

# **ENVIRONMENTAL POLLUTION AND DISABILITY – ITS DIMENSIONS**

*Padma\**

Disability is an unfortunate aspect of human life which affects not only the normal way of living but also despair component strength or power. Modern scientific and technological advances have taken forward human civilisation by leaps and bounds upto fringes of outer space and into the depth of abyssal oceans. These developments have undoubtedly made human life easier and happier. But science and technology have brought with them evils of their own. The third world agricultural and industrial revolutions have not only brought about massive mechanisation in fields and factories but also brought radical changes in human and social value systems. Technological break-through in automobiles and aircrafts has brought with it air pollution and noise pollution at unbearable levels. Days have come for buying pure mineral water bottles and oxygen cylinders for regular domestic use.

## **Environmental Pollution and Health problem**

According to the United Nations Population Fund (UNFPA) (1991) report, environmental degradation leads to different kinds of health problems in the developing countries.<sup>1</sup> Indeed mortality in developing countries is still around 13 million deaths a year, many of them are environment related. Infant mortality rate is 70 per 1000 births, compared with 12 in developed countries. More than 150 million children in developing countries are malnourished which makes them vulnerable to diseases which are the immediate cause of mortality. The bulk of diseases including child mortality stems from water related diseases. Maternal mortality rate is 450 deaths per 100000 live births and this is 15 times higher than developed countries.

According to the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995<sup>2</sup>, disability means – (i) blindness (ii) low vision (iii) leprosy – cured (iv) hearing impairment (v) locomotive disability (vi) mental retardation (vii) mental illness. It means the state or quality of being mentally or physically disabled or

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1. UNFPA (1991), Report op.cit.

2. Section 2(1).

weakness, incapacity or inability to hold a certain job because of physical or mental handicap, want of legal qualification.

In the present paper, an attempt has been made to focus on the various dimensions of disability caused by 'environmental pollution on human life'. The environmental pollution leads to different kinds of disabilities, which result mainly because of water pollution, air pollution and noise pollution.

### **1. Water Pollution: Environmental Degradation and Diseases**

Polluted sources of drinking water, slums, lack of drainage and sanitation, hygiene, industrialisation and lopsided urbanisation, destruction of nearby forests, and degradation of agricultural land through overuse are some of the reasons for habitat degradation.

Some of the major sources of water pollution are; (i) domestic sewage – example – residences, hotels, institutions, offices etc. and (ii) industrial waste water, for example – pulp and paper industries, distillery, refinery and tannery.

Some of the common diseases caused by the water pollution are Typhoid, Dysentery, Hookworm Disease, Jaundice, Poliomyelitis, Pneumonia, Influenza, Whooping Cough etc.

According to UNFPA Report (1991), in India, among children Diarrhoea leads to 1.5 million deaths a year; Malaria affect 20 million; infant mortality is 70/1000 births in developing countries and 12 in developed countries.

### **2. Air Pollution**

Increasing industrial and vehicle emissions such as carbon monoxide, carbon, sulphur and lead are some of the harmful pollutants which lead to rising temperature, ozone depletion resulting in to skin diseases, cancer and breathing problems. Further, specific diseases such as byssiosions are generally found among textile workers and pneumoconiosis among mine workers. Quite apart from this, asbestosis and silicosis affect physical and mental health and shorten the life span. Other negative effects are industrial and vehicle pollution, which also lead to disability. According to Barry Commoner, an ecologist,

“The theory that environmental degradation is largely due to pollution growth is not supported by the data, rather the responsibility lies, with negligent technology, especially in the highly industrially developed countries.”

Another key component in all these quality of life issues is absolute poverty defined as a condition of life so limited by malnutrition, disease,

poor surroundings, sanitation and high infant mortality.

### 3. Noise Pollution and Disability

Noise is unwanted sound. Ambient noise is all encompassing noise associated with any given environment and is usually a composite of sounds and many sources near and far. Any abnormal sound, which irritates human being, is called as noise pollution.

It is paradoxical that man cannot live without sound; it is made of communication and yet too much sound in contemporary society are killing him. Noise is a sound which is disagreeable for individual. Although noise does not alter or change the environment, physically or chemically as do the pollutants of air and water, is considered a pollutant when it is present in excessive quantity. It intensifies and causes psychological stress or physiological damage to human being.

Scientists believe that even short exposure to sounds at 150 db levels can lead to hearing damage permanently and the noise of 180 db would prove fatal to human being.

#### Source of Noise pollution

Industrial and non industrial, for example – loud speakers, automobiles, aircrafts, trains, construction work, radio-microphones, etc. are source of noise pollution.

Effects of Noise in Industry – No environmental factors have caused so much confusion regarding its effect on workers' efficiency and workers' health as industrial noise. In a study conducted by Maclarn and Chaney, (American Industrial Psychologist) percentages of hearing loss cases in different occupations were found to be:

<b>Nature of Job</b>	<b>Noise Condition</b>	<b>Worker with loss of hearing</b>
Precision Electrical Assembly	60-80 db	34%
Light reverting	average 100 db (max. 112 db)	84%
Heavy reverting	average 100-110 db (max. 100 db)	85%
Heavy reverting	average 110 db	94%

The problem of maximum permissible noise level with a view to prevent occupational deafness is confounded by the fact that hearing loss is related not only to the intensity and frequency of noise but also to the length of exposure time.

