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Analysis of industrial pollution in India

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Abstract--Barry Commoner, American biologist once said, “Environmental pollution is an incurable disease. It can only be prevented”. But instead of preventing we are aggravating it. Around 7.4 Lacks people die in India annually because of abnormal temperatures due to climate change according to a recent Lancets study. 51% of air pollution in India is due to industries. Indians are exposed to 25 micrograms per cubic metre above World Health Organisations limit of 10 micrograms per cubic metre of particulate matter. We know how much industrial pollution has been damaging our environment, but do we have effective laws in order to protect citizens of India against environmental offenders? Are existing laws and legislation efficient enough to punish the offenders and protect the victims? We do not have any systematic approach for making Industrial sector accountable and responsible towards proper management of waste effluents as it contributes around 50% of environment pollution. Industries like leather, cement, plastic, garments, sugar, steel and petroleum are the major polluting industries. The objective of this paper is to throw light on the

important issue of mismanagement of our future and future of our generations so that some useful solutions can come out. Other objective of this paper is to explore the impact of environmental pollutions on people's lives and exploring laws that safeguards us and how much our laws and statutes are protecting us from offenders, moreover how much more is needed in this regard.

Keywords---Industrial Pollution, Environment, Legislations.

Introduction

Constitution of India guarantees healthy environment under Article 21, Article 47, Article 51-A(g) and Article 19 (1) (g) as Fundamental Rights of every citizen. But 1.67 million deaths in 2019 in India were due to air pollution, USD 95 billion lost of Indian business to pollution with 48,000 green cases pending in courts of India. This can be considered as a nightmare for India, as our important financial hubs Kolkata, Mumbai and an important port city Chennai along with a long coastline of India will be three feet underwater by century end according to recent IPCC report, can be considered as a warning bell.

Background

Though India has per capita carbon emissions at 2.98 tonnes of CO₂, low but consequences are shared equally with the world. As India is third largest emitter of carbon dioxide in the world excluding European Union in 2015. Our continuous industrial expansion with initiatives like Make in India, a loaded responsibility lies in our hands that we cannot push forward more. India has set greenhouse gas emissions reduction targets for 2030 and 2070, which will take trillions of dollars and technology according to some experts. Balance of carbon emissions and growth of industries with making India a global manufacturing unit have to go hand in hand as we have second largest population of the world calculating 17.7% of the world population, with so much to progress to achieve the 'New India' as promised by our Prime Minister Narendra Modi by 2022-2023, the 75th year of India's Independence from eradication of poverty to becoming a 5 trillion economy(climatelinks.org, 2016). In India, with 2.2 billion tons of carbon dioxide emission in which is 7% of the world in 2017(CEEW, 2021), due to burning of bituminous coal in industries that is widely available in India, as it has high moisture and sulphur content responsible for carbon emissions and due to various other factors responsible for this climate change.

Impacts on India due to Industrial Pollution

Impacts on India are grave with industries being a major contributor approximately one-fourth of total India's Green House Gas emissions, as millions of people in India inhale poisonous air with a lot of particulate matter, carbon monoxide, sulphur dioxide, fluoride and greenhouse gases. As particulate matter goes deep into the lungs and other body organs starts gradually degrading body causing major chronic diseases like asthma, cancer, heart attack. Industries not only harm human body but also our ecosystem leading to degradation of land,

water and air. India already a disaster- prone country with 9 coastal states facing severe climate hazards thereby causing more danger due to increase in the intensity and frequency of these disasters as like world is facing due to climate change. According to a report by IPCC in 2021, India will face irreversible impacts of climate change.

We know industrial growth is very important for a country's development but that should not come in price of people's lives. Government of India wants to increase contribution of manufacturing sector to gross domestic product by raising it to 25% contribution share in GDP in decade end and this sector will provide more 100 million jobs to jobs seeking population. Government of India should also consider risks associated with it and should work towards taking every measure to combat pollution. The industrial sector of India contributed to emissions systematically with increasing fuel consumption, increasing industrial process.

