and pollution control that are existing in our country to ensure that justice prevails on all matters related to environment protection, which is the basis of sustenance of life on earth.

Keywords: nature, air, water, noise, pollutant.

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INTRODUCTION

Environment include air, water, land and their inter-relationship with sun rays and moon's coolness which exists between them to sustain life on earth i.e. human being, animal life, plants and micro-organism on land and in water. We human beings are both, creature and moulder of environment which gives us physical sustenance and affords us the opportunity for intellectual, moral, social and spiritual growth in the long and tortuous evolution of the human race on this planet. In our quest for development and supremacy, we have always ruthlessly exploited the natural resources available on land, in

water and in air and have in return polluted them through the waste coming out from the products of development and warfare. A stage has reached when through the rapid acceleration of science and technology; we have acquired the power to transform our environment, in countless ways and on an unprecedented scale. Both aspects of human environment, the natural and man-made, are essential to the wellbeing and to the enjoyment of basic human rights even the right to life itself (United Nations Conference, 1972).

Human being's capability and zeal to meet its need and requirement by discovery,

invention, creation, exploration, production and advancement can bring to all people benefit of development and opportunity to enhance the quality of life and if wrongly, through ignorance or with greed can do massive, irreversible damage to the earth, environment on which our life exists. All over the globe there is one common concern of environment today. There is growing evidence of man-made harm, dangerous level of pollution in water, air, earth and living beings, disturbance to the ecological balance of biosphere, destruction and depletion of irreplaceable resources and gross deficiencies harmful to the physical, mental and social health of human beings.

Environmental Problems in India

India has an ancient civilization with settlement on the banks of rivers and sustenance on nature. Human beings had been driven by their basic needs, had little or no money but fresh air, water and food was available in abundance for all the population with self-regulatory and sustainable nature. Ancestors used the natural resources judiciously which have been inherited by us and are presently being utilized to its maximum capacity. With the passage of time, increasing population, green revolution, development driven by industrialisation, shrinking land area and depleting natural resources, the country had to seriously think towards protection and prevention of its nature, wildlife, forest and environment in the larger interest of mankind (Roy et al. 2015).

The major environmental concerns of India today are the air pollution resulting from industrial development, water pollution from industrial and domestic effluents, soil pollution, desertification, deforestation, loss of wildlife, imprudent and unplanned use of land and natural resources, urban slums resulting from burgeoning population traffic and increasing noise pollution. Pollution of

rivers, streams and groundwater from domestic and industrial waste has posed a grave threat. According to Central Pollution Control Board (CPCB), the seas and oceans receive 90 percent of industrial and community waste from human settlement through the rivers, streams and estuaries draining downstream. Soil pollution is an inevitable consequence of water pollution, chemical pollution and solid waste disposal on land. Use of fertilizers, herbicides, insecticides, fungicides, soil conditioners and fumigants on soil to enhance crop yield, paves way for increasing soil pollution, salinity and water logging when water is used to irrigate the fields. Garbage is another source of pollution of soil, water and land pollution. The quantity of polythene bags thrown every day is twice the amount of population of the country. A large part of forest in our country is cut every year. The land area and forest products are being utilised for timber, agriculture, residential and industrial purposes. The unrestrained, and often illegal, spread of urban industries, mostly without any pollution control device release uncontrolled pollutants in the air, water and land.

Vehicular pollution, contrary to popular belief, the more damaging pollutants come from petrol driven vehicles as carbon monoxide, hydrocarbons (the fuels that the engine does not burn) and oxides of nitrogen, all pollutants that we do not see. Particulate matters and black smoke of diesel vehicle are not so damaging to the health. Diseases are spreading due to rapid population and urban growth, forcing people to live in unhygienic conditions, mass migration from war ravaged areas and natural disasters, social change including clustering of children in day care centres and elderly in the old age homes.