## **Effects of Noise Pollution on Human Beings**

Human beings are the common recipients of noise pollution. Though it is easy to show that excessive noise could result in the loss of hearing in human beings but it is difficult to show to what extent the effects of noise can prevail on individuals. It is difficult to ascertain the ability of man to withstand the effects of noise. This complicates the attempts to measure the effects of noise pollution in an objective manner.

The effects of noise pollution on human beings could be broadly classified as follows:

1. Physiological
2. Psychological and Behavioural effects.

It is now medically confirmed that noise disturbs physiological organism of human beings. Excessive, continuous and persistent explosive noise can be physically painful. Physiological indications such as loss of hearing, mental illness, cardiovascular and circulatory disorders, respiratory diseases, ill effects on foetus, dizziness, headache and rise in blood pressure are reported in individuals exposed to different levels of noise. Even short exposure to noise at 150 db may lead to contraction of blood circulation, nervousness, and dilatoriness in intestines, stomach and eyes.

Effects of high intensity noise on human beings:

<b>Noise db</b>	<b>Effects observed</b>
0	Threshold of audibility
150 db	Significant change in pulse rate
110 db	Stimulation of reception in skin
120 db	Plan, threshold nausea, vomiting
135 db	Dizziness interference with touch and muscle sense.
140 db	Pain, prolonged exposure cause insanity
160 db	Minor, permanent damage of prolonged exposure
170 db	Major, permanent damage in short time

### **4. Constitutional and Statutory Rights**

The Constitution contains specific provisions on environmental protection and health of citizens under Articles 21, 39(e), 42 and 47. Right to health has been held to be a fundamental right of workmen.

Every human being has the right to live and feed himself and his dependents. Security of one's own life and livelihood is a precondition for orderliness. Liberty, equality and dignity of the person are intertwined precious rights of every citizen. The expression 'life' assured in Article 21 does not connote mere animal existence or continued drudgery through life. It has a much wider meaning which includes right to livelihood, better standard of living, hygienic conditions at the workplace. Good health of the workman enables him to enjoy the fruits of his labour, to keep him physically fit and mentally alert. Health is a state of complete physical, mental and social well being and right of the workmen. In expanding economic activity in liberalised economy, part IV of the Constitution enjoins not only the state or its instrumentalities but even private industries to ensure safety of the workman, which assured in relevant provisions of part IV which are integral part of the right to equality under Article 14 and right to invigorated life under Article 21 which are fundamental rights guaranteed to the workman.<sup>3</sup>

In addition to the existing provisions, the judicial interpretations also strengthens the constitutional mandate. The Supreme Court entertained environmental complaints under Article 32 of the Constitution as involving violation of Article 21 "right to life". In the case of *M.C. Mehta v. Union of India*<sup>4</sup>, (Ganga Pollution Tanneries), Justice Singh concluded:

"We are conscious that closure of tanneries may bring unemployment, loss of revenue, but life, health and ecology have greater importance to the people".

The environmental degradation violates fundamental right to life.<sup>5</sup> The fundamental right can be exercised by the citizens subject to the reasonable restrictions, i.e., efficient discharge standards prescribed by the pollution control boards. In *Abhilash Textile v. Rajkot Municipal Corporation*<sup>6</sup>, the Gujarat High Court was requested to balance the right to carry on business against the damage to public health from the discharge of "dirty water" into public roads and drains. The Court held that both private and public sector industries must be equally blamed and all municipal corporations are criminally liable for causing or permitting pollution.

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3. *Kirloskar Bros. Ltd. v. ESI Corporation* (1986) 2 SCC 682; 1996 SCC (L&S) 533; (1996) 33 ATC 231; 1996 Lab IC 1718 (1996); 72 FLR 697; (1996) 1 CLR 668; (1996) 1 LLJ 1156.

4. AIR 1988 SC 1037.

5. *L.K. Koolwani v. State of Rajasthan* AIR 1988 Raj. 2,4; *Madhavi v. Tilaken* 1988(2) KLT 730, 731 and *Kinkeri Devi v. State of Himanchal Pradesh* AIR 1988 HP 4,9.

6. AIR 1988 Guj. 57.

The efforts of the Supreme Court in environment pollution control through public interest litigation is indeed laudable, particularly when the legislature is lagging behind in bridging the lacunae in the existing legal system, and the administration is not well equipped to meet the challenge.

In *Shriram Food and Fertilizer's case*<sup>7</sup>, the Court while hearing public interest petition observed that there was a leakage of Chlorine gas from the plant resulting in the death of one person and causing hardship to workers and residents of the locality. The Supreme Court directed the company manufacturing hazardous and lethal chemicals and gases possessing danger to health and life of workmen and people living in its neighbourhood to take all necessary safety measure before re-opening the plant. The Court also directed the management to deposit a sum of Rs. 20 lacs by way of security for payment of compensation claim of the victims of *Oleam gas leak* with the Registrar of the Court.