These natural resources had been stored in the earth for billions of years but their exploitation had been started only after industrial revolution in the 19th century within a couple of years at a very alarming rate by throwing all the waste directly into the environment making it as a garbage sink for industries. Corporate sector of India should take the responsibility through institutionalisation the Corporate Social Responsibility as a mandatory provision irrespective their size or capital. (Vinjamuri, 2020)

Protection of environment in India is not new as it has been in practice since ages, as in ancient India, cleanliness of environment and major environmental forces and nature has been considered as gods and 34 people took it as a duty and devotion towards God by protecting wildlife, flora and fauna as they had faith in nature. During British India, after destroying major forests cover of South Africa, United States, Ireland, for ship building industry, now was the focus on India. After a major destruction, now they thought of protecting it by forming an imperial forest department in 1864 with the experts from Germany which was headed by Dietrich Brandish for checking deforestation. Policies in independent India, when Indian constitution was adopted in 1950, there were no environment protection and conservation laws in India until amendment in 1975. Today, there are remedies available under common law, legislative laws, Constitution of India, and other laws.

As the temperatures on the Tibetan plateau rises at a tremendous rate, this rise in temperature is causing melting of ice of Himalayan glaciers which is responsible for flow rate of floods causing rivers in India like Ganges, Brahmaputra, Yamuna, Sutlej and other rivers. At a point of time for some years there will be floods in these rivers and it is indeed important to note that the major population of India lives on these rivers and after some years when the ice of Himalayas and glaciers will melt completely, then there will be no water left in these rivers as these rivers will become seasonal and there will be acute shortage of drinking water and agriculture of India will also suffer simultaneously as we do not have well developed irrigation system. We are heavily dependent on monsoon which is highly unpredictable. As it is very clear now that India is going to suffer from the impacts of climate change more frequently with more severe rainfall,

heat waves more frequently, more cyclonic activities with more stress on ecosystem, more natural calamities in the coming decades.

Temperature as per IPCC report 2021 on the impacts of global warming, says temperature of earth will rise above 1.5°C above pre industrial levels. Temperatures above the land have risen by more than 1°C pre industrial times. As per Indian assessment report, temperature above India has risen to 0.7C since 1901.

Constitutional Provisions

Constitution of India gives us a much-needed protection and safeguards us from exploitation of any kind also from environmental offenders. Both Directive principles of state policy and Fundamental Rights enunciate the commitment of the country to improve and protect the environment. Supreme Court of India established principal that environment free of pollution which is clean and is also a fundamental right and Human Right of every citizen of India under constitution. Supreme Court of India in case of Vellore Citizen's Forum v. Union of India, AIR 1996 SC 2715 held that both Precautionary Principal and Polluter Pays principal is customary law. The word 'Environment' is not included in the Constitution of India initially, it was only added after 42nd amendment to the Constitution, which added Article 48-A under chapter Directive Principles of State of Policy. It also added a new provision of Fundamental Duty under Article 51 A. Through Article 48-A, it was asserted that the State shall strive and to protect and safeguard our forests, wildlife, nature also the natural habitat of animals. Article 51-A clause (g) says that 'It shall be the duty of every citizen to protect the natural environment including forests, rivers, lakes, flora and fauna, and to have sympathy for living creatures.

In case of Rural Litigation and Entitlement Kendra v. State of UP(Rural litigation and entitlement kendra v. state of UP and Others, 1985), the Supreme Court of India held that both citizens of India and State are responsible for the protection of environment under Article 48(A) and under Article 51-A(g) of Constitution of India. Fundamental Duties originally were not directly enforceable but with judicial activism a lot have been done to provide them strength for achieving objective behind their incorporation in Constitution. In the case of L. K. Koolwal v. State of Rajasthan and others (L. K. Koolwal v. State of Rajasthan and others, 1986), court provided the scope of the Article 51-A by stating that every citizen has the duty to protect the environment under Article 51-A (g) of Constitution and also laid down that under this Article every citizen can move to court and get enforced Article 51-A (g).

In case of AIIMS Students Union v. AIIMS and others, Supreme Court held that though the Fundamental Duties are not enforceable in the court of law but the Supreme Court can give guidelines for protecting the environment. Supreme court of India also laid down that as provided in the 42nd amendment, fundamental duties should be given due importance in order to protect the environment. Part 111 of the constitution deals with Fundamental Rights guaranteed by the constitution. Article 21 of the constitution talks about every citizen's the Right to Life and personal liberty. This right is we all know is of no importance if we do have healthy and pollution free environment for the citizens of India to live. The

Supreme Court in a case held that under Article 21 of the Constitution, pollution free environment is a fundamental Right of citizens.

It is worth to note that degradation of environment in India is been caused due to various factors but the most important is Industrial pollution but there are various ways to curb it too. We have to implement those measures because rapidly growing industrialization, technologies and urbanisation are contributing more to the environmental pollution than the growth of the nation. Writs under Article 226 and Article 32 of the Constitution of India, provides a great opportunity for safeguarding its citizens the right to healthy environment. (Singh, 2019).