To control the nature, is beyond the capacity of human being. Further, our own actions may lead to the danger and threat

of annihilation of human race not by nuclear holocaust and chemical warfare, but by the extinction of human race by ecocatastrophe which will transform the earth into a barren and harsh planet like our neighbours in the solar system. If scientific evidences are any indications, then this scenario is not a fiction. Most of the problems of environment have a local cause and global effect. In the face of such global problems like greenhouse effect, ozone layer depletion, increasing temperature, increasing sea water level and decreasing land area, climate change, all need to be tackled together by all countries across the globe. The nature is teaching us a lesson of universal responsibility (*Dalai Lama, 1996*). Therefore, every nation has to control the increasing pollution of environment towards protection of environment itself and share the global responsibility.

Laws During British Rule

The British rule in India had a concern for management of organised extraction of natural resources including water, wildlife and forest. Present day seriousness was not attached then with the environmental problems. It is important to glance through the various laws enacted in the beginning of nineteenth century. The British Government in order to regulate, air, water pollution, wildlife protection and land use framed laws which had limited territorial approach and narrow purpose. The Shore Nuisance (Bombay & Colaba) Act -1853, The Forest Act -1865, Indian Fisheries Act-1897, Bengal Smoke Nuisance Act-1905, Bombay Smoke Nuisance Act - 1912, The Boilers Act - 1923 were passed with a view to control air pollution. The Forest Act - 1927, was passed with a view to provide strength to the Forest Policy of 1894 which had state monopoly over the forest. In 1873, Madras enacted the first wildlife law for protection of wild elephants. Thereafter, the British

government introduced legislations like, 'The Elephant Preservation Act- 1879', 'The Forest Act -1878' and 'The Wild Birds and Animals Protection Act-1912'. In a move for protection they established, the Kaziranga Park in 1926 and Corbett Park in 1936. In 1920, the British Government initiated to consolidate the land holdings and enacted the Land Holding Act -1929 (Vashishth, 1999).

Post-independence

The dawn of independence gave opportunity to rise up towards self-development to satisfy the basic needs of the population and society through industrialisation and achieving economic development. Industrialisation paved way for urbanisation and brought degradation to the natural environment. However, the population in 1947 was less; hence there was no any alarming issue of environment. The first act passed post-independence was Factories Act - 1948 with the objective to provide safety to workers, discharge of pollutants and occupational health of workers. Thereafter, the country had its Industries (Development & Regulation) Act - 1951, which aimed at proper citing of industry. The Mines Act - 1952 dealt with safety of mining activities and workers. The Insecticides Act 1968 was passed to regulate the manufacture, sale, transport and use of insecticides in agricultural which can cause a formidable threat to the environment (Mallick, 2008).

In June 1972, the Prime Minister of India gave a speech on preservation of nature at the United Nations Conference on "Human Environment" held at Stockholm which was unanimously agreed by all the participating countries to take appropriate steps to preserve and safeguard the natural resources of the earth. In consonance with this decision, India began enacting various environmental laws starting with "The Wildlife (Protection) Act 1972" and "The

Water (Prevention and Control of Pollution) Act 1974". Thereafter "The Constitution (42nd Amendment) Act of 1976" explicitly incorporated environmental protection and improvement. Then Article 48A was added to the directive "Principles of State Policy" declaring "the states to protect and improve the environment and to safeguard the forest and wildlife of the country".

Further Article 51A (g) gave "fundamental duties and responsibilities" on every citizen to protect and improve the natural environment including forest, lakes, rivers, wildlife and have compassion for all living creatures. Strengthening further Article 21 of the Indian Constitution protected the "Right to Life" as a fundamental right which is the freedom of "Right to Live" (i.e. pure air to breathe, palatable water and sufficient food with human dignity), encompassing within the ambit of protection and preservation of the environment. Understanding the importance of water and its need for development and growth, the government brought another law "The Water (Prevention and Control of Pollution) Cess Act 1977 which gave the right to use the water for development purpose but at a cost. The government vowed to protect its animals and forest and in doing so enacted "The Wildlife (Protection) Act 1972" and "The Forest (Conservation) Act 1980". The Government of India established "Department of Environment" in 1980 which became Ministry of Environment and Forest in 1985. This ministry looks on all environment and forest related issues from the concept stage to initiation, implementation, monitoring, policy frameworks, laws & regulations. However, land use planning is still neither integrated with environment nor a part of Ministry. The industrial growth during the decade forced the government to come out with another regulatory framework and a law on "The Air (Prevention and Control of Pollution) Act 1981" was made. The