In *Krishna Gopal v. State of Madhya Pradesh*<sup>8</sup>, a lady complained that her husband, a heart patient had been disturbed in his sleep every night due to the booming noise produced by the boiler of the factory. The court observed:

“It is not the intent of law that the community as a whole or large number of complainants come forward to lodge their complaint or protest against the nuisance that does not require any particular number of complaints. A mere reading of section 133 of the Code of Criminal Procedure which empowered Sub-Divisional Magistrate to take action on receiving a report of a Police Officer or other information and on taking such evidence if any as he thinks fit.”

## 5. Bhopal Gas Disaster – An Eye Opener

A discourse on environmental law particularly in India would be incomplete unless we discuss the Bhopal Disaster which took place on the midnight of December 3, 1984. In the Bhopal case about 40 tonnes of Mythyle Isocyanate gas which had been manufactured and stored in Union Carbide's Chemical Plant in Bhopal escaped into the atmosphere and killed over 2500 peoples and injured as many as 2,00,000 persons. Thereafter the Government of India promulgated an Ordinance on February 20, 1985 to ensure the claims arising out of the disaster against the Union Carbide, a multinational corporation. The Bhopal Gas Leak Disaster (Processing of Claims) Act, enacted in March, 1985 conferred an exclusive right on the Government of India to represent all claimants.

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7. *M.C. Mehta v. Union of India* AIR 1987 SC 176.

8. 1986 Cri.LJ. 396 M.P.

In the first suit against the Union Carbide filed, the United States District Court. Southern Districts of New York, the Government of India pleaded that the multinational corporation breached its primary, absolute and non-delegable duty through its undertaking of an ultra hazardous and inherently dangerous activity causing unacceptable risks to its plant. Further, the defendant Union Carbide is primarily and absolutely liable for any and all damages caused or contributed to by the escape of Lethal MIC from its Bhopal plant.

The US Court, however, declined to try the case for want of appropriate forum. After two years, in September, 1986, the Indian Government filed a tort case against the Union Carbide in the Court of District Judge, Bhopal for Rs. 3900 crores (US\$ 3 billion) damages. This case ultimately reached to the Supreme Court through the separate appeals of Union Carbide and Government of India against the judgement of the Madhya Pradesh High Court. After a long battle, astonishingly on February 14, 1989 the Supreme Court suggested to the Indian Government and Union Carbide for an overall settlement of the claims arising from the Bhopal tragedy. Thus, a settlement was reached whereby the Union Carbide paid US\$ 470 million to Indian Government on behalf of all the Bhopal victims in full and final settlement of all past, present and future claims arising out of the Bhopal disaster.

## **6. Protection and Early Detention of Disabilities**

According to Section 25 of the Persons with Disabilities (Equal Opportunities Protection of Rights and Full Participation) Act, 1995, the appropriate governments and local authorities are required to take the following steps for the prevention of occurrence of disabilities:

- (a) Undertake or cause to be undertaken surveys, investigations and research concerning the cause of occurrence of disabilities.
- (b) Promote various methods of preventing disabilities.
- (c) Screen all the children at least once in a year for the purpose of identifying "at-risk" cases;
- (d) Provide facilities for training to the staff at the primary health centres.
- (e) Sponsor or cause to be sponsored awareness campaigns and disseminate or cause to be disseminated information for general hygiene, health and sanitation.
- (f) Take measures for pre-natal, peri-natal and post-natal care of mother and child.
- (g) Educate the public through the pre-schools, schools, primary health centres, village level workers and anganwadi workers.

- (h) Create awareness amongst the masses through television, radio and other mass media on the causes of disabilities and the preventive measures to be adopted.

The aforesaid statute provides safeguards and protects the disabled persons. But, there is a need to strictly enforce the protective laws.

The general public is becoming aware of the need to protect themselves and environment. Even though, laws have been passed for the protection from environment pollution, the enforcement of the same has been tardy. But the environmental pollution is best protected by the people themselves. In this connection, some of the non-governmental organizations and other environmentalists are doing singular service. This perhaps comes when the Government can usually draw upon the resources of such NGOs to help and assist in the implementation of the laws relating to protection of environment and disability of persons due to environmental pollutions.

### **Conclusions and Suggestions**

1. The environment protection machinery both at the centre and state should be strengthened and the machinery should be provided with more teeth for strict implementation of environmental protection legislation.
2. There should be personal accountability on the industrial units for their lapses and negligence, resulting in damage to the environment.
3. the principle of sustainable development should be strictly adhered to by the policy makers.
4. the principle "polluter pays" should be given the statutory status.
5. Eco-friendly technology should be developed in designing the vehicles to avoid air and noise pollution.
6. Where the environmental pollution results in permanent or lifetime disability to an individual, mere payment of compensation is not enough, instead, rehabilitation programme for such victim should be undertaken.