Civil Law Liabilities

Under Civil law, there are remedies like Nuisance, Negligence, Trespass, strict liability. Under Nuisance always involves with unreasonable or unlawful interference of any person's enjoyment of land or his property and any inconvenience arising to any person. In trespass, unlawful interference on a person's possession of property is wrong. In case of Nareshdutt Tyagi v. State of Uttar Pradesh (Naresh dutt tyagi v. state of U.P., 1993), in which toxic and poisonous gases were leaked from pesticides spread to a nearby area by holes and windows of factory and from which caused into deaths of a foetus of a woman and three children. Court held that it was a case of negligence which is a breach of common law of negligence.

Under Strict Liability concept, which was started from case of Rylands v. Fletcher (Rylands v. Fletcher, 1868) in which the person who for his personal purpose brings something or stores or uses something that is likely to escape and cause sufficient mischief to others and that must be kept on his own peril, if that escaped then he will be prima facie answerable. In case of Ram Baj Singh v. BabuLal (Ram baj v. Babulal, 1981), in this case a person has built a brick grinding machine near chamber of a medical practitioner. Due to the loud noise and dust generated by that machine which was causing a lot of dust in the chamber of the medical practitioner. It was held that the machine could not be installed in a locality.

There are various ways in which common law can be used as a remedy against damages caused by environmental pollution damages to the individual and society on large. As scope of common law is very large and as the two most gruesome incidents that actually shaped the environmental laws in India is negligence on the part of the defendant.

Criminal Law Liabilities

Penal provisions with Protection of the environment are also enacted. In our country, provisions which are more specific in some legislations for the environmental protection as Sec 268 to sec 294 A of chapter IVX of Indian Penal Code 1860, deals with offences which deals with public health and safety for pollution free environment which is harmful for ourselves and our environment also.

In Indian Penal Code, 1860 sec 268 explains public nuisance by making public nuisance punishable under sec 290 of IPC. According to all these provisions if any action or any act causes damage or any kind of injury to some person by degrading the environment through any of his acts then that person can be subjected to prosecution under penal provisions. Sections 269 to 271 of Indian Penal Code 1860, explains negligent acts in which if any negligent act causes spread of infection of any disease and threat to life of the people and environment, are made punishable under sec 269 and 271. There are various legislations that deal with the menace of degradation of environment but a lot has to be done in direction to make more integrated legislations to avoid any confusion and difficulty in enforcing these laws.

Environmental Laws in India

The Water (Prevention and Control of pollution) Act 1978 has been formulated for the prevention and control of water pollution and to safeguard the right of every citizen for safe and clean drinking water and to maintain the purity of water in its real form. The Water Act made enactments of boards for the same purpose and also for the prevention and controlling of water pollution in the developing country. This water pollution act restrains the discharge of pollutants by industries, factories, households etc beyond a certain limit or standard and also lays down some penalties for non-compliance of the rules. At the central level, the water act has established a board of CPCB which functions for the prevention and control of water pollution and it also lays down certain standards at the state level, water act has established SPCBs which acts under the control and instructions of CPCB and the state government.

But according to a report of NITI Aayog in Composite Water Management Index of 2018, 2 Lacks people die annually due to water pollution despite water being the state subject. Around 37.7 million people get water born diseases annually in India. Economic burden of USD 600 millions is also due to water pollution in a year in India. (indiawaterportal.org, 2021)

The Air (Prevention and Control of pollution) Act 1981 (Shastri, Environmental Law, 2022), or the Air act, is the act for the prevention and control of the pollution also for the establishment of Board for States, Centre for carrying out the functions laid down in the act. As the effects of climate change can be felt due to different kinds of reasons, to mitigate these harmful effects India passed this law. If anybody or organisation or industry fails to comply with the directions of Central Pollution Control Board or CPCB, may can also result in imprisonment for 1 year and can be extended to 6 years, and there are debates going on for making this punishment more severe and also with a fine and an additional fine can also be laid down of Rs 5000 for offenders. Around 1.6 million people died in India due impacts of air pollution in 2019 highest in the world. Air pollution in India costs 3% of GDP every year.