Bhopal gas accident changed the situation and several laws were passed covering newer and broader areas such as 'The Environment (Protection) Act 1986', vehicular and noise pollution, hazardous waste management and handling rules, EIA and solid waste management. (Roy et al. 2015)

The constitution of India confers vast legislative powers on the Parliament and the State Legislatures for providing law relating to the environmental protection. Further, the court of the land has displayed dynamism and spirit of protection of environment through the judicial system.

Laws on Air

The Air (Prevention and Control of Pollution) Act, 1981

The Air (Prevention and Control of Pollution) Act, 1982

The Air (Prevention and Control of Pollution) Union Territory Rules, 1983

The presence of various pollutants in air beyond a certain limit, discharged through industrial emissions, vehicular traffic, heating, domestic fuel, refuse burning and incineration has detrimental effect on the health of human being, animal life, vegetation and property. These acts were passed to provide for the prevention, control and abatement of air pollution, for creating the establishment, with a view to carry out the aforesaid purpose, of boards for conferring on and assigning to such boards, powers and functions relating thereto and for matters connected therewith.

The Central and State Pollution Control Boards already established under the Water (Prevention and Control of Pollution) Act 1974, vide these acts were assigned the responsibility, empowered and delegated the power to function towards control and abatement of air pollution (Gazette of India, 1981), (Gazette of India, 1982), (Gazette of India, 1983).

Laws on Water***The Water (Prevention and Control of Pollution) Act, 1974******The Water (Prevention and Control of Pollution) Rules, 1975***

These act and rules were to provide for the prevention and control of pollution and thus to restore and maintain the wholesomeness of water. The Central and State Boards were setup with the purpose to function in the prevention and control of water pollution by conferring, assigning and empowering them to regulate on matters related to water pollution. The problem of pollution of rivers and streams has assumed considerable importance as a result of growth of industries and increasing urbanisation. It is essential to ensure that the domestic and industrial effluents are not allowed to be discharged into the water bodies without adequate treatment; as such discharges would render the water unsuitable for drinking as well as for supporting fish life and for use in irrigation. Pollution of rivers and streams cause increasing damage to country's economy. The powers and functions are to advise the central and state governments, create awareness, carry out investigation, research, collect, compile and publish technical and statistical data, act as independent statutory body, to give consent, inspect, appeal, punish and take care of its fund, accounts, audit and impose penalties. It is also empowered to maintain central and state water laboratories (Gazette of India, 1974), (Gazette of India, 1975).

The Water (Prevention and Control of Pollution) Cess Act, 1977***The Water (Prevention and Control of Pollution) Cess Rules, 1978***

The act is to provide for the levy and collection of cess on water consumed by persons carrying on certain industries with the objective to augment the resources of central and state boards for the prevention

and control of water pollution due to the rapid expansion of industries and towns. The responsibility and workload of these pollution control boards have increased whereas the funds available with them have not kept pace with the increase in cost and with the overall commitments involving heavy financial liabilities (Gazette of India, 1977), (Gazette of India, 1978).

Laws on Environment***Environment (Protection) Act, 1986******Environment (Protection) Rules, 1986***

The decline in environmental quality has been evidenced by increasing pollution, loss of vegetation and biological diversity, excessive concentration of harmful chemicals in the atmosphere and food chains, growing risk of environmental accidents and threat to life support system. The government in consonance to the United Nation conference on 'The Human Environment' held at Stockholm in June 1972 framed this act to provide protection to the environment. There are existing laws dealing directly or indirectly with environmental matters, pollution, chemicals and hazardous substances. However, there exist uncovered gaps, inadequate linkages, slow control mechanisms, multiplicity of regulatory agencies for taking lead role in studying planning and implementing requirements for environmental safety and gives adequate response to situations threatening the environment. The above law provides a general legislation on environmental protection which enables coordination of activities of various regulatory agencies, creation of an authority with legal powers for environmental protection, regulation of discharge of pollutants and hazardous substances, speedy response in events of accidents threatening the environment and punishment to those who endanger human and animal environment, safety and health

(Gazette of India, 1986), (Gazette of India, Rules, 1986).

Hazardous Waste (Management and Handling) Rules, 1989

Hazardous waste means any waste which by reason of any of its physical, chemical, reactive, toxic, flammable, explosive or corrosive characteristic causes/likely to cause danger to health or environment whether alone or in contact with other waste or substances. The act enlists an inventory of all such substances and waste with collection, reception, treatment, storage and disposal methods. It also specifies illegal trafficking of hazardous waste (Gazette of India, 1989).

Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989

The rules empowers the authority to function and regulate the process of manufacture, storage and import of hazardous chemicals in any industrial activity and provides guidelines for safety, emergency plans, information on major hazards, organisational system used to fight the emergency, accidents, transportation, fire-fighting and evacuation. It also provides regulatory directives for all related issues on specifications, design, construction, operation and transportation (Gazette of India, 1989).

Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996

Chemical accident means an accident involving a fortuitous, sudden, unintended and unexpected occurrence in the process of handling any hazardous chemicals, resulting in continuous, intermittent or repeated exposure to death or injury to any person or damage to any property. It does not include an accident by reasons of any war or radioactivity. The rule gives guidelines for constitution of central crisis group to develop a crisis alert system for

functioning towards control, prevention and management of any crisis that may take place. (Gazette of India, 1996)

Bio-Medical Waste (Management and Handling) Rules, 1998

These are wastes which are generated during the diagnosis, operation, treatment or immunisation of human beings or animals or in research activity pertaining thereof. The rules give directive on the duty of occupier for handling of such waste without any adverse effect to human health and environment. The rules outline the occupier, collection, treatment, disposal of such waste including the various processes of segregation, packaging, transportation and storage. The law defines 'occupier' as any institution or individual generating bio-medical waste which includes hospitals, nursing homes, clinics, dispensaries, veterinary institutions, animal houses, pathologies, blood banks and research centres. (Gazette of India, 1998)

Noise Pollution (Regulation and Control) Rules, 2000

The central rule hereby empowers the state government to enforce law on noise pollution through the District Magistrate and Superintendent of Police to maintain the level of noise within the prescribed standards. The noise may cause annoyance, disturbance, discomfort or injury to people dwelling in the area and it is the responsibility of the district authority to prevent, prohibit, control and regulate all such conditions. The incidence or continuance of noise may result from vocal or instrumental music, playing, beating, shouting, clashing, and blowing or by loudspeakers, public address system, appliance or apparatus or contrivance, fire crackers, which is capable of producing or reproducing sound in any area. The ambient air quality standard in respect of noise for various areas is given in Table 1 (Gazette of India, 2000).

Table 1. Ambient Air Quality Standards in Respect of Noise.

Area code	Category of area	Limits In dB(A) Leq*	
		Day time (6 a.m. to 10 p.m.)	Night time (10 p.m. to 6 a.m.)
A	Industrial area	75	70
B	Commercial area	65	55
C	Residential area	55	45
D	Silence zone	50	40

***dB(A) Leq** denotes the time weighted average of the level of sound in decibels on Scale A which is related to human hearing. A ‘decibel’ is a unit in which noise is measured. where “A” in **dB(A) Leq** denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.

And, **Leq** is the energy mean of the noise level over a specified period.

Ozone Depleting Substances (Regulation and Control) Rules, 2000

The rule empowers the Central and State Authorities to function and regulate the production and consumption of ozone depleting substances as per ‘Montreal Protocol’ (adopted on 16th September 1987), on substances that deplete the ozone layer. The substances responsible for ozone depletion which come under the regulation are CFCs, Halon, Carbon tetra chloride, Methyl chloroform, HCFCs, BFCs, HBFCs, Methyl bromide, etc. The rules detail the regulation procedure pertaining to registration, production, consumption, export, import, sale, purchase, use, investments, reclamation, destruction and all technical and management details associate with ozone depletion substances. It also empowers the central and state authority to function, inspect, monitor, study, research and regulates the production and import till final disposal and prohibits export or import of all substances from countries which are not specified in the rules under a license (Gazette of India, 2000).