The Environment protection Act 1986 or the Environment Act, is an act for the safeguard and protection of the environment, also for its preservation and improvement. This act was passed under Constitution of India under Article 253 and in the case of Bhopal Gas Tragedy in 1984 to achieve the UN conference on

human environment 1972 in Stockholm Declaration. This act acts as umbrella legislation for the planning and legislating of the framework for the protection of environment and also for the speedy response of any situation which is hazardous and dangerous for the environment. It can be said that this is a legislation which is designed to formulating a system for coordination of both the central and state authorities which are established under the Water Act 1974. This Act does not cover all pollutants such as radiation and noise. Decentralisation of powers is needed as there is no power with state governments to protect environment under this act.

The National Environment Appellate Authority Act, 1997, under this act, any appeal related to restrictions of areas which are not allowed to operate, if operates can go to National Appellate Authority or any other establishment would not be given permission to carry out which is also subject to certain restrictions or guarantees under the Environment (Protection) Act 1986 of India. National Disaster Management Authority says, around 130 chemical accidents reported in the country in recent times which caused 259 deaths and 560 major injuries due to industries established in nearby areas of human habitation.

Hazardous Waste Management Regulations, in this hazardous waste which is chemically or can have physical reaction, inflammable, toxic which causes danger or can cause danger when escaped and/or exposed to natural surroundings. Around 55 lacks MT of hazardous waste remains exposed annually which causes pollution and threats to human life as its leads to radiations and contaminations of land and water. This act should make more severe penalties for industries which do not treat its hazardous waste. (indiatoday.in, 2019). There are some enlightening examples also where people and communities with their administration are doing so well that can set a milestone in coming future for others also so that they are also encouraged to do something instead of saying.

1. **Medha Patkar** is a well-known environmentalist in India especially for her role in Narmada Bachao Andolan in a peaceful manner against the construction of dam on Narmada River which would have displaced around 3,20,000 people. She formed NBA and is involved in that since 1989 and made a significant impact.
2. **Jamuna Tudu** also known as 'Lady Tarzan'. This is a title recognised by various institutions including United Nations India. Also, the recipient of Padma Shri and Women Transforming India with other awards for her brave work in protecting timber from mafias by collecting other women also for illegally cutting down trees in Jharkhand.
3. **Chandi Prasad Bhatt** is a social activist and a Gandhian philosophy environmentalist, who is India's first modern environmentalists. He also founded Dasholi Gram Swarajya Sangh in Gopeshwar in 1964, which after some time became parent organisation of Chipko Movement. He was also involved in Chipko movement and was also awarded the distinguished Raman Magsaysay award in 1982 and Padma Bhushan in 2005 for his work in Subaltern ecology.
4. **Sunderlal Bahuguna** is a well-recognised name in India which does not need any introduction as he is one of the oldest environmentalists at the age of 92 in India. He became famous after Chipko Movement where he played a significant role and he is also the follower of Gandhian ideologies of non-

violence and Satyagraha. He is also the recipient of Padma Vibhushan in 2009. He fought for the preservation of Himalayas and forests around Himalayas in 1970s as he was the first member of Chipko movement and later this movement spread to Tehri Dam.

Conclusion

Enough has been said and enough has been suffered, now it's the time to act and create safer world for our future generations as it has been destroyed by us. Initiatives like Waste to Energy plants of Ghazipur and promoting use of Green Hydrogen are needed aggressively in order to protect Rights of people to get safer environment guaranteed under Article 21 of the Constitution of India. In India, it is the need of the hour as, we are increasing our CO₂ emissions in coming decades in order to pull out millions of people from poverty. There are more than enough legislations, laws, acts and regulations that deals with the hazards of environmental degradation impacts on human beings done by factories, industries, and individuals and institutions. As there are various legislations that leads to a lot of confusion, that should be simplified for the convenience of the people. The powers which are now vested on the Pollution Control board are not enough for controlling the pollution and also preventing from further damage to the environment. There is an urgent need of formulating stricter laws like *Eco - Tax* on activities and products which are harmful for environment on the violators of these laws with more simplified laws that common people can understand. Government of India should run awareness campaigns both at urban and rural levels with the help of Urban Local bodies at urban level and Rural Local bodies at rural level with the help of Gram Panchayats in villages. Green Energy should be promoted by making use of it at various levels like vehicles and appliances etc. NGOs should work for making people aware about protection of the environmental hazards and government can promote solar energy and gas stoves instead of use of forest wood for cooking in villages.

Despite there are legislations of environmental policy and constitutional provisions of environmental protection, yet there is a major problem of Industrial waste disposal in our country that is day and night polluting out natural surroundings, rivers, ponds, lakes, soil, air, groundwater and much more to hazardous levels that in near future we will not have enough pure and clean water to drink left in our country.

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