Municipal Solid Wastes (Management And Handling) Rules, 2000

Municipal Solid Waste (MSW) includes commercial and residential waste generated in municipal areas in either solid or semi-solid state excluding industrial hazardous waste but including treated bio-medical waste. The rules authorises the Municipality, Central and State Pollution Control Boards, State Government and District Administration to function and regulate the management of MSW in their respective districts. It also gives clear directives to operator of a facility for collection, segregation, storage, transportation, processing and disposal of MSW and provides specifications for landfill sites, standards for composting, treated leachate and incineration (Gazette of India, 2000).

Batteries (Management and Handling) Rules, 2001

The rule empowers the central and state authority to function, inspect, monitor, study, research and regulates the production and processing, disposal, sale and purchase. These batteries are lead acid battery and contain lead metal and wastes mean components of damaged and used battery. The rule applies and gives responsibility to every manufacturer, importer, reconditioner, assembler, dealer, recycler, auctioneer, consumer and bulk consumer involved in purchase, processing and sale of batteries or its components thereof. It is the duty of all so involved to file returns to the authority on the quantity of new battery purchased and

sold, and old batteries collected and sent to the registered recyclers (Gazette of India, 2001).

Notification for Environmental Clearance

The notification under Sub-rule (3) of Rule 5 of the Environment (Protection) Rules, 1986 imposes certain restrictions and prohibitions on new projects or activities or on expansion or modernization of existing projects based on their potential impact on the environment, being undertaken in any part of the country, unless prior environmental clearance has been accorded in accordance with the objectives of National Environmental policy as approved by the Union Cabinet on 18 May 2006 as per procedure specified in the notification by the Central and State Environmental Impact Assessment Authority. The projects are categorized in two category based on their threshold limits. The notification gives detail on application procedure for prior environmental clearance, stages of screening, scoping, public consultation, appraisal, validity, monitoring, transferability and operation (Gazette of India, 2006).

E-Wastes (Management and Handling) Rules, 2011

E-Wastes (Management and Handling) Rules, 2016

Electrical and electronic items such as computers, laptops, mobiles, telephones, facsimiles, wires of all items, printers, photocopy machine, LCD, LED, washing machines, television, refrigerator and air conditioner come under the category of e wastes. The manufacturing of the above items involve the use of hazardous chemicals like; lead, mercury, hexavalent chromium, polybrominated diphenyl ethers, cadmium, CFC and feron. These items after their final life use should be disposed of in a responsible way. With this objective the government has framed rules in exercise of powers conferred by section

6, 8 and 25 of the Environment (Protection) Act, 1986. It applies to every producer, consumer, manufacturer, processing, sale, purchase, collection centres, dismantlers and recyclers of e-waste to obtain authorization from State Pollution Control Boards for the purpose of collection, storage in a secured manner, transportation, dismantling, recycling and final disposal of e –wastes in accordance with the procedure laid down in the rules (Gazette of India, 2011), (Gazette of India, 2016).

CONCLUSION AND FUTURE SCOPE

The implementation of environmental legislation is a social learning process. It is not a pre-occupation of the educated and affluent. It has socio-political dimensions. The disposal and control of toxic wastes and governmental regulations of polluting industries is public interest oriented. The effective implementation of environmental legislation is a social learning process which could fundamentally change the character of public administration in the country. From a global perspective, the struggle to preserve a 'liveable environment' is a part of broader struggle to create a more just global society both within and between countries. The impact of the human dimensions on the economically and educationally disadvantaged that inhibit the developing areas should not be underscored. Nature has its own continuous approach and process of regulating and restoring the environment, however, we must not forget to put in our part of effort towards protection of nature, wildlife and environment.